General Cable

Industrial Cable

SERVING INDUSTRIAL, SPECIALTY AND COMMERCIAL APPLICATIONS

SEPTEMBER 2016

Industrial

Serving Industrial, Specialty and Commercial Applications

This catalog contains in-depth information on the most comprehensive line of instrumentation, power and control cable available today.

The product and technical sections have been developed with an easy-to-use "spec-on-a-page" format. They feature the latest information on industrial cable products, from applications to product construction to detailed technical and specification data. There is also a technical reference section featuring a glossary of technical terms and a Catalog Number to Product Specification Number Index.

For further information, contact General Cable's Customer Service staff or your local General Cable sales representative.

General Cable

Highland Heights, KY 41076
Printed in USA.

What's New?

GENFREE® II LOW-SMOKE, ZERO-HALOGEN CABLES

Bridging the Gap Between Safety and Performance

Utilizing 17 FREE® proprietary technology that is rated VW-1 Flame Test compliant, General Cable's GenFree® II industrial power cables represent the industry's first cost-effective Low-Smoke, Zero-Halogen (LSZH) solution that meets both the stringent flame testing and demanding electrical requirements of the North American industrial market. GenFree II LSZH cables provide the benefit of lower smoke generation under fire conditions, allowing for better visibility, as well as added protection for sensitive electronic equipment. Unlike previous LSZH cables, which often sacrificed flame or electrical performance to achieve the LSZH rating, GenFree II cables perform in even the toughest industrial applications and provide unsurpassed reliability and performance.

HIGH SPEED XLF INDUSTRIAL POWER CABLES

The Low Friction Advantage in Cable Installation

General Cable's new High Speed XLF low- and medium-voltage industrial power cable can be quickly and safely installed into conduit, duct or cable tray, saving the electrical contractor time, labor and money. Featured on our PVC, CPE and LSZH product lines, the High Speed XLF jacket technology allows for up to 80% reduction in required pulling force compared to standard cables. General Cable's High Speed XLF cable delivers reliable performance to meet the rigorous requirements associated with industrial applications.

INDUSTRIAL CABLE SOLUTIONS FOR VARIABLE FREQUENCY DRIVES

Drive Cables that Provide Control and Ensure Confidence

General Cable offers Variable Frequency Drive (VFD) cables to address the specific requirements of industrial automation applications. Our specially engineered cables are available in unarmored and armored designs for use with AC motors controlled by pulse-width modulated inverters in VFD applications at ratings up to 1000 V, 2000 V, 5 kV and 8 kV. CVTC® VFD Type TC-ER low-voltage power cable is designed with dual copper tape shields and symmetrically placed annealed bare copper grounding conductors in direct contact with the shield to reduce the risk of Electromagnetic Interference (EMI), which can lead to malfunction. CCW® VFD Type MC-HL low- and medium-voltage power cables feature a Continuously Corrugated Welded armor that provides an impervious barrier to moisture, gas and liquids, making them suitable for use in Class I, II, and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505.

PRODUCT SELECTION LOCATOR

SPECIFICATION

1000	300 V Instrumentation Cables
2000	600 V Instrumentation Cables
4000	600 V Multi-Conductor Control and Power Cables
5000	600 V – 2 kV Industrial Power Cables
6000	2.4 kV – 35 kV Industrial Medium-Voltage Cables
7000	600 V – 35 kV Industrial Armored Cables
8000	600 V – 28 kV TECK90 Armored Control and Power Cables
9000	300 V – 35 kV CCW® Armored Cables for Hazardous Locations
A-F	Technical Information

General Cable
Phone: 888-593-3355
www.generalcable.com

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1000 300 V Instrumentation Cables

2000 600 V Instrumentation Cables

4000 600 V Multi-Conductor Control and Power Cables

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4000 600 V Multi-Conductor Control and Power Cables (cont'd.)

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
4480	CCTC™	FR-XLPE/CPE, Low-Voltage Power, Shielded 600 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016
4500†	CVTC®	XLPE/PVC, Control, Unshielded 600 V, UL Type TC-ER—E-2 Color Code	Sept. 2016
4550†	CVTC®	XLPE/PVC, Low-Voltage Power, Unshielded 600 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016
4560†	CVTC® Flexible VFD	XLPE/PVC, Low-Voltage Power, Al/Polyester/Al + TC Braid Shielded 1000 V UL Flexible Motor Supply and WTTC, 600 V UL Type TC-ER— Method 4 Color Code w/Green/Yellow Ground	Sept. 2016
4565	CVTC® Flexible VFD	XLPE/PVC, Low-Voltage Power, Al/Polyester/Al TC Braid Shielded 1000 V UL Flexible Motor Supply and WTTC, 600 V UL Type TC-ER— Method 4 Color Code w/Green/Yellow Ground and Signal Pair	Sept. 2016
4570†	CVTC® Flexible VFD	XLPE/PVC, Low-Voltage Power, Dual Copper Tape Shielded 1000 V UL Flexible Motor Supply and WTTC, 600 V UL Type TC-ER— Method 4 Color Code	Sept. 2016
4575	CVTC® VFD	XLPE/PVC, Low-Voltage Power, Shielded 2000 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016
4580†	CVTC® VFD	XLPE/PVC, Low-Voltage Power, Copper Tape Shielded 2000 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016
4600†	VNTC®	PVC/Nylon/PVC, Control, Unshielded 600 V, UL Type TC-ER (18 AWG/16 AWG)—E-2 Color Code	Sept. 2016
4650†	VNTC®	PVC/Nylon/PVC, Control, Unshielded 600 V, UL Type TC-ER (14 AWG—10 AWG)—E-2 Color Code	Sept. 2016
4700†	VNTC®	PVC/Nylon/PVC, Control, Shielded 600 V, UL Type TC-ER, Overall Shielded—E-2 Color Code	Sept. 2016
4750†	VNTC®	PVC/Nylon/PVC, Low-Voltage Power, Unshielded 600 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016
4900	GenFree®	XLPE/LSZH, Control 600 V, UL Type TC-LS-ER—E-2 Color Code	Sept. 2016
4925	GenFree®	XLPE/LSZH, Control, Shielded 600 V, UL Type TC-LS-ER, Overall Shielded—E-2 Color Code	Sept. 2016
4950	GenFree®	XLPE/LSZH, Low-Voltage Power, Unshielded 600 V, UL Type TC-LS-ER—Method 4 Color Code	Sept. 2016

5000 600 V – 2 kV Industrial Power Cables

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
5050†	DuraSheath® High Speed	EPR/XL-CPE, Low-Voltage Power, Unshielded 600 V, UL Type RHH/RHW-2/USE-2	Sept. 2016
5075†	GenFree® II High Speed	LSZH XLPO/LSZH XLPO, Low-Voltage Power, Unshielded 600 V, UL Type RHH/RHW-2-LSHF/USE-2 or 1000 V, c(UL) RW90	Sept. 2016
5125†	GenFree® II High Speed	LSZH XLPO, Low-Voltage Power, Unshielded 600 V, UL Type XHHW-2-LSHF or c(UL) RW90	Sept. 2016
5175†	XHHW-2 CT High Speed	XLPE, Low-Voltage Power 600 V, UL Type XHHW-2, CT Rated, Single Conductor, Copper	Sept. 2016
5250†	Unicon® XLPE High Speed	XLPE, Low-Voltage Power 600 V, UL Type RHH/RHW-2/USE-2, Single Conductor, Copper	Sept. 2016
5275	GenFree® II High Speed	LSZH XLPO, Low-Voltage Power, Unshielded 600 V, UL Type RHH/RHW-2-LSHF/USE-2 or 1000 V, c(UL) RW90	Sept. 2016
5290	THHN/THWN-2 High Speed	PVC, Low-Voltage Power 600 V, UL Type THHN/THWN-2, Single Conductor, Copper	Sept. 2016
5310†	Diesel Locomotive Cable (DLO)	2000 Volts (EPR/XL-CPE), UL RHH/RHW-2 2000 V and c(UL) RW90 1000 V Flexible, Oil-, Sunlight- and Ozone-Resistant, Flame-Retardant, -40°C to 90°C	Sept. 2016
5320†	Carol® Brand Super Vu-Tron® DLO	EPR/CPE, Diesel Locomotive Cable 2000 DLO, 1000 V CSA Type RW90 FT4 TC	Sept. 2016

†Indicates these products are stocked by General Cable

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6000 2.4 kV – 35 kV Industrial Medium-Voltage Cables

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6000 2.4 kV – 35 kV Industrial Medium-Voltage Cables (cont'd.)

7000 600 V – 35 kV Industrial Armored Cables

8000 600 V – 28 kV TECK90 Armored Control and Power Cables

†Indicates these products are stocked by General Cable

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8000 600 V – 28 kV TECK90 Armored Control and Power Cables (cont'd.)

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
8275	HVTECK	TRXLPE/Wire Shield/PVC/AIA/PVC, Power, Shielded, Armored 5 kV, CSA HVTECK, 100% Ins. Level, 90 Mils, Single Conductor	Sept. 2016
8300	HVTECK	TRXLPE/Wire Shield/PVC/AIA/PVC, Power, Shielded, Armored 5 kV (133% Ins. Level)/8 kV (100% Ins. Level), 115 Mils, CSA HVTECK Single Conductor	Sept. 2016
8325	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 5 kV, CSA HVTECK, 100% Ins. Level, 90 Mils, Three Conductor	Sept. 2016
8350	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 5 kV (133% Ins. Level)/8 kV (100% Ins. Level), 115 Mils, CSA HVTECK Three Conductor	Sept. 2016
8375	HVTECK	TRXLPE/Wire Shield/PVC/AIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 100% Ins. Level, 175 Mils, Single Conductor	Sept. 2016
8400	HVTECK	TRXLPE/Wire Shield/PVC/AIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 133% Ins. Level, 220 Mils, Single Conductor	Sept. 2016
8425	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 100% Ins. Level, 175 Mils, Three Conductor	Sept. 2016
8450†	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 133% Ins. Level, 220 Mils, Three Conductor	Sept. 2016
8475	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 25 kV, CSA HVTECK, 100% Ins. Level, 260 Mils, Three Conductor	Sept. 2016
8500	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 25 kV, CSA HVTECK, 133% Ins. Level, 320 Mils, Three Conductor	Sept. 2016
8525	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 28 kV, CSA HVTECK, 133% Ins. Level, 345 Mils, Three Conductor	Sept. 2016
8550	VERTITECK® TECK90	XLPE/PVC/GSIA/PVC, Power, Unshielded, Armored 1 kV, CSA TECK90, Three Conductor	Sept. 2016
8575	VERTITECK® TECK90	XLPE/PVC/GSIA/PVC, Power, Unshielded, Armored 5 kV, CSA TECK90, 90 Mils, Three Conductor	Sept. 2016
8600	VERTITECK® HVTECK	TRXLPE/Tape Shield/PVC/GSIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 133% Ins. Level, 220 Mils, Three Conductor	Sept. 2016
8625	VERTITECK® HVTECK	TRXLPE/Tape Shield/PVC/GSIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 100% Ins. Level, 175 Mils, Three Conductor	Sept. 2016

9000 300 V - 35 kV CCW® Armored Cables for Hazardous Locations

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
9025	CCW® Armor	Thermocouple Extension, Single Pair, Overall Shield (OS) UL Type ITC/PLTC, PVC, 105°C, ABS CWCMC	Oct. 2014
9050	CCW® Armor	Thermocouple Extension, Pairs, Overall Shield (OS) UL Type ITC-HL/PLTC, PVC, 105°C, ABS CWCMC	Oct. 2014
9075	CCW® Armor	Thermocouple Extension, Pairs, Individual and Overall Shield (IS-OS) UL Type ITC-HL/PLTC, PVC, 105°C, ABS CWCMC	Oct. 2014
9125	CCW® Armor	300 V Instrumentation, Pairs/Triads, Overall Shield (OS) UL Type ITC-HL/PLTC, XLPE, 90°C, ABS CWCMC	Oct. 2014
9150	CCW® Armor	300 V Instrumentation, Pairs/Triads, Individual and Overall Shield (IS-OS) UL Type ITC-HL/PLTC, XLPE, 90°C, ABS CWCMC	Oct. 2014
9225	CCW® Armor	300 V Instrumentation, Pairs/Triads, Overall Shield (OS) UL Type ITC-HL/PLTC, PVC, 105°C, ABS CWCMC	Oct. 2014
9250	CCW® Armor	300 V Instrumentation, Pairs/Triads, Individual and Overall Shield (IS-OS) UL Type ITC-HL/PLTC, PVC, 105°C, ABS CWCMC	Oct. 2014
9325	CCW® Armor	600 V Instrumentation, Pairs/Triads, Overall Shield (OS) UL Type MC-HL, PVC/Nylon, 90°C, ABS CWCMC	Oct. 2014
9350	CCW® Armor	600 V Instrumentation, Pairs/Triads, Individual and Overall Shield (IS-OS) UL Type MC-HL, PVC/Nylon, 90°C, ABS CWCMC	Oct. 2014

†Indicates these products are stocked by General Cable

9000 300 V - 35 kV CCW® Armored Cables for Hazardous Locations (cont'd.)

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
9400	CCW® Arctic Armor	300 V/600 V Instrumentation, Pairs/Triads, Individual and Overall Shield, UL Type MC-HL, 600 V or UL Type ITC-HL, 300 V, XLPE, 90°C, Cable Tray Use, Sunlight-Resistant, Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade	Oct. 2014
9500	CCW® Armor	600 V Control With Grounding Conductor UL Type MC-HL, XLPE, 90°C, ABS CWCMC	Oct. 2014
9505	CCW® Arctic Armor	600 V Control With Grounding Conductor UL Type MC-HL, XLPE, 90°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade	Oct. 2014
9510	CCW® Armor	600 V Control With Bare Grounding Conductor UL Type MC-HL, CSA Type HL, XLPE, 90°C, ABS CWCMC	Oct. 2014
9525	CCW® Armor	600 V Control Without Grounding Conductor UL Type MC, CSA Type HL, XLPE, 90°C, ABS CWCMC	Oct. 2014
9600	CCW® Armor	600 V Power, 3/C VFD and 4/C UL Type MC-HL, CSA Type HL, XLPE, 90°C, ABS CWCMC	Oct. 2014
9605	CCW® Arctic Armor	600 V Power, 3/C VFD and 4/C UL Type MC-HL, XLPE, 90°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade	Oct. 2014
9615	CCW® Armor	2000 V Power, 3/C VFD UL Type MC-HL, XLPE, 90°C, ABS CWCMC	Oct. 2014
9625	CCW® Armor	600 V Composite Power and Control UL Type MC-HL, XLPE, 90°C, ABS CWCMC	Oct. 2014
9650	CCW® Armor	600 V Composite Power and Control Without Ground UL Type MC, XLPE, 90°C, ABS CWCMC	Oct. 2014
9675	CCW® Armor	1000 V Power, 3/C VFD CSA Type RA90, HL, XLPE, 90°C	Oct. 2014
9700	CCW® Armor	2.4 kV Power, Nonshielded, 3/C VFD UL Type MC-HL or MV-90, EPR, 105°C, ABS CWCMC	Jul. 2014
9800	CCW® Armor	5 kV 133%/8 kV 100% Power, Shielded, 3/C VFD UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9805	CCW® Arctic Armor	5 kV 133%/8 kV 100% Power, Shielded, 3/C VFD, UL Type MC-HL or MV-105 CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant, Direct Burial UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade	Oct. 2014
9815	CCW® Armor	8 kV 133% Power, Shielded, 3/C VFD UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9825	CCW® Armor	15 kV 100% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9835	CCW® Armor	15 kV 133% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9840	CCW® Arctic Armor	15 kV 133% Power, Shielded, 3/C, UL Type MC-HL or MV-105 CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant, Direct Burial UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade	Oct. 2014
9845	CCW® Armor	25 kV 100% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9855	CCW® Armor	25 kV 133%/35 kV 100% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9860	CCW® Arctic Armor	25 kV 133%/35 kV 100% Power, Shielded, 3/C, UL Type MC-HL or MV-105 CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant, Direct Burial UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade	Oct. 2014
9875	CCW® Armor	35 kV 133% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9880	CCW® Arctic Armor	35 kV 133% Power, Shielded, 3/C, UL Type MC-HL or MV-105 CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant, Direct Burial UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade	Oct. 2014

†Indicates these products are stocked by General Cable

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9000 300 V - 35 kV CCW® Armored Cables for Hazardous Locations (cont'd.)

A General Technical Information

B Conductor Data

C Material Properties

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One Company
Connecting The World

POWERFUL PRESENCE · PRODUCTS PERFORMANCE · PEOPLE

General Cable has been a wire and cable innovator for over 170 years, always dedicated to connecting and powering people's lives. We are one of the largest wire and cable manufacturers in the world.

Our company serves customers through a network of manufacturing facilities in our core markets and has worldwide sales representation and distribution. We are dedicated to the production of high-quality aluminum, copper and fiber optic wire and cable and systems solutions for the energy, construction, industrial, specialty and communications sectors. With a vast portfolio of products to meet thousands of diverse application requirements, we continue to invest in research and development in order to maintain and extend our technology leadership by developing new materials, designing new products, and creating new solutions to meet tomorrow's market challenges.

In addition to our strong brand recognition and strengths in technology and manufacturing, General Cable is also competitive in such areas as distribution and logistics, marketing, sales and customer service. This combination enables us to better serve our customers globally and as they expand into new geographic markets.

General Cable offers our customers all the strengths and value of a large company, but our people give us the agility and responsiveness of a small one. We service you globally and locally.

General Cable | ONE COMPANY
CONNECTING THE WORLD

Visit our Website at
www.generalcable.com

General Cable

Corporate Social Responsibility

CREATING SHARED VALUE

General Cable believes corporate social responsibility (CSR) is about creating shared value. That means keeping a dual focus in our business decisions: what is good for us as a company and what contributes to the greater good of the communities in which we live and work.

SAFETY

Working safer by working together

*General Cable has one worldwide safety vision and goal – **ZERO & BEYOND**. We measure safety performance globally, share best practices and implement sound health and safety management systems. Many of our facilities worldwide are OHSAS 18001 (safety management system) certified. All North American facilities have implemented an equivalent health and safety management system. General Cable was a pioneer in obtaining the OHSAS 18001 Certificate for Occupational Health and Safety Management Systems in Europe and North Africa.*

SUSTAINABILITY

Responsible practices in daily operations

As a global leader in the wire and cable industry, General Cable recognizes its role and responsibility in promoting sustainability. Our strongest business value is continuous improvement in all areas of our company. Across our many businesses, the quest to introduce new and better products through continuous improvement in environmental designs reflects our commitment to achieving industry-leading standards and responding proactively to global environmental issues. General Cable was the first cable manufacturer to obtain certification for its environmental management system, in accordance with the ISO 14001 and EMAS Standards.

CITIZENSHIP

A commitment to being good citizens

Being responsible citizens in our communities is of the utmost importance to us. Unequivocal honesty, integrity, forthrightness and fair dealing have long been part of General Cable's core values and are expected globally in all of our business relationships with our customers, employees, suppliers, neighbors and competitors. Our company leaders and employees strive to make a difference throughout a host of volunteer activities and financial support, improving the communities in which we live and work.

INNOVATION

Technologies that power and connect the world

General Cable is delivering innovation that matters. We are focusing on R&D expertise and investing in developing wire and cable solutions that meet the challenges confronting our customers and the world. In working together and using all the ingenuity and creativity we have, we will reach the goal of being the preeminent supplier of wire and cabling solutions in the industry, with both green constructions and designs for the ever-growing renewable energy market.

GREEN INITIATIVE

A commitment to achieving industry-leading standards and responding proactively to environmental global issues.

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Visit www.GeneralCableCSR.com to learn more.

300 V Instrumentation Cables

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
1050	CHTC®	XLPE/XL-CPE, Instrumentation, Shielded 300 V, UL Type PLTC, Overall Shielded Pairs/Triads	Sept. 2016
1100	CHTC®	XLPE/XL-CPE, Instrumentation, Shielded 300 V, UL Type PLTC, Individual and Overall Shielded Pairs	Sept. 2016
1150	CVTC®	XLPE/PVC, Instrumentation, Shielded 300 V, UL Type PLTC, Overall Shielded Pairs/Triads	Sept. 2016
1200	CVTC®	XLPE/PVC, Instrumentation, Shielded 300 V, UL Type PLTC, Individual and Overall Shielded Pairs	Sept. 2016

CHTC®

XLPE/XL-CPE, Instrumentation, Shielded
300 V, UL Type PLTC, Overall Shielded Pairs/Triads

CATALOG NUMBER	NO. OF PAIRS/ TRIADS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
OVERALL SHIELDED PAIRS/TRIADS 20 AWG CONDUCTORS													
337770*	1	20	7W	0.012	0.30	0.035	0.89	0.230	5.84	9	14	27	40
337780*	1 TRI	20	7W	0.012	0.30	0.035	0.89	0.240	6.10	13	19	33	49
337790*	2	20	7W	0.012	0.30	0.040	1.02	0.320	8.13	17	25	48	71
309660*	4	20	7W	0.012	0.30	0.040	1.02	0.370	9.40	31	47	73	109
309670*	8	20	7W	0.012	0.30	0.050	1.27	0.500	12.70	60	90	138	205
309680*	12	20	7W	0.012	0.30	0.050	1.27	0.575	14.61	89	133	186	277
337800*	16	20	7W	0.012	0.30	0.060	1.52	0.665	16.89	118	176	248	369
337810*	20	20	7W	0.012	0.30	0.060	1.52	0.740	18.80	148	220	300	446
309690*	24	20	7W	0.012	0.30	0.060	1.52	0.795	20.19	177	263	350	521
311640*	36	20	7W	0.012	0.30	0.070	1.78	1.005	25.53	264	392	525	781
309700*	50	20	7W	0.012	0.30	0.070	1.78	1.175	29.85	365	544	697	1037
OVERALL SHIELDED PAIRS/TRIADS 18 AWG CONDUCTORS													
337820*	1	18	7W	0.015	0.38	0.035	0.89	0.245	6.22	13	19	32	48
337830*	1 TRI	18	7W	0.015	0.38	0.035	0.89	0.255	6.48	18	26	40	60
337840*	2	18	7W	0.015	0.38	0.040	1.02	0.350	8.89	23	34	58	86
337850*	4	18	7W	0.015	0.38	0.050	1.27	0.425	10.80	44	65	99	147
337860*	8	18	7W	0.015	0.38	0.050	1.27	0.545	13.84	86	127	173	257
337870*	12	18	7W	0.015	0.38	0.060	1.52	0.640	16.26	127	189	245	365
337880*	16	18	7W	0.015	0.38	0.060	1.52	0.730	18.54	169	251	318	473
337890*	20	18	7W	0.015	0.38	0.060	1.52	0.810	20.57	210	313	392	583
337900*	24	18	7W	0.015	0.38	0.070	1.78	0.895	22.73	252	375	450	670
337910*	36	18	7W	0.015	0.38	0.070	1.78	1.095	27.81	377	561	672	1000
337920*	50	18	7W	0.015	0.38	0.070	1.78	1.255	31.88	523	778	904	1345
OVERALL SHIELDED PAIRS/TRIADS 16 AWG CONDUCTORS													
309520*	1	16	7W	0.015	0.38	0.035	0.89	0.270	6.86	18	28	41	61
337930*	1 TRI	16	7W	0.015	0.38	0.035	0.89	0.285	7.24	27	40	54	80
337940*	2	16	7W	0.015	0.38	0.050	1.27	0.430	10.92	36	53	85	126
337950*	4	16	7W	0.015	0.38	0.050	1.27	0.490	12.45	69	102	135	201
337960*	8	16	7W	0.015	0.38	0.060	1.52	0.650	16.51	135	201	246	366
337970*	12	16	7W	0.015	0.38	0.060	1.52	0.755	19.18	202	300	346	515
337980*	16	16	7W	0.015	0.38	0.060	1.52	0.845	21.46	268	399	444	661
337990*	20	16	7W	0.015	0.38	0.060	1.52	0.900	22.86	335	498	552	821
338000*	24	16	7W	0.015	0.38	0.070	1.78	1.020	25.91	401	597	655	975
338010*	36	16	7W	0.015	0.38	0.070	1.78	1.225	31.12	601	894	649	966
338020*	50	16	7W	0.015	0.38	0.080	2.03	1.415	35.94	834	1241	1308	1947

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

Product Construction:

Conductor:
- 20 AWG thru 16 AWG tinned, annealed copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1: Pairs - black and white; Triads - black, white and red. One conductor in each pair or triad is printed alpha-numerically for easy identification

Shield:
Overall shielded pairs/triads
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free Cross-linked Chlorinated Polyethylene (XL-CPE)

Applications:
- Typical applications include audio, intercom, control, energy management and alarm circuits
- In free air or raceways in accordance with NEC
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC
- In ducts, cable trays or conduit
- In accordance with UL Subject 13 as Power-Limited Circuit Cable
- In class 3 circuits in accordance with NEC

Features:
- Rated at 90˚C
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Oil Res I & II
- Sunlight- and weather-resistant
- Excellent electrical, thermal and physical properties
- Excellent moisture resistance
- Excellent flame resistance
- “Heavy duty” rating per ICEA standards
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -40˚C

Compliances:
Industry Compliances:
- UL 13 Type PLTC, UL File # E36118
- UL 1581
- RoHS Compliant

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- IEEE 383
- IEEE 1202
- CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable

Packaging:
- Material cut to length and shipped on non-returnable wood reels

UL LISTED

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

CHTC®

XLPE/XL-CPE, Instrumentation, Shielded
300 V, UL Type PLTC, Individual and Overall Shielded Pairs

Product Construction:

Conductor:
- 20 AWG thru 16 AWG tinned, annealed copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1: Pairs - black and white. One conductor in each pair is printed alpha-numerically for easy identification

Shield:
Individual and overall shielded pairs
- Individual pairs are 100% shielded with Flexfoil® aluminum/polyester in contact with stranded tinned copper drain wire
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free Cross-linked Chlorinated Polyethylene (XL-CPE)

Applications:
- Typical applications include audio, intercom, control, energy management and alarm circuits
- In free air or raceways in accordance with NEC
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC
- In ducts, cable trays or conduit
- In accordance with UL Subject 13 as Power-Limited Circuit Cable
- In class 3 circuits in accordance with NEC

Features:
- Rated at 90˚C
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Oil Res I & II
- Sunlight- and weather-resistant
- Excellent electrical, thermal and physical properties
- Excellent moisture resistance
- Excellent flame resistance
- "Heavy duty" rating per ICEA standards
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -40˚C

Compliances:
Industry Compliances:
- UL 13 Type PLTC, UL File # E36118
- UL 1581
- RoHS Compliant

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- IEEE 383
- IEEE 1202
- CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF PAIRS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
INDIVIDUAL AND OVERALL SHIELDED PAIRS 20 AWG CONDUCTORS													
338030*	2	20	7W	0.012	0.30	0.040	1.02	0.340	8.64	21	31	54	80
309540*	4	20	7W	0.012	0.30	0.050	1.27	0.415	10.54	40	60	93	138
309550*	8	20	7W	0.012	0.30	0.050	1.27	0.525	13.34	78	116	157	234
309560*	12	20	7W	0.012	0.30	0.060	1.52	0.645	16.38	117	147	233	347
338040*	16	20	7W	0.012	0.30	0.060	1.52	0.715	18.16	155	231	294	438
338050*	20	20	7W	0.012	0.30	0.060	1.52	0.785	19.94	193	287	357	531
309570*	24	20	7W	0.012	0.30	0.070	1.78	0.875	22.23	231	344	422	628
309580*	36	20	7W	0.012	0.30	0.070	1.78	1.045	26.54	346	515	620	923
338060*	50	20	7W	0.012	0.30	0.070	1.78	1.215	30.86	479	713	828	1232
INDIVIDUAL AND OVERALL SHIELDED PAIRS 18 AWG CONDUCTORS													
338070*	2	18	7W	0.015	0.38	0.050	1.27	0.415	10.54	28	41	76	113
338080*	4	18	7W	0.015	0.38	0.050	1.27	0.475	12.07	53	79	113	168
338090*	8	18	7W	0.015	0.38	0.060	1.52	0.605	15.37	104	155	203	302
338100*	12	18	7W	0.015	0.38	0.060	1.52	0.750	19.05	155	231	300	446
338110*	16	18	7W	0.015	0.38	0.060	1.52	0.830	21.08	206	307	383	570
338120*	20	18	7W	0.015	0.38	0.070	1.78	0.945	24.00	254	378	483	719
338130*	24	18	7W	0.015	0.38	0.070	1.758	1.045	26.54	308	459	571	850
338140*	36	18	7W	0.015	0.38	0.070	1.78	1.225	31.12	461	687	816	1214
338150*	50	18	7W	0.015	0.38	0.080	2.03	1.450	36.83	640	952	1119	1665
INDIVIDUAL AND OVERALL SHIELDED PAIRS 16 AWG CONDUCTORS													
338160*	2	16	7W	0.015	0.38	0.050	1.27	0.440	11.18	40	60	92	137
338170*	4	16	7W	0.015	0.38	0.050	1.27	0.545	13.84	78	116	163	243
338180*	8	16	7W	0.015	0.38	0.060	1.52	0.965	24.51	153	228	287	427
338190*	12	16	7W	0.015	0.38	0.060	1.52	0.885	22.48	229	341	437	650
338200*	16	16	7W	0.015	0.38	0.070	1.78	0.980	24.89	304	453	553	823
338210*	20	16	7W	0.015	0.38	0.070	1.78	1.080	27.43	380	566	680	1012
338220*	24	16	7W	0.015	0.38	0.070	1.78	1.235	31.37	455	677	800	1191
338230*	36	16	7W	0.015	0.38	0.080	2.03	1.405	35.69	662	985	1108	1649
338240*	50	16	7W	0.015	0.38	0.080	2.03	1.640	41.66	945	1408	1523	2267

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

General Cable
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CVTC®

XLPE/PVC, Instrumentation, Shielded
300 V, UL Type PLTC, Overall Shielded Pairs/Triads

CATALOG NUMBER	NO. OF PAIRS/ TRIADS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
OVERALL SHIELDED PAIRS/TRIADS 18 AWG CONDUCTORS													
366140*	1	18	7W	0.015	0.38	0.035	0.89	0.235	5.97	13	19	32	48
342930*	1 TRI	18	7W	0.015	0.38	0.040	1.02	0.250	6.35	18	27	40	60
342940*	2	18	7W	0.015	0.38	0.040	1.02	0.365	9.27	25	37	56	83
342950*	4	18	7W	0.015	0.38	0.050	1.27	0.440	11.18	46	68	98	146
342960*	8	18	7W	0.015	0.38	0.050	1.27	0.550	13.97	87	129	175	260
342970*	12	18	7W	0.015	0.38	0.060	1.52	0.675	17.15	129	192	250	372
342980*	16	18	7W	0.015	0.38	0.060	1.52	0.750	19.05	171	254	317	472
342990*	20	18	7W	0.015	0.38	0.060	1.52	0.785	19.94	211	314	392	583
343000*	24	18	7W	0.015	0.38	0.060	1.52	0.905	22.99	253	377	476	708
343010*	36	18	7W	0.015	0.38	0.070	1.78	1.080	27.43	377	561	681	1013
343020*	50	18	7W	0.015	0.38	0.070	1.78	1.245	31.62	524	780	913	1359
OVERALL SHIELDED PAIRS/TRIADS 16 AWG CONDUCTORS													
366150*	1	16	7W	0.015	0.38	0.035	0.89	0.262	6.65	19	28	42	63
343030*	1 TRI	16	7W	0.015	0.38	0.040	1.02	0.280	7.11	27	40	53	79
343040*	2	16	7W	0.015	0.38	0.050	1.27	0.430	10.92	37	55	81	121
343050*	4	16	7W	0.015	0.38	0.050	1.27	0.490	12.45	71	106	131	195
343060*	8	16	7W	0.015	0.38	0.060	1.52	0.650	16.51	135	201	254	378
343070*	12	16	7W	0.015	0.38	0.060	1.52	0.755	19.18	203	302	350	521
343080*	16	16	7W	0.015	0.38	0.060	1.52	0.845	21.46	270	402	451	671
343090*	20	16	7W	0.015	0.38	0.070	1.78	0.880	22.35	334	497	545	811
343100*	24	16	7W	0.015	0.38	0.070	1.78	1.020	25.91	400	595	657	978
343110*	36	16	7W	0.015	0.38	0.070	1.78	1.220	30.99	599	891	965	1423
343120*	50	16	7W	0.015	0.38	0.080	2.03	1.405	35.69	831	1237	1322	1967

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

Product Construction:

Conductor:
- 18 AWG and 16 AWG bare, annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1: Pairs - black and white; Triads - black, white and red. One conductor in each pair or triad is printed alpha-numerically for easy identification

Shield:
Overall shielded pairs/triads
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- In free air and raceways in accordance with NEC
- Typical applications include audio, intercom, control, energy management and alarm circuits
- In ducts, cable trays or conduit
- In accordance with UL Subject 13 as Power-Limited Circuit Cable
- In Class 3 circuits in accordance with NEC
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Abrasion- and chemical-resistant
- Excellent electrical properties
- Sunlight- and weather-resistant
- Meets cold bend test at -25˚C

Compliances:
Industry Compliances:
- UL 13 Type PLTC, UL File # E36118
- UL 1581
- RoHS Compliant

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- IEEE 383

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable

Packaging:
- Material cut to length and shipped on non-returnable wood reels

UL® LISTED

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

CVTC®

XLPE/PVC, Instrumentation, Shielded
300 V, UL Type PLTC, Individual and Overall Shielded Pairs

Product Construction:

Conductor:
- 18 AWG and 16 AWG bare, annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1: Pairs - black and white. One conductor in each pair is printed alpha-numerically for easy identification

Shield:
Individual and overall shielded pairs
- Individual pairs are 100% shielded with Flexfoil® aluminum/polyester in contact with stranded tinned copper drain wire
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- In free air and raceways in accordance with NEC
- Typical applications include audio, intercom, control, energy management and alarm circuits
- In ducts, cable trays or conduit
- In accordance with UL Subject 13 as Power-Limited Circuit Cable
- In Class 3 circuits in accordance with NEC
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Abrasion- and chemical-resistant
- Excellent electrical properties
- Sunlight- and weather-resistant
- Meets cold bend test at -25˚C

Compliances:
Industry Compliances:
- UL 13 Type PLTC, UL File # E36118
- UL 1581
- RoHS Compliant

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- IEEE 383

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF PAIRS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
INDIVIDUAL AND OVERALL SHIELDED PAIRS 18 AWG CONDUCTORS													
343140*	2	18	7W	0.015	0.38	0.050	1.27	0.410	10.41	30	45	73	109
343150*	4	18	7W	0.015	0.38	0.050	1.27	0.475	12.07	55	82	117	174
343160*	8	18	7W	0.015	0.38	0.050	1.27	0.605	15.37	105	156	215	320
343170*	12	18	7W	0.015	0.38	0.060	1.52	0.750	19.05	156	232	308	458
343180*	16	18	7W	0.015	0.38	0.060	1.52	0.830	21.08	207	308	392	583
343190*	20	18	7W	0.015	0.38	0.070	1.78	0.955	24.26	252	375	494	735
343200*	24	18	7W	0.015	0.38	0.070	1.78	1.030	26.16	302	449	583	868
343210*	36	18	7W	0.015	0.38	0.070	1.78	1.210	30.73	452	673	830	1235
343220*	50	18	7W	0.015	0.38	0.080	2.03	1.425	36.20	637	948	1145	1704
INDIVIDUAL AND OVERALL SHIELDED PAIRS 16 AWG CONDUCTORS													
343240*	2	16	7W	0.015	0.38	0.050	1.27	0.455	11.56	42	63	96	143
343250*	4	16	7W	0.015	0.38	0.050	1.27	0.530	13.46	80	119	160	238
343260*	8	16	7W	0.015	0.38	0.060	1.52	0.710	18.03	155	231	293	436
343270*	12	16	7W	0.015	0.38	0.060	1.52	0.855	21.72	230	342	425	632
343280*	16	16	7W	0.015	0.38	0.070	1.78	0.955	24.26	306	455	563	838
343290*	20	16	7W	0.015	0.38	0.070	1.78	1.055	26.80	375	558	664	988
343300*	24	16	7W	0.015	0.38	0.070	1.78	1.160	29.46	456	679	780	1161
343310*	36	16	7W	0.015	0.38	0.080	2.03	1.380	35.05	674	1003	1137	1692
343320*	50	16	7W	0.015	0.38	0.080	2.03	1.580	40.13	945	1406	1518	2259

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

General Cable
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RoHS Compliant
Directive 2011/65/EU

UL LISTED

600 V Instrumentation Cables

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
2050†	CHTC®	XLPE/XL-CPE, Instrumentation, Shielded 600 V, UL Type TC, Individual and Overall Shielded Pairs/Triads	Sept. 2016
2100†	FREP®	FR-EPR/CPE, Instrumentation, Shielded 600 V, UL Type TC, Overall Shielded Pairs/Triads	Sept. 2016
2150†	FREP®	FR-EPR/CPE, Instrumentation, Shielded 600 V, UL Type TC, Individual and Overall Shielded Pairs	Sept. 2016
2200	FREP®	FR-EPR/CPE, Instrumentation, Shielded 600 V, UL Type TC, Individual and Overall Shielded Triads	Sept. 2016
2350	CVTC®	XLPE/PVC, Instrumentation, Shielded 600 V, UL Type TC, Overall Shielded Pairs/Triads	Sept. 2016
2400	CVTC®	XLPE/PVC, Instrumentation, Shielded 600 V, UL Type TC, Individual and Overall Shielded Pairs	Sept. 2016
2450	VNTC®	PVC/Nylon/PVC, Instrumentation, Shielded 600 V, UL Type TC, Overall Shielded Pairs/Triads	Sept. 2016
2500	VNTC®	PVC/Nylon/PVC, Instrumentation, Shielded 600 V, UL Type TC, Individual and Overall Shielded Pairs	Sept. 2016
2600	GenFree®	XLPE/LSZH, Instrumentation, Shielded 600 V, UL Type TC-LS, Overall Shielded Pairs/Triads	Sept. 2016
2625	GenFree®	XLPE/LSZH, Instrumentation, Shielded 600 V, UL Type TC-LS, Individual and Overall Shielded Pairs	Sept. 2016
2650	GenFree®	XLPE/LSZH, Instrumentation, Shielded 600 V, UL Type TC-LS, Individual and Overall Shielded Triads	Sept. 2016

†Indicates these products are stocked by General Cable

CHTC®

XLPE/XL-CPE, Instrumentation, Shielded
600 V, UL Type TC, Individual and Overall Shielded Pairs/Triads

Product Construction:

Conductor:
- 18 AWG and 16 AWG tinned, annealed copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1: Pairs - black and white; Triads - black, white and red. One conductor in each pair or triad is printed alpha-numerically for easy identification

Shield:
Individual and overall shielded pairs/triads
- Individual pairs/triads are 100% shielded with Flexfoil® aluminum/polyester in contact with stranded tinned copper drain wire
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free Cross-linked Chlorinated Polyethylene (XL-CPE)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Oil Res I & II
- Sunlight- and weather-resistant
- Excellent electrical, thermal and physical properties
- Excellent moisture resistance
- Excellent flame resistance
- "Heavy duty" rating per ICEA standards
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -40˚C

Compliances:
Industry Compliances:
- UL 1277 Type TC, UL File # E57179
- UL 1581
- ICEA S-73-532/WC57
- RoHS Compliant

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF PAIRS/ TRIADS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
INDIVIDUAL AND OVERALL SHIELDED PAIRS/TRIADS 18 AWG CONDUCTORS													
285150	1	18	7W	0.030	0.76	0.045	1.52	0.315	8.15	13	19	49	73
337620*	1 TRI	18	7W	0.030	0.76	0.045	1.14	0.335	8.51	18	26	64	95
337630*	2	18	7W	0.030	0.76	0.045	1.14	0.510	12.95	28	42	92	137
337640*	4	18	7W	0.030	0.76	0.060	1.52	0.630	16.00	53	79	167	249
337650*	8	18	7W	0.030	0.76	0.080	2.03	0.855	21.72	104	155	326	485
337660*	12	18	7W	0.030	0.76	0.080	2.03	1.030	26.16	155	231	441	656
337670*	16	18	7W	0.030	0.76	0.080	2.03	1.140	28.96	206	307	554	824
337680*	20	18	7W	0.030	0.76	0.080	2.03	1.265	32.13	256	381	676	1006
337690*	24	18	7W	0.030	0.76	0.080	2.03	1.450	36.83	308	459	795	1183
337700*	36	18	7W	0.030	0.76	0.110	2.79	1.650	41.91	461	687	1118	1664
337710*	50	18	7W	0.030	0.76	0.110	2.79	2.085	52.96	637	948	1616	2405
INDIVIDUAL AND OVERALL SHIELDED PAIRS/TRIADS 16 AWG CONDUCTORS													
240990	1	16	7W	0.030	0.76	0.045	1.52	0.345	8.76	19	28	61	91
241510	1 TRI	16	7W	0.030	0.76	0.045	1.52	0.360	9.10	28	42	85	127
241010	2	16	7W	0.030	0.76	0.060	1.52	0.585	14.86	40	60	130	193
232560	4	16	7W	0.030	0.76	0.060	1.52	0.675	17.15	78	116	204	304
241000*	8	16	7W	0.030	0.76	0.080	2.03	0.915	23.24	153	228	394	586
252370	12	16	7W	0.030	0.76	0.080	2.03	1.110	28.19	229	341	548	816
337720*	16	16	7W	0.030	0.76	0.080	2.03	1.350	34.29	304	453	713	1061
337730*	20	16	7W	0.030	0.76	0.080	2.03	1.365	34.67	380	566	850	1265
337740*	24	16	7W	0.030	0.76	0.080	2.03	1.570	39.88	455	677	1001	1490
337750*	36	16	7W	0.030	0.76	0.110	2.79	1.980	50.29	682	1014	1548	2304
337760*	50	16	7W	0.030	0.76	0.110	2.79	2.165	54.99	946	1408	2020	3006

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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FREP®

FR-EPR/CPE, Instrumentation, Shielded
600 V, UL Type TC, Overall Shielded Pairs/Triads

CATALOG NUMBER	NO. OF PAIRS/ TRIADS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
OVERALL SHIELDED PAIRS/TRIADS 18 AWG CONDUCTORS													
287650*	1	18	7W	0.025	0.64	0.045	1.14	0.300	7.62	13	19	42	63
325250*	1 TRI	18	7W	0.025	0.64	0.045	1.14	0.315	8.00	18	26	53	79
337010*	2	18	7W	0.025	0.64	0.045	1.14	0.420	10.67	23	34	75	112
337020*	4	18	7W	0.025	0.64	0.045	1.14	0.490	12.45	44	65	117	174
337030*	8	18	7W	0.025	0.64	0.060	1.52	0.675	17.15	86	127	224	333
337040*	12	18	7W	0.025	0.64	0.060	1.52	0.775	19.69	127	189	305	454
294580*	16	18	7W	0.025	0.64	0.080	2.03	0.925	23.50	169	251	425	632
337050*	20	18	7W	0.025	0.64	0.080	2.03	1.025	26.04	210	313	510	759
337060*	24	18	7W	0.025	0.64	0.080	2.03	1.105	28.07	252	375	604	899
337070*	36	18	7W	0.025	0.64	0.080	2.03	1.360	34.54	377	561	865	1287
337080*	50	18	7W	0.025	0.64	0.080	2.03	1.555	39.50	523	778	1144	1703
OVERALL SHIELDED PAIRS/TRIADS 16 AWG CONDUCTORS													
314960	1	16	7W	0.025	0.64	0.045	1.14	0.320	8.13	18	28	52	77
279690	1 TRI	16	7W	0.025	0.64	0.045	1.14	0.335	8.51	26	39	66	98
283170*	2	16	7W	0.025	0.64	0.045	1.14	0.460	11.68	36	54	95	141
283180*	4	16	7W	0.025	0.64	0.060	1.52	0.560	14.22	69	103	171	254
337090*	8	16	7W	0.025	0.64	0.060	1.52	0.740	18.80	135	201	294	438
283190*	12	16	7W	0.025	0.64	0.080	2.03	0.900	22.86	202	300	438	652
337100*	16	16	7W	0.025	0.64	0.080	2.03	1.015	25.78	268	399	560	833
337110*	20	16	7W	0.025	0.64	0.080	2.03	1.130	28.70	335	498	680	1012
337120*	24	16	7W	0.025	0.64	0.080	2.03	1.215	30.86	401	597	807	1201
337130*	36	16	7W	0.025	0.64	0.080	2.03	1.505	38.23	601	894	1160	1726
337140*	50	16	7W	0.025	0.64	0.080	2.03	2.095	53.21	834	1241	1702	2533

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

Product Construction:

Conductor:
- 18 AWG and 16 AWG tinned, annealed copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-Retardant Ethylene Propylene Rubber (FR-EPR) Type II
- Color-coded per ICEA Method 1: Pairs - black and white; Triads - black, white and red. One conductor in each pair or triad is printed alpha-numerically for easy identification

Shield:
Overall shielded pairs/triads
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, thermoplastic Chlorinated Polyethylene (CPE)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical, thermal and electrical properties
- Excellent moisture resistance
- Excellent resistance to compression cuts and heat deformation
- Excellent flame resistance—burns to an ash; does not exhibit thermoplastic drip
- Low coefficient of friction for easy pulling
- Sunlight- and weather-resistant
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -40˚C

Compliances:
Industry Compliances:
- UL 1277 Type TC, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57
- RoHS Compliant

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable

Packaging:
- Material cut to length and shipped on non-returnable wood reels

FREP®

FR-EPR/CPE, Instrumentation, Shielded
600 V, UL Type TC, Individual and Overall Shielded Pairs

Product Construction:

Conductor:
- 18 AWG and 16 AWG tinned, annealed copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-Retardant Ethylene Propylene Rubber (FR-EPR) Type II
- Color-coded per ICEA Method 1: Pairs - black and white. One conductor in each pair is printed alpha-numerically for easy identification

Shield:
Individual and overall shielded pairs
- Individual pairs are 100% individually shielded with Flexfoil® aluminum/polyester in contact with stranded tinned copper drain wire
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, thermoplastic Chlorinated Polyethylene (CPE)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical, thermal and electrical properties
- Excellent moisture resistance
- Excellent resistance to compression cuts and heat deformation
- Excellent flame resistance—burns to an ash; does not exhibit thermoplastic drip
- Low coefficient of friction for easy pulling
- Sunlight- and weather-resistant
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -40˚C

Compliances:
Industry Compliances:
- UL 1277 Type TC, UL File # E57179
- UL 1581
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Flame Test Compliances:
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- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF PAIRS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
INDIVIDUAL AND OVERALL SHIELDED PAIRS 18 AWG CONDUCTORS													
279700	2	18	7W	0.025	0.64	0.045	1.14	0.473	12.01	27	41	83	124
279710	4	18	7W	0.025	0.64	0.060	1.52	0.586	14.88	53	78	152	226
279720*	8	18	7W	0.025	0.64	0.060	1.52	0.751	19.08	103	153	259	385
279730*	12	18	7W	0.025	0.64	0.080	2.03	0.948	24.08	153	228	398	592
279740*	16	18	7W	0.025	0.64	0.080	2.03	1.050	26.67	206	307	502	747
319270*	20	18	7W	0.025	0.64	0.080	2.03	1.185	30.10	254	378	623	927
279750*	24	18	7W	0.025	0.64	0.080	2.03	1.220	30.99	311	463	709	1055
337240*	36	18	7W	0.025	0.64	0.080	2.03	1.474	37.44	461	687	1008	1500
337250*	50	18	7W	0.025	0.64	0.110	2.79	1.780	45.21	640	952	1454	2164
INDIVIDUAL AND OVERALL SHIELDED PAIRS 16 AWG CONDUCTORS													
280500	2	16	7W	0.025	0.64	0.045	1.14	0.500	12.70	40	59	103	153
280520	4	16	7W	0.025	0.64	0.060	1.52	0.650	16.51	77	114	189	281
280530	6	16	7W	0.025	0.64	0.060	1.52	0.755	19.18	115	171	268	399
280540	8	16	7W	0.025	0.64	0.060	1.52	0.840	21.34	151	225	330	491
279760	12	16	7W	0.025	0.64	0.080	2.03	1.065	27.05	226	337	506	753
280990*	16	16	7W	0.025	0.64	0.080	2.03	1.185	30.10	305	453	643	957
337260*	20	16	7W	0.025	0.64	0.080	2.03	1.320	33.53	380	566	777	1156
279770*	24	16	7W	0.025	0.64	0.080	2.03	1.485	37.72	455	677	932	1387
288260*	36	16	7W	0.025	0.64	0.080	2.03	1.760	44.70	683	1016	1410	2098
288250*	50	16	7W	0.025	0.64	0.110	2.79	2.035	51.69	946	1408	1883	2802

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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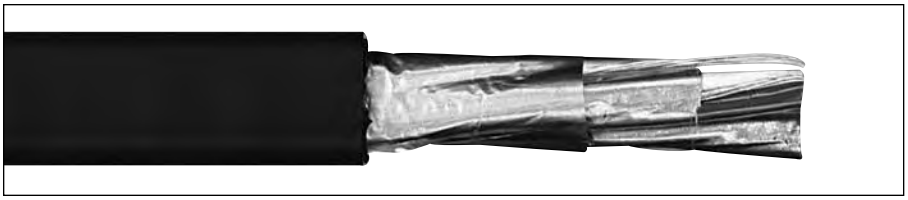

CATALOG NUMBER	NO. OF TRIADS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
INDIVIDUAL AND OVERALL SHIELDED TRIADS 18 AWG CONDUCTORS													
337150*	2 TRI	18	7W	0.025	0.64	0.060	1.52	0.560	14.22	38	57	127	189
319250*	4 TRI	18	7W	0.025	0.64	0.060	1.52	0.640	16.26	73	109	201	299
319260*	8 TRI	18	7W	0.025	0.64	0.080	2.03	0.825	20.96	144	214	343	510
337160*	12 TRI	18	7W	0.025	0.64	0.080	2.03	1.065	27.05	218	324	528	786
294540*	16 TRI	18	7W	0.025	0.64	0.080	2.03	1.180	29.97	290	431	675	1005
337170*	20 TRI	18	7W	0.025	0.64	0.080	2.03	1.310	33.27	361	538	825	1228
337180*	24 TRI	18	7W	0.025	0.64	0.080	2.03	1.500	38.10	433	645	972	1447
337190*	36 TRI	18	7W	0.025	0.64	0.080	2.03	1.740	44.20	649	965	1470	2188
INDIVIDUAL AND OVERALL SHIELDED TRIADS 16 AWG CONDUCTORS													
280950*	2 TRI	16	7W	0.025	0.64	0.060	1.52	0.615	15.62	57	84	159	237
280960*	4 TRI	16	7W	0.025	0.64	0.060	1.52	0.705	17.91	108	160	249	371
280970*	8 TRI	16	7W	0.025	0.64	0.080	2.03	0.850	21.59	217	323	472	702
287410*	12 TRI	16	7W	0.025	0.64	0.080	2.03	1.160	29.46	328	487	683	1016
337200*	16 TRI	16	7W	0.025	0.64	0.080	2.03	1.290	32.77	436	649	879	1308
337210*	20 TRI	16	7W	0.025	0.64	0.080	2.03	1.380	35.05	545	811	1058	1575
337220*	24 TRI	16	7W	0.025	0.64	0.080	2.03	1.615	41.02	653	972	1266	1884
337230*	36 TRI	16	7W	0.025	0.64	0.110	2.79	1.920	48.77	979	1457	1918	2854

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

Product Construction:

Conductor:
- 18 AWG and 16 AWG tinned, annealed copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-Retardant Ethylene Propylene Rubber (FR-EPR) Type II
- Color-coded per ICEA Method 1: Triads - black, white and red. One conductor in each triad is printed alpha-numerically for easy identification

Shield:
Individual and overall shielded triads
- Individual triads are 100% shielded with Flexfoil® aluminum/polyester in contact with stranded tinned copper drain wire
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, thermoplastic Chlorinated Polyethylene (CPE)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical, thermal and electrical properties
- Excellent moisture resistance
- Excellent resistance to compression cuts and heat deformation
- Excellent flame resistance—burns to an ash; does not exhibit thermoplastic drip
- Low coefficient of friction for easy pulling
- Sunlight- and weather-resistant
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -40˚C

Compliances:
Industry Compliances:
- UL 1277 Type TC, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57
- RoHS Compliant

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable

Packaging:
- Material cut to length and shipped on non-returnable wood reels

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CVTC®

XLPE/PVC, Instrumentation, Shielded
600 V, UL Type TC, Overall Shielded Pairs/Triads

Product Construction:

Conductor:
- 18 AWG and 16 AWG bare, annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1: Pairs - black and white; Triads - black, white and red. One conductor in each pair or triad is printed alpha-numerically for easy identification

Shield:
Overall shielded pairs/triads
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Abrasion- and chemical-resistant
- Excellent electrical properties
- Sunlight- and weather-resistant
- Meets cold bend test at -25˚C

Compliances:
Industry Compliances:
- UL 1277 Type TC, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57
- RoHS Compliant

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- ICEA T-29-520 (210,000 BTU/hr)
- CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF PAIRS/ TRIADS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
OVERALL SHIELDED PAIRS/TRIADS 18 AWG CONDUCTORS													
366160*	1	18	7W	0.030	0.76	0.045	1.14	0.315	8.00	12	18	46	68
337270*	1 TRI	18	7W	0.030	0.76	0.045	1.14	0.340	8.64	18	26	58	86
337360*	2	18	7W	0.030	0.76	0.045	1.14	0.450	11.43	23	34	88	131
337280*	4	18	7W	0.030	0.76	0.045	1.14	0.560	14.22	44	65	144	214
337290*	8	18	7W	0.030	0.76	0.060	1.52	0.750	19.05	94	140	263	391
337300*	12	18	7W	0.030	0.76	0.080	2.03	0.850	21.59	141	210	358	533
337310*	16	18	7W	0.030	0.76	0.080	2.03	1.010	25.65	187	278	461	686
337320*	20	18	7W	0.030	0.76	0.080	2.03	1.085	27.56	233	347	600	893
337330*	24	18	7W	0.030	0.76	0.080	2.03	1.210	30.73	279	415	701	1043
337340*	36	18	7W	0.030	0.76	0.080	2.03	1.500	38.10	418	622	1005	1496
337350*	50	18	7W	0.030	0.76	0.080	2.03	2.570	65.28	580	863	1603	2386
OVERALL SHIELDED PAIRS/TRIADS 16 AWG CONDUCTORS													
319810*	1	16	7W	0.030	0.76	0.045	1.14	0.345	8.76	19	28	32	48
319870*	1 TRI	16	7W	0.030	0.76	0.045	1.14	0.360	9.14	27	40	72	107
337370*	2	16	7W	0.030	0.76	0.045	1.14	0.560	14.22	36	53	121	180
382260*	4	16	7W	0.030	0.76	0.060	1.52	0.650	16.51	69	102	186	277
337390*	8	16	7W	0.030	0.76	0.060	1.52	0.810	20.57	135	201	324	482
337400*	12	16	7W	0.030	0.76	0.080	2.03	1.000	25.40	202	300	486	723
337410*	16	16	7W	0.030	0.76	0.080	2.03	1.120	28.45	268	399	616	917
337420*	20	16	7W	0.030	0.76	0.080	2.03	1.170	29.72	335	498	734	1092
337430*	24	16	7W	0.030	0.76	0.080	2.03	1.440	36.58	401	597	894	1330
337440*	36	16	7W	0.030	0.76	0.080	2.03	1.650	41.91	601	894	1254	1866
337450*	50	16	7W	0.030	0.76	0.110	2.79	2.020	51.31	834	1241	1800	2679

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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CVTC®

XLPE/PVC, Instrumentation, Shielded
600 V, UL Type TC, Individual and Overall Shielded Pairs

CATALOG NUMBER	NO. OF PAIRS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
INDIVIDUAL AND OVERALL SHIELDED PAIRS 18 AWG CONDUCTORS													
319820*	2	18	7W	0.030	0.76	0.045	1.14	0.515	13.08	28	41	95	141
319840*	4	18	7W	0.030	0.76	0.060	1.52	0.625	15.88	53	53	170	253
319850*	8	18	7W	0.030	0.76	0.060	1.52	0.805	20.45	104	155	292	435
337460*	12	18	7W	0.030	0.76	0.080	2.03	1.020	25.91	155	231	442	658
337470*	16	18	7W	0.030	0.76	0.080	2.03	1.130	28.70	206	307	554	824
337480*	20	18	7W	0.030	0.76	0.080	2.03	1.235	31.37	254	378	666	991
337490*	24	18	7W	0.030	0.76	0.080	2.03	1.465	37.21	308	459	802	1194
337500*	36	18	7W	0.030	0.76	0.080	2.03	1.630	41.40	461	687	1116	1661
337510*	50	18	7W	0.030	0.76	0.110	2.79	1.975	50.17	640	952	1598	2378
INDIVIDUAL AND OVERALL SHIELDED PAIRS 16 AWG CONDUCTORS													
337520*	2	16	7W	0.030	0.76	0.060	1.52	0.595	15.11	40	60	135	201
337530*	4	16	7W	0.030	0.76	0.060	1.52	0.695	17.65	78	116	214	318
337540*	8	16	7W	0.030	0.76	0.060	1.52	0.900	22.86	153	228	399	594
337550*	12	16	7W	0.030	0.76	0.080	2.03	1.110	28.19	229	341	584	869
337560*	16	16	7W	0.030	0.76	0.080	2.03	1.260	32.00	304	453	712	1060
337570*	20	16	7W	0.030	0.76	0.080	2.03	1.315	33.40	380	566	845	1258
337580*	24	16	7W	0.030	0.76	0.080	2.03	1.510	38.35	455	677	1009	1502
337590*	36	16	7W	0.030	0.76	0.110	2.79	1.820	46.23	682	1014	1259	1874
337600*	50	16	7W	0.030	0.76	0.110	2.79	2.095	53.21	946	1408	2032	3024

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

Product Construction:

Conductor:
- 18 AWG and 16 AWG bare, annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1: Pairs - black and white. One conductor in each pair is printed alpha-numerically for easy identification

Shield:
Individual and overall shielded pairs
- Individual pairs are 100% shielded with Flexfoil® aluminum/polyester in contact with stranded tinned copper drain wire
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Abrasion- and chemical-resistant
- Excellent electrical properties
- Sunlight- and weather-resistant
- Meets cold bend test at -25˚C

Compliances:
Industry Compliances:
- UL 1277 Type TC, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57
- RoHS Compliant

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- ICEA T-29-520 (210,000 BTU/hr)
- CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable

Packaging:
- Material cut to length and shipped on non-returnable wood reels

UL LISTED

RoHS Compliant
Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

VNTC®

PVC/Nylon/PVC, Instrumentation, Shielded
600 V, UL Type TC, Overall Shielded Pairs/Triads

Product Construction:

Conductor:
- 18 AWG thru 14 AWG bare, annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC) with Polyamide (nylon)
- Color-coded per ICEA Method 1: Pairs - black and white; Triads - black, white and red. One conductor in each pair or triad is printed alpha-numerically for easy identification

Shield:
Overall shielded pairs/triads
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

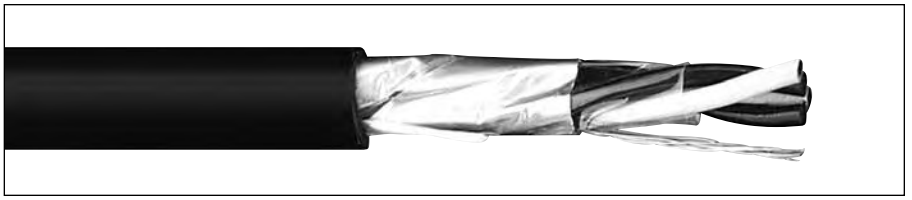
Features:
- Rated at 90˚C dry, 75˚C wet
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Provides sunlight, cold bend and cold impact resistance
- Offer the smallest cable O.D. available for suitable applications
- Provides excellent oil and chemical resistance
- Provides a long service life
- Meets cold bend test at -25˚C

Compliances:
Industry Compliances:
- UL 1277 Type TC, UL File # E57179
- UL 1581
- NEC Type TFN conductors
- ICEA S-73-532/NEMA WC57

Flame Test Compliances:
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels



CATALOG NUMBER	NO. OF PAIRS/ TRIADS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
OVERALL SHIELDED PAIRS/TRIADS 18 AWG CONDUCTORS													
235020*	1	18	7W	0.020	0.51	0.045	1.14	0.280	7.11	12	19	41	61
239210*	1 TRI	18	7W	0.020	0.51	0.045	1.14	0.300	7.62	18	27	49	73
235910*	2	18	7W	0.020	0.51	0.045	1.14	0.440	11.18	23	34	72	107
319740*	3	18	7W	0.020	0.51	0.045	1.14	0.465	11.81	33	50	90	134
235980*	4	18	7W	0.020	0.51	0.045	1.14	0.505	12.83	44	65	110	164
336830*	5	18	7W	0.020	0.51	0.060	1.52	0.570	14.48	55	82	144	214
336840*	7	18	7W	0.020	0.51	0.060	1.52	0.585	14.86	75	112	177	263
230760*	12	18	7W	0.020	0.51	0.060	1.52	0.770	19.56	127	189	277	412
270970*	16	18	7W	0.020	0.51	0.080	2.03	0.825	20.96	168	250	355	528
336850*	20	18	7W	0.020	0.51	0.080	2.03	0.905	22.99	210	313	455	677
230750*	24	18	7W	0.020	0.51	0.080	2.03	1.020	25.91	252	375	544	810
230800*	36	18	7W	0.020	0.51	0.080	2.03	1.150	29.21	378	562	763	1135
336860*	50	18	7W	0.020	0.51	0.080	2.03	1.405	35.69	525	781	1036	1542
OVERALL SHIELDED PAIRS/TRIADS 16 AWG CONDUCTORS													
230830*	1	16	7W	0.020	0.51	0.045	1.14	0.300	7.62	20	29	52	77
230840*	1 TRI	16	7W	0.020	0.51	0.045	1.14	0.315	8.00	27	40	61	91
238410*	2	16	7W	0.020	0.51	0.045	1.14	0.470	11.94	37	54	93	138
239200*	3	16	7W	0.020	0.51	0.045	1.14	0.505	12.83	53	79	117	174
230790*	4	16	7W	0.020	0.51	0.060	1.52	0.575	14.61	69	103	160	238
336870*	5	16	7W	0.020	0.51	0.060	1.52	0.610	15.49	87	129	190	283
336880*	7	16	7W	0.020	0.51	0.060	1.52	0.630	16.00	117	174	239	356
244590*	12	16	7W	0.020	0.51	0.060	1.52	0.825	20.96	201	299	370	551
244610*	16	16	7W	0.020	0.51	0.080	2.03	0.970	24.64	267	397	513	763
336890*	20	16	7W	0.020	0.51	0.080	2.03	1.010	25.65	337	502	628	935
230780*	24	16	7W	0.020	0.51	0.080	2.03	1.135	28.83	398	592	740	1101
230820*	36	16	7W	0.020	0.51	0.080	2.03	1.375	34.93	595	886	1063	1582
230810*	50	16	7W	0.020	0.51	0.080	2.03	1.570	39.88	833	1240	1435	2136
OVERALL SHIELDED PAIRS/TRIADS 14 AWG CONDUCTORS													
237490*	1	14	7W	0.015	0.38	0.045	1.14	0.325	8.26	28	42	62	92

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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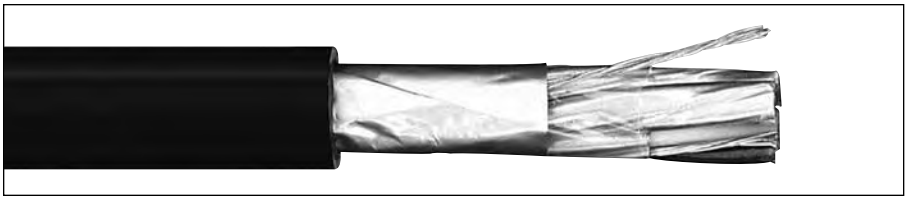
PVC/Nylon/PVC, Instrumentation, Shielded
600 V, UL Type TC, Individual and Overall Shielded Pairs



CATALOG NUMBER	NO. OF PAIRS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
INDIVIDUAL AND OVERALL SHIELDED PAIRS 18 AWG CONDUCTORS													
235970*	2	18	7W	0.020	0.51	0.045	1.14	0.445	11.30	28	41	84	125
336900*	3	18	7W	0.020	0.51	0.045	1.14	0.480	12.19	46	68	106	158
235900*	4	18	7W	0.020	0.51	0.045	1.14	0.555	14.10	53	79	145	216
336910*	5	18	7W	0.020	0.51	0.060	1.52	0.580	14.73	74	110	169	252
336920*	7	18	7W	0.020	0.51	0.060	1.52	0.650	16.51	102	152	219	326
241020*	12	18	7W	0.020	0.51	0.060	1.52	0.845	21.46	193	287	390	506
336930*	16	18	7W	0.020	0.51	0.080	2.03	0.960	24.38	229	341	473	704
336940*	20	18	7W	0.020	0.51	0.080	2.03	1.050	26.67	283	421	594	884
241030*	24	18	7W	0.020	0.51	0.080	2.03	1.175	29.85	340	506	689	1025
243880*	36	18	7W	0.020	0.51	0.080	2.03	1.380	35.05	508	756	979	1457
256300*	50	18	7W	0.020	0.51	0.080	2.03	1.615	41.02	705	1049	1371	1960
INDIVIDUAL AND OVERALL SHIELDED PAIRS 16 AWG CONDUCTORS													
237180*	2	16	7W	0.020	0.51	0.045	1.14	0.495	12.57	44	65	105	156
235990*	3	16	7W	0.020	0.51	0.045	1.14	0.520	13.21	64	95	137	204
237160*	4	16	7W	0.020	0.51	0.045	1.14	0.600	15.24	84	125	188	280
336950*	5	16	7W	0.020	0.51	0.060	1.52	0.655	16.64	105	157	224	333
336960*	7	16	7W	0.020	0.51	0.060	1.52	0.710	18.03	145	216	290	432
235750*	8	16	7W	0.020	0.51	0.060	1.52	0.760	19.30	155	224	307	457
242870*	12	16	7W	0.020	0.51	0.060	1.52	0.940	23.88	244	363	498	741
237130*	16	16	7W	0.020	0.51	0.080	2.03	1.055	26.80	324	482	635	945
277820*	20	16	7W	0.020	0.51	0.080	2.03	1.175	29.85	407	605	768	1143
242860*	24	16	7W	0.020	0.51	0.080	2.03	1.350	34.29	486	724	903	1344
243890*	36	16	7W	0.020	0.51	0.080	2.03	1.480	37.59	732	1089	1290	1920
244600*	50	16	7W	0.020	0.51	0.080	2.03	1.810	45.97	1011	1504	1809	2692

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

Product Construction:

Conductor:
- 18 AWG and 16 AWG bare, annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC) with Polyamide (nylon)
- Color-coded per ICEA Method 1: Pairs - black and white. One conductor in each pair is printed alpha-numerically for easy identification

Shield:
Individual and overall shielded pairs
- Individual pairs are 100% shielded with Flexfoil® aluminum/polyester in contact with stranded tinned copper drain wire
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C dry, 75˚C wet
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Provides sunlight, cold bend and cold impact resistance
- Offer the smallest cable O.D. available for suitable applications
- Provides excellent oil and chemical resistance
- Provides a long service life
- Meets cold bend test at -25˚C

Compliances:
Industry Compliances:
- UL 1277 Type TC, UL File # E57179
- UL 1581
- NEC Type TFN conductors
- ICEA S-73-532/NEMA WC57

Flame Test Compliances:
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

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General Cable
Phone: 888-593-3355
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GenFree®

XLPE/LSZH, Instrumentation, Shielded
600 V, UL Type TC-LS, Overall Shielded Pairs/Triads

Product Construction:

Conductor:
- 18 AWG and 16 AWG tinned, annealed copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Lead-free, flame-retardant, low-smoke Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1: Pairs - black and white; Triads - black, white and red. One conductor in each pair or triad is printed alpha-numerically for easy identification

Shield:
Overall shielded pairs/triads
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, sunlight-resistant, Low-Smoke, Zero-Halogen Polyolefin (LSZH)

Applications:
- In free air, raceways, aerial or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical and electrical properties
- Excellent moisture resistance
- Excellent resistance to compression and impact
- Chemical-resistant
- Low coefficient of friction for easy pulling
- Sunlight- and weather-resistant
- Meets cold bend test at -30˚C
- Low-Smoke, Zero-Halogen jacket is environmentally safe
- Low-Smoke, Zero-Halogen jacket reduces the amount of toxic and corrosive gases emitted during combustion, providing a safer environment for personnel and equipment during the hazards of fire

Compliances:
Industry Compliances:
- UL 1277 Type TC-LS, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57
- ICEA T-33-655

Flame Test Compliances:
- UL 1581
- UL 1685 Vertical Flame Test
- IEEE 1202

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF PAIRS/ TRIADS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
OVERALL SHIELDED PAIRS/TRIADS 18 AWG CONDUCTORS													
393710*	1	18	7W	0.030	0.76	0.045	1.14	0.315	8.00	13	19	46	68
393720*	1 TRI	18	7W	0.030	0.76	0.045	1.14	0.340	8.64	18	26	58	86
393730*	2	18	7W	0.030	0.76	0.045	1.14	0.450	11.43	23	34	88	131
393740*	4	18	7W	0.030	0.76	0.045	1.14	0.560	14.22	44	65	144	214
393750*	8	18	7W	0.030	0.76	0.060	1.52	0.750	19.05	86	127	263	391
393760*	12	18	7W	0.030	0.76	0.080	2.03	0.850	21.59	127	189	358	533
393770*	16	18	7W	0.030	0.76	0.080	2.03	1.010	25.65	169	251	461	686
393780*	20	18	7W	0.030	0.76	0.080	2.03	1.085	27.56	210	313	600	893
393790*	24	18	7W	0.030	0.76	0.080	2.03	1.210	30.73	252	375	701	1043
393800*	36	18	7W	0.030	0.76	0.080	2.03	1.500	38.10	377	561	1005	1496
393810*	50	18	7W	0.030	0.76	0.080	2.03	2.570	65.28	523	778	1603	2386
OVERALL SHIELDED PAIRS/TRIADS 16 AWG CONDUCTORS													
393820	1	16	7W	0.030	0.76	0.045	1.14	0.345	8.76	18	28	32	48
393830	1 TRI	16	7W	0.030	0.76	0.045	1.14	0.360	9.14	26	39	72	107
393840*	2	16	7W	0.030	0.76	0.045	1.14	0.560	14.22	36	54	121	180
393850*	4	16	7W	0.030	0.76	0.060	1.52	0.650	16.51	69	103	186	277
393860*	8	16	7W	0.030	0.76	0.060	1.52	0.810	20.57	135	201	324	482
393870*	12	16	7W	0.030	0.76	0.080	2.03	1.000	25.40	202	300	486	723
393880*	16	16	7W	0.030	0.76	0.080	2.03	1.120	28.45	268	399	616	917
393890*	20	16	7W	0.030	0.76	0.080	2.03	1.170	29.72	335	498	734	1092
393900*	24	16	7W	0.030	0.76	0.080	2.03	1.440	36.58	401	597	894	1330
393910*	36	16	7W	0.030	0.76	0.080	2.03	1.650	41.91	601	894	1254	1866
393920*	50	16	7W	0.030	0.76	0.110	2.79	2.020	51.31	834	1241	1800	2679

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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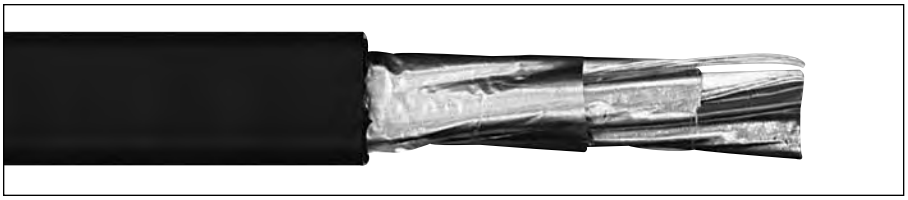
GenFree®

XLPE/LSZH, Instrumentation, Shielded
600 V, UL Type TC-LS, Individual and Overall Shielded Pairs



CATALOG NUMBER	NO. OF PAIRS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
INDIVIDUAL AND OVERALL SHIELDED PAIRS 18 AWG CONDUCTORS													
393930*	2	18	7W	0.030	0.76	0.045	1.14	0.510	12.95	27	41	92	137
393940*	4	18	7W	0.030	0.76	0.060	1.52	0.630	16.00	53	78	167	249
393950*	8	18	7W	0.030	0.76	0.080	2.03	0.855	21.72	103	153	326	485
393960*	12	18	7W	0.030	0.76	0.080	2.03	1.030	26.16	153	228	441	656
393970*	16	18	7W	0.030	0.76	0.080	2.03	1.140	28.96	206	307	554	824
393980*	20	18	7W	0.030	0.76	0.080	2.03	1.265	32.13	254	378	676	1006
393990*	24	18	7W	0.030	0.76	0.080	2.03	1.450	36.83	311	463	795	1183
394000*	36	18	7W	0.030	0.76	0.010	2.79	1.650	41.91	461	687	1118	1664
394010*	50	18	7W	0.030	0.76	0.010	2.79	2.085	52.96	640	952	1616	2405
INDIVIDUAL AND OVERALL SHIELDED PAIRS 16 AWG CONDUCTORS													
394020	2	16	7W	0.030	0.76	0.060	1.52	0.585	14.86	40	59	130	193
394030	4	16	7W	0.030	0.76	0.060	1.52	0.675	17.15	77	114	204	304
394040*	6	16	7W	0.030	0.76	0.060	1.52	0.800	20.32	115	171	301	447
394050*	8	16	7W	0.030	0.76	0.080	2.03	0.915	23.24	151	225	394	586
394060*	12	16	7W	0.030	0.76	0.080	2.03	1.110	28.19	226	337	548	816
394070*	16	16	7W	0.030	0.76	0.080	2.03	1.350	34.29	305	453	713	1061
394080*	20	16	7W	0.030	0.76	0.080	2.03	1.365	34.67	380	566	850	1265
394090*	24	16	7W	0.030	0.76	0.080	2.03	1.570	39.88	455	677	1001	1490
394100*	36	16	7W	0.030	0.76	0.110	2.79	1.980	50.29	683	1016	1548	2304
394110*	50	16	7W	0.030	0.76	0.110	2.79	2.165	54.99	946	1408	2020	3006

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

Product Construction:

Conductor:
- 18 AWG and 16 AWG tinned, annealed copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Lead-free, flame-retardant, low-smoke Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1: Pairs - black and white. One conductor in each pair is printed alpha-numerically for easy identification

Shield:
Individual and overall shielded pairs
- Individual pairs are 100% individually shielded with Flexfoil® aluminum/polyester in contact with stranded tinned copper drain wire
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Low-Smoke, Zero-Halogen Polyolefin (LSZH)

Applications:
- In free air, raceways, aerial or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical and electrical properties
- Excellent moisture resistance
- Excellent resistance to compression and impact
- Chemical-resistant
- Low coefficient of friction for easy pulling
- Sunlight- and weather-resistant
- Meets cold bend test at -30˚C
- Low-Smoke, Zero-Halogen jacket is environmentally safe
- Low-Smoke, Zero-Halogen jacket reduces the amount of toxic and corrosive gases emitted during combustion, providing a safer environment for personnel and equipment during the hazards of fire

Compliances:
Industry Compliances:
- UL 1277 Type TC-LS, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57
- ICEA T-33-655

Flame Test Compliances:
- UL 1581
- UL 1685 Vertical Flame Test
- IEEE 1202

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

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RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

GenFree®

XLPE/LSZH, Instrumentation, Shielded
600 V, UL Type TC-LS, Individual and Overall Shielded Triads

Product Construction:

Conductor:
- 18 AWG and 16 AWG tinned, annealed copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Lead-free, flame-retardant, low-smoke Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1: Triads - black, white and red. One conductor in each triad is printed alpha-numerically for easy identification

Shield:
Individual and overall shielded triads
- Individual triads are 100% shielded with Flexfoil® aluminum/polyester in contact with stranded tinned copper drain wire
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Low-Smoke, Zero-Halogen Polyolefin (LSZH)

Applications:
- In free air, raceways, aerial or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

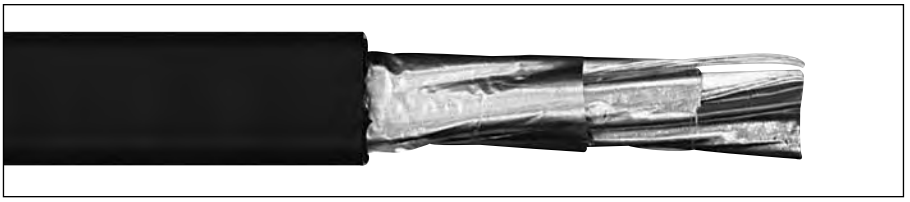
Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical and electrical properties
- Excellent moisture resistance
- Excellent resistance to compression and impact
- Chemical-resistant
- Low coefficient of friction for easy pulling
- Sunlight- and weather-resistant
- Meets cold bend test at -30˚C
- Low-Smoke, Zero-Halogen jacket is environmentally safe
- Low-Smoke, Zero-Halogen jacket reduces the amount of toxic and corrosive gases emitted during combustion, providing a safer environment for personnel and equipment during the hazards of fire

Compliances:
Industry Compliances:
- UL 1277 Type TC-LS, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57
- ICEA T-33-655

Flame Test Compliances:
- UL 1581
- UL 1685 Vertical Flame Test
- IEEE 1202

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels



CATALOG NUMBER	NO. OF TRIADS	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
INDIVIDUAL AND OVERALL SHIELDED TRIADS 18 AWG CONDUCTORS													
394120*	2 TRI	18	7W	0.030	0.76	0.060	1.52	0.595	15.11	38	57	150	223
394130*	4 TRI	18	7W	0.030	0.76	0.060	1.52	0.690	17.53	74	110	231	344
394140*	8 TRI	18	7W	0.030	0.76	0.080	2.03	0.940	23.88	145	216	435	647
394150*	12 TRI	18	7W	0.030	0.76	0.080	2.03	1.135	28.83	217	323	612	911
394160*	16 TRI	18	7W	0.030	0.76	0.080	2.03	1.265	32.13	289	430	773	1150
394170*	20 TRI	18	7W	0.030	0.76	0.080	2.03	1.405	35.69	361	537	935	1391
394180*	24 TRI	18	7W	0.030	0.76	0.080	2.03	1.565	39.75	432	643	1097	1633
394190*	36 TRI	18	7W	0.030	0.76	0.110	2.79	1.860	47.24	647	963	1662	2473
INDIVIDUAL AND OVERALL SHIELDED TRIADS 16 AWG CONDUCTORS													
394200*	2 TRI	16	7W	0.030	0.76	0.060	1.52	0.640	16.26	57	84	183	272
394210*	4 TRI	16	7W	0.030	0.76	0.060	1.52	0.745	18.92	111	165	494	735
394220*	8 TRI	16	7W	0.030	0.76	0.080	2.03	1.015	25.78	219	326	549	817
394230*	12 TRI	16	7W	0.030	0.76	0.080	2.03	1.230	31.24	328	487	777	1156
394240*	16 TRI	16	7W	0.030	0.76	0.080	2.03	1.370	34.80	437	650	988	1470
394250*	20 TRI	16	7W	0.030	0.76	0.080	2.03	1.525	38.74	545	811	1120	1667
394260*	24 TRI	16	7W	0.030	0.76	0.110	2.79	1.760	44.70	654	973	1530	2277
394270*	36 TRI	16	7W	0.030	0.76	0.110	2.79	2.015	51.18	979	1457	2142	3188

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

General Cable
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www.generalcable.com

RoHS Compliant
Directive 2011/65/EU

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Notes

600 V Multi-Conductor Control and Power Cables

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
4050	CHTC®	XLPE/XL-CPE, Control, Unshielded 600 V, UL Type TC—E-2 Color Code	Sept. 2016
4075†	CHTC®	XLPE/XL-CPE, Control, Unshielded 600 V, UL Type TC—E-1 Color Code	Sept. 2016
4100†	CHTC®	XLPE/XL-CPE, Low-Voltage Power, Unshielded 600 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016
4300†	FREP®	FR-EPR/CPE, Control, Unshielded 600 V, UL Type TC-ER—E-2 Color Code	Sept. 2016
4310†	FREP®	FR-EPR/CPE, Control, Unshielded 600 V, UL Type TC-ER—E-1 Color Code	Sept. 2016
4325†	FREP®	FR-EPR/CPE, Control, Shielded 600 V, UL Type TC-ER, Overall Shielded—E-2 Color Code	Sept. 2016
4350†	FREP®	FR-EPR/CPE, Low-Voltage Power, Unshielded 600 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016
4460	CCTC™	FR-XLPE/CPE, Control, Shielded 600 V, UL Type TC-ER—E-1 Color Code	Sept. 2016
4480	CCTC™	FR-XLPE/CPE, Low-Voltage Power, Shielded 600 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016
4500†	CVTC®	XLPE/PVC, Control, Unshielded 600 V, UL Type TC-ER—E-2 Color Code	Sept. 2016
4550†	CVTC®	XLPE/PVC, Low-Voltage Power, Unshielded 600 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016
4560†	CVTC® Flexible VFD	XLPE/PVC, Low-Voltage Power, Al/Polyester/Al + TC Braid Shielded 1000 V, UL Flexible Motor Supply, 600 V, UL Type TC-ER—Method 4 Color Code w/Green/Yellow Ground	Sept. 2016
4565	CVTC® Flexible VFD	XLPE/PVC, Low-Voltage Power, Al/Polyester/Al TC Braid Shielded 1000 V, UL Flexible Motor Supply, 600 V, UL Type TC-ER—Method 4 Color Code w/Green/Yellow Ground and Signal Pair	Sept. 2016
4570†	CVTC® Flexible VFD	XLPE/PVC, Low-Voltage Power, Dual Copper Shielded 1000 V, UL Flexible Motor Supply, 600 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016
4575	CVTC® VFD	XLPE/PVC, Low-Voltage Power, Shielded 2000 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016
4580†	CVTC® VFD	XLPE/PVC, Low-Voltage Power, Copper Tape Shielded 2000 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016
4600†	VNTC®	PVC/Nylon/PVC, Control, Unshielded 600 V, UL Type TC-ER (18 AWG/16 AWG)—E-2 Color Code	Sept. 2016
4650†	VNTC®	PVC/Nylon/PVC, Control, Unshielded 600 V, UL Type TC-ER (14 AWG—10 AWG)—E-2 Color Code	Sept. 2016
4700†	VNTC®	PVC/Nylon/PVC, Control, Shielded 600 V, UL Type TC-ER, Overall Shielded—E-2 Color Code	Sept. 2016
4750†	VNTC®	PVC/Nylon/PVC, Low-Voltage Power, Unshielded 600 V, UL Type TC-ER—Method 4 Color Code	Sept. 2016

†Indicates these products are stocked by General Cable

600 V Multi-Conductor Control and Power Cables

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
4900	GenFree®	XLPE/LSZH, Control 600 V, UL Type TC-LS-ER—E-2 Color Code	Sept. 2016
4925	GenFree®	XLPE/LSZH, Control, Shielded 600 V, UL Type TC-LS-ER, Overall Shielded—E-2 Color Code	Sept. 2016
4950	GenFree®	XLPE/LSZH, Low-Voltage Power, Unshielded 600 V, UL Type TC-LS-ER—Method 4 Color Code	Sept. 2016

†Indicates these products are stocked by General Cable

CHTC®

XLPE/XL-CPE, Control, Unshielded
600 V, UL Type TC—E-2 Color Code

Product Construction:

Conductor:
- 16 AWG thru 10 AWG fully annealed stranded tinned copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1, Table E-2 plus alpha-numeric printed numbers (does not include white or green)

Jacket:
- Lead-free Cross-linked Chlorinated Polyethylene (XL-CPE)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Div. 2 industrial hazardous locations per NEC Article 501 and Class 1 circuits per NEC

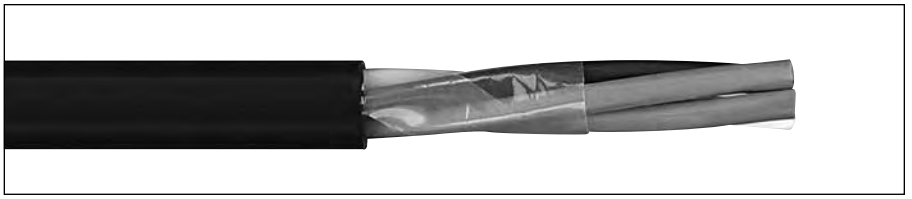
Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical, thermal and electrical properties
- Excellent moisture resistance
- Excellent resistance to crush, compression cuts and heat deformation
- Excellent flame resistance
- Oil Res I & II
- "Heavy Duty" rating per ICEA standards
- Sunlight- and weather-resistant
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -40˚C

Compliances:
Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels



CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
16 AWG CONDUCTORS													
241420*	2	16	7W	0.030	0.76	0.045	1.14	0.340	8.64	17	25	61	91
312500*	3	16	7W	0.030	0.76	0.045	1.14	0.360	9.14	25	37	73	109
312510*	4	16	7W	0.030	0.76	0.045	1.14	0.390	9.91	33	49	91	135
312520*	5	16	7W	0.030	0.76	0.045	1.14	0.420	10.67	41	61	110	164
241430*	7	16	7W	0.030	0.76	0.045	1.14	0.460	11.68	58	86	141	210
241440*	9	16	7W	0.030	0.76	0.060	1.52	0.565	14.35	74	110	199	296
14 AWG CONDUCTORS													
223650*	2 Flat	14	7W	0.030	0.76	0.045	1.14	.230 x .365	5.84 x 9.27	26	39	68	101
272270*	2	14	7W	0.030	0.76	0.045	1.14	0.370	9.40	26	39	75	112
223790*	3	14	7W	0.030	0.76	0.045	1.14	0.390	9.91	39	59	95	141
223780*	4	14	7W	0.030	0.76	0.045	1.14	0.425	10.80	53	78	118	176
223770*	5	14	7W	0.030	0.76	0.045	1.14	0.465	11.81	66	98	143	213
223750*	7	14	7W	0.030	0.76	0.045	1.14	0.505	12.83	92	137	179	266
223760*	9	14	7W	0.030	0.76	0.060	1.52	0.620	15.75	118	176	249	371
223640*	12	14	7W	0.030	0.76	0.060	1.52	0.700	17.78	158	235	317	472
223670*	19	14	7W	0.030	0.76	0.060	1.52	0.815	20.70	250	372	467	695
232850*	37	14	7W	0.030	0.76	0.080	2.03	1.130	28.70	490	730	899	1338
12 AWG CONDUCTORS													
260730*	2 Flat	12	7W	0.030	0.76	0.045	1.14	.250 x .400	6.35 x 10.16	50	74	85	126
272260*	2	12	7W	0.030	0.76	0.045	1.14	0.410	10.41	51	76	98	146
223910*	3	12	7W	0.030	0.76	0.045	1.14	0.435	11.05	64	95	127	189
223930*	4	12	7W	0.030	0.76	0.045	1.14	0.475	12.07	85	126	160	238
223920*	5	12	7W	0.030	0.76	0.045	1.14	0.520	13.21	106	158	194	289
224080*	7	12	7W	0.030	0.76	0.060	1.52	0.595	15.11	168	251	264	393
224070*	9	12	7W	0.030	0.76	0.060	1.52	0.695	17.65	191	285	345	513
224090*	12	12	7W	0.030	0.76	0.060	1.52	0.780	19.81	255	380	435	647
265940*	19	12	7W	0.030	0.76	0.080	2.03	0.955	24.26	403	600	690	1027
347050*	37	12	7W	0.030	0.76	0.080	2.03	1.265	32.13	741	1103	1393	2073
10 AWG CONDUCTORS													
361350*	2 Flat	10	7W	0.030	0.76	0.045	1.14	.270 x .445	6.86 x 11.30	66	98	117	174
355210*	2	10	7W	0.030	0.76	0.045	1.14	0.455	5.26	67	100	126	188
224100*	3	10	7W	0.030	0.76	0.045	1.14	0.485	12.32	100	150	176	262
224110*	4	10	7W	0.030	0.76	0.060	1.52	0.560	14.22	134	199	240	357
224120*	5	10	7W	0.030	0.76	0.060	1.52	0.615	15.62	167	249	291	433
224130*	7	10	7W	0.030	0.76	0.060	1.52	0.670	17.02	234	349	376	560
347060*	9	10	7W	0.030	0.76	0.060	1.52	0.765	19.43	302	449	456	679
347070*	12	10	7W	0.030	0.76	0.080	2.03	0.905	22.99	404	601	636	946

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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RoHS Compliant
Directive 2011/65/EU

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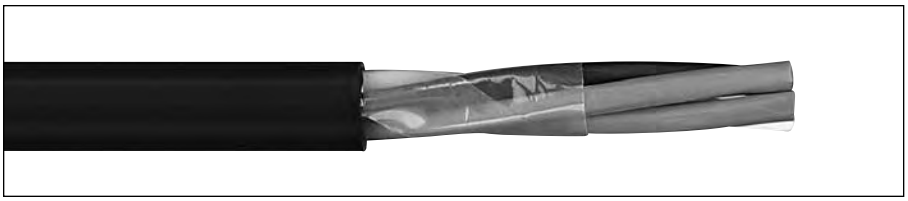
CHTC®

XLPE/XL-CPE, Control, Unshielded
600 V, UL Type TC—E-1 Color Code



CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG CONDUCTORS													
256260*	2 Flat	14	7W	0.030	0.76	0.045	1.14	.230 x .365	5.84 x 9.27	26	39	68	101
330580	2	14	7W	0.030	0.76	0.045	1.14	0.370	9.40	26	39	75	112
244160	3	14	7W	0.030	0.76	0.045	1.14	0.390	9.91	39	59	95	141
239640	4	14	7W	0.030	0.76	0.045	1.14	0.425	10.80	53	78	118	176
239700	5	14	7W	0.030	0.76	0.045	1.14	0.465	11.81	66	98	143	213
237500	7	14	7W	0.030	0.76	0.045	1.14	0.505	12.83	92	137	179	266
239660	9	14	7W	0.030	0.76	0.060	1.52	0.620	15.75	118	176	249	371
252400	12	14	7W	0.030	0.76	0.060	1.52	0.700	17.78	158	235	317	472
252410*	19	14	7W	0.030	0.76	0.060	1.52	0.815	20.70	250	372	467	695
383980*	25	14	7W	0.030	0.76	0.080	2.03	1.000	25.40	330	491	632	941
383990*	30	14	7W	0.030	0.76	0.080	2.03	1.050	26.67	398	592	731	1088
384000*	37	14	7W	0.030	0.76	0.080	2.03	1.130	28.70	490	730	899	1338
12 AWG CONDUCTORS													
233320*	2 Flat	12	7W	0.030	0.76	0.045	1.14	.250 x .400	6.35 x 10.16	42	63	85	126
239670	2	12	7W	0.030	0.76	0.045	1.14	0.410	10.41	42	63	98	146
233330	3	12	7W	0.030	0.76	0.045	1.14	0.435	11.05	64	95	127	189
239680	4	12	7W	0.030	0.76	0.045	1.14	0.475	12.07	85	126	160	238
239650	5	12	7W	0.030	0.76	0.045	1.14	0.520	13.21	106	158	194	289
243530	7	12	7W	0.030	0.76	0.060	1.52	0.595	15.11	168	251	264	393
239620	9	12	7W	0.030	0.76	0.060	1.52	0.695	17.65	191	285	345	513
252360	12	12	7W	0.030	0.76	0.060	1.52	0.780	19.81	255	380	435	647
252230	19	12	7W	0.030	0.76	0.080	2.03	0.955	24.26	403	600	690	1027
384010*	25	12	7W	0.030	0.76	0.080	2.03	1.095	27.81	515	767	858	1277
384020*	30	12	7W	0.030	0.76	0.080	2.03	1.175	29.85	618	920	997	1484
384030*	37	12	7W	0.030	0.76	0.080	2.03	1.265	32.13	741	1103	1393	2073
10 AWG CONDUCTORS													
384040*	2 Flat	10	7W	0.030	0.76	0.045	1.14	.270 x .445	6.86 x 11.30	66	98	117	174
243540	2	10	7W	0.030	0.76	0.045	1.14	0.455	5.26	67	100	126	188
239630	3	10	7W	0.030	0.76	0.045	1.14	0.485	12.32	100	150	176	262
233310	4	10	7W	0.030	0.76	0.060	1.52	0.560	14.22	134	199	240	357
262680	5	10	7W	0.030	0.76	0.060	1.52	0.615	15.62	167	249	291	433
375010*	7	10	7W	0.030	0.76	0.060	1.52	0.670	17.02	234	349	376	560
235680	9	10	7W	0.030	0.76	0.060	1.52	0.765	19.43	302	449	456	679
375470	12	10	7W	0.030	0.76	0.080	2.03	0.905	22.99	404	601	636	946

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

Product Construction:

Conductor:
- 14 AWG thru 10 AWG fully annealed stranded tinned copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1, Table E-1

Jacket:
- Lead-free Cross-linked Chlorinated Polyethylene (XL-CPE)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Div. 2 industrial hazardous locations per NEC Article 501 and Class 1 circuits per NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical, thermal and electrical properties
- Excellent moisture resistance
- Excellent resistance to crush, compression cuts and heat deformation
- Excellent flame resistance
- Oil Res I & II
- “Heavy Duty” rating per ICEA standards
- Sunlight- and weather-resistant
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -40˚C

Compliances:
Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

UL LISTED

RoHS Compliant
Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

CHTC®

XLPE/XL-CPE, Low-Voltage Power, Unshielded 600 V, UL Type TC-ER[1]—Method 4 Color Code

Product Construction:

Conductor:
- 14 AWG thru 500 kcmil tinned, annealed copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 4; individual conductors colored black with conductor number surface printed in contrasting ink

Ground:
- Uninsulated tinned annealed copper per ASTM B3
- Class B stranding per ASTM B8

Jacket:
- Lead-free Cross-linked Chlorinated Polyethylene (XL-CPE)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for Exposed Run (ER) use in accordance with NEC for 2 AWG and larger
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90°C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical, thermal and electrical properties
- Excellent moisture resistance
- Excellent resistance to crush, compression cuts and heat deformation
- Excellent flame resistance
- Excellent low temperature cold bend characteristics
- "Heavy duty" rating per ICEA standards
- Sunlight- and weather-resistant
- Oil-resistant jacket
- Meets cold bend test at -40°C
- Meets the crush and impact requirements of Type MC cable for 2 AWG and larger

Compliances:
Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC-ER for 2 AWG and larger, UL File # E57179
- UL 1581
- ICEA S-95-658/NEMA WC70

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	COND. STRAND	GROUND WIRE SIZE (AWG)	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
					INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG - 500 kcmil CONDUCTORS														
383790*	3	14	7W	14	0.030	0.76	0.045	1.14	0.425	10.80	53	78	118	176
309340*	3	12	7W	12	0.030	0.76	0.045	1.14	0.475	12.07	85	126	160	238
282570*	3	10	7W	10	0.030	0.76	0.060	1.52	0.526	14.22	134	199	240	357
282580	3	8	7W	10	0.045	1.14	0.060	1.52	0.635	16.13	190	283	325	483
282590*	4	8	7W	10	0.045	1.14	0.060	1.52	0.705	17.91	242	360	405	603
282600	3	6	7W	8	0.045	1.14	0.060	1.52	0.720	18.29	301	448	481	716
282610*	4	6	7W	8	0.045	1.14	0.060	1.52	0.820	20.83	384	571	600	893
282620	3	4	7W	8	0.045	1.14	0.060	1.52	0.825	20.96	448	667	667	992
282630*	4	4	7W	8	0.045	1.14	0.060	1.52	0.950	24.13	578	861	905	1347
282640	3	2	7W	6	0.045	1.14	0.080	2.03	1.000	25.40	716	1066	1024	1524
282650*	4	2	7W	6	0.045	1.14	0.080	2.03	1.120	28.45	919	1368	1295	1927
366070*	3	1	19W	6	0.055	1.40	0.080	2.03	1.120	28.45	872	1298	1199	1784
366080*	4	1	19W	6	0.055	1.40	0.080	2.03	1.235	31.37	1136	1691	1704	2536
282660*	3	1/0	19W	6	0.055	1.40	0.080	2.03	1.215	30.86	1081	1609	1463	2177
338860*	4	1/0	19W	6	0.055	1.40	0.080	2.03	1.330	33.78	1413	2103	1830	2723
282670*	3	2/0	19W	6	0.055	1.40	0.080	2.03	1.310	33.27	1341	1996	1810	2694
292410*	4	2/0	19W	6	0.055	1.40	0.080	2.03	1.480	37.59	1760	2619	2326	3462
366090*	3	3/0	19W	4	0.055	1.40	0.080	2.03	1.420	36.07	1717	2555	2437	3627
366100*	4	3/0	19W	4	0.055	1.40	0.080	2.03	1.570	39.88	2245	3341	3123	4648
282680*	3	4/0	19W	4	0.055	1.40	0.080	2.03	1.540	39.12	2132	3173	2659	3957
338880*	4	4/0	19W	4	0.055	1.40	0.110	2.79	1.765	44.83	2796	4161	3909	5817
338890*	3	250	37W	4	0.065	1.65	0.110	2.79	1.740	44.20	2494	3712	3196	4756
338900*	4	250	37W	4	0.065	1.65	0.110	2.79	1.935	49.15	3282	4884	4571	6803
282690*	3	350	37W	3	0.065	1.65	0.110	2.79	2.010	51.05	3477	5174	4423	6582
338910*	4	350	37W	3	0.065	1.65	0.110	2.79	2.180	55.37	4577	6811	6068	9030
282710*	3	500	37W	2	0.065	1.65	0.110	2.79	2.305	58.55	4938	7349	6097	9074
331150*	4	500	37W	2	0.065	1.65	0.110	2.79	2.555	64.90	6509	9647	7905	11764

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 2 AWG and larger defined by NEC.

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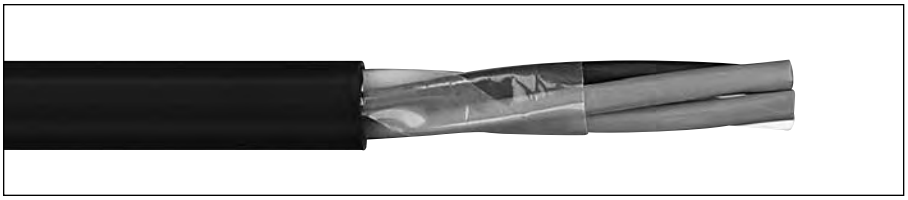
FREP®

FR-EPR/CPE, Control, Unshielded
600 V, UL Type TC-ER[1]—E-2 Color Code



CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG CONDUCTORS													
279560	2 Flat	14	7W	0.030	0.76	0.045	1.14	.365 x .230	9.30 x 5.80	26	38	61	91
305320*	2	14	7W	0.030	0.76	0.045	1.14	0.370	9.40	26	39	71	106
280180	3	14	7W	0.030	0.76	0.045	1.14	0.390	9.91	39	59	92	137
280190	4	14	7W	0.030	0.76	0.045	1.14	0.425	10.80	53	78	115	171
279870	5	14	7W	0.030	0.76	0.045	1.14	0.465	11.81	66	98	139	207
280200	7	14	7W	0.030	0.76	0.045	1.14	0.505	12.83	92	137	173	257
280210	9	14	7W	0.030	0.76	0.060	1.52	0.620	15.75	118	176	240	357
279880	12	14	7W	0.030	0.76	0.060	1.52	0.700	17.78	158	235	301	448
279580	19	14	7W	0.030	0.76	0.060	1.52	0.815	20.70	250	372	468	696
279590	25	14	7W	0.030	0.76	0.080	2.03	0.935	23.75	323	481	624	929
347080*	30	14	7W	0.030	0.76	0.080	2.03	1.030	26.16	387	576	747	1112
279600	37	14	7W	0.030	0.76	0.080	2.03	1.110	28.19	466	694	875	1302
12 AWG CONDUCTORS													
279840	2 Flat	12	7W	0.030	0.76	0.045	1.14	.400 x .245	10.20 x 6.20	40	60	82	122
307690*	2	12	7W	0.030	0.76	0.045	1.14	0.410	10.41	41	61	94	140
280170	3+ Grnd	12	7W	0.030	0.76	0.045	1.14	0.435	11.05	85	127	148	220
280300	3	12	7W	0.030	0.76	0.045	1.14	0.435	11.05	64	95	124	185
280310	4	12	7W	0.030	0.76	0.045	1.14	0.475	12.07	85	127	157	234
280320	5	12	7W	0.030	0.76	0.045	1.14	0.520	13.21	106	158	191	284
279890	7	12	7W	0.030	0.76	0.060	1.52	0.595	15.11	149	221	268	399
280330	9	12	7W	0.030	0.76	0.060	1.52	0.695	17.65	191	285	337	502
280340	12	12	7W	0.030	0.76	0.060	1.52	0.765	19.43	247	368	428	637
279610	19	12	7W	0.030	0.76	0.080	2.03	0.940	23.88	391	582	688	1024
295400*	25	12	7W	0.030	0.76	0.080	2.03	1.095	27.81	515	767	854	1271
347100*	30	12	7W	0.030	0.76	0.080	2.03	1.150	29.21	618	920	1002	1491
301870	37	12	7W	0.030	0.76	0.080	2.03	1.240	31.50	762	1134	1240	1845
10 AWG CONDUCTORS													
279570	2 Flat	10	7W	0.030	0.76	0.045	1.14	.445 x .270	11.30 x 6.90	64	95	113	168
305340*	2	10	7W	0.030	0.76	0.045	1.14	0.455	11.56	65	97	128	190
279680	3+ Grnd	10	7W	0.030	0.76	0.045	1.14	0.485	12.32	134	199	225	335
280410	3	10	7W	0.030	0.76	0.045	1.14	0.485	12.32	100	150	172	256
279900	4	10	7W	0.030	0.76	0.060	1.52	0.560	14.22	134	199	234	348
279620	5	10	7W	0.030	0.76	0.060	1.52	0.615	15.62	167	249	284	423
279630	7	10	7W	0.030	0.76	0.060	1.52	0.670	17.02	234	349	381	567
279640	9	10	7W	0.030	0.76	0.060	1.52	0.760	19.30	295	440	464	691
279650	12	10	7W	0.030	0.76	0.080	2.03	0.905	22.99	402	598	651	696

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.

Product Construction:

Conductor:
- 14 AWG thru 10 AWG fully annealed stranded tinned copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-Retardant Ethylene Propylene Rubber (FR-EPR) Type II
- Color-coded per ICEA Method 1, Table E-2 (does not include white or green)

Jacket:
- Lead-free, flame-retardant thermoplastic Chlorinated Polyethylene (CPE)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for Exposed Run (ER) use in accordance with NEC for 3 or more conductors
- Approved for direct burial
- Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical, thermal and electrical properties
- Sunlight- and weather-resistant
- Excellent moisture resistance
- Excellent resistance to compression cuts and heat deformation
- Low coefficient of friction for easy pulling
- Excellent flame resistance—burns to ash; does not exhibit thermoplastic drip
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -40˚C
- Meets the crush and impact requirements of Type MC cable for 3 or more conductors

Compliances:

Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC-ER for 3 or more conductors, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

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RoHS Compliant Directive 2011/65/EU

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FREP®

FR-EPR/CPE, Control, Unshielded
600 V, UL Type TC-ER[1]—E-1 Color Code

Product Construction:

Conductor:
- 14 AWG thru 10 AWG fully annealed stranded tinned copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-Retardant Ethylene Propylene Rubber (FR-EPR) Type II
- Color-coded per ICEA Method 1, Table E-1 (includes white or green)

Jacket:
- Lead-free, flame-retardant thermoplastic Chlorinated Polyethylene (CPE)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for Exposed Run (ER) use in accordance with NEC for 3 or more conductors
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- Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90°C wet or dry
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- Low coefficient of friction for easy pulling
- Excellent flame resistance—burns to ash; does not exhibit thermoplastic drip
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -40°C
- Meets the crush and impact requirements of Type MC cable for 3 or more conductors

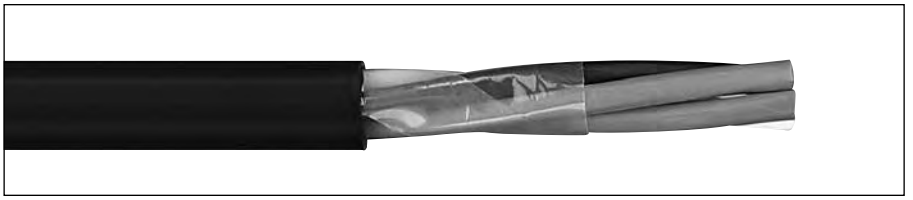
Compliances:

Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC-ER for 3 or more conductors, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels



CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG CONDUCTORS													
280590	2 Flat	14	7W	0.030	0.76	0.045	1.14	.365 x .230	9.30 x 5.80	26	38	61	91
280230	3	14	7W	0.030	0.76	0.045	1.14	0.390	9.91	39	59	92	137
280240	4	14	7W	0.030	0.76	0.045	1.14	0.425	10.80	53	78	115	171
280250	5	14	7W	0.030	0.76	0.045	1.14	0.465	11.81	66	98	139	207
280260	7	14	7W	0.030	0.76	0.045	1.14	0.505	12.83	92	137	173	257
280270	9	14	7W	0.030	0.76	0.060	1.52	0.620	15.75	118	176	240	357
280280	12	14	7W	0.030	0.76	0.060	1.52	0.700	17.78	158	235	301	448
280290*	19	14	7W	0.030	0.76	0.060	1.52	0.815	20.70	250	372	468	696
385350*	25	14	7W	0.030	0.76	0.080	2.03	0.935	23.75	323	481	624	929
385360*	30	14	7W	0.030	0.76	0.080	2.03	1.030	26.16	387	576	747	1112
385370*	37	14	7W	0.030	0.76	0.080	2.03	1.110	28.19	466	694	875	1302
12 AWG CONDUCTORS													
279850	2 Flat	12	7W	0.030	0.76	0.045	1.14	.400 x .245	10.20 x 6.20	42	63	82	122
280350*	2	12	7W	0.030	0.76	0.045	1.14	0.410	10.41	42	63	94	140
280360	3	12	7W	0.030	0.76	0.045	1.14	0.435	11.05	64	95	124	185
279910	4	12	7W	0.030	0.76	0.045	1.14	0.475	12.07	85	127	157	234
280370	5	12	7W	0.030	0.76	0.045	1.14	0.520	13.21	106	158	191	284
280380	7	12	7W	0.030	0.76	0.060	1.52	0.595	15.11	149	221	268	399
280390*	9	12	7W	0.030	0.76	0.060	1.52	0.695	17.65	191	285	337	502
280400	12	12	7W	0.030	0.76	0.060	1.52	0.765	19.43	247	368	428	637
383930*	19	12	7W	0.030	0.76	0.080	2.03	0.940	23.88	391	582	688	1024
383940*	25	12	7W	0.030	0.76	0.080	2.03	1.095	27.81	515	767	854	1271
383950*	30	12	7W	0.030	0.76	0.080	2.03	1.150	29.21	618	920	1002	1491
330800*	37	12	7W	0.030	0.76	0.080	2.03	1.240	31.50	762	1134	1240	1845
10 AWG CONDUCTORS													
280600*	2 Flat	10	7W	0.030	0.76	0.045	1.14	.445 x .270	11.30 x 6.90	64	95	113	168
280420*	2	10	7W	0.030	0.76	0.045	1.14	0.455	11.56	65	97	128	190
279920	3	10	7W	0.030	0.76	0.045	1.14	0.485	12.32	100	150	172	256
279930	4	10	7W	0.030	0.76	0.060	1.52	0.560	14.22	134	199	234	348
330990*	5	10	7W	0.030	0.76	0.060	1.52	0.615	15.62	167	249	284	423
280430*	7	10	7W	0.030	0.76	0.060	1.52	0.670	17.02	234	349	381	567
382880*	9	10	7W	0.030	0.76	0.060	1.52	0.760	19.30	295	440	464	691
383970*	12	10	7W	0.030	0.76	0.080	2.03	0.950	22.99	402	598	651	969

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.

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FREP®

FR-EPR/CPE, Control, Shielded
600 V, UL Type TC-ER[1], Overall Shielded—E-2 Color Code

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
OVERALL SHIELD 16 AWG CONDUCTORS													
280470	2	16	7W	0.025	0.64	0.045	1.14	0.320	8.13	19	28	52	77
280490	3	16	7W	0.025	0.64	0.045	1.14	0.335	8.51	27	40	66	98
OVERALL SHIELD 14 AWG CONDUCTORS													
280980*	2	14	7W	0.030	0.76	0.045	1.14	0.375	9.53	29	43	74	110
354800*	3	14	7W	0.030	0.76	0.045	1.14	0.395	10.03	42	63	95	141
305330*	4	14	7W	0.030	0.76	0.045	1.14	0.430	10.92	55	82	118	176
354810*	5	14	7W	0.030	0.76	0.045	1.14	0.470	11.94	68	101	142	211
354820*	7	14	7W	0.030	0.76	0.045	1.14	0.510	12.95	94	140	176	262
367120*	9	14	7W	0.030	0.76	0.060	1.52	0.625	15.88	121	180	243	362
354830*	12	14	7W	0.030	0.76	0.060	1.52	0.705	17.91	160	238	304	452
305360*	19	14	7W	0.030	0.76	0.060	1.52	0.820	20.83	252	375	471	701
367130*	25	14	7W	0.030	0.76	0.080	2.03	0.940	25.53	325	484	627	933
367140*	30	14	7W	0.030	0.76	0.080	2.03	1.035	26.29	389	579	750	1116
367150*	37	14	7W	0.030	0.76	0.080	2.03	1.115	28.32	468	696	878	1307
OVERALL SHIELD 12 AWG CONDUCTORS													
367160*	2	12	7W	0.030	0.76	0.045	1.14	0.415	10.45	43	64	97	144
367170*	3	12	7W	0.030	0.76	0.045	1.14	0.440	11.18	66	98	127	189
326650*	4	12	7W	0.030	0.76	0.045	1.14	0.480	12.19	87	129	160	238
367180*	5	12	7W	0.030	0.76	0.045	1.14	0.525	13.34	108	162	194	289
326660*	7	12	7W	0.030	0.76	0.060	1.52	0.600	15.24	151	225	271	403
367190*	9	12	7W	0.030	0.76	0.060	1.52	0.700	17.78	193	287	340	506
326640*	12	12	7W	0.030	0.76	0.060	1.52	0.770	19.56	249	371	431	641
326670*	19	12	7W	0.030	0.76	0.080	2.03	0.945	24.00	393	585	691	1028
367200*	25	12	7W	0.030	0.76	0.080	2.03	1.100	27.94	517	769	857	1275
367210*	30	12	7W	0.030	0.76	0.080	2.03	1.155	29.80	620	923	1005	1496
367220*	37	12	7W	0.030	0.76	0.080	2.03	1.245	31.62	764	1137	1243	1850
OVERALL SHIELD 10 AWG CONDUCTORS													
311900*	2	10	7W	0.030	0.76	0.045	1.14	0.460	11.68	68	101	131	195
367230*	3	10	7W	0.030	0.76	0.045	1.14	0.490	12.45	103	155	175	260
311910*	4	10	7W	0.030	0.76	0.060	1.52	0.565	14.35	136	202	237	353
367240*	5	10	7W	0.030	0.76	0.060	1.52	0.620	15.75	170	253	287	427
367250*	7	10	7W	0.030	0.76	0.060	1.52	0.675	17.15	237	353	384	571
367260*	9	10	7W	0.030	0.76	0.060	1.52	0.765	19.43	298	443	467	695
367270*	12	10	7W	0.030	0.76	0.080	2.03	0.910	23.11	404	601	654	973

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.

Product Construction:

Conductor:
- 16 AWG thru 10 AWG fully annealed stranded tinned copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-Retardant Ethylene Propylene Rubber (FR-EPR) Type II
- Color-coded per ICEA Method 1, Table E-2 (does not include white or green)

Shield:
Overall shielded multi-conductor cable
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant thermoplastic Chlorinated Polyethylene (CPE)

Applications:
- In free air, raceway and direct burial
- In wet or dry locations
- Permitted for Exposed Run (ER) use in accordance with NEC for 3 or more conductors
- Approved for direct burial
- Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical, thermal and electrical properties
- Sunlight- and weather-resistant
- Excellent moisture resistance
- Excellent resistance to compression cuts and heat deformation
- Low coefficient of friction for easy pulling
- Excellent flame resistance—burns to ash; does not exhibit thermoplastic drip
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -40˚C
- Meets the crush and impact requirements of Type MC cable for 3 conductors or more

Compliances:

Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC-ER for 3 or more conductors, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

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RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

FREP®

FR-EPR/CPE, Low-Voltage Power, Unshielded 600 V, UL Type TC-ER[1]—Method 4 Color Code

Product Construction:

Conductor:
- 14 AWG thru 750 kcmil tinned, annealed copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Flame-Retardant Ethylene Propylene Rubber (FR-EPR) Type II
- Color-coded per ICEA Method 4; individual conductors colored black with conductor number surface printed in contrasting ink

Ground:
- Uninsulated tinned annealed copper per ASTM B3
- Class B stranding per ASTM B8

Jacket:
- Lead-free, flame-retardant thermoplastic Chlorinated Polyethylene (CPE)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for Exposed Run (ER) use in accordance with NEC for 3 or more conductors
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical, thermal and electrical properties
- Excellent moisture resistance
- Excellent resistance to crush, compression cuts and heat deformation
- Excellent low temperature cold bend characteristics
- Excellent flame resistance—burns to ash; does not exhibit thermoplastic drip
- Low coefficient of friction for easy pulling
- Sunlight- and weather-resistant
- Meets cold bend test at -40˚C

Compliances:

Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC-ER, UL File # E57179
- UL 1581
- ICEA S-95-658/NEMA WC70

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	COND. STRAND	GROUND WIRE SIZE (AWG)	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
					INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG - 750 kcmil CONDUCTORS														
383830*	3	14	7W	14	0.030	0.76	0.045	1.14	0.390	9.91	55	82	118	176
296450*	3	12	7W	12	0.030	0.76	0.045	1.14	0.435	11.05	87	129	160	238
296440*	3	10	7W	10	0.030	0.76	0.060	1.52	0.485	12.32	136	202	237	353
279660	3	8	7W	10	0.045	1.14	0.060	1.52	0.655	16.64	190	283	314	467
279670	4	8	7W	10	0.045	1.14	0.060	1.52	0.720	18.29	242	360	393	585
283210	3	6	7W	8	0.045	1.14	0.060	1.52	0.740	18.80	297	442	456	679
300380	4	6	7W	8	0.045	1.14	0.060	1.52	0.790	20.07	384	571	561	835
283200	3	4	7W	8	0.045	1.14	0.060	1.52	0.825	20.96	442	658	642	955
295390	4	4	7W	8	0.045	1.14	0.060	1.52	0.950	24.13	578	861	822	1223
293600	3	2	7W	6	0.045	1.14	0.080	2.03	1.010	25.65	703	1046	979	1457
295890	4	2	7W	6	0.045	1.14	0.080	2.03	1.090	27.69	919	1368	1235	1838
297730*	3	1	19W	6	0.055	1.40	0.080	2.03	1.120	28.45	872	1298	1021	1594
356740*	4	1	19W	6	0.055	1.40	0.080	2.03	1.235	31.37	1136	1691	1521	2264
283220	3	1/0	19W	6	0.055	1.40	0.080	2.03	1.225	31.12	1069	1591	1439	2142
294530*	4	1/0	19W	6	0.055	1.40	0.080	2.03	1.330	33.78	1413	2103	1820	2709
284560	3	2/0	19W	6	0.055	1.40	0.080	2.03	1.300	33.02	1340	1994	1720	2560
295360*	4	2/0	19W	6	0.055	1.40	0.080	2.03	1.440	36.58	1760	2619	2208	3286
325700*	3	3/0	19W	4	0.055	1.40	0.080	2.03	1.420	36.07	1717	2555	2176	3238
365750*	4	3/0	19W	4	0.055	1.40	0.080	2.03	1.570	39.88	2245	3341	2788	3405
325110	3	4/0	19W	4	0.055	1.40	0.080	2.03	1.540	39.12	2130	3170	2614	3890
346980*	4	4/0	19W	4	0.055	1.40	0.110	2.79	1.790	45.47	2796	4161	3495	5201
300780	3	250	37W	4	0.065	1.65	0.110	2.79	1.760	44.70	2494	3712	3184	4738
346990*	4	250	37W	4	0.065	1.65	0.110	2.79	1.915	48.64	3282	4884	4019	5981
325120	3	350	37W	3	0.065	1.65	0.110	2.79	1.960	49.78	3474	5170	4187	6231
347000*	4	350	37W	3	0.065	1.65	0.110	2.79	2.165	5499	4577	6811	5436	8090
298020	3	500	37W	2	0.065	1.65	0.110	2.79	2.245	57.02	4934	7343	5847	8702
14407.546500*	4	500	37W	2	0.065	1.65	0.110	2.79	2.475	62.87	6509	9687	7607	11321
14407.247000*	3	750	61W	1	0.080	2.03	0.140	3.56	2.810	71.37	7278	10831	9145	13610
14407.547000*	4	750	61W	1	0.080	2.03	0.140	3.56	3.115	79.12	9712	14453	11805	17569

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.

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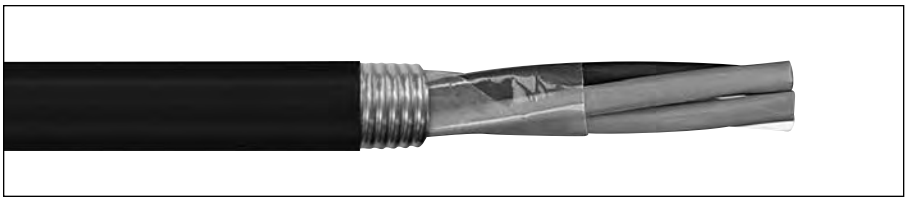
CCTC™

FR-XLPE/CPE, Control, Shielded
600 V, UL Type TC-ER[1] — E-1 Color Code



Product Construction:

Conductor:
- 14 AWG thru 10 AWG fully annealed stranded bare copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-Retardant Cross-linked Polyethene (FR-XLPE) insulation
- Color-coded per ICEA Method 1, Table E-1 (includes white or green)

Shield:
- Bare 5 mil corrugated copper tape longitudinally applied

Jacket:
- Lead-free, flame-retardant thermoplastic Chlorinated Polyethylene (CPE)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for Exposed Run (ER) use in accordance with NEC for 3 or more conductors
- Approved for direct burial
- Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90°C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical, thermal and electrical properties
- Sunlight- and weather-resistant
- Excellent moisture resistance
- Excellent resistance to compression cuts and heat deformation
- Low coefficient of friction for easy pulling
- Excellent flame resistance—burns to ash; does not exhibit thermoplastic drip

Features (cont'd.):
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -40°C
- Meets the crush and impact requirements of Type MC cable for 3 or more conductors

Compliances:

Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC-ER for 3 or more conductors, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG CONDUCTORS													
397310*	2	14	7W	0.030	0.76	0.045	1.14	0.440	11.18	50	74	96	143
397320*	3	14	7W	0.030	0.76	0.045	1.14	0.460	11.68	65	97	119	177
397330*	4	14	7W	0.030	0.76	0.045	1.14	0.495	12.57	80	119	143	213
397340*	5	14	7W	0.030	0.76	0.060	1.52	0.565	14.35	95	141	182	271
397350*	7	14	7W	0.030	0.76	0.060	1.52	0.605	15.37	123	183	227	338
397360*	9	14	7W	0.030	0.76	0.060	1.52	0.685	17.40	153	228	279	415
397370*	12	14	7W	0.030	0.76	0.060	1.52	0.760	19.30	196	292	349	519
12 AWG CONDUCTORS													
397380*	2	12	7W	0.030	0.76	0.045	1.14	0.480	12.19	67	100	119	177
397390*	3	12	7W	0.030	0.76	0.045	1.14	0.500	12.70	90	134	151	225
397400*	4	12	7W	0.030	0.76	0.060	1.52	0.570	14.48	112	167	199	296
397410*	5	12	7W	0.030	0.76	0.060	1.52	0.615	15.62	135	201	234	348
397420*	7	12	7W	0.030	0.76	0.060	1.52	0.660	16.76	177	263	297	442
397430*	9	12	7W	0.030	0.76	0.060	1.52	0.755	19.18	225	335	370	551
397440*	12	12	7W	0.030	0.76	0.060	1.52	0.835	21.21	291	433	468	696
10 AWG CONDUCTORS													
397450*	2	10	7W	0.030	0.76	0.060	1.52	0.555	14.10	94	140	167	248
397460*	3	10	7W	0.030	0.76	0.060	1.52	0.580	14.73	129	192	215	320
397470*	4	10	7W	0.030	0.76	0.060	1.52	0.630	16.00	164	244	264	393
397480*	5	10	7W	0.030	0.76	0.060	1.52	0.680	17.27	201	299	317	472
397490*	7	10	7W	0.030	0.76	0.060	1.52	0.730	18.54	269	400	408	607
397500*	9	10	7W	0.030	0.76	0.080	2.03	0.885	22.48	342	509	547	814
397510*	12	10	7W	0.030	0.76	0.080	2.03	0.975	24.77	444	661	691	1028

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.

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General Cable
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CCTC™

FR-XLPE/CPE, Low-Voltage Power, Shielded 600 V, UL Type TC-ER[1] — Method 4 Color Code

Product Construction:

Conductor:
- 8 AWG thru 2 AWG bare, annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-Retardant Cross-linked Polyethylene (FR-XLPE) insulation
- Color-coded per ICEA Method 4; individual conductors colored black with conductor number surface printed in contrasting ink

Shield:
- Bare 5 mil corrugated copper tape longitudinally applied

Ground:
- Uninsulated bare annealed copper per ASTM B3

Jacket:
- Lead-free, flame-retardant thermoplastic Chlorinated Polyethylene (CPE)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for Exposed Run (ER) use in accordance with NEC for 3 or more conductors
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC

Features:
- Rated at 90°C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical, thermal and electrical properties
- Excellent moisture resistance
- Excellent resistance to crush, compression cuts and heat deformation
- Excellent low temperature cold bend characteristics
- Excellent flame resistance—burns to ash; does not exhibit thermoplastic drip
- Low coefficient of friction for easy pulling
- Sunlight- and weather-resistant
- Meets cold bend test at -40°C

Compliances:

Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC-ER, UL File # E57179
- UL 1581
- ICEA S-95-658/NEMA WC70

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	GROUND WIRE SIZE (AWG)	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
					INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
8 AWG - 2 AWG CONDUCTORS														
397520*	3	8	7W	10	0.045	1.14	0.060	1.52	0.715	18.16	229	341	356	530
397530*	4	8	7W	10	0.045	1.14	0.060	1.52	0.775	19.69	283	421	435	647
397540*	3	6	7W	8	0.045	1.14	0.060	1.52	0.790	20.07	336	500	483	719
397550*	4	6	7W	8	0.045	1.14	0.080	2.03	0.905	22.99	421	626	634	943
397560*	3	4	7W	8	0.045	1.14	0.080	2.03	0.935	23.75	499	743	711	1058
397570*	4	4	7W	8	0.045	1.14	0.080	2.03	1.020	25.91	636	946	888	1321
397580*	3	2	7W	6	0.045	1.14	0.080	2.03	1.060	26.92	755	1123	1007	1498
397590*	4	2	7W	6	0.045	1.14	0.080	2.03	1.160	29.46	964	1434	1267	1885

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.

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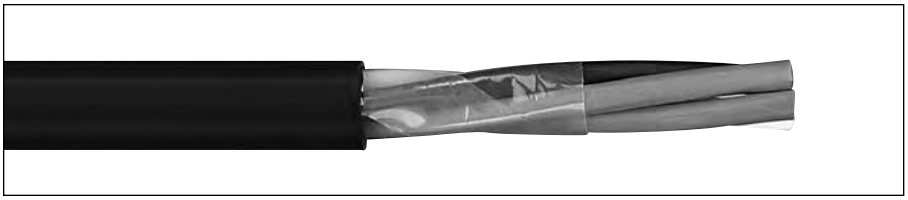
CVTC®

XLPE/PVC, Control, Unshielded
600 V, UL Type TC-ER[1]—E-2 Color Code



CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG CONDUCTORS													
770460	2 Flat	14	7W	0.030	0.76	0.045	1.14	.235 x .370	5.97 x 9.40	25	37	62	92
771080*	2	14	7W	0.030	0.76	0.045	1.14	0.365	9.27	25	37	73	109
770530	3	14	7W	0.030	0.76	0.045	1.14	0.390	9.91	40	59	93	138
770610	4	14	7W	0.030	0.76	0.045	1.14	0.425	10.80	53	79	116	173
770420	5	14	7W	0.030	0.76	0.045	1.14	0.465	11.81	66	99	140	208
770560	7	14	7W	0.030	0.76	0.045	1.14	0.590	14.99	93	138	176	262
770540	9	14	7W	0.030	0.76	0.060	1.52	0.620	15.75	119	177	245	365
770470	12	14	7W	0.030	0.76	0.060	1.52	0.680	17.27	159	237	302	449
770550	19	14	7W	0.030	0.76	0.060	1.52	0.800	20.32	252	375	460	685
770450*	25	14	7W	0.030	0.76	0.080	2.03	0.985	25.02	323	481	641	954
295320*	30	14	7W	0.030	0.76	0.080	2.03	1.050	26.67	387	571	740	1101
770430*	37	14	7W	0.030	0.76	0.080	2.03	1.130	28.70	490	729	888	1322
12 AWG CONDUCTORS													
770480	2 Flat	12	7W	0.030	0.76	0.045	1.14	.245 x .400	6.22 x 10.16	40	60	86	128
346920*	2	12	7W	0.030	0.76	0.045	1.14	0.410	10.41	41	61	96	143
365720	3+ Grnd	12	7W	0.030	0.76	0.045	1.14	0.435	11.05	86	128	143	213
770570	3	12	7W	0.030	0.76	0.045	1.14	0.435	11.05	65	96	125	186
770490	4	12	7W	0.030	0.76	0.045	1.14	0.475	12.07	86	128	157	234
770410	5	12	7W	0.030	0.76	0.045	1.14	0.515	13.08	108	160	191	284
770950	7	12	7W	0.030	0.76	0.060	1.52	0.595	15.11	150	224	260	387
770580	9	12	7W	0.030	0.76	0.060	1.52	0.695	17.65	193	288	340	506
770520	12	12	7W	0.030	0.76	0.060	1.52	0.780	19.81	258	385	429	638
770700*	19	12	7W	0.030	0.76	0.080	2.03	0.930	23.62	403	600	681	1013
347110*	25	12	7W	0.030	0.76	0.080	2.03	1.095	27.81	515	767	885	1317
347120*	30	12	7W	0.030	0.76	0.080	2.03	1.150	29.21	618	920	1005	1496
347130*	37	12	7W	0.030	0.76	0.080	2.03	1.240	31.50	741	1103	1185	1764
10 AWG CONDUCTORS													
770590	2 Flat	10	7W	0.030	0.76	0.045	1.14	.290 x .480	7.37 x 12.19	66	98	114	170
346930*	2	10	7W	0.030	0.76	0.045	1.14	0.455	11.56	67	100	130	193
770670	3+ Grnd	10	7W	0.030	0.76	0.045	1.14	0.485	12.32	135	200	201	299
770600	3	10	7W	0.030	0.76	0.045	1.14	0.485	12.32	101	150	173	257
770370	4	10	7W	0.030	0.76	0.060	1.52	0.515	13.08	135	200	236	351
770380	5	10	7W	0.030	0.76	0.060	1.52	0.615	15.62	167	249	287	427
770900	7	10	7W	0.030	0.76	0.060	1.52	0.670	17.02	234	349	371	552
770390*	9	10	7W	0.030	0.76	0.060	1.52	0.785	19.94	295	440	479	713
770400	12	10	7W	0.030	0.76	0.080	2.03	0.895	22.73	402	598	644	958

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.

Product Construction:

Conductor:
- 14 AWG thru 10 AWG fully annealed stranded bare copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1, Table E-2 (does not include white or green)

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- In free air, raceways and direct burial
- In wet or dry locations
- Approved for direct burial
- Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC for 3 or more conductors

Features:
- Rated at 90°C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent electrical properties
- Abrasion- and chemical-resistant
- Sunlight- and weather-resistant
- Meets cold bend test at -25°C
- Meets the crush and impact requirements of Type MC cable

Compliances:
Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC-ER for 3 or more conductors, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- ICEA T-29-520
- CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

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RoHS Compliant
Directive 2011/65/EU

General Cable
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www.generalcable.com

CVTC®

XLPE/PVC, Low-Voltage Power, Unshielded 600 V, UL Type TC-ER[1]—Method 4 Color Code

Product Construction:

Conductor:
- 14 AWG thru 750 kcmil bare, annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 4; individual conductors colored black with conductor number surface printed in contrasting ink

Ground:
- Uninsulated bare annealed copper per ASTM B3

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Abrasion- and chemical-resistant
- Excellent electrical properties
- Sunlight- and weather-resistant
- Meets cold bend test at -25˚C
- Meets the crush and impact requirements of Type MC cable

Compliances:
Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC-ER, UL File # E57179
- UL 1581
- ICEA S-95-658/NEMA WC70

Compliances (cont'd.):
Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- ICEA T-29-520
- CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	COND. STRAND	GROUND WIRE SIZE (AWG)	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
					INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG - 750 kcmil CONDUCTORS														
383860*	3	14	7W	14	0.030	0.76	0.045	1.14	0.390	9.91	53	79	116	173
383870*	3	12	7W	12	0.030	0.76	0.045	1.14	0.435	11.05	86	128	157	234
383880*	3	10	7W	10	0.030	0.76	0.060	1.52	0.485	12.32	135	200	236	351
783160	3	8	7W	10	0.045	1.14	0.060	1.52	0.640	16.26	190	283	314	467
783190	4	8	7W	10	0.045	1.14	0.060	1.52	0.705	17.91	242	360	385	573
339470	3	6	7W	8	0.045	1.14	0.060	1.52	0.720	18.29	301	448	445	662
339480	4	6	7W	8	0.045	1.14	0.060	1.52	0.790	20.07	384	571	558	830
783330	3	4	7W	8	0.045	1.14	0.060	1.52	0.825	20.96	448	667	653	972
339500*	4	4	7W	8	0.045	1.14	0.060	1.52	0.950	24.13	578	862	820	1220
325610	3	2	7W	6	0.045	1.14	0.080	2.03	1.000	25.40	716	1066	964	1435
339520*	4	2	7W	6	0.045	1.14	0.080	2.03	1.095	27.81	919	1368	1214	1807
352150*	3	1	19W	6	0.055	1.40	0.080	2.03	1.120	28.45	872	1298	1199	1784
371250*	4	1	19W	6	0.055	1.40	0.080	2.03	1.235	31.37	1136	1691	1704	2536
339530	3	1/0	19W	6	0.055	1.40	0.080	2.03	1.215	30.86	1081	1609	1414	2104
339540*	4	1/0	19W	6	0.055	1.40	0.080	2.03	1.340	34.04	1413	2103	1825	2716
339550	3	2/0	19W	6	0.055	1.40	0.080	2.03	1.310	33.27	1341	1996	1706	2539
339560*	4	2/0	19W	6	0.055	1.40	0.080	2.03	1.450	36.83	1760	2619	2223	3308
371260*	3	3/0	19W	4	0.055	1.40	0.080	2.03	1.420	36.07	1717	2555	2437	3627
371270*	4	3/0	19W	4	0.055	1.40	0.080	2.03	1.570	39.88	2245	3341	3123	4648
783230	3	4/0	19W	4	0.055	1.40	0.080	2.03	1.540	39.12	2132	3173	2600	3869
339570*	4	4/0	19W	4	0.055	1.40	0.110	2.79	1.765	44.83	2796	4161	3444	5125
328540*	3	250	37W	4	0.065	1.65	0.110	2.79	1.750	44.45	2494	3712	3142	4676
339590*	4	250	37W	4	0.065	1.65	0.110	2.79	1.930	49.02	3282	4884	4048	6024
222570	3	350	37W	3	0.065	1.65	0.110	2.79	1.970	50.04	3474	5170	4230	6295
339600*	4	350	37W	3	0.065	1.65	0.110	2.79	2.180	55.37	4577	6811	5470	8140
222710	3	500	37W	2	0.065	1.65	0.110	2.79	2.250	57.15	4938	7349	5829	8675
06790.086500*	4	500	37W	2	0.065	1.65	0.110	2.79	2.475	62.87	6509	9687	7579	11279
06790.077000*	3	750	61W	1	0.080	2.03	0.140	3.56	2.810	71.37	7278	10831	9101	13544
06790.047000*	4	750	61W	1	0.080	2.03	0.140	3.56	3.115	79.12	9712	14453	11746	17480

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.

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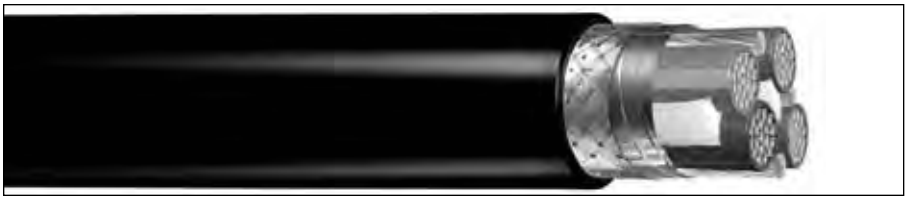
CVTC® VFD - Flexible Motor Supply Cable

XLPE/PVC, Low-Voltage Power, Al/Polyester/Al + TC Braid Shielded, 1000 V UL Flexible Motor Supply and WTTC, 600 V UL Type TC-ER—Method 4 Color Code w/Green/Yellow Ground



Product Construction:

Conductor:
- 16 AWG thru 10 AWG tinned copper per ASTM B33. Class K stranding per ASTM B172
- 8 AWG thru 2 AWG tinned copper per ASTM B33. Class H stranding per ASTM B173

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE) 90°C, VW-1
- Color-coded per ICEA Method 4; individual conductors colored black with conductor number surface printed in contrasting ink

Ground:
- One full-sized green/yellow insulated ground, same AWG size as circuit conductors

Metallic Shield:
- Overall aluminum/polyester/aluminum shield with 25% minimum overlap in conjunction with overall tinned copper braid with 85% coverage and full-sized tinned copper drain wire(s)

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Colored jackets available upon request
- 2000 V rated designs

Applications:
- For use with AC motors controlled by pulse-width modulated inverter in VFD applications rated up to 1000 V
- In free air, raceways or direct burial
- For use in aerial, conduit, open tray and underground duct/installations
- Permitted for use in Class I, Div. 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC

Features:
- Rated at 90°C wet or dry
- Combination foil/braid shield provides maximum shield coverage required for Variable Frequency Drive (VFD) applications

Features (cont'd.):
- Meets cold bend test at -25°C
- TC-ER listing meets crush and impact requirements for Type MC cables
- Abrasion- and chemical-resistant
- Stable electrical properties over a broad temperature range
- UV/sunlight-resistant
- Flexible strand conductors for all sizes to allow for ease of installation and long-term performance in light duty flexing applications

Compliances:
Industry Compliances:
- UL 2277 1000 V Flexible Motor Supply Cable and 1000 V Wind Turbine Tray Cable
- UL 1277 600 V Type TC-ER UL File # E57179
- UL 44 Type RHH or RHW-2 conductors
- ICEA S-95-658/NEMA WC70
- CSA C22.2 No. 210 1000 V AWM I/II A/B FT4 SR

Flame Test Compliances:
- UL 1581 VW-1
- IEEE 1202/CSA FT4
- UL 1685

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	COND. STRAND	INSULATED GROUND WIRE SIZE (AWG)	DRAIN WIRE NUMBER X SIZE (AWG)	NOMINAL CONDUCTOR DIAMETER		MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		NET WEIGHT	
						INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km
16 AWG - 2 AWG CONDUCTORS															
438070†	3	16	26W	16	1 x 16	0.057	1.40	0.045	1.14	0.045	1.14	0.535	13.59	175	260
438080	3	14	41W	14	1 x 14	0.071	1.80	0.045	1.14	0.060	1.52	0.608	15.44	213	317
438090	3	12	65W	12	1 x 12	0.088	2.20	0.045	1.14	0.060	1.52	0.653	16.59	285	424
438100	3	10	105W	10	1 x 10	0.112	2.80	0.045	1.14	0.060	1.52	0.690	17.53	362	539
438110	3	8	133W	8	4 x 14	0.164	4.17	0.060	1.52	0.080	2.03	0.931	23.65	638	949
438120	3	6	133W	6	4 x 12	0.204	5.18	0.060	1.52	0.080	2.03	1.028	26.11	894	1330
438130	3	4	133W	4	4 x 10	0.260	6.60	0.060	1.52	0.080	2.03	1.163	29.54	1202	1789
438140	3	2	133W	2	4 x 8	0.327	8.31	0.060	1.52	0.080	2.03	1.314	33.38	1665	2478

Dimensions and weights are nominal, subject to industry tolerances.
† 16 AWG conductors are not listed as RHH or RHW-2.

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CVTC® VFD - Flexible Motor Supply Cable

XLPE/PVC, Low-Voltage Power, Al/Polyester/Al TC Braid Shielded, 1000 V UL Flexible Motor Supply and WTTC, 600 V UL Type TC-ER—Method 4 Color Code w/Green/Yellow Ground and Signal Pair

Product Construction:

Conductor:
- 16 AWG to 10 AWG tinned copper per ASTM B33
- Class K stranding per ASTM B172

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE) 90°C, VW-1
- Color-coded per ICEA Method 4; individual conductors colored black with conductor number surface printed in contrasting ink

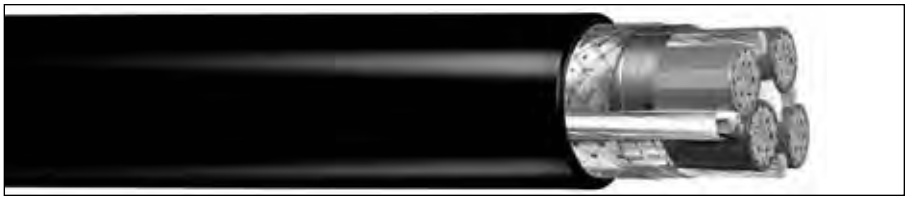
Ground:
- One full-sized green/yellow insulated ground, same AWG size as circuit conductors

Metallic Shield:
- Overall aluminum/polyester/aluminum shield with 25% minimum overlap in conjunction with overall tinned copper braid with 85% coverage and full-sized tinned copper drain wire(s)

Signal Pair for Brake:
- One 16 AWG (26 x 30) tinned copper signal pair with an overall aluminum foil shield and 18 AWG drain wire
- Black/White color code

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Colored jackets available upon request
- 2000 V rated designs



Applications:
- For use with AC motors controlled by pulse-width modulated inverter in VFD applications rated up to 1000 V
- In free air, raceways or direct burial
- For use in aerial, conduit, open tray and underground duct/installations
- Permitted for use in Class I, Div. 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC

Features:
- Rated at 90°C wet or dry
- Combination foil/braid shield provides maximum shield coverage required for Variable Frequency Drive (VFD) applications
- Meets cold bend test at -25°C
- TC-ER listing meets crush and impact requirements for Type MC cables
- Abrasion- and chemical-resistant
- Stable electrical properties over a broad temperature range
- UV/sunlight-resistant
- Flexible strand conductors for all sizes to allow for ease of installation and long-term performance in light duty flexing applications

Compliances:
Industry Compliances:
- UL 2277 1000 V Flexible Motor Supply Cable and 1000 V Wind Turbine Tray Cable
- UL 1277 600 V Type TC-ER UL File # E57179
- UL 44 Type RHH or RHW-2 conductors
- ICEA S-95-658/NEMA WC70
- CSA C22.2 No. 210 1000 V AWM I/II A/B FT4 SR

Flame Test Compliances:
- UL 1581 VW-1
- IEEE 1202/CSA FT4
- UL 1685

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	COND. STRAND	INSULATED GROUND WIRE SIZE (AWG)	DRAIN WIRE SIZE (AWG)	SIGNAL PAIR (AWG)	NOMINAL CONDUCTOR DIAMETER		MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		NET WEIGHT	
							INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km
16 AWG - 10 AWG CONDUCTORS																
438150±	3	16	26W	16	16	16	0.057	1.40	0.045	1.14	0.060	1.52	0.750	19.05	324	482
438160*	3	14	41W	14	14	16	0.071	1.80	0.045	1.14	0.060	1.52	0.823	20.90	340	506
438170*	3	12	65W	12	12	16	0.088	2.20	0.045	1.14	0.080	2.03	0.909	23.09	438	652
438180*	3	10	105W	10	10	16	0.112	2.80	0.045	1.14	0.080	2.03	0.997	25.32	563	838

Dimensions and weights are nominal, subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult customer service for price and delivery.
± 16 AWG conductors are not listed as RHH or RHW-2.

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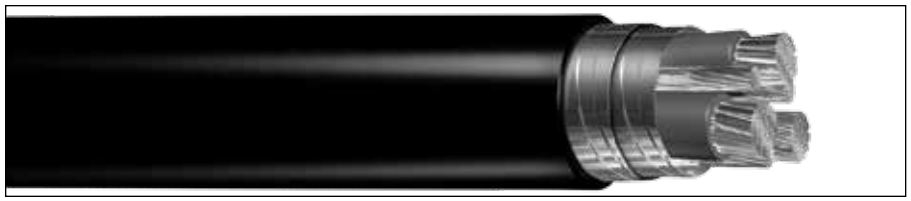
CVTC® VFD - Flexible Motor Supply Cable

XLPE/PVC, Low-Voltage Power, Dual Copper Tape Shielded, 1000 V UL Flexible Motor Supply and WTTC, 600 V UL Type TC-ER—Method 4 Color Code



Product Construction:

Conductor:
- 1 AWG thru 4/0 AWG tinned copper
- Class I stranding per ASTM B33, B172

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE) 90°C, VW-1
- Color-coded per ICEA Method 4; individual conductors colored black with conductor number surface printed in contrasting ink

Ground:
- Three symmetrical stranded annealed bare copper grounds per ASTM B8

Metallic Shield:
- Two spirally applied 2 mil copper tapes providing 100% coverage

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Colored jackets available upon request

Applications:
- For use with AC motors controlled by pulse-width modulated inverter in VFD applications rated up to 1000 V
- In free air, raceways or direct burial
- For use in aerial, conduit, open tray and underground duct/installations
- Permitted for use in Class I, Div. 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC

Features:
- Rated at 90°C wet or dry
- Dual copper tape shield provides 100% shield coverage

Features (cont'd.):
- Meets cold bend test at -25°C
- TC-ER rating meets crush and impact requirements for Type MC cables
- Abrasion- and chemical-resistant
- Stable electrical properties over a broad temperature range
- UV/sunlight-resistant
- Flexible strand conductors for all sizes to allow for ease of installation

Compliances:
Industry Compliances:
- UL 2277 1000 V Flexible Motor Supply Cable and 1000 V Wind Turbine Tray Cable
- UL 1277 600 V Type TC-ER UL File # E57179
- UL 44 Type XHHW-2 conductors
- ICEA S-95-658/NEMA WC70
- CSA C22.2 No. 210 1000 V AWM I/II A/B FT4 SR

Flame Test Compliances:
- UL 1581 VW-1
- IEEE 1202/CSA FT4
- UL 1685

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	COND. STRAND	GROUND WIRE SIZE (AWG)	NOMINAL CONDUCTOR DIAMETER		MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		NET WEIGHT	
					INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km
1 AWG - 4/0 AWG CONDUCTORS														
438190*	3	1	224W	3 x 6	0.380	9.65	0.055	1.40	0.080	2.03	1.205	30.61	1610	2396
438200	3	1/0	273W	3 x 4	0.410	10.41	0.055	1.40	0.080	2.03	1.295	32.89	2020	3006
438210	3	2/0	323W	3 x 4	0.470	11.90	0.055	1.40	0.080	2.03	1.408	35.76	2325	3460
438220*	3	3/0	456W	3 x 4	0.549	13.94	0.055	1.40	0.080	2.03	1.524	38.71	2680	3988
438230	3	4/0	551W	3 x 2	0.593	14.70	0.055	1.40	0.110	2.80	1.682	42.72	3694	5497

Dimensions and weights are nominal, subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult customer service for price and delivery.

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CVTC® VFD

XLPE/PVC, Low-Voltage Power, Shielded
2000 V, UL Type TC-ER[1]—Method 4 Color Code

Product Construction:

Conductor:
- 14 AWG thru 500 kcmil fully annealed tinned stranded copper
- Class B stranding per ASTM B8

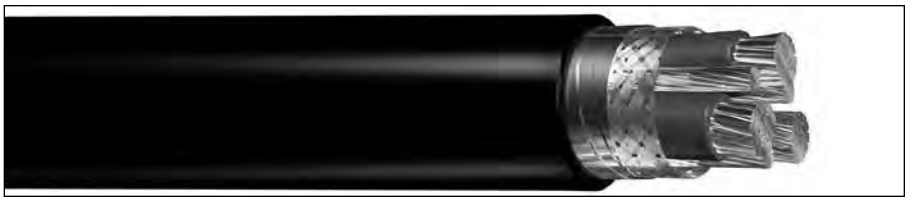
Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)—90°C, VW-1
- Color-coded per ICEA Method 4; individual conductors colored black with conductor number surface printed in contrasting ink

Ground:
- 3 symmetrically placed annealed tinned copper conductors in direct contact with shield
- Class B stranding per ASTM B8

Dual Shield:
- Overall tinned copper braided shield in conjunction with an aluminum/polymer tape shield

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- For use with AC motors controlled by pulse-width modulated inverter in VFD applications rated up to 2000 volts. These motor drive systems require cables that are designed to prevent radio frequency interference (RFI) which can lead to malfunction



Applications (cont'd.):
- In raceways, cable trays or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC

Features:
- Rated at 90°C wet or dry
- Dual shield provides maximum shield coverage required for Variable Frequency Drive (VFD) applications
- Meets cold bend test at -25°C
- Meets crush and impact requirements to Type MC cable
- Abrasion- and chemical-resistant
- Excellent electrical properties
- Sunlight- and weather-resistant

Compliances:
Industry Compliances:
- UL 1277 Type TC-ER, UL File # E57179
- UL Type RHH or RHW-2 conductors per UL 44

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	COND. STRAND	GROUND WIRE SIZE (AWG)	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
					INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG - 500 kcmil CONDUCTORS														
384730*	3	14	7W	3 x 18	0.060	1.52	0.060	1.52	0.565	14.35	79	118	190	283
384740*	3	12	7W	3 x 16	0.060	1.52	0.060	1.52	0.605	15.37	114	170	236	351
384750*	3	10	7W	3 x 14	0.060	1.52	0.060	1.52	0.665	16.89	172	256	313	466
384760*	3	8	7W	3 x 14	0.070	1.78	0.060	1.52	0.785	19.94	234	348	420	625
384770*	3	6	7W	3 x 12	0.070	1.78	0.080	2.03	0.910	23.11	354	527	605	900
384780*	3	4	7W	3 x 12	0.070	1.78	0.080	2.03	1.010	25.65	507	755	800	1191
384790*	3	2	7W	3 x 10	0.070	1.78	0.080	2.03	1.315	28.83	783	1165	1126	1676
384800*	3	1/0	19W	3 x 6	0.090	2.29	0.080	2.03	1.390	35.31	1251	1861	1832	2726
384810*	3	2/0	19W	3 x 6	0.090	2.29	0.080	2.03	1.490	37.85	1511	2248	2134	3175
384820*	3	3/0	19W	3 x 5	0.090	2.29	0.080	2.03	1.595	40.51	1897	2823	2553	3799
384830*	3	4/0	19W	3 x 4	0.090	2.29	0.110	2.79	1.775	45.09	2355	3504	3254	4842
384840*	3	250	37W	3 x 4	0.105	2.67	0.110	2.79	1.940	49.28	2719	4046	3726	5544
384850*	3	350	37W	3 x 2	0.105	2.67	0.110	2.79	2.160	54.86	3883	5778	5040	7500
384860*	3	500	37W	3 x 1	0.105	2.67	0.110	2.79	2.440	61.98	5507	8194	6809	10132

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.

General Cable
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CVTC® VFD

XLPE/PVC, Low-Voltage Power, Copper Tape Shielded 2000 V, UL Type TC-ER[1]—Method 4 Color Code

Product Construction:

Conductor:
- 14 AWG thru 500 kcmil fully annealed bare stranded copper
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)—90°C, VW-1
- Color-coded per ICEA Method 4; individual conductors colored black with conductor number surface printed in contrasting ink

Ground:
- 3 symmetrically placed annealed bare copper conductors in direct contact with shield
- Class B stranding per ASTM B8

Metallic Shield:
- Overall 5 mil annealed bare copper tape shield with 50% overlap

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- For use with AC motors controlled by pulse-width modulated inverter in VFD applications rated up to 2000 volts. These motor drive systems require cables that are designed to prevent radio frequency interference (RFI) which can lead to malfunction
- In raceways, cable trays or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC

Features:
- Rated at 90°C wet or dry
- Overlapped bare copper tape shield provides necessary shield coverage required for Variable Frequency Drive (VFD) applications
- Meets cold bend test at -25°C
- Meets crush and impact requirements for Type MC cable
- Abrasion- and chemical-resistant
- Excellent electrical properties
- Sunlight- and weather-resistant

Compliances:
Industry Compliances:
- UL 1277 Type TC-ER, 2000 V, UL File # E57179
- UL Type RHH or RHW-2 conductors per UL 44

Flame Test Compliances:
- UL 1581/UL 2556 VW-1
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	COND. STRAND	GROUND WIRE SIZE (AWG)	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
					INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG - 500 kcmil CONDUCTORS														
395070V	3	14	7W	3 x 18	0.060	1.52	0.060	1.52	0.580	14.73	91	135	212	315
395080V	3	12	7W	3 x 16	0.060	1.52	0.060	1.52	0.615	15.37	127	189	260	387
395090V	3	10	7W	3 x 14	0.060	1.52	0.060	1.52	0.670	17.02	183	272	329	490
395100V	3	8	7W	3 x 14	0.070	1.78	0.060	1.52	0.770	19.56	246	366	441	656
395110V	3	6	7W	3 x 12	0.070	1.78	0.080	2.03	0.895	22.73	368	548	618	920
395120V	3	4	7W	3 x 12	0.070	1.78	0.080	2.03	0.995	25.27	522	777	830	1235
395130V	3	2	7W	3 x 10	0.070	1.78	0.080	2.03	1.125	28.58	801	1192	1152	1714
395140V	3	1/0	19W	3 x 6	0.090	2.29	0.080	2.03	1.385	35.18	1348	2006	1853	2757
395150V	3	2/0	19W	3 x 6	0.090	2.29	0.080	2.03	1.480	37.59	1616	2405	2169	3227
395160V*	3	3/0	19W	3 x 5	0.090	2.29	0.080	2.03	1.590	40.39	2010	2991	2619	3897
395170V	3	4/0	19W	3 x 4	0.090	2.29	0.110	2.79	1.780	45.21	2517	3745	3241	4823
395180V*	3	250	37W	3 x 4	0.105	2.67	0.110	2.79	1.940	49.28	2895	4308	3763	5599
395190V	3	350	37W	3 x 2	0.105	2.67	0.110	2.79	2.160	54.86	4089	6084	5109	7602
395200V	3	500	37W	3 x 1	0.105	2.67	0.110	2.79	2.455	62.36	5693	8471	6933	10316

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.

RoHS Compliant
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General Cable
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VNTC®

PVC/Nylon/PVC, Control, Unshielded
600 V, UL Type TC-ER[1] (18 AWG/16 AWG)—E-2 Color Code

Product Construction:

Conductor:
- 18 AWG and 16 AWG fully annealed stranded bare copper to ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC) with Polyamide (nylon)
- Color-coded per ICEA Method 1, Table E-2 plus alpha-numeric printed numbers (does not include white or green)

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Approved for direct burial
- Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC for 3 or more conductors

Features:
- Rated at 90˚C dry, 75˚C wet
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Provides outstanding sunlight, cold bend and cold impact resistance
- Offers the smallest cable O.D. available for suitable applications
- Provides long service life
- Provides good oil and chemical resistance
- Meets cold bend test at -25˚C
- Meets the crush and impact requirements of Type MC cable

Compliances:
Industry Compliances:
- UL 66 NEC Type TFN conductors
- UL 1277 Type TC-ER for 3 or more conductors, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57

Flame Test Compliances:
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
18 AWG CONDUCTORS													
236090	2 Flat	18	7W	0.020	0.51	0.045	1.14	.190 x .285	4.80 x 7.20	10	15	36	54
318050*	2	18	7W	0.020	0.51	0.045	1.14	0.270	6.86	11	19	38	57
245920	3	18	7W	0.020	0.51	0.045	1.14	0.285	7.24	15	23	46	68
236100	4	18	7W	0.020	0.51	0.045	1.14	0.310	7.87	20	30	56	83
244680	5	18	7W	0.020	0.51	0.045	1.14	0.335	8.51	26	38	65	97
244660	7	18	7W	0.020	0.51	0.045	1.14	0.360	9.14	36	53	82	122
264570*	9	18	7W	0.020	0.51	0.045	1.14	0.420	10.67	46	69	105	156
233270*	10	18	7W	0.020	0.51	0.045	1.14	0.425	10.80	51	76	114	170
236120	12	18	7W	0.020	0.51	0.045	1.14	0.445	11.30	61	91	131	195
244720*	15	18	7W	0.020	0.51	0.045	1.14	0.485	12.32	77	114	162	241
236130	19	18	7W	0.020	0.51	0.060	1.52	0.570	14.48	97	144	209	311
236140*	25	18	7W	0.020	0.51	0.060	1.52	0.655	16.64	128	190	266	396
347140*	30	18	7W	0.020	0.51	0.060	1.52	0.695	17.65	154	229	310	461
236150	37	18	7W	0.020	0.51	0.060	1.52	0.745	18.92	189	281	371	552
16 AWG CONDUCTORS													
236160	2 Flat	16	7W	0.020	0.51	0.045	1.14	.200 x .310	5.08 x 7.87	16	24	42	71
245580	2	16	7W	0.020	0.51	0.045	1.14	0.300	7.62	20	29	50	74
236170	3	16	7W	0.020	0.51	0.045	1.14	0.315	8.00	24	36	60	89
236180	4	16	7W	0.020	0.51	0.045	1.14	0.340	8.64	32	48	74	110
236190	5	16	7W	0.020	0.51	0.045	1.14	0.370	9.40	40	60	97	144
236210	7	16	7W	0.020	0.51	0.045	1.14	0.400	10.16	56	84	111	165
243640	9	16	7W	0.020	0.51	0.045	1.14	0.460	11.68	72	108	141	210
236230*	10	16	7W	0.020	0.51	0.045	1.14	0.495	12.57	80	119	154	229
236240	12	16	7W	0.020	0.51	0.045	1.14	0.505	12.83	97	144	178	265
244650*	15	16	7W	0.020	0.51	0.060	1.52	0.605	15.37	121	180	239	356
236260*	19	16	7W	0.020	0.51	0.060	1.52	0.635	16.13	153	228	284	423
236280*	25	16	7W	0.020	0.51	0.060	1.52	0.705	17.91	201	299	364	542
244670*	30	16	7W	0.020	0.51	0.060	1.52	0.760	19.30	242	360	426	634
236290*	37	16	7W	0.020	0.51	0.080	2.03	0.880	22.35	306	455	552	821

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.

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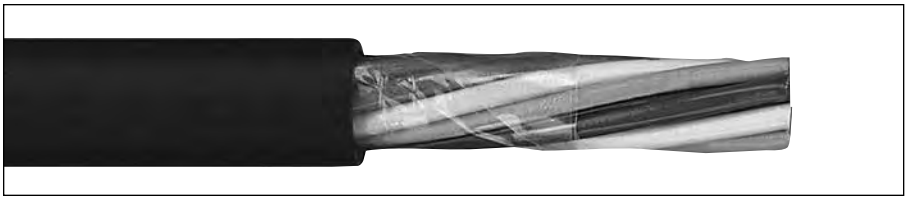
VNTC®

PVC/Nylon/PVC, Control, Unshielded
600 V, UL Type TC-ER[1] (14 AWG—10 AWG)—E-2 Color Code



CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG CONDUCTORS													
235040	2 Flat	14	7W	0.020	0.51	0.045	1.14	.210 x .320	5.33 x 8.13	25	37	54	80
245590*	2	14	7W	0.020	0.51	0.045	1.14	0.320	8.13	26	39	64	95
235050	3	14	7W	0.020	0.51	0.045	1.14	0.345	8.76	39	58	80	119
235060	4	14	7W	0.020	0.51	0.045	1.14	0.365	9.27	52	77	100	149
235070	5	14	7W	0.020	0.51	0.045	1.14	0.410	10.41	65	97	118	176
235080	7	14	7W	0.020	0.51	0.045	1.14	0.445	11.30	90	134	153	228
235090	9	14	7W	0.020	0.51	0.060	1.52	0.505	12.83	116	173	213	317
235110	12	14	7W	0.020	0.51	0.060	1.52	0.595	15.11	155	231	267	397
235130	19	14	7W	0.020	0.51	0.060	1.52	0.695	17.65	245	365	396	589
235150	25	14	7W	0.020	0.51	0.060	1.52	0.785	19.94	323	481	507	755
235160*	30	14	7W	0.020	0.51	0.080	2.03	0.895	22.73	387	576	637	948
235170	37	14	7W	0.020	0.51	0.080	2.03	0.970	24.64	478	711	766	1140
12 AWG CONDUCTORS													
234580	2 Flat	12	7W	0.020	0.51	0.045	1.14	.225 x .360	5.72 x 9.14	40	60	74	110
260150*	2	12	7W	0.020	0.51	0.045	1.14	0.355	9.02	41	61	85	127
234590	3	12	7W	0.020	0.51	0.045	1.14	0.385	9.78	62	92	131	195
255090	3+Grnd	12	7W	0.020	0.51	0.045	1.14	0.385	9.78	83	124	131	195
277460[2]	3	12	7W	0.020	0.51	0.045	1.14	0.385	9.78	62	92	131	195
234600	4	12	7W	0.020	0.51	0.045	1.14	0.420	10.67	83	124	138	205
226420	5	12	7W	0.020	0.51	0.045	1.14	0.445	11.30	108	160	165	246
234620	7	12	7W	0.020	0.51	0.045	1.14	0.490	12.45	144	214	217	323
226500	9	12	7W	0.020	0.51	0.060	1.52	0.605	15.37	185	275	297	442
234640	12	12	7W	0.020	0.51	0.060	1.52	0.675	17.15	247	368	377	561
243600*	19	12	7W	0.020	0.51	0.060	1.52	0.785	19.94	391	582	568	845
243610*	25	12	7W	0.020	0.51	0.080	2.03	0.940	23.88	515	767	775	1153
321720*	30	12	7W	0.020	0.51	0.080	2.03	1.030	26.16	618	920	919	1368
234680*	37	12	7W	0.020	0.51	0.080	2.03	1.105	28.07	762	1134	1100	1637
10 AWG CONDUCTORS													
236300	2 Flat	10	7W	0.026	0.66	0.045	1.14	.260 x .425	6.60 x 10.80	64	95	108	161
243630*	2	10	7W	0.026	0.66	0.045	1.14	0.420	10.67	65	97	115	171
236310	3	10	7W	0.026	0.66	0.045	1.14	0.450	11.43	131	195	191	284
255080	3+Grnd	10	7W	0.026	0.66	0.045	1.14	0.450	11.43	131	195	191	284
236320	4	10	7W	0.026	0.66	0.045	1.14	0.505	12.83	135	200	209	311
236330	5	10	7W	0.026	0.66	0.060	1.52	0.570	14.48	169	252	268	399
236340	7	10	7W	0.026	0.66	0.060	1.52	0.620	15.75	236	351	350	521
243620*	9	10	7W	0.026	0.66	0.060	1.52	0.725	18.42	295	440	440	655
236350*	12	10	7W	0.026	0.66	0.060	1.52	0.815	20.70	404	602	584	869

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.
[2] Color Code: black, white, green.

Product Construction:

Conductor:
- 14 AWG thru 10 AWG fully annealed stranded bare copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC) with Polyamide (nylon)
- Color-coded per ICEA Method 1, Table E-2 plus alpha-numeric printed numbers (does not include white or green)

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- In free air, raceways and direct burial
- In wet or dry locations
- Approved for direct burial
- Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC for 3 or more conductors

Features:
- Rated at 90˚C dry, 75˚C wet
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Provides outstanding sunlight, cold bend and cold impact resistance
- Offers the smallest cable O.D. available for suitable applications
- Provides long service life
- Provides good oil and chemical resistance
- Meets cold bend test at -25˚C
- Meets the crush and impact requirements of Type MC cable

Compliances:

Industry Compliances:
- UL 83 NEC Type THHN/THWN conductors
- UL 1277 Type TC-ER for 3 or more conductors, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57

Flame Test Compliances:
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

UL LISTED

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

VNTC®

PVC/Nylon/PVC, Control, Shielded
600 V, UL Type TC-ER[1], Overall Shielded—E-2 Color Code

Product Construction:

Conductor:
- 18 AWG thru 10 AWG fully annealed stranded bare copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC) with Polyamide (nylon)
- Color-coded per ICEA Method 1, Table E-2 plus alpha-numeric printed numbers (does not include white or green)

Shield:
Overall shielded multi-conductor
- Overall shield is Flexfoil® aluminum/polymer, in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- In free air, raceways and direct burial
- In wet or dry locations
- Approved for direct burial
- Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC for 3 or more conductors

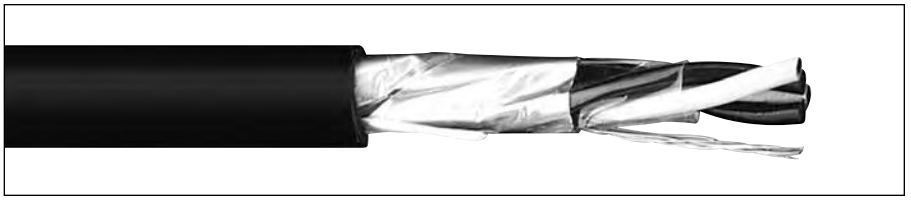
Features:
- Rated at 90˚C dry, 75˚C wet
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Provides outstanding sunlight, cold bend and cold impact resistance
- Offers the smallest cable O.D. available for suitable applications
- Provides long service life
- Provides good oil and chemical resistance
- Meets cold bend test at -25˚C
- Meets the crush and impact requirements of Type MC cable

Compliances:
Industry Compliances:
- UL 1277 Type TC-ER for 3 or more conductors, UL File # E57179
- UL 1581
- UL 66 NEC Type TFN conductors (16 & 18 AWG)
- UL 83 NEC Type THHN/THWN conductors (14 through 10 AWG)
- ICEA S-73-532/NEMA WC57

Flame Test Compliances:
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels



CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
OVERALL SHIELD 18 AWG CONDUCTORS													
261130	2	18	7W	0.020	0.51	0.045	1.14	0.280	7.11	12	19	40	60
261140	3	18	7W	0.020	0.51	0.045	1.14	0.290	7.37	18	26	49	73
261150	4	18	7W	0.020	0.51	0.045	1.14	0.310	7.87	23	34	58	86
260000*	5	18	7W	0.020	0.51	0.045	1.14	0.340	8.64	28	41	70	104
259980*	7	18	7W	0.020	0.51	0.045	1.14	0.370	9.40	39	58	89	132
OVERALL SHIELD 16 AWG CONDUCTORS													
247620	2	16	7W	0.020	0.51	0.045	1.14	0.300	7.62	20	29	52	77
261160	3	16	7W	0.020	0.51	0.045	1.14	0.320	8.13	28	41	63	94
243710	4	16	7W	0.020	0.51	0.045	1.14	0.350	8.89	36	53	77	115
266580*	5	16	7W	0.020	0.51	0.045	1.14	0.370	9.40	44	65	91	135
243740*	7	16	7W	0.020	0.51	0.045	1.14	0.410	10.41	60	89	119	177
243560*	9	16	7W	0.020	0.51	0.045	1.14	0.470	11.97	76	113	150	223
229600*	12	16	7W	0.020	0.51	0.045	1.14	0.510	12.95	100	149	185	275
OVERALL SHIELD 14 AWG CONDUCTORS													
243660	2	14	7W	0.020	0.51	0.045	1.14	0.330	8.38	31	46	67	100
243720	3	14	7W	0.020	0.51	0.045	1.14	0.350	8.89	44	65	84	125
243650	4	14	7W	0.020	0.51	0.045	1.14	0.380	9.65	57	85	104	155
243570*	5	14	7W	0.020	0.51	0.045	1.14	0.400	10.16	70	104	123	183
243580	7	14	7W	0.020	0.51	0.045	1.14	0.440	11.18	96	142	161	240
OVERALL SHIELD 12 AWG CONDUCTORS													
243670	2	12	7W	0.020	0.51	0.045	1.14	0.370	9.40	43	64	83	124
243810*	3	12	7W	0.020	0.51	0.045	1.14	0.390	9.91	64	95	111	165
243840	4	12	7W	0.020	0.51	0.045	1.14	0.420	10.67	85	126	139	207
OVERALL SHIELD 10 AWG CONDUCTORS													
243770*	2	10	7W	0.026	0.66	0.045	1.14	0.430	10.92	68	101	119	177
243820*	3	10	7W	0.026	0.66	0.045	1.14	0.460	11.68	101	150	162	241
243690*	4	10	7W	0.026	0.66	0.045	1.14	0.500	12.70	133	198	205	305

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as TYPE TC-ER for Exposed Run applications of 3 or more conductors as defined by NEC.

General Cable
Phone: 888-593-3355
www.generalcable.com

RoHS Compliant
Directive 2011/65/EU

UL LISTED

VNTC®

PVC/Nylon/PVC, Low-Voltage Power, Unshielded 600 V, UL Type TC-ER[1] — Method 4 Color Code

Product Construction:

Conductor:
- 14 AWG thru 500 kcmil bare, annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC) with Polymide (nylon)
- Color-coded per ICEA Method 4; individual conductors colored black with conductor number surface printed in contrasting ink

Ground:
- Uninsulated bare annealed copper per ASTM B3

Jacket:
- Lead-free, flame-retardant, sunlight-resistant Polyvinyl Chloride (PVC)

Applications:
- In free air, raceways or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with NEC

Features:
- Rated at 90˚C dry, 75˚C wet
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Provides outstanding sunlight, cold bend and cold impact resistance
- Offers the smallest cable O.D. available for suitable applications
- Provides good oil and chemical resistance
- Provides a long service life
- Meets cold bend test at -25˚C
- Meets the crush and impact requirements of Type MC cable

Compliances:
Industry Compliances:
- NEC Type THHN/THWN conductors
- UL 1277 Type TC-ER, UL File # E57179
- UL 1581
- ICEA S-95-658/NEMA WC70

Flame Test Compliances:
- UL 1685 Vertical Flame Test
- IEEE 383
- IEEE 1202
- CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	COND. STRAND	GROUND WIRE SIZE (AWG)	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
					INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG - 500 kcmil CONDUCTORS														
383890*	3	14	7W	14	0.020	0.51	0.045	1.14	0.345	8.76	52	77	100	149
234250	3	12	7W	12	0.020	0.51	0.045	1.14	0.385	9.78	86	128	138	205
234260	3	10	7W	10	0.020	0.51	0.045	1.14	0.450	11.43	135	200	209	311
386700**	3	10	7W	10	0.020	0.51	0.045	1.14	0.450	11.43	135	200	209	311
236370	3	8	7W	10	0.036	0.91	0.060	1.52	0.600	15.24	189	281	308	458
236380	4	8	7W	10	0.036	0.91	0.060	1.52	0.655	16.64	241	359	373	555
226410	3	6	7W	8	0.036	0.91	0.060	1.52	0.690	17.53	300	446	434	646
231980	4	6	7W	8	0.036	0.91	0.060	1.52	0.760	19.30	383	570	533	793
236400	3	4	7W	8	0.048	1.22	0.080	2.03	0.875	22.28	446	664	650	967
236410*	4	4	7W	8	0.048	1.22	0.080	2.03	0.970	24.64	578	860	824	1226
236420	3	2	7W	6	0.048	1.22	0.080	2.03	1.000	25.40	710	1057	964	1435
236430*	4	2	7W	6	0.048	1.22	0.080	2.03	1.100	27.94	919	1368	1227	1826
236440	3	1/0	19W	6	0.059	1.50	0.080	2.03	1.225	31.12	1080	1607	1447	2153
219580*	4	1/0	19W	6	0.059	1.50	0.080	2.03	1.360	34.54	1413	2103	1830	2723
243760	3	2/0	19W	6	0.059	1.50	0.080	2.03	1.320	33.53	1340	1994	1754	2610
219610*	4	2/0	19W	6	0.059	1.50	0.080	2.03	1.455	36.96	1760	2619	2252	3351
221560	3	4/0	19W	4	0.059	1.50	0.080	2.03	1.545	39.24	2130	3170	2630	3914
329240*	4	4/0	19W	4	0.059	1.50	0.110	2.79	1.770	44.96	2796	4161	3502	5212
222490	3	250	37W	4	0.070	1.78	0.110	2.79	1.740	44.20	2494	3696	3177	4728
297050*	4	250	37W	4	0.070	1.78	0.110	2.79	1.945	49.40	3281	4883	4107	6112
226430	3	350	37W	3	0.070	1.78	0.110	2.79	1.990	50.55	3474	5170	4263	6344
297060*	4	350	37W	3	0.070	1.78	0.110	2.79	2.190	55.63	4586	6825	5585	8312
219630	3	500	37W	2	0.070	1.78	0.110	2.79	2.270	57.66	4934	7343	5890	8765
222510*	4	500	37W	2	0.070	1.78	0.110	2.79	2.505	63.63	6509	9687	7694	11450

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
** E-2 Color Code.
[1] Approved as TYPE TC-ER for Exposed Run applications as defined by NEC.

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General Cable
Phone: 888-593-3355
www.generalcable.com

GenFree®

XLPE/LSZH, Control
600 V, UL Type TC-LS-ER[1]—E-2 Color Code

Product Construction:

Conductor:
- 14 AWG thru 10 AWG stranded tinned copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Lead-free, flame-retardant, low-smoke Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1, Table E-2 (does not include white or green)

Jacket:
- Lead-free, flame-retardant, sunlight-resistant, Low-Smoke, Zero-Halogen Polyolefin (LSZH)

Applications:
- In free air, raceways, aerial or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with the NEC for 3 or more conductors

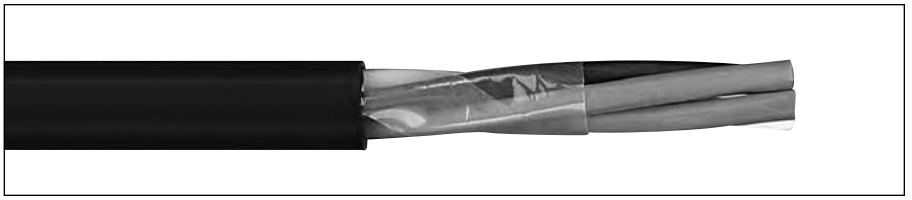
Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical and electrical properties
- Excellent moisture resistance
- Excellent resistance to compression and impact
- Chemical-resistant
- Low coefficient of friction for easy pulling
- Sunlight- and weather-resistant
- Meets cold bend test at -30˚C
- Low-Smoke, Zero-Halogen jacket is environmentally safe
- Low-Smoke, Zero-Halogen jacket reduces the amount of toxic and corrosive gases emitted during combustion, providing a safer environment for personnel and equipment during the hazards of fire
- Meets the crush and impact requirements of Type MC cable for 3 or more conductors

Compliances:
Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC-LS-ER, UL File # E57179
- UL 1581
- ICEA S-73-532/NEMA WC57
- ICEA T-33-655

Flame Test Compliances:
- UL 1581/UL 2556
- UL 1685 Vertical Flame Test
- IEEE 1202

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels



CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG CONDUCTORS													
394280	2 Flat	14	7W	0.030	0.76	0.045	1.14	.365 x .230	9.30 x 5.80	26	38	61	91
394290*	2	14	7W	0.030	0.76	0.045	1.14	0.370	9.40	26	39	71	106
394300	3	14	7W	0.030	0.76	0.045	1.14	0.390	9.91	39	59	92	137
394310*	4	14	7W	0.030	0.76	0.045	1.14	0.425	10.80	53	78	115	171
394320	5	14	7W	0.030	0.76	0.045	1.14	0.465	11.81	66	98	139	207
394330	7	14	7W	0.030	0.76	0.045	1.14	0.505	12.83	92	137	173	257
394340*	9	14	7W	0.030	0.76	0.060	1.52	0.620	15.75	118	176	240	357
394350*	12	14	7W	0.030	0.76	0.060	1.52	0.700	17.78	158	235	301	448
394360*	19	14	7W	0.030	0.76	0.060	1.52	0.815	20.70	250	372	468	696
394370*	25	14	7W	0.030	0.76	0.080	2.03	0.935	23.75	323	481	624	929
394380*	30	14	7W	0.030	0.76	0.080	2.03	1.030	26.16	387	576	747	1112
394390*	37	14	7W	0.030	0.76	0.080	2.03	1.110	28.19	466	694	875	1302
12 AWG CONDUCTORS													
394400*	2 Flat	12	7W	0.030	0.76	0.045	1.14	.400 x .245	10.20 x 6.20	40	60	82	122
394410*	2	12	7W	0.030	0.76	0.045	1.14	0.410	10.41	41	61	94	140
394420[2]	3+ Grnd	12	7W	0.030	0.76	0.045	1.14	0.435	11.05	85	127	148	220
394430	3	12	7W	0.030	0.76	0.045	1.14	0.435	11.05	64	95	124	185
394440*	4	12	7W	0.030	0.76	0.045	1.14	0.475	12.07	85	127	157	234
394450*	5	12	7W	0.030	0.76	0.045	1.14	0.520	13.21	106	158	191	284
394460*	7	12	7W	0.030	0.76	0.060	1.52	0.595	15.11	149	221	268	399
394470*	9	12	7W	0.030	0.76	0.060	1.52	0.695	17.65	191	285	337	502
394480*	12	12	7W	0.030	0.76	0.060	1.52	0.765	19.43	247	368	428	637
394490*	19	12	7W	0.030	0.76	0.080	2.03	0.940	23.88	391	582	688	1024
394500*	25	12	7W	0.030	0.76	0.080	2.03	1.095	27.81	515	767	854	1271
394510*	30	12	7W	0.030	0.76	0.080	2.03	1.150	29.21	618	920	1002	1491
394520*	37	12	7W	0.030	0.76	0.080	2.03	1.240	31.50	762	1134	1240	1845
10 AWG CONDUCTORS													
394530*	2 Flat	10	7W	0.030	0.76	0.045	1.14	.445 x .270	11.30 x 6.90	64	95	113	168
394540*	2	10	7W	0.030	0.76	0.045	1.14	0.455	11.56	65	97	128	190
394550[2]	3+ Grnd	10	7W	0.030	0.76	0.045	1.14	0.485	12.32	134	199	225	335
394560	3	10	7W	0.030	0.76	0.045	1.14	0.485	12.32	100	150	172	256
394570	4	10	7W	0.030	0.76	0.060	1.52	0.560	14.22	134	199	234	348
394580*	5	10	7W	0.030	0.76	0.060	1.52	0.615	15.62	167	249	284	423
394590*	7	10	7W	0.030	0.76	0.060	1.52	0.670	17.02	234	349	381	567
394600*	9	10	7W	0.030	0.76	0.060	1.52	0.760	19.30	295	440	464	691
394610*	12	10	7W	0.030	0.76	0.080	2.03	0.905	22.99	402	598	651	696

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as -ER for Exposed Run applications of 3 or more conductors as defined by the NEC.
[2] This construction does not require an -ER mark.

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GenFree®

XLPE/LSZH, Control, Shielded
600 V, UL Type TC-LS-ER[1], Overall Shielded—E-2 Color Code

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. STRAND	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
OVERALL SHIELD 16 AWG CONDUCTORS													
394960*	2	16	7W	0.025	0.64	0.045	1.14	0.320	8.13	19	28	52	77
394630*	3	16	7W	0.025	0.64	0.045	1.14	0.335	8.51	27	40	66	98
OVERALL SHIELD 14 AWG CONDUCTORS													
394640*	2	14	7W	0.030	0.76	0.045	1.14	0.375	9.53	29	43	74	110
394650*	3	14	7W	0.030	0.76	0.045	1.14	0.395	10.03	42	63	95	141
394660*	4	14	7W	0.030	0.76	0.045	1.14	0.430	10.92	55	82	118	176
394670*	5	14	7W	0.030	0.76	0.045	1.14	0.470	11.94	68	101	142	211
394680*	7	14	7W	0.030	0.76	0.045	1.14	0.510	12.95	94	140	176	262
394690*	9	14	7W	0.030	0.76	0.060	1.52	0.625	15.88	121	180	243	362
394700*	12	14	7W	0.030	0.76	0.060	1.52	0.705	17.91	160	238	304	452
394710*	19	14	7W	0.030	0.76	0.060	1.52	0.820	20.83	252	375	471	701
394720*	25	14	7W	0.030	0.76	0.080	2.03	0.940	25.53	325	484	627	933
394730*	30	14	7W	0.030	0.76	0.080	2.03	1.035	26.29	389	579	750	1116
394740*	37	14	7W	0.030	0.76	0.080	2.03	1.115	28.32	468	696	878	1307
OVERALL SHIELD 12 AWG CONDUCTORS													
394750*	2	12	7W	0.030	0.76	0.045	1.14	0.415	10.45	43	64	97	144
394760*	3	12	7W	0.030	0.76	0.045	1.14	0.440	11.18	66	98	127	189
394770*	4	12	7W	0.030	0.76	0.045	1.14	0.480	12.19	87	129	160	238
394780*	5	12	7W	0.030	0.76	0.045	1.14	0.525	13.34	108	162	194	289
394790*	7	12	7W	0.030	0.76	0.060	1.52	0.600	15.24	151	225	271	403
394800*	9	12	7W	0.030	0.76	0.060	1.52	0.700	17.78	193	287	340	506
394810*	12	12	7W	0.030	0.76	0.060	1.52	0.770	19.56	249	371	431	641
394820*	19	12	7W	0.030	0.76	0.080	2.03	0.945	24.00	393	585	691	1028
394830*	25	12	7W	0.030	0.76	0.080	2.03	1.100	27.94	517	769	857	1275
394840*	30	12	7W	0.030	0.76	0.080	2.03	1.155	29.80	620	923	1005	1496
394850*	37	12	7W	0.030	0.76	0.080	2.03	1.245	31.62	764	1137	1243	1850
OVERALL SHIELD 10 AWG CONDUCTORS													
394860*	2	10	7W	0.030	0.76	0.045	1.14	0.460	11.68	68	101	131	195
394870*	3	10	7W	0.030	0.76	0.045	1.14	0.490	12.45	103	155	175	260
394880*	4	10	7W	0.030	0.76	0.060	1.52	0.565	14.35	136	202	237	353
394890*	5	10	7W	0.030	0.76	0.060	1.52	0.620	15.75	170	253	287	427
394900*	7	10	7W	0.030	0.76	0.060	1.52	0.675	17.15	237	353	384	571
394910*	9	10	7W	0.030	0.76	0.060	1.52	0.765	19.43	298	443	467	695
394920*	12	10	7W	0.030	0.76	0.080	2.03	0.910	23.11	404	601	654	973

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
[1] Approved as -ER for Exposed Run applications of 3 or more conductors as defined by the NEC.

Product Construction:

Conductor:
- 16 AWG thru 10 AWG stranded tinned copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Lead-free, flame-retardant, low-smoke Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1, Table E-2 (does not include white or green)

Shield:
Overall shielded multi-conductor cable
- Overall shield is Flexfoil® aluminum/polymer in contact with stranded tinned copper drain wire

Jacket:
- Lead-free, flame-retardant, sunlight-resistant, Low-Smoke, Zero-Halogen Polyolefin (LSZH)

Applications:
- In free air, raceway, aerial and direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with the NEC for 3 or more conductors

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical and electrical properties
- Excellent moisture resistance
- Excellent resistance to compression and impact
- Chemical-resistant
- Low coefficient of friction for easy pulling
- Sunlight- and weather-resistant
- Meets cold bend test at -30˚C
- Low-Smoke, Zero-Halogen jacket is environmentally safe
- Low-Smoke, Zero-Halogen jacket reduces the amount of toxic and corrosive gases emitted during combustion, providing a safer environment for personnel and equipment during the hazards of fire
- Meets the crush and impact requirements of Type MC cable for 3 or more conductors

Compliances:
Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC-LS-ER, UL File # E57179
- UL 1581/UL 2556
- ICEA S-73-532/NEMA WC57
- ICEA T-33-655

Flame Test Compliances:
- UL 1581/UL 2556
- UL 1685 Vertical Flame Test
- IEEE 1202

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

UL LISTED

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

GenFree®

XLPE/LSZH, Low-Voltage Power, Unshielded
600 V, UL Type TC-LS-ER—Method 4 Color Code

Product Construction:

Conductor:
- 14 AWG thru 750 kcmil tinned annealed copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Lead-free, flame-retardant, low-smoke Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 4; individual conductors colored black with conductor number surface printed in contrasting ink

Ground:
- Uninsulated tinned annealed copper per ASTM B33
- Class B stranding per ASTM B8

Jacket:
- Lead-free, flame-retardant, sunlight-resistant, Low-Smoke, Zero-Halogen Polyolefin (LSZH)

Applications:
- In free air, raceways, aerial or direct burial
- In wet or dry locations
- Permitted for use in Class I, Division 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) use in accordance with the NEC

Features:
- Rated at 90˚C wet or dry
- Ripcord applied to all cables with jacket thickness of 60 mils or less
- Excellent physical, thermal and electrical properties
- Excellent moisture resistance
- Excellent resistance to crush, compression and impact
- Chemical-resistant
- Low coefficient of friction for easy pulling
- Sunlight- and weather-resistant
- Meets cold bend test at -30˚C
- Low-Smoke, Zero-Halogen jacket is environmentally safe
- Low-Smoke, Zero-Halogen jacket reduces the amount of toxic and corrosive gases emitted during combustion, providing a safer environment for personnel and equipment during the hazards of fire

Compliances:
Industry Compliances:
- UL 44 Type XHHW-2
- UL 1277 Type TC-LS-ER, UL File # E57179
- UL 1581/UL 2556
- ICEA S-95-658/NEMA WC70
- ICEA T-33-655

Flame Test Compliances:
- UL 1581/UL 2556
- UL 1685 Vertical Flame Test
- IEEE 1202

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	COND. STRAND	GROUND WIRE SIZE (AWG)	MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
					INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km
14 AWG - 750 kcmil CONDUCTORS														
394930*	3	14	7W	14	0.030	0.76	0.045	1.14	0.390	9.91	55	82	118	176
394940*	3	12	7W	12	0.030	0.76	0.045	1.14	0.435	11.05	87	129	160	238
394950*	3	10	7W	10	0.030	0.76	0.045	1.14	0.485	12.32	124	184	194	289
14428.030800	3	8	7W	10	0.045	1.14	0.060	1.52	0.655	16.64	190	283	314	467
14428.040800*	4	8	7W	10	0.045	1.14	0.060	1.52	0.720	18.29	242	360	393	585
14428.030600	3	6	7W	8	0.045	1.14	0.060	1.52	0.740	18.80	297	442	456	679
14428.040600*	4	6	7W	8	0.045	1.14	0.060	1.52	0.790	20.07	384	571	561	835
14428.030400	3	4	7W	8	0.045	1.14	0.080	2.03	0.880	22.35	442	658	642	955
14428.040400*	4	4	7W	8	0.045	1.14	0.080	2.03	0.950	24.13	578	861	822	1223
14428.030200	3	2	7W	6	0.045	1.14	0.080	2.03	1.010	25.65	703	1046	979	1457
14428.040200*	4	2	7W	6	0.045	1.14	0.080	2.03	1.090	27.69	919	1368	1235	1838
14428.030100*	3	1	19W	6	0.055	1.40	0.080	2.03	1.120	28.45	872	1298	1021	1594
14428.040100*	4	1	19W	6	0.055	1.40	0.080	2.03	1.235	31.37	1136	1691	1521	2264
14428.035100	3	1/0	19W	6	0.055	1.40	0.080	2.03	1.225	31.12	1069	1591	1439	2142
14428.045100*	4	1/0	19W	6	0.055	1.40	0.080	2.03	1.330	33.78	1413	2103	1820	2709
14428.035200	3	2/0	19W	6	0.055	1.40	0.080	2.03	1.300	33.02	1340	1994	1720	2560
14428.045200*	4	2/0	19W	6	0.055	1.40	0.080	2.03	1.440	36.58	1760	2619	2208	3286
14428.035300*	3	3/0	19W	4	0.055	1.40	0.080	2.03	1.420	36.07	1717	2555	2176	3238
14428.045300*	4	3/0	19W	4	0.055	1.40	0.080	2.03	1.570	39.88	2245	3341	2788	3405
14428.035400	3	4/0	19W	4	0.055	1.40	0.080	2.03	1.540	39.12	2130	3170	2614	3890
14428.045400*	4	4/0	19W	4	0.055	1.40	0.110	2.79	1.790	45.47	2796	4161	3495	5201
14428.036000*	3	250	37W	4	0.065	1.65	0.110	2.79	1.760	44.70	2494	3712	3184	4738
14428.046000*	4	250	37W	4	0.065	1.65	0.110	2.79	1.915	48.64	3282	4884	4019	5981
14428.036200	3	350	37W	3	0.065	1.65	0.110	2.79	1.960	49.78	3474	5170	4187	6231
14428.046200*	4	350	37W	3	0.065	1.65	0.110	2.79	2.165	54.99	4577	6811	5436	8090
14428.036500	3	500	37W	2	0.065	1.65	0.110	2.79	2.245	57.02	4934	7343	5847	8702
14428.046500*	4	500	37W	2	0.065	1.65	0.110	2.79	2.475	62.87	6509	9687	7607	11321
14428.037000*	3	750	61W	1	0.080	2.03	0.140	3.56	2.810	71.37	7278	10831	9145	13610
14428.047000*	4	750	61W	1	0.080	2.03	0.140	3.56	3.115	79.12	9712	14453	11805	17569

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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RoHS Compliant
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Notes

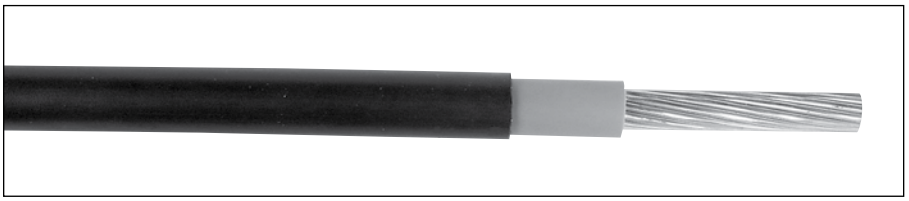
600 V – 2 kV Industrial Power Cables

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
5050†	DuraSheath® High Speed	EPR/XL-CPE, Low-Voltage Power, Unshielded 600 V, UL Type RHH/RHW-2/USE-2	Sept. 2016
5075†	GenFree® II High Speed	LSZH XLPO/LSZH XLPO, Low-Voltage Power, Unshielded 600 V, UL Type RHH/RHW-2-LSHF/USE-2 or 1000 V, c(UL) RW90	Sept. 2016
5125†	GenFree® II High Speed	LSZH XLPO, Low-Voltage Power, Unshielded 600 V, UL Type XHHW-2-LSHF or c(UL) RW90	Sept. 2016
5175†	XHHW-2 CT High Speed	XLPE, Low-Voltage Power 600 V, UL Type XHHW-2, CT Rated, Single Conductor, Copper	Sept. 2016
5250†	Unicon® XLPE High Speed	XLPE, Low-Voltage Power 600 V, UL Type RHH/RHW-2/USE-2, Single Conductor, Copper	Sept. 2016
5275	GenFree® II High Speed	LSZH XLPO, Low-Voltage Power, Unshielded 600 V, UL Type RHH/RHW-2-LSHF/USE-2 or 1000 V, c(UL) RW90	Sept. 2016
5290	THHN/THWN-2 High Speed	PVC, Low-Voltage Power 600 V, UL Type THHN/THWN-2, Single Conductor, Copper	Sept. 2016
5310†	Diesel Locomotive Cable (DLO)	2000 Volts (EPR/XL-CPE), UL RHH/RHW-2 2000 V and c(UL) RW90 1000 V Flexible, Oil-, Sunlight- and Ozone-Resistant, Flame-Retardant -40°C to 90°C	Sept. 2016
5320†	Carol® Brand Super Vu-Tron® DLO	EPR/CPE, Diesel Locomotive Cable 2000 V DLO, 1000 V CSA Type RW90 FT4 TC	Sept. 2016

†Indicates these products are stocked by General Cable

DuraSheath® High Speed

EPR/XL-CPE, Low-Voltage Power, Unshielded 600 V, UL Type RHH/RHW-2/USE-2



Product Construction:

Conductor:
- 14 AWG thru 1000 kcmil tin-coated copper compressed Class B stranding per ASTM B33 and B8

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) colored to contrast with jacket

Jacket:
- Lead-free Cross-linked Chlorinated Polyethylene (XL-CPE), black
- Colors available upon request

Applications:
- Ideally suited for use in a broad range of commercial, industrial and utility applications where reliability is a major concern and where maximum performance will be demanded

Applications (cont'd.):
- In free air, raceways or direct burial
- For use in aerial, conduit, open tray and underground duct/installations

Features:
- Rated at 90˚C wet or dry
- Deformation-resistant at high temperatures
- Excellent moisture resistance, exceeds UL 44
- Stable electrical properties over a broad temperature range
- Excellent flexibility at low temperatures; suitable for installation in sub-zero conditions
- Extra-tough, mechanically rugged composite insulation and jacket construction
- High Speed low friction technology for easy cable pulling
- Resistant to most oils and chemicals
- UV/sunlight-resistant
- Meets UL 44 cold bend test at -40˚C

Compliances:
Industry Compliances:
- National Electric Code (NEC)
- ICEA S-95-658/NEMA WC70
- "FOR CT USE" on 1/0 AWG and larger in accordance with the NEC
- UL 44 Type RHH/RHW-2, UL File # E90494
- UL 854 Type USE-2, UL File # E90499

Flame Test Compliances:
- UL 1581 VW-1
- IEEE 1202/CSA FT4

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	COND. STRAND	NOMINAL COND. DIAMETER		MINIMUM AVG. INSULATION				MINIMUM AVG. JACKET				COPPER WEIGHT		NET WEIGHT	
					THICKNESS		DIAMETER		THICKNESS		DIAMETER					
			INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	LBS/ 1000 FT	kg/ km
14 AWG - 1000 kcmil CONDUCTORS																
14511.411405	14	7W	0.07	1.78	0.030	0.76	0.14	3.56	0.015	0.38	0.17	4.32	13	19	24	36
14511.411205	12	7W	0.09	2.29	0.030	0.76	0.16	4.06	0.015	0.38	0.19	4.83	20	30	33	49
14511.411005	10	7W	0.12	3.05	0.030	0.76	0.18	4.57	0.015	0.38	0.21	5.33	32	48	48	71
14511.410805	8	7W	0.15	3.81	0.045	1.14	0.24	6.10	0.015	0.38	0.28	7.11	50	75	77	115
14511.410605	6	7W	0.18	4.57	0.045	1.14	0.28	7.11	0.030	0.76	0.35	8.89	81	121	122	182
14511.410405	4	7W	0.23	5.84	0.045	1.14	0.33	8.38	0.030	0.76	0.39	9.91	129	192	178	265
14511.710205	2	7W	0.29	7.37	0.045	1.14	0.39	9.91	0.030	0.76	0.46	11.68	205	305	265	394
14511.715105	1/0	19W	0.37	9.40	0.055	1.40	0.48	12.19	0.045	1.14	0.58	14.73	326	485	422	628
14511.715205	2/0	19W	0.41	10.41	0.055	1.40	0.53	13.46	0.045	1.14	0.63	16.00	411	612	518	771
14511.715405	4/0	19W	0.52	13.21	0.055	1.40	0.64	16.26	0.045	1.14	0.74	18.80	653	972	785	1168
14511.716005	250	37W	0.56	14.22	0.065	1.65	0.70	17.78	0.065	1.65	0.85	21.59	772	1149	960	1429
14511.716205	350	37W	0.67	17.02	0.065	1.65	0.81	20.57	0.065	1.65	0.96	24.38	1081	1609	1299	1933
14511.716505	500	37W	0.80	20.32	0.065	1.65	0.94	23.88	0.065	1.65	1.09	27.69	1542	2295	1803	2683
14511.717005	750	61W	0.98	24.89	0.080	2.03	1.15	29.21	0.065	1.65	1.31	33.27	2316	3447	2664	3965
14511.717505	1000	61W	1.13	28.70	0.080	2.03	1.31	33.27	0.065	1.65	1.46	37.08	3086	4593	3480	5180

Dimensions and weights are nominal; subject to industry tolerances.

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GenFree® II High Speed

LSZH XLPO/LSZH XLPO, Low-Voltage Power, Unshielded 600 V, UL Type RHH/RHW-2-LSHF/USE-2 or 1000 V, c(UL) RW90

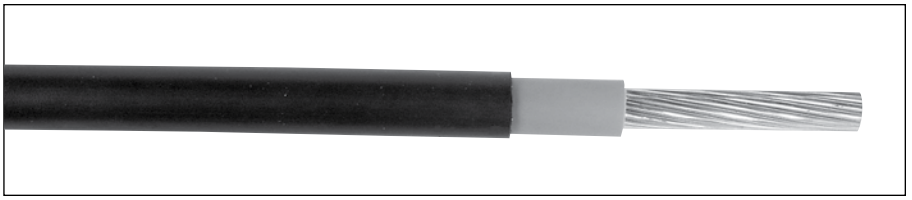
Product Construction:

Conductor:
- 14 AWG thru 1000 kcmil compressed tinned copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Composite Low-Smoke, Zero-Halogen Cross-linked Polyolefin (LSZH XLPO) colored for contrast with black Low-Smoke, Zero-Halogen Cross-linked Polyolefin (LSZH XLPO)
- Colors available upon request

Applications:
- For use in closed environments or populated spaces such as auditoriums, arenas and health facilities where more stringent customer specifications for smoke and halogen-free materials are desired
- Ideally suited for use in a broad range of commercial, industrial, transit and utility applications where reliability is a major concern, where maximum performance will be demanded and where space is limited
- For use in free air, raceways or direct burial in accordance with NEC

Features:
- Rated at 90°C wet or dry
- Low-Smoke, Zero-Halogen insulation system
- Extra-tough, mechanically rugged composite insulation construction
- High Speed low friction technology for easy cable pulling
- Excellent electrical, thermal and physical properties
- Excellent moisture resistance, exceeding UL 44 requirements



Features (cont'd.):
- Excellent resistance to crush, compression cuts and heat deformation
- Excellent flame resistance
- Resistant to most oils and chemicals
- UV/sunlight-resistant
- Rated ST-1 for Limited Smoke per UL 44 on sizes 1/0 AWG and larger
- Stable electrical properties over a broad temperature range
- Excellent low temperature cold bend characteristics, meets cold bend and cold impact test at -40°C

Compliances:
Industry Compliances:
- National Electrical Code (NEC)
- "FOR CT USE" on 1/0 AWG and larger in accordance with NEC
- UL 44 Type RHH/RHW-2, UL File # E90494
- c(UL) Type RW90 1 kV UL File # E90494
- UL 854 Type USE-2, UL File # E90499
- UL Listed Low-Smoke, Halogen-Free per UL 2885
- Limited Smoke rating per UL 44 and UL 1685
- ICEA T-33-655 smoke, halogen and acid gas requirements
- Halogen content of cable material does not exceed 0.2%, and acid gas equivalent does not exceed 2.0%, according to the test method of MIL-C-24643
- ICEA S-95-658/NEMA WC70
- UL Listed VW-1 and PR1

Compliances (cont'd.):
Flame Test Compliances:
- For 1/0 AWG and larger: IEEE 383
- IEEE 1202/CSA FT4, FT1
- UL 1685
- UL 44 VW-1

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant
- NFPA 130 (1/0 & larger sizes)
- NES 713

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	COND. STRAND	NOMINAL COND. DIAMETER		MINIMUM AVG. INSULATION THICKNESS		MINIMUM AVG. INSULATION DIAMETER		MINIMUM AVG. JACKET THICKNESS		MINIMUM AVG. JACKET DIAMETER		COPPER WEIGHT		NET WEIGHT	
			INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	LBS/ 1000 FT	kg/ km
14 AWG - 1000 kcmil CONDUCTORS																
14711.411400†	14	7W	0.07	1.78	0.030	0.76	0.14	3.56	0.015	0.38	0.17	4.32	13	19	24	36
14711.411200†	12	7W	0.09	2.29	0.030	0.76	0.16	4.06	0.015	0.38	0.19	4.83	20	30	33	49
14711.411000	10	7W	0.12	3.05	0.030	0.76	0.18	4.57	0.015	0.38	0.21	5.33	32	48	48	71
14711.410800	8	7W	0.15	3.81	0.045	1.14	0.24	6.10	0.015	0.38	0.28	7.11	50	75	77	115
14711.410600	6	7W	0.18	4.57	0.045	1.14	0.28	7.11	0.030	0.76	0.35	8.89	81	121	122	182
14711.410400	4	7W	0.23	5.84	0.045	1.14	0.33	8.38	0.030	0.76	0.39	9.91	129	192	178	265
14711.710200	2	7W	0.29	7.37	0.045	1.14	0.39	9.91	0.030	0.76	0.46	11.68	205	305	265	394
14711.715100	1/0	19W	0.37	9.40	0.055	1.40	0.48	12.19	0.045	1.14	0.58	14.73	326	485	422	628
14711.715200	2/0	19W	0.41	10.41	0.055	1.40	0.53	13.46	0.045	1.14	0.63	16.00	411	612	518	771
14711.715400	4/0	19W	0.52	13.21	0.055	1.40	0.64	16.26	0.045	1.14	0.74	18.80	653	972	785	1168
14711.716000	250	37W	0.56	14.22	0.065	1.65	0.70	17.78	0.065	1.65	0.85	21.59	772	1149	960	1429
14711.716200	350	37W	0.67	17.02	0.065	1.65	0.81	20.57	0.065	1.65	0.96	24.38	1081	1609	1299	1933
14711.716500	500	37W	0.80	20.32	0.065	1.65	0.94	23.88	0.065	1.65	1.09	27.69	1542	2295	1803	2683
14711.717000	750	61W	0.97	24.62	0.080	2.03	1.15	29.21	0.065	1.65	1.31	33.27	2316	3447	2664	3965
14711.717500*	1000	61W	1.13	28.70	0.080	2.03	1.31	33.27	0.065	1.65	1.46	37.08	3806	5664	3989	5936

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
† Not available with VW-1 rating.

Going Green with General Cable
General Cable has accelerated its environmental commitment, addressing its green alternative approach by identifying greener opportunities and promoting green cabling solutions wherever feasible. This includes promoting our existing green products, partnering with key customers in their green endeavors, identifying and providing for green product gaps, and participating as a member of the United States Green Building Council (USGBC) and collaborative ventures such as the Green Suppliers Network (GSN).

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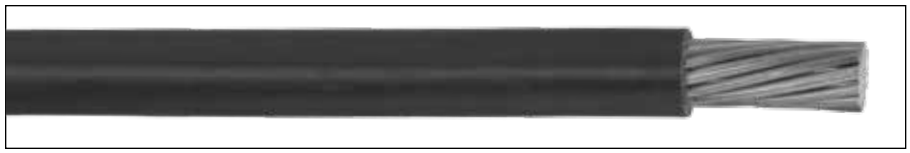
GenFree® II High Speed

LSZH XLPO, Low-Voltage Power, Unshielded 600 V, UL Type XHHW-2-LSHF or c(UL) RW90



Product Construction:

Conductor:
- 1 AWG thru 1000 kcmil stranded annealed tinned copper per ASTM B33, compressed Class B stranding per ASTM B8
- 14 AWG thru 2 AWG stranded annealed tinned copper per ASTM B33, compressed Class C stranding per ASTM B8

Insulation:
- Low-Smoke, Zero-Halogen flame-retardant Cross-linked Polyolefin (LSZH XLPO), black
- Colors available upon request

Options:
- Other stranding available
- Colors available upon request

Applications:
- For use in all closed environments or populated spaces such as auditoriums, arenas, and health facilities where more stringent specifications for smoke and toxicity emission levels are desired
- Ideally suited for use in a broad range of commercial, industrial, transit and utility applications where reliability is a major concern, where maximum performance will be demanded and where space is limited

Applications (cont'd.):
- For use in free air, raceways or direct burial in accordance with NEC

Features:
- Rated at 90°C wet or dry
- Low-Smoke, Zero-Halogen insulation reduces toxic emissions under fire conditions
- High Speed low friction technology for easy cable pulling
- Smaller cable O.D.
- Excellent electrical, thermal and physical properties
- Excellent moisture resistance, exceeding UL 44 requirements
- Excellent resistance to crush, compression cuts and heat deformation
- Excellent flame resistance
- Resistant to most oils and chemicals
- UV/sunlight-resistant
- Rated ST1 for Limited Smoke per UL 44 on sizes 1/0 and larger
- Stable electrical properties over a broad temperature range
- Excellent low temperature cold bend characteristics, meets cold bend and cold impact test at -40°C

Compliances:
Industry Compliances:
- National Electrical Code (NEC®)
- "FOR CT USE" on 1/0 AWG and larger in accordance with NEC
- c(UL) Type RW90 UL File # E90494
- UL 44 Type XHHW-2, UL File # E90494
- UL Listed Low-Smoke, Halogen-Free per UL 2885
- Limited Smoke rating per UL 44 and UL 1685
- ICEA T-33-655 smoke, halogen, and acid gas requirements
- Halogen content of cable material does not exceed 0.2%, and acid gas equivalent does not exceed 2.0%, according to the test method of MIL-C-24643
- ICEA S-95-658/NEMA WC70
- UL Listed VW-1 and PR1

Flame Test Compliances:
- For 1/0 AWG and larger: IEEE 383, IEEE 1202/CSA FT4, FT1
- UL 1685

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant
- NFPA 130 (1/0 & larger sizes)
- NES 713

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	COND. SIZE (AWG or kcmil)	NUMBER OF WIRES	NOMINAL COND. DIAMETER		MINIMUM AVG. INSULATION THICKNESS		NOMINAL CABLE DIAMETER		COPPER WEIGHT		NET WEIGHT		AMPACITY (1) 90°C
			INCHES	mm	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	
14 AWG - 750 kcmil CONDUCTORS													
5125.014*†	14	19	0.07	1.80	0.030	0.76	0.13	3.38	12	18	17	25	25
5125.012*†	12	19	0.09	2.26	0.030	0.76	0.15	3.84	20	30	26	39	30
5125.010*	10	19	0.11	2.87	0.030	0.76	0.18	4.57	32	48	38	57	40
5125.008*	8	19	0.14	3.56	0.045	1.14	0.24	6.10	51	76	65	97	55
5125.006*	6	19	0.18	4.57	0.045	1.14	0.28	7.11	81	121	99	147	75
5125.004*	4	19	0.23	5.84	0.045	1.14	0.33	8.38	129	192	152	226	95
5125.002*	2	19	0.29	7.37	0.045	1.14	0.39	9.91	205	305	233	347	130
5125.001*	1	19	0.32	8.13	0.055	1.40	0.44	11.18	256	381	293	437	145
5125.110	1/0	19	0.36	9.14	0.055	1.40	0.48	12.19	326	485	364	572	170
5125.210	2/0	19	0.41	10.41	0.055	1.40	0.53	13.46	411	612	453	674	195
5125.310	3/0	19	0.46	11.68	0.055	1.40	0.58	14.73	518	772	565	842	225
5125.410	4/0	19	0.51	12.95	0.055	1.40	0.63	16.00	653	972	706	1051	260
5125.250	250	37	0.56	14.22	0.065	1.65	0.70	17.78	722	1074	837	1246	290
5125.350	350	37	0.66	16.76	0.065	1.65	0.80	20.32	1081	1609	1157	1722	350
5125.500	500	37	0.79	20.07	0.065	1.65	0.93	23.62	1544	2298	1634	2432	430
5125.600	600	61	0.87	22.10	0.080	2.03	1.04	26.42	1853	2758	1972	2935	475
5125.750	750	61	0.97	24.62	0.080	2.03	1.15	29.21	2316	3447	2448	3643	535

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
†Not available with VW-1 rating.
(1) Allowable ampacities shown are for general use as specified by the National Electric Code (NEC®), 2011 Edition, Section 310, 15(b)(16). Adjustments and corrections may apply.
90° C - Wet or dry locations. For ampacity derating purposes.
Dwelling - For dwelling units, conductors shall be permitted as listed ampacities at 120/240-volt, 3-wire, single-phase services and feeders.

Going Green with General Cable
General Cable has accelerated its environmental commitment, addressing its green alternative approach by identifying greener opportunities and promoting green cabling solutions wherever feasible. This includes promoting our existing green products, partnering with key customers in their green endeavors, identifying and providing for green product gaps, and participating as a member of the United States Green Building Council (USGBC) and collaborative ventures such as the Green Suppliers Network (GSN).

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General Cable
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XHHW-2 CT High Speed

XLPE, Low-Voltage Power, 600V or 1000V
UL Type XHHW-2, CT Rated, Single Conductor, Copper

Product Construction:

Conductor:
- 14 AWG thru 750 kcmil annealed bare copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)

Print:
- GENERAL CABLE® (PLANT OF MFG) AWG/ KCMIL HIGH SPEED* TYPE XHHW-2 (UL) 600V OR 1000V SUN RES FOR CT USE** MONTH/YEAR OF MFG SEQUENTIAL FOOTAGE MARK

* Sizes 14 AWG - 10 AWG do not include "HIGH SPEED"

** Sizes smaller than 1/0 AWG do not include "SUN RES FOR CT USE"

Options:
- Tinned copper conductor
- Full colored insulation

Applications:
- General purpose building wire for use primarily in conduit or other recognized raceways as specified in the National Electrical Code (NEC®)
- Industrial environments where superior insulation toughness and chemical resistance are required

Applications (cont'd.):
- Maximum operating temperature not to exceed 90˚C in dry or wet locations
- In free air, raceways or cable trays in accordance with NEC

Features:
- High Speed cable features a specially designed XLPE insulation that allows for fast and easy cable pulls
- "FOR CT USE" on 1/0 AWG and larger
- Sunlight-resistant for 8 AWG and larger, black only
- Rated at 90˚C wet or dry
- Smaller cable O.D.
- Excellent electrical, thermal and physical properties
- Excellent resistance to moisture
- Excellent resistance to crush, compression cuts and heat deformation
- Meets cold bend and cold impact tests at -25˚C

Compliances:
Industry Compliances:
- National Electric Code (NEC)
- UL 44 Standard for Rubber Insulated Wire and Cable
- ICEA S-95-658/NEMA WC70
- UL Listed as Type XHHW-2, UL File # E90494
- OSHA Acceptable

Flame Test Compliances:
- UL 1685, 1/0 AWG and larger

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	COND. SIZE (AWG or kcmil)	NUMBER OF WIRES	NOMINAL COND. DIAMETER		MINIMUM AVG. INSULATION THICKNESS		NOMINAL CABLE DIAMETER		COPPER WEIGHT		NET WEIGHT		AMPACITY (1)
			INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km	90°C
14 AWG - 750 kcmil CONDUCTORS													
391070	14	7	0.07	1.80	0.030	0.76	0.13	3.38	12	18	17	25	25
391080	12	7	0.09	2.26	0.030	0.76	0.15	3.84	20	30	26	39	30
391090	10	7	0.11	2.87	0.030	0.76	0.18	4.57	32	48	38	57	40
5175.008	8	7	0.14	3.56	0.045	1.14	0.24	6.10	51	76	65	97	55
5175.006	6	7	0.18	4.57	0.045	1.14	0.28	7.11	81	121	99	147	75
5175.004	4	7	0.23	5.84	0.045	1.14	0.33	8.38	129	192	152	226	95
5175.002	2	7	0.29	7.37	0.045	1.14	0.39	9.91	205	305	233	347	130
5175.001	1	19	0.32	8.13	0.055	1.40	0.44	11.18	256	381	293	437	145
5175.110	1/0	19	0.36	9.14	0.055	1.40	0.48	12.19	326	485	364	572	170
5175.210	2/0	19	0.41	10.41	0.055	1.40	0.53	13.46	411	612	453	674	195
5175.310	3/0	19	0.46	11.68	0.055	1.40	0.58	14.73	518	772	565	842	225
5175.410	4/0	19	0.51	12.95	0.055	1.40	0.63	16.00	653	972	706	1051	260
5175.250	250	37	0.56	14.22	0.065	1.65	0.70	17.78	722	1074	837	1246	290
5175.300	300	37	0.61	15.49	0.065	1.65	0.75	19.05	926	1378	1044	1455	319
5175.350	350	37	0.66	16.76	0.065	1.65	0.80	20.32	1081	1609	1157	1722	350
5175.400	400	37	0.71	18.03	0.065	1.65	0.85	21.59	1235	1838	1342	1997	380
5175.500	500	37	0.79	20.07	0.065	1.65	0.93	23.62	1544	2298	1634	2432	430
5175.600	600	61	0.87	22.10	0.080	2.03	1.04	26.42	1853	2758	1972	2935	475
5175.750	750	61	0.98	24.89	0.080	2.03	1.15	29.21	2316	3447	2448	3643	535

Dimensions and weights are nominal; subject to industry tolerances.

(1) Allowable ampacities shown are for general use as specified by the National Electric Code, 2011 Edition, Section 310.15(B)(16). Adjustments and corrections may apply:
90°C – Wet or dry locations. For ampacity derating purposes.
Dwelling – For dwelling units, conductors shall be permitted as listed ampacities at 120/240-volt, 3-wire, single-phase services and feeders.

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Unicon® XLPE High Speed

XLPE, Low-Voltage Power
600 V, UL Type RHH/RHW-2/USE-2, Single Conductor, Copper

Product Construction:

Conductor:
- 14 AWG thru 1000 kcmil annealed bare copper compressed Class B stranding per ASTM B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE), black

Options:
- 2 kV version
- Tinned copper conductor
- Class C stranding
- Various colors available
- Unicon® FREP® — flame-retardant Ethylene Propylene Rubber (EPR) insulation
- Other constructions available upon request

Applications:
- Ideally suited for use in a broad range of commercial, industrial and utility applications where reliability is a major concern, where maximum performance will be demanded and where space is limited
- In free air, raceways or direct burial in accordance with NEC

Features:
- High Speed low friction technology for easy cable pulling
- Rated at 90°C wet or dry
- Smaller cable O.D.
- Excellent electrical, thermal and physical properties
- Sunlight-resistant
- Excellent resistance to moisture
- Excellent resistance to crush, compression cuts and heat deformation
- Excellent flame resistance
- Excellent low temperature cold bend characteristics
- Meets cold bend test at -25°C

Compliances:
Industry Compliances:
- National Electrical Code (NEC)
- ICEA S-95-658/NEMA WC70
- "FOR CT USE" on 1/0 AWG and larger in accordance with NEC
- UL 44 Type RHH/RHW-2, UL File # E90494
- UL 854 Type USE-2, UL File # E90499

Flame Test Compliances:
- UL 1581 VW-1
- For 1/0 AWG and larger: IEEE 383, IEEE 1202/CSA FT4, ICEA T-29-520

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	COND. SIZE (AWG or kcmil)	NUMBER OF WIRES	NOMINAL COND. DIAMETER		MINIMUM AVG. INSULATION THICKNESS		NOMINAL CABLE DIAMETER		COPPER WEIGHT		NET WEIGHT		AMPACITY (1)
			INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km	90°C
14 AWG - 1000 kcmil CONDUCTORS													
364830*	14	7	0.07	1.78	0.045	1.14	0.17	4.32	13	19	24	36	25
364840*	12	7	0.09	2.29	0.045	1.14	0.19	4.83	20	30	33	49	30
364850*	10	7	0.12	3.05	0.045	1.14	0.21	5.33	32	48	48	71	40
16602.210800	8	7	0.15	3.81	0.060	1.52	0.27	6.86	50	75	78	116	55
16602.210600	6	7	0.18	4.57	0.060	1.52	0.31	7.87	81	121	114	170	75
16602.210400	4	7	0.23	5.84	0.060	1.52	0.36	9.14	129	192	169	252	95
16602.210200	2	7	0.29	7.37	0.060	1.52	0.42	10.67	205	305	254	378	130
16602.215100	1/0	19	0.37	9.40	0.080	2.03	0.53	13.46	326	485	403	600	170
16602.215200	2/0	19	0.41	10.41	0.080	2.03	0.58	14.73	411	612	501	746	195
16602.215400	4/0	19	0.52	13.21	0.080	2.03	0.69	17.53	653	972	760	1131	260
16602.216000	250	37	0.56	14.22	0.095	2.41	0.77	19.56	772	1149	906	1349	290
16602.216200	350	37	0.67	17.02	0.095	2.41	0.87	22.10	1081	1609	1237	1841	350
16602.216500	500	37	0.80	20.32	0.095	2.41	1.00	25.40	1542	2295	1730	2575	430
16602.217000	750	61	0.98	24.89	0.110	2.79	1.22	30.99	2316	3447	2576	3834	535
16602.217500*	1000	61	1.13	28.70	0.110	2.79	1.37	31.80	3086	4593	3405	5068	615

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
(1) Temperature, size and ampacity per National Electric Code, 2011 NEC Sections 110.14(c)(1) (a) & (b).
90°C – Wet or dry locations. For ampacity derating purposes.
Dwelling – For dwelling units, conductors shall be permitted as listed ampacities at 120/240-volt, 3-wire, single-phase services and feeders.

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GenFree® II High Speed

LSZH XLPO, Low-Voltage Power, Unshielded 600 V, UL Type RHH/RHW-2-LSHF/USE-2 or 1000 V, c(UL) RW90

Product Construction:

Conductor:
- 14 AWG thru 1000 kcmil stranded annealed tinned copper per ASTM B33
- Compressed Class B stranding per ASTM B8

Insulation:
- Low-Smoke, Zero-Halogen Cross-linked Polyolefin (LSZH XLPO), black
- Colors available upon request

Applications:
- For use in closed environments or populated spaces such as auditoriums, arenas and health facilities where more stringent customer specifications for smoke and halogen-free materials are desired
- Ideally suited for use in a broad range of commercial, industrial, transit and utility applications where reliability is a major concern, where maximum performance will be demanded and where space is limited
- For use in free air, raceways or direct burial in accordance with NEC

Features:
- Rated at 90˚C wet or dry
- Low-Smoke, Zero-Halogen insulation system
- Smaller cable O.D.
- High Speed low friction technology for easy cable pulling
- Excellent electrical, thermal and physical properties
- Excellent moisture resistance, exceeding UL 44 requirements
- Excellent resistance to crush, compression cuts and heat deformation
- Excellent flame resistance
- Resistant to most oils and chemicals

Features (cont'd.):
- UV/sunlight-resistant
- Rated ST-1 for Limited Smoke per UL 44 on sizes 1/0 AWG and larger
- Stable electrical properties over a broad temperature range
- Excellent low temperature characteristics, meets cold bend and cold impact test at -40˚C

Compliances:

Industry Compliances:
- National Electrical Code (NEC)
- "FOR CT USE" on 1/0 AWG and larger in accordance with NEC
- UL 44 Type RHH/RHW-2, UL File # E90494
- c(UL) Type RW90 1 kV UL File # E90494
- UL 854 Type USE-2, UL File # E90499
- UL Listed Low-Smoke, Halogen-Free per UL 2885
- Limited Smoke rating per UL 44 and UL 1685
- ICEA T-33-655 smoke, halogen and acid gas requirements
- Halogen content of cable material does not exceed 0.2%, and acid gas equivalent does not exceed 2.0%, according to the test method of MIL-C-24643
- ICEA S-95-658/NEMA WC70
- UL Listed VW-1 and PR1

Compliances (cont'd.):

Flame Test Compliances:
- For 1/0 AWG and larger: IEEE 383
- IEEE 1202/CSA FT4 and FT1
- UL 1685
- UL 44 VW-1

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant
- NFPA 130 (1/0 & larger sizes)
- NES 713

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	COND. STRAND	NOMINAL COND. DIAMETER		MINIMUM AVG. INSULATION THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT		AMPACITY (1)		
			INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km	60°C	75°C	90°C
14 AWG - 1000 kcmil CONDUCTORS															
17602.210014*†	14	7W	0.07	1.78	0.045	1.14	0.17	4.32	13	19	24	36	15	15	15
17602.210012*†	12	7W	0.09	2.29	0.045	1.14	0.19	4.83	20	30	33	49	20	20	20
17602.210010*	10	7W	0.12	3.05	0.045	1.14	0.21	5.33	32	48	48	71	30	30	30
17602.210800*	8	7W	0.15	3.81	0.060	1.52	0.27	6.86	50	75	78	116	40	50	55
17602.210600*	6	7W	0.18	4.57	0.060	1.52	0.31	7.87	81	121	114	170	55	65	75
17602.210400*	4	7W	0.23	5.84	0.060	1.52	0.36	9.14	129	192	169	252	70	85	95
17602.210200*	2	7W	0.29	7.37	0.060	1.52	0.42	10.67	205	305	254	378	95	115	130
17602.215100*	1/0	19W	0.37	9.40	0.080	2.03	0.53	13.46	326	485	403	600	125	150	170
17602.215200*	2/0	19W	0.41	10.41	0.080	2.03	0.58	14.73	411	612	501	746	145	175	195
17602.215400*	4/0	19W	0.52	13.21	0.080	2.03	0.69	17.53	653	972	760	1131	195	230	260
17602.216000*	250	37W	0.56	14.22	0.095	2.41	0.77	19.56	772	1149	906	1349	215	255	290
17602.216200*	350	37W	0.67	17.02	0.095	2.41	0.87	22.10	1081	1609	1237	1841	260	310	350
17602.216500*	500	37W	0.80	20.32	0.095	2.41	1.00	25.40	1542	2295	1730	2575	320	380	430
17602.217000*	750	61W	0.97	24.62	0.110	2.79	1.22	30.99	2316	3447	2576	3834	400	475	535
17602.217500*	1000	61W	1.13	28.70	0.110	2.79	1.37	34.80	3086	4593	3405	5068	445	545	615

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
† Not available with VW-1 rating.
(1) Allowable ampacities shown are for general use as specified by the National Electric Code, 2011 Edition, section 310.15(B)(16). Adjustments and corrections may apply:
60°C – When terminated to equipment for circuits rated 100 amperes or less or marked for 14 through 1 AWG conductors.
75°C – When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.
90°C – Wet or dry locations. For ampacity derating purposes.
Dwelling – For dwelling units, conductors shall be permitted as listed ampacities at 120/240-volt, 3-wire, single-phase services and feeders.

Going Green with General Cable
General Cable has accelerated its environmental commitment, addressing its green alternative approach by identifying greener opportunities and promoting green cabling solutions wherever feasible. This includes promoting our existing green products, partnering with key customers in their green endeavors, identifying and providing for green product gaps, and participating as a member of the United States Green Building Council (USGBC) and collaborative ventures such as the Green Suppliers Network (GSN).

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THHN/THWN-2 High Speed

PVC, Low-Voltage Power
600 V, UL Type THHN/THWN-2, Single Conductor, Copper

Product Construction:

Conductor:
- 14 AWG thru 1000 kcmil bare annealed stranded copper per ASTM B3 and ASTM B8
- 14 AWG thru 10 AWG solid plain copper per ASTM B3

Insulation:
- Color-coded premium-grade flame-retardant, heat- and moisture-resistant Polyvinyl Chloride (PVC)

Jacket:
- Tough Polyamide (Nylon)

Print:
For 14 AWG solid thru 10 AWG solid:
- GENERAL CABLE® (PLANT OF MFG) (YEAR OF MFG) HIGH SPEED THHN/THWN-2 (UL) E66903 (SIZE) AWG (SIZE mm²) GRI and GRII 600 V VW-1 OR T90 NYLON/TWN 75°C (UL) FT1 (-25°C) MADE IN USA

For 14 AWG strand thru 10 AWG strand:
- GENERAL CABLE® (PLANT OF MFG) (YEAR OF MFG) HIGH SPEED MTW OR THHN/THWN-2 (UL) (SIZE) AWG (SIZE mm²) GRI and GRII 600 V VW-1 OR AWM OR T90 NYLON/TWN 75°C (UL) FT1 (-25°C) MADE IN USA

Print (cont'd.):
For 8 AWG thru 1 AWG, black only:
- GENERAL CABLE® (PLANT OF MFG) (YEAR OF MFG) HIGH SPEED MTW OR THHN/THWN-2 (UL) (SIZE) AWG (SIZE mm²) GRI and GRII SUN RES 600 V VW-1 OR AWM OR T90 NYLON/TWN 75°C (UL) FT1 (-25°C) MADE IN USA

For 8 AWG thru 1 AWG, all colors:
- GENERAL CABLE® (PLANT OF MFG) (YEAR OF MFG) HIGH SPEED MTW OR THHN/THWN-2 (UL) (SIZE) AWG (SIZE mm²) GRI and GRII 600 V VW-1 OR AWM OR T90 NYLON/TWN 75°C (UL) FT1 (-25°C) MADE IN USA

For 1/0 and larger, black only:
- GENERAL CABLE® (PLANT OF MFG) (YEAR OF MFG) HIGH SPEED MTW OR THHN/THWN-2 (UL) (SIZE) AWG (SIZE mm²) GRI and GRII SUN RES 600 V FOR CT USE OR AWM T90 NYLON/TWN 75°C (UL) FT1 (-25°C) MADE IN USA

For 1/0 and larger, all colors:
- GENERAL CABLE® (PLANT OF MFG) (YEAR OF MFG) HIGH SPEED MTW OR THHN/THWN-2 (UL) (SIZE) AWG (SIZE mm²) GRI and GRII SUN RES 600 V FOR CT USE OR AWM T90 NYLON/TWN 75°C (UL) FT1 (-25°C) MADE IN USA

Applications:
- General purpose building wire for services, feeders and branch circuits
- Conduit and raceways
- 1/0 and larger for cable tray use

Features:
- High Speed cable features a specially designed XLPE insulation that allows for fast and easy cable pulls
- 1/0 AWG and larger are rated for cable tray use
- Rated Gasoline and Oil Resistant II
- Resistant to abrasion, acids, alkalines, ozone, and water
- For THHN/THWN-2 applications, the conductor is appropriate for wet or dry locations not to exceed 90°C
- For MTW applications, the conductor is appropriate for use in dry locations at 90°C or not to exceed 60°C in wet locations or where exposed to oil or coolants (with ampacity limited to that for 75°C conductor temperature) as outlined in NFPA 79 Electrical Standards for Industrial Machinery
- Sequential foot markings every 2 feet on 8 AWG and larger for easy measuring
- Sunlight-resistant for 8 AWG and larger, black only
- Meets cold bend and cold impact tests at -25°C

Compliances:
Industry Compliances:
- ASTM B3 and B8
- UL Standard 83 – THHN/THWN-2
- UL Standard 1063 for machine tool wire (MTW)
- ICEA S-95-658/NEMA WC70
- NEC® Article 310
- RoHS Compliant
- c(UL) – T90 Nylon

Flame Test Compliances:
- UL 2556 VW-1 rated through 1 AWG
- UL 2556 CT USE 1/0 and larger
- CSA C22.2 No. 0.3-92 FT1 Vertical Flame Test

Packaging:
- Cut-to-length services available for 8 AWG and larger

COLOR CODE CHART

COLOR CODE	COLOR	COLOR CODE	COLOR
1	Black	7	Blue
2	White	8	Orange
3	Red	9	Gray
4	Green	A	Purple
5	Yellow	B	Pink
6	Brown		

PACKAGING CODE CHART

PACKAGING CODE	PACKAGE
10	2 x 500'
20	4 x 500'
32	500' Reel
33	1000' Reel
54	2000' Reel
34	2500' Reel
55	5000' Reel
00	Cut to Order
XX	Master Reel

RoHS Compliant Directive 2011/65/EU

Made in America

General Cable
Phone: 888-593-3355
www.generalcable.com

THHN/THWN-2 High Speed

PVC, Low-Voltage Power
600 V, UL Type THHN/THWN-2, Single Conductor, Copper

CATALOG NUMBER	SIZE		NUMBER OF WIRES	INSULATION THICKNESS		JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT		AMPACITY (1) 90°C	PACKAGING PUT-UP CODE
	AWG or kcmil	mm²		INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km		
TYPE THHN/THWN-2 90°C WET OR DRY LOCATIONS															
23014	14	2.08	1	0.015	0.38	0.004	0.10	0.102	2.59	16	23	19	27	25	20, 34
23012	12	3.31	1	0.015	0.38	0.004	0.10	0.119	3.02	25	37	28	41	30	20, 34
23010	10	5.26	1	0.020	0.51	0.004	0.10	0.150	3.81	40	58	45	66	40	10, 34
24014	14	2.08	19	0.015	0.38	0.004	0.10	0.109	2.77	13	18	16	23	25	20, 34
24012	12	3.31	19	0.015	0.38	0.004	0.10	0.130	3.31	20	29	24	35	30	20, 34
24010	10	5.26	19	0.020	0.51	0.004	0.10	0.161	4.09	32	47	38	55	40	10, 34
25008	8	8.37	19	0.030	0.76	0.005	0.13	0.212	5.38	51	74	62	90	55	32, 33, XX, 00
25006	6	13.3	19	0.030	0.76	0.005	0.13	0.248	6.30	81	118	94	137	75	32, 33, XX, 00
25004	4	21.2	19	0.040	1.02	0.006	0.15	0.317	8.05	129	188	151	220	95	32, 55, XX, 00
25002	2	33.6	19	0.040	1.02	0.006	0.15	0.375	9.53	205	298	232	338	130	55, XX, 00
25001	1	42.4	19	0.050	1.27	0.007	0.18	0.427	10.85	258	375	296	431	145	55, XX, 00
26110	1/0	53.5	19	0.050	1.27	0.007	0.18	0.466	11.84	326	474	368	535	170	55, XX, 00
26210	2/0	67.4	19	0.050	1.27	0.007	0.18	0.509	12.93	411	598	457	665	195	55, XX, 00
26310	3/0	85	19	0.050	1.27	0.007	0.18	0.557	14.15	518	754	570	829	225	55, XX, 00
26410	4/0	107	19	0.050	1.27	0.007	0.18	0.612	15.54	653	950	711	1034	260	55, XX, 00
27250	250	124	37	0.060	1.52	0.008	0.20	0.694	17.63	772	1123	850	1236	290	55, XX, 00
27300	300	152	37	0.060	1.52	0.008	0.20	0.747	18.97	926	1348	1011	1472	320	34, XX, 00
27350	350	177	37	0.060	1.52	0.008	0.20	0.797	20.24	1081	1573	1173	1707	350	34, XX, 00
27400	400	203	37	0.060	1.52	0.008	0.20	0.842	21.39	1235	1797	1334	1941	380	34, XX, 00
27500	500	253	37	0.060	1.52	0.008	0.20	0.925	23.50	1544	2247	1656	2409	430	34, XX, 00
27600	600	304	61	0.070	1.78	0.009	0.23	1.024	26.01	1853	2696	1996	2904	475	54, XX, 00
27750	750	380	61	0.070	1.78	0.009	0.23	1.126	28.60	2316	3370	2478	3607	535	54, XX, 00
27100	1000	507	61	0.070	1.78	0.009	0.23	1.275	32.39	3088	4494	3283	4777	615	54, XX, 00

Dimensions and weights are nominal; subject to industry tolerances.
(1) Ampacities per 2014 NEC Table 310.15(B)(16).

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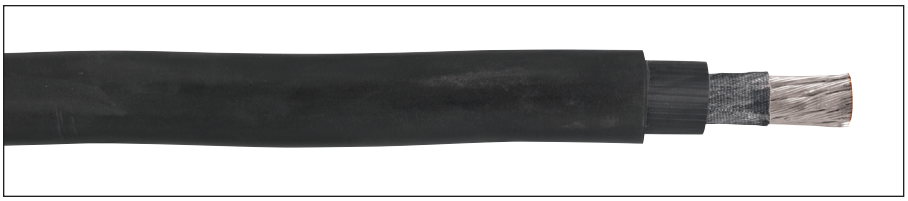
Made in America

RoHS Compliant
Directive 2011/65/EU

Diesel Locomotive Cable 2000 Volts (EPR/XL-CPE)

UL RHH/RHW-2 2000 V and C(UL) RW90 1000 V
Flexible, Oil-, Sunlight- and Ozone-Resistant, Flame-Retardant, -40°C to 90°C



Product Construction:

Conductor:
- 14 AWG (2.08 mm) thru 1111.1 kcmil (562 mm) Class I fully annealed flexible stranded tin coated copper per AAR 589

Insulation:
- Flame-retardant, lead-free Cross-linked Ethylene Propylene (EP) with separator tape over the conductor to facilitate stripping

Jacket:
- Black, flame-retardant, sunlight-, ozone- and oil-resistant, lead-free Cross-linked Chlorinated Polyethylene (XL-CPE)
- Colors available upon request

Applications:
- For use up to 2000 V as power cables in wind turbine generator applications per UL Subject 6140
- Diesel electric locomotives

Applications (cont'd.):
- Mining and earth-moving equipment
- General purpose use as flexible power leads
- Flexible power leads in cable trays in sizes 1/0 AWG and larger
- Accepted for listing as flame-resistant by MSHA

Features:
- Rated 90°C wet or dry per UL 44/CSA C.22.2-38
- Flexible tinned copper stranding
- Excellent resistance to oils, gear lubricants, ozone, sunlight, heat and flame
- Designed to withstand continuous flexing

Minimum Bend Radius:
- 8X O.D. for fixed installations

Torsion Requirements:
- +/-180° twists per meter for 5,000 cycles at -40°C with cable weight compensated to 18 meters

Compliances:
Industry Compliances:
- Type RHH/RHW-2 per UL 44, UL File # E90494
- c(UL)US Type RW90 per CSA C.22.2-38, UL File # E90494
- National Electrical Code (NEC)
- ICEA S-95-658/NEMA WC70
- "For CT Use" on 1/0 AWG and larger in accordance with NEC®
- Accepted for listing as flame resistant by MSHA
- RoHS Compliant

Flame Test Compliances:
- UL 2556 VW-1
- IEEE 1202/CSA FT4 for sizes 1/0 AWG and larger

AC Withstand Voltage Testing requirements per UL 44:

14 - 10 AWG	6000 V
8 - 2 AWG	7500 V
1 - 4/0 AWG	9000 V
262.6 kcmil - 444 kcmil	10000 V
535.3 kcmil - 929.9 kcmil	11000 V
1111.1 kcmil	13500 V

CATALOG NUMBER	COND. SIZE		COND. STRAND	NOMINAL COND. O.D.		NOM. INS. THICKNESS		JACKET THICKNESS		NOMINAL O.D.		APPROX. NET WEIGHT	
	AWG/ kcmil	mm²		INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km
14 AWG - 1111.1 kcmil CONDUCTORS													
5310.01014	14	2.08	19W	0.070	1.8	0.045	1.1	0.015	0.4	0.20	5.1	30	45
5310.01012	12	3.31	19W	0.088	2.2	0.045	1.1	0.015	0.4	0.22	5.6	39	58
5310.01010	10	5.26	27W	0.117	3.0	0.045	1.1	0.015	0.4	0.25	6.4	56	83
5310.01008	8	8.36	37W	0.144	3.7	0.055	1.4	0.030	0.8	0.33	8.3	87	129
5310.01006	6	13.3	61W	0.190	4.8	0.060	1.5	0.030	0.8	0.38	9.7	131	195
5310.01004	4	21.1	105W	0.262	6.7	0.060	1.5	0.030	0.8	0.46	11.7	202	301
5310.01002	2	33.6	158W	0.315	8.0	0.060	1.5	0.030	0.8	0.51	13.0	285	424
5310.01001	1	42.4	224W	0.375	9.5	0.080	2.0	0.045	1.1	0.64	16.3	417	621
5310.01110	1/0	53.5	280W	0.435	11.0	0.080	2.0	0.045	1.1	0.70	17.8	494	735
5310.01210	2/0	67.4	329W	0.465	11.8	0.080	2.0	0.045	1.1	0.73	18.5	587	874
5310.01310	3/0	85	456W	0.535	13.6	0.080	2.0	0.045	1.1	0.80	20.3	718	1069
5310.01410	4/0	107	551W	0.581	14.8	0.080	2.0	0.045	1.1	0.84	21.3	845	1258
5310.01262	262.6	133	650W	0.617	15.7	0.090	2.3	0.065	1.7	0.94	23.9	1050	1563
5310.01313	313.1	158	777W	0.671	17.0	0.090	2.3	0.065	1.7	1.00	25.3	1195	1778
5310.01373	373.7	189	925W	0.735	18.7	0.090	2.3	0.065	1.7	1.06	26.9	1384	2060
5310.01444	444.4	225	1110W	0.786	20.0	0.090	2.3	0.065	1.7	1.11	28.2	1634	2432
5310.01535	535.3	271	1332W	0.877	22.3	0.090	2.3	0.065	1.7	1.20	30.5	1925	2865
5310.01646	646.4	327	1609W	0.960	24.4	0.090	2.3	0.065	1.7	1.29	32.8	2307	3433
5310.01777	777.7	394	1924W	1.054	26.8	0.090	2.3	0.065	1.7	1.38	35.1	2728	4060
5310.01929*	929.9	475	2318W	1.230	31.2	0.090	2.3	0.065	1.7	1.56	39.6	3570	5313
5310.01111*	1111.1	562	2745W	1.328	33.7	0.115	2.9	0.095	2.4	1.77	44.9	4232	6298

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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Carol® Brand Super Vu-Tron® DLO

EPR/CPE, Diesel Locomotive Cable
2000 V DLO, 1000 V CSA Type RW90 FT4 TC

Product Construction:

Conductor:
- 1/0 AWG through 1111 kcmil stranded tinned annealed copper per AAR 589

Insulation:
- Flame-retardant, lead-free Cross-linked Ethylene Propylene (EP) with separator tape over the conductor to facilitate stripping

Jacket:
- Black, flame-retardant, sunlight-, ozone- and oil-resistant, lead-free Cross-linked Chlorinated Polyethylene (XL-CPE)
- Colors available upon request

Applications:
- Diesel electric locomotives
- Telecom power supply
- Oil and gas drilling rigs
- Mining and earth-moving equipment
- Shipyards
- Motor leads
- For wiring exposed to the weather
- For use in raceways including cable trays in dry, damp or wet locations in accordance with Canadian Electrical Code

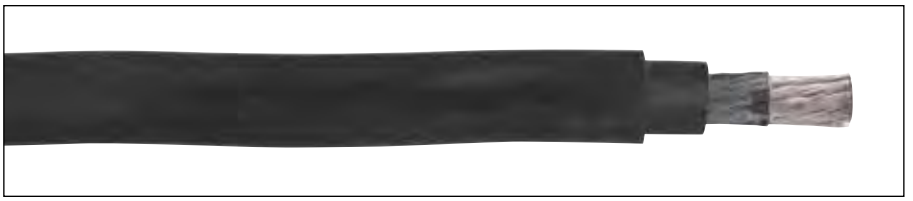
Features:
- 90°C temperature rating, wet, damp or dry
- Excellent impact and abrasion resistance
- Resists oils, acids, alkalies, heat, flame
- Flexible tinned copper stranding
- Sunlight-resistant

Compliances:
- CSA Standard C22.2 No. 38
- CSA Standard C22.2 No. 230
- CSA Standard C22.2 No. 96

Industry Compliances:
- Accepted for listing as flame-resistant by MSHA
- CSA RW90 FT4 and FT1 TC
- Outdoor use

Other Compliances:
- RoHS Compliant

Packaging:
- Lengths cut to order



CATALOG NUMBER	AWG/ kcmil	COND. STRAND	NOM. INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS		APPROX. NET WEIGHT**	
			INCHES	mm	INCHES	mm	30°C[1]	30°C[2]	lbs/1000ft	kg/km
1/0 AWG - 1111 kcmil CONDUCTORS										
91911	1/0	280W	0.080	2.03	0.69	17.53	260	170	515	766
91920	2/0	329W	0.080	2.03	0.73	18.54	300	195	580	863
91930	3/0	456W	0.080	2.03	0.81	20.57	350	225	770	1146
91940	4/0	551W	0.080	2.03	0.87	22.10	405	260	930	1384
91926	262.6	650W	0.095	2.41	1.00	25.40	475	298	1130	1682
91931	313.1	777W	0.095	2.41	1.06	26.92	520	328	1295	1927
91937	373.7	925W	0.095	2.41	1.10	27.94	605	364	1545	2299
91944	444.4	1110W	0.095	2.41	1.23	31.24	660	402	1820	2709
91953	535.3	1332W	0.110	2.79	1.34	34.04	735	446	2195	3267
91964	646.4	1609W	0.110	2.79	1.45	36.83	820	496	2560	3810
91977	777.7	1924W	0.110	2.79	1.50	38.10	910	563	3050	4539
91929*	929.2	2299W	0.110	2.79	1.61	40.89	1005	594	3595	5350
91811*	1111	2745W	0.125	3.18	1.75	44.45	1110	637	4250	6325

[1] Ampacities based on 90°C conductor temperature and 30°C ambient temperature and Table 12E of the Canadian Electrical Code for permanent installation in tray.

[2] Based on CEC Part 1 Table 2 for 3 conductors in raceway (conduit) and an ambient temperature of 30°C.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

**Actual shipping weight may vary.

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Notes

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2.4 kV – 35 kV Industrial Medium-Voltage Cables

SPECIFICATION NO.		PRODUCT DESCRIPTION		REVISION DATE
6050†	DuraSheath® High Speed	EPR/XL-CPE, Medium-Voltage Power, Nonshielded 2400 V, UL Type MV-90		Sept. 2016
6155†	Uniblend® PVC High Speed	EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 5 kV and 8 kV, UL Type MV-105, 133%/100% Ins. Levels, 115 Mils		Sept. 2016
6160	Aluminum Uniblend® PVC High Speed	EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 5 kV and 8 kV, UL Type MV-105, 133%/100% Ins. Levels, 115 Mils		Sept. 2016
6175†	Uniblend® CPE High Speed	EPR/Copper Tape Shield/CPE, Medium-Voltage Power, Shielded 5 kV and 8 kV, UL Type MV-105, 133%/100% Ins. Levels, 115 Mils		Sept. 2016
6180	GenFree® Uniblend® High Speed	EPR/Copper Tape Shield/LSZH, Medium-Voltage Power, Shielded 5 kV and 8 kV, UL Type MV-105/ST1, 133%/100% Ins. Levels, 115 Mils	17 FREE	Sept. 2016
6255†	Uniblend® PVC High Speed	EPR/Copper Tape Shield with Overall PVC Jacket Medium-Voltage Power, Shielded, 5 kV and 8 kV, UL Type MV-105 133%/100% Ins. Levels, 115 Mils, Three Conductor		Sept. 2016
6275	Uniblend® CPE High Speed	EPR/Copper Tape Shield with Overall CPE Jacket Medium-Voltage Power, Shielded, 5 kV and 8 kV, UL Type MV-105 133%/100% Ins. Levels, 115 Mils, Three Conductor		Sept. 2016
6280	GenFree® Uniblend® High Speed	EPR/Copper Tape Shield with Overall LSZH Jacket Medium-Voltage Power, Shielded, 5 kV and 8 kV, UL Type MV-105 133%/100% Ins. Levels, 115 Mils, Three Conductor	17 FREE	Sept. 2016
6355†	Uniblend® PVC High Speed	EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 15 kV, UL Type MV-105, 133% Ins. Level, 220 Mils		Sept. 2016
6360†	Aluminum Uniblend® PVC High Speed	EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 15 kV, UL Type MV-105, 133% Ins. Level, 220 Mils		Sept. 2016
6375†	Uniblend® CPE High Speed	EPR/Copper Tape Shield/CPE, Medium-Voltage Power, Shielded 15 kV, UL Type MV-105, 133% Ins. Level, 220 Mils		Sept. 2016
6380	GenFree® Uniblend® High Speed	EPR/Copper Tape Shield/LSZH, Medium-Voltage Power, Shielded 15 kV, UL Type MV-105/ST1, 133% Ins. Level, 220 Mils	17 FREE	Sept. 2016
6455†	Uniblend® PVC High Speed	EPR/Copper Tape Shield with Overall PVC Jacket Medium-Voltage Power, Shielded, 15 kV, UL Type MV-105 133% Ins. Level, 220 Mils, Three Conductor		Sept. 2016
6475	Uniblend® CPE High Speed	EPR/Copper Tape Shield with Overall CPE Jacket Medium-Voltage Power, Shielded, 15 kV, UL Type MV-105 133% Ins. Level, 220 Mils, Three Conductor		Sept. 2016
6480	GenFree® Uniblend® High Speed	EPR/Copper Tape Shield with Overall LSZH Jacket Medium-Voltage Power, Shielded, 15 kV, UL Type MV-105 133% Ins. Level, 220 Mils, Three Conductor	17 FREE	Sept. 2016
6555†	Uniblend® PVC High Speed	EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 25 kV and 35 kV, UL Type MV-105, 133%/100% Ins. Levels, 345 Mils		Sept. 2016
6560†	Aluminum Uniblend® PVC High Speed	EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 25 kV and 35 kV, UL Type MV-105, 133%/100% Ins. Levels, 345 Mils		Sept. 2016
6575†	Uniblend® CPE High Speed	EPR/Copper Tape Shield/CPE, Medium-Voltage Power, Shielded 25 kV and 35 kV, UL Type MV-105, 133%/100% Ins. Levels, 345 Mils		Sept. 2016

†Indicates these products are stocked by General Cable

2.4 kV – 35 kV Industrial Medium-Voltage Cables

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
6580	GenFree® Uniblend® High Speed	EPR/Copper Tape Shield/LSZH, Medium-Voltage Power, Shielded 25 kV and 35 kV, UL Type MV-105/ST1, 133%/100% Ins. Levels, 345 Mils	Sept. 2016
6605	Uniblend® PVC High Speed	EPR/Copper Tape Shield with Overall PVC Jacket Medium-Voltage Power, Shielded, 25 kV and 35 kV, UL Type MV-105 133%/100% Ins. Levels, 345 Mils, Three Conductor	Sept. 2016
6655†	Uniblend® PVC High Speed	EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 35 kV, UL Type MV-105, 133% Ins. Levels, 420 Mils	Sept. 2016
6660	Aluminum Uniblend® PVC High Speed	EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 35 kV, UL Type MV-105, 133% Ins. Levels, 420 Mils	Sept. 2016

†Indicates these products are stocked by General Cable

DuraSheath® High Speed

EPR/XL-CPE, Medium-Voltage Power, Nonshielded 2400 V, UL Type MV-90

Product Construction

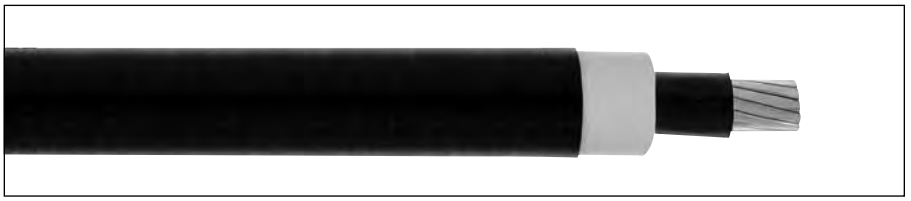
Conductor:
- 8 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Ethylene Propylene Rubber (EPR) insulation, colored to contrast with the black jacket material

Jacket:
- Lead-Free Cross-linked Chlorinated Polyethylene (XL-CPE)

Applications:
- Proven record of reliable performance through extensive use in these applications: pulp and paper mills, petrochemical plants, sewage treatment facilities, water treatment plants, steel mills, textile mills, utility power generating stations, scrubbers and other environmental protection systems, railroad and mining facilities
- For use in industrial and utility applications where ease of installation is a major concern because of limited space and exposure to personnel is minimal
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations



Features:
- Rated at 90˚C
- Excellent heat, moisture and sunlight resistance
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical- and sunlight-resistant
- Simplification of splicing and terminating by elimination of need to handle cable shield
- Extra-tough, mechanically rugged composite insulation and jacket construction
- High Speed low friction technology for easy cable pulling
- Meets cold bend test at -35˚C
- 90°C rating for continuous operation
- 130°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electric Code (NEC)
- ICEA S-96-659/NEMA WC71
- UL 1072
- UL listed as Type MV-90 for use in accordance with NEC, UL File # E90501
- Sizes 1/0 AWG and larger are listed and marked “FOR CT USE” in accordance with NEC and also meet IEEE 383 (70,000 BTU/hr)
- Listed “oil-resistant I”
- Meets EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA acceptable

Packaging:
- Material cut to length and shipped on non-returnable wood reels

CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NOMINAL CONDUCTOR DIAMETER		NOMINAL EXTRUDED STRAND SHIELD DIAMETER		NOMINAL INSULATION THICKNESS		NOMINAL INSULATION DIAMETER		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
		INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	LBS/ 1000 FT	kg/ km
2400 V, UL TYPE MV-90															
14901.410805*	8	0.14	3.56	0.15	3.81	0.125	3.18	0.41	10.41	0.58	14.73	51	76	196	292
14901.410605	6	0.17	4.32	0.19	4.83	0.125	3.18	0.44	11.18	0.62	15.75	81	121	241	359
14901.410405	4	0.22	5.59	0.23	5.84	0.125	3.18	0.49	12.45	0.66	16.76	129	192	308	458
14901.410205	2	0.27	6.86	0.29	7.37	0.125	3.18	0.55	13.97	0.72	18.29	205	305	408	607
14901.410105*	1	0.31	7.87	0.33	8.38	0.125	3.18	0.58	14.73	0.76	19.30	259	385	476	708
14901.415105	1/0	0.34	8.64	0.36	9.14	0.125	3.18	0.62	15.75	0.79	20.07	326	485	562	836
14901.415205	2/0	0.38	9.65	0.41	10.41	0.125	3.18	0.66	16.76	0.84	21.34	411	612	666	991
14901.415305*	3/0	0.43	10.92	0.45	11.43	0.125	3.18	0.71	18.03	0.92	23.37	518	771	823	1225
14901.415405	4/0	0.48	12.19	0.50	12.70	0.125	3.18	0.76	19.30	0.97	24.64	653	972	983	1463
14901.416005	250	0.53	13.46	0.55	13.97	0.140	3.56	0.84	21.34	1.08	27.43	772	1149	1183	1761
14901.416205	350	0.62	15.75	0.64	16.26	0.140	3.56	0.93	23.62	1.17	29.72	1080	1607	1545	2299
14901.416505	500	0.74	18.80	0.77	19.56	0.140	3.56	1.06	26.92	1.30	33.02	1544	2298	2077	3091
14901.417005	750	0.91	23.11	0.94	23.88	0.155	3.94	1.26	32.00	1.54	39.12	2316	3447	3040	4524
14901.417505*	1000	1.06	26.92	1.09	27.69	0.155	3.94	1.42	36.07	1.70	43.18	3086	4593	3913	5823

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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Uniblend® PVC High Speed

EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 5 kV and 8 kV, UL Type MV-105, 133%/100% Ins. Levels, 115 Mils

Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Jacket:
- Low-friction, lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105˚C
- High Speed low friction technology for easy cable pulling
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength

Features (cont'd.):
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35˚C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test
- Sizes 1/0 AWG and larger are listed and marked "Sunlight-Resistant FOR CT USE" in accordance with NEC
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SI2/0ZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE				COPPER WEIGHT		AMPACITY						CONDUIT SIZING (4) (INCHES)
							DIAMETER		WEIGHT				CONDUIT IN AIR (1)		UNDERGROUND DUCT (2)		TRAY (3)		
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90˚C	105˚C	90˚C	105˚C	90˚C	105˚C	
5 kV AND 8 kV, UL TYPE MV-105, 133%/100% INS. LEVELS, 115 MILS																			
17001.120605	6	0.17	0.415	0.490	0.060	1.52	0.65	16.51	295	439	126	188	83	93	90	97	-	-	2
17001.120405	4	0.22	0.455	0.535	0.060	1.52	0.70	17.15	365	543	178	265	110	120	115	125	-	-	2.5
17001.120205	2	0.27	0.510	0.590	0.060	1.52	0.76	19.05	471	701	259	385	150	165	155	165	-	-	2.5
17001.120105*	1	0.31	0.545	0.620	0.060	1.52	0.79	20.07	539	802	315	468	170	190	175	185	-	-	2.5
17001.125105	1/0	0.34	0.580	0.655	0.060	1.52	0.82	21.08	623	927	386	575	195	215	200	215	195	220	3
17001.125205	2/0	0.38	0.620	0.695	0.060	1.52	0.86	22.10	728	1083	474	706	225	255	230	245	225	250	3
17001.125305*	3/0	0.43	0.665	0.745	0.080	2.03	0.94	24.38	886	1318	585	871	260	290	260	275	260	290	3
17001.135405	4/0	0.48	0.720	0.795	0.080	2.03	1.00	25.65	1053	1567	725	1080	295	330	295	315	300	335	3
17001.136005	250	0.53	0.770	0.850	0.080	2.03	1.05	27.18	1199	1784	849	1263	330	365	325	345	335	370	3.5
17001.136205	350	0.62	0.870	0.945	0.080	2.03	1.14	29.72	1559	2320	1165	1735	395	440	390	415	415	460	3.5
17001.136505	500	0.74	0.990	1.065	0.080	2.03	1.27	33.53	2088	3107	1639	2439	480	535	465	500	515	575	4
17001.137005	750	0.91	1.170	1.250	0.080	2.03	1.45	38.35	2962	4407	2427	3611	585	655	565	610	665	745	5
17001.637505	1000	1.06	1.320	1.400	0.080	2.03	1.60	42.42	3815	5677	3210	4777	675	755	640	690	795	890	5

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
(1) Ampacities are in accordance with Table 310.60(C)(73) of the NEC for triplexed or three single conductor copper cables in isolated conduit in air based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient air temperature of 40˚C (104˚F).
(2) Ampacities are in accordance with Table 310.60(C)(77) of the NEC for triplexed or three single conductor copper cables in underground ducts (three conductors per duct), based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient earth temperature of 20˚C (68˚F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.
(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40˚C (104˚F); the ampacities are based on 75% of the values per Table 310.60(C)(69), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(69).
(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.
Note: a) Sizes smaller than 1/0 AWG do not include "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

UL® LISTED

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

Aluminum Uniblend® PVC High Speed

EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 5 kV and 8 kV, UL Type MV-105, 133%/100% Ins. Levels, 115 Mils

XTRA LOW FRICTION XLF TECHNOLOGY

Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil 1350 aluminum compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Jacket:
- Low-friction, lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications

Applications (cont'd.):
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105˚C
- High Speed low friction technology for easy cable pulling
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35˚C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test
- Sizes 1/0 AWG and larger are listed and marked “Sunlight-Resistant FOR CT USE” in accordance with NEC
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		ALUMINUM WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)		CONDUIT SIZING (4) (INCHES)
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90˚C	105˚C	90˚C	105˚C	90˚C	105˚C	
5 kV AND 8 kV, UL TYPE MV-105, 133%/100% INS. LEVELS, 115 MILS																					
17001.120608*	6	0.17	0.415	0.490	0.060	1.52	0.65	16.51	239	356	25	37	45	67	65	72	70	75	-	-	2
17001.120408*	4	0.22	0.455	0.535	0.060	1.52	0.70	17.15	275	409	39	58	49	73	84	94	91	98	-	-	2.5
17001.120208*	2	0.27	0.510	0.590	0.060	1.52	0.76	19.05	328	488	62	92	54	81	115	130	120	130	-	-	2.5
17001.120108*	1	0.31	0.545	0.620	0.060	1.52	0.79	20.07	359	534	78	116	57	84	130	150	135	145	-	-	2.5
17001.125108*	1/0	0.34	0.580	0.655	0.060	1.52	0.82	21.08	396	590	99	147	60	90	150	170	155	165	150	170	3
17001.125208*	2/0	0.38	0.620	0.695	0.060	1.52	0.86	22.10	442	658	125	186	63	94	175	200	175	190	175	195	3
17001.125308*	3/0	0.43	0.665	0.745	0.080	2.03	0.94	24.38	526	783	158	235	67	100	200	225	200	215	205	225	3
17001.135408*	4/0	0.48	0.720	0.795	0.080	2.03	1.00	25.65	599	891	199	296	72	107	230	260	230	245	235	265	3
17001.136008*	250	0.53	0.770	0.850	0.080	2.03	1.05	27.18	661	984	234	348	77	115	255	290	250	270	260	290	3.5
17001.136208*	350	0.62	0.870	0.945	0.080	2.03	1.14	29.72	807	1201	329	490	84	125	310	350	305	330	325	360	3.5
17001.136508*	500	0.74	0.990	1.065	0.080	2.03	1.27	33.53	1012	1506	468	696	95	141	385	430	370	400	400	450	4
17001.137008*	750	0.91	1.170	1.250	0.080	2.03	1.45	38.35	1349	2008	703	1046	111	165	485	540	455	490	525	585	5
17001.137508*	1000	1.06	1.320	1.400	0.080	2.03	1.60	42.42	1664	2476	937	1394	122	182	565	640	525	565	630	705	5

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(74) of the NEC for triplexed or three single conductor aluminum cables in isolated conduit in air based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient air temperature of 40˚C (104˚F).

(2) Ampacities are in accordance with Table 310.60(C)(78) of the NEC for triplexed or three single conductor aluminum cables in underground ducts (three conductors per duct), based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient earth temperature of 20˚C (68˚F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40˚C (104˚F) the ampacities are based on 75% of the values per Table 310.60(C)(70), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(70).

(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

Note: a) Sizes smaller than 1/0 AWG do not include “FOR CT USE”.
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

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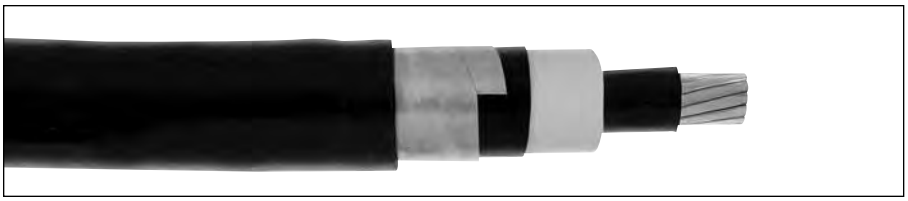
RoHS Compliant Directive 2011/65/EU

UL LISTED

Uniblend® CPE High Speed

EPR/Copper Tape Shield/CPE, Medium-Voltage Power, Shielded 5 kV and 8 kV, UL Type MV-105, 133%/100% Ins. Levels, 115 Mils



Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Chlorinated Polyethylene (CPE)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105°C
- Excellent flame resistance – burns to an ash; does not exhibit thermoplastic drip
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High Speed low friction technology for easy cable pulling
- High dielectric strength

Features (cont'd.):
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test
- Sizes 1/0 AWG and larger are listed and marked "Sunlight-Resistant FOR CT USE" in accordance with NEC
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE				COPPER WEIGHT		AMPACITY						CONDUIT SIZING (4) (INCHES)
							DIAMETER		WEIGHT				CONDUIT IN AIR (1)		UNDERGROUND DUCT (2)		TRAY (3)		
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C	
5 kV AND 8 kV, UL TYPE MV-105, 133%/100% INS. LEVELS, 115 MILS																			
17101.120605*	6	0.17	0.415	0.490	0.060	1.52	0.65	16.51	293	436	126	188	83	93	90	97	-	-	2
17101.120405*	4	0.22	0.455	0.535	0.060	1.52	0.70	17.15	363	540	178	265	110	120	115	125	-	-	2.5
17101.120205	2	0.27	0.510	0.590	0.060	1.52	0.76	19.05	469	698	259	385	150	165	155	165	-	-	2.5
17101.120105*	1	0.31	0.545	0.620	0.060	1.52	0.79	20.07	537	799	315	468	170	190	175	185	-	-	2.5
17101.125105	1/0	0.34	0.580	0.655	0.060	1.52	0.82	21.08	621	924	386	575	195	215	200	215	195	220	3
17101.125205	2/0	0.38	0.620	0.695	0.060	1.52	0.86	22.10	726	1080	474	706	225	255	230	245	225	250	3
17101.125305*	3/0	0.43	0.665	0.745	0.080	2.03	0.94	24.38	883	1314	585	871	260	290	260	275	260	290	3
17101.135405	4/0	0.48	0.720	0.795	0.080	2.03	1.00	25.65	1049	1561	725	1080	295	330	295	315	300	335	3
17101.136005	250	0.53	0.770	0.850	0.080	2.03	1.05	27.18	1195	1778	849	1263	330	365	325	345	335	370	3.5
17101.136205	350	0.62	0.870	0.945	0.080	2.03	1.14	29.72	1555	2314	1165	1735	395	440	390	415	415	460	3.5
17101.136505	500	0.74	0.990	1.065	0.080	2.03	1.27	33.53	2083	3100	1639	2439	480	535	465	500	515	575	4
17101.137005	750	0.91	1.170	1.250	0.080	2.03	1.45	38.35	2981	4436	2427	3611	585	655	565	610	665	745	5
17101.137505*	1000	1.06	1.320	1.400	0.080	2.03	1.60	42.42	3808	5666	3210	4777	675	755	640	690	795	890	5

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(73) of the NEC for triplexed or three single conductor copper cables in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(77) of the NEC for triplexed or three single conductor copper cables in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194 °F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40°C (104°F) the ampacities are based on 75% of the values per Table 310.60(C)(69), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(69).

(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

Note: a) Sizes smaller than 1/0 AWG do not include "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

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RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
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GenFree® Uniblend® High Speed

EPR/Copper Tape Shield/LSZH, Medium-Voltage Power, Shielded 5 kV and 8 kV, UL Type MV-105/ST1, 133%/100% Ins. Levels, 115 Mils

Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

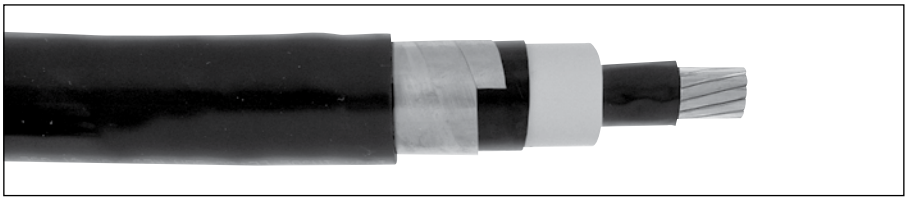
Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Overall Jacket:
- Lead-free, moisture- and sunlight-resistant Low-Smoke, Zero-Halogen Polyolefin (LSZH)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications



Applications (cont'd.):
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105°C
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance
- High Speed low friction technology for easy cable pulling
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35°C
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Compliances:
- National Electrical Code (NEC)
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- ICEA T-33-655
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- UL 1685 Vertical Flame and ST1 Smoke Release Test
- Sizes 1/0 AWG and larger are listed and marked "Sunlight-Resistant FOR CT USE" in accordance with NEC
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

* CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		COPPER WEIGHT		AMPACITY: CONDUIT IN AIR (1)		AMPACITY: UNDERGROUND DUCT (2)		AMPACITY: TRAY (3)		CONDUIT SIZING (4) (INCHES)
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C	
5 kV AND 8 kV, UL TYPE MV-105, 133%/100% INS. LEVELS, 115 MILS																			
17201.120605*	6	0.17	0.415	0.490	0.060	1.52	0.65	16.51	295	439	126	188	83	93	90	97	-	-	2
17201.120405*	4	0.22	0.455	0.535	0.060	1.52	0.70	17.15	365	543	178	265	110	120	115	125	-	-	2.5
17201.120205*	2	0.27	0.510	0.590	0.060	1.52	0.76	19.05	471	701	259	385	150	165	155	165	-	-	2.5
17201.120105*	1	0.31	0.545	0.620	0.060	1.52	0.79	20.07	539	802	315	468	170	190	175	185	-	-	2.5
17201.125105*	1/0	0.34	0.580	0.655	0.060	1.52	0.82	21.08	623	927	386	575	195	215	200	215	195	220	3
17201.125205*	2/0	0.38	0.620	0.695	0.060	1.52	0.86	22.10	728	1083	474	706	225	255	230	245	225	250	3
17201.125305*	3/0	0.43	0.665	0.745	0.080	2.03	0.94	24.38	886	1318	585	871	260	290	260	275	260	290	3
17201.135405*	4/0	0.48	0.720	0.795	0.080	2.03	1.00	25.65	1053	1567	725	1080	295	330	295	315	300	335	3
17201.136005*	250	0.53	0.770	0.850	0.080	2.03	1.05	27.18	1199	1784	849	1263	330	365	325	345	335	370	3.5
17201.136205*	350	0.62	0.870	0.945	0.080	2.03	1.14	29.72	1559	2320	1165	1735	395	440	390	415	415	460	3.5
17201.136505*	500	0.74	0.990	1.065	0.080	2.03	1.27	33.53	2088	3107	1639	2439	480	535	465	500	515	575	4
17201.137005*	750	0.91	1.170	1.250	0.080	2.03	1.45	38.35	2962	4407	2427	3611	585	655	565	610	665	745	5
17201.637505*	1000	1.06	1.320	1.400	0.080	2.03	1.60	42.42	3815	5677	3210	4777	675	755	640	690	795	890	5

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(73) of the NEC for triplexed or three single conductor copper cables in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(77) of the NEC for triplexed or three single conductor copper cables in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40°C (104°F) the ampacities are based on 75% of the values per Table 310.60(C)(69), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(69).

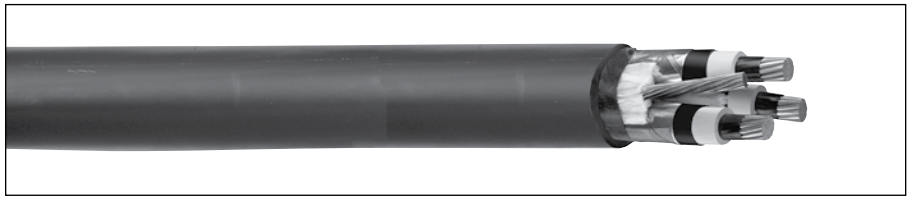
(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

Note: a) Sizes smaller than 1/0 AWG do not include "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

General Cable
Phone: 888-593-3355
www.generalcable.com

Uniblend® PVC High Speed EPR/Copper Tape Shield with Overall PVC Jacket, Medium-Voltage Power, Shielded, 5 kV and 8 kV UL Type MV-105, 133%/100% Ins. Levels, 115 Mils, Three Conductor

XTRA LOW FRICTION XLF TECHNOLOGY



Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Grounding Conductor:
- 1 bare grounding conductor may be in contact with metallic shielding tape

Overall Jacket:
- Low-friction, lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610
- 3 bare copper ground wires
- Covered ground wires

Applications:
- Suited for use in a broad range of commercial, industrial and utility applications, where reliability is the major concern, space is limited and ease of installation is critical
- In wet or dry locations when installed in accordance with NEC
- In aerial, direct burial, conduit, open tray and underground duct installations

Features:
- Rated at 105°C
- High Speed low friction technology for easy cable pulling
- Excellent heat, moisture and sunlight resistance
- Outstanding corona resistance
- Flexibility for easy handling

Features (cont'd.):
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (70,000 BTU/hr)
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Optional Flame Tests:
- IEEE 1202 (70,000 BTU/hr)/CSA FT4

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		GROUND WIRE (AWG)	NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)	
		INCHES	MIN.	MAX.		INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C
5 kV AND 8 kV, UL TYPE MV-105, 133%/100% INS. LEVELS, 115 MILS																			
15493.400605	6	0.17	0.415	0.490	6	0.080	2.03	1.29	32.77	939	1397	460	685	83	92	88	95	93	105
15493.400405	4	0.22	0.455	0.535	6	0.080	2.03	1.39	35.31	1158	1723	616	917	105	120	115	125	120	135
15493.400205	2	0.27	0.510	0.590	6	0.080	2.03	1.51	38.35	1511	2249	860	1279	145	165	150	160	165	185
15493.405105	1/0	0.34	0.580	0.655	4	0.080	2.03	1.67	42.42	2030	3021	1290	1919	195	215	195	210	215	240
15493.405205	2/0	0.38	0.620	0.695	4	0.080	2.03	1.82	46.23	2449	3645	1556	2315	220	245	220	235	245	275
15493.405405	4/0	0.48	0.720	0.795	3	0.110	2.79	2.07	52.58	3438	5116	2344	3488	290	320	285	305	325	360
15493.406005*	250	0.53	0.770	0.850	2	0.110	2.79	2.15	54.61	3968	5904	2759	4105	315	350	310	335	360	400
15493.406205	350	0.62	0.870	0.945	2	0.110	2.79	2.36	59.94	5009	7454	3713	5525	385	430	375	400	435	490
15493.406505	500	0.74	0.990	1.065	1	0.110	2.79	2.64	67.06	6793	10065	5191	7724	470	525	450	485	535	600
15493.407005*	750	0.91	1.170	1.250	1/0	0.140	3.56	3.14	79.76	9833	14633	7629	11352	570	635	545	585	670	745
15493.407505*	1000	1.06	1.320	1.400	2/0	0.140	3.56	3.48	88.39	12601	18753	10070	14985	650	725	615	660	770	860

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(75) of the NEC for three conductor copper cable in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(79) of the NEC for three conductor copper cable in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on three conductor Type MV-105 cables in single layer in an uncovered tray with maintained spacing of not less than one cable diameter between cables, in accordance with Section 392.80(B)(1) of the NEC at an ambient air temperature of 40°C (104°F); the ampacities are per Table 310.60(C)(71), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 95% of the values in NEC Table 310.60(C)(75).

Note: a) All sizes are "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

UL® LISTED

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

Uniblend® CPE High Speed

EPR/Copper Tape Shield with Overall CPE Jacket, Medium-Voltage Power, Shielded 5 kV and 8 kV, UL Type MV-105, 133%/100% Ins. Levels, 115 Mils, Three Conductor

XTRA LOW FRICTION XLF TECHNOLOGY

Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

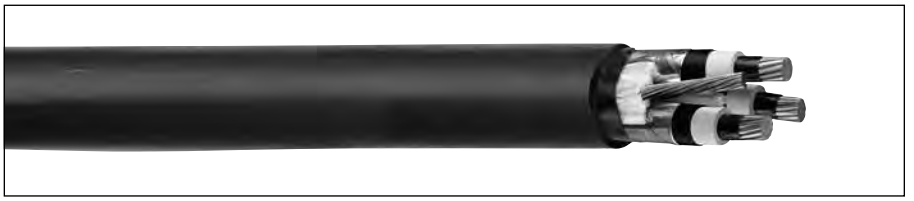
Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Grounding Conductor:
- 1 bare grounding conductor may be in contact with metallic shielding tape

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Chlorinated Polyethylene (CPE)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610



Applications:
- Suited for use in a broad range of commercial, industrial and utility applications, where reliability is the major concern, space is limited and ease of installation is critical
- In wet or dry locations when installed in accordance with NEC
- In aerial, direct burial, conduit, open tray and underground duct installations

Features:
- Rated at 105˚C
- Excellent flame resistance – burns to an ash; does not exhibit thermoplastic drip
- Excellent heat, moisture and sunlight resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High Speed low friction technology for easy cable pulling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35˚C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (70,000 BTU/hr)
- OSHA Acceptable
- RoHS Compliant

Optional Flame Tests:
- IEEE 1202 (70,000 BTU/hr)/CSA FT4

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		GROUND WIRE (AWG)	NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)	
		INCHES	MIN.	MAX.		INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90˚C	105˚C	90˚C	105˚C	90˚C	105˚C
5 kV AND 8 kV, UL TYPE MV-105, 133%/100% INS. LEVELS, 115 MILS																			
15593.400605*	6	0.17	0.415	0.490	6	0.080	2.03	1.29	32.77	939	1397	460	685	83	92	88	95	93	105
15593.400405*	4	0.22	0.455	0.535	6	0.080	2.03	1.39	35.31	1158	1723	616	917	105	120	115	125	120	135
15593.400205*	2	0.27	0.510	0.590	6	0.080	2.03	1.51	38.35	1511	2249	860	1279	145	165	150	160	165	185
15593.405105*	1/0	0.34	0.580	0.655	4	0.080	2.03	1.67	42.42	2030	3021	1290	1919	195	215	195	210	215	240
15593.405205*	2/0	0.38	0.620	0.695	4	0.080	2.03	1.82	46.23	2449	3645	1556	2315	220	245	220	235	245	275
15593.405405*	4/0	0.48	0.720	0.795	3	0.110	2.79	2.07	52.58	3438	5116	2344	3488	290	320	285	305	325	360
15593.406005*	250	0.53	0.770	0.850	2	0.110	2.79	2.15	54.61	3968	5904	2759	4105	315	350	310	335	360	400
15593.406205*	350	0.62	0.870	0.945	2	0.110	2.79	2.36	59.94	5009	7454	3713	5525	385	430	375	400	435	490
15593.406505*	500	0.74	0.990	1.065	1	0.110	2.79	2.64	67.06	6793	10065	5191	7724	470	525	450	485	535	600
15593.407005*	750	0.91	1.170	1.250	1/0	0.140	3.56	3.14	79.76	9833	14633	7629	11352	570	635	545	585	670	745
15593.407505*	1000	1.06	1.320	1.400	2/0	0.140	3.56	3.48	88.39	12601	18753	10070	14985	650	725	615	660	770	860

Dimensions and weights are nominal. Subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
(1) Ampacities are in accordance with Table 310.60(C)(75) of the NEC for three conductor copper cable in isolated conduit in air based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient air temperature of 40˚C (104˚F).
(2) Ampacities are in accordance with Table 310.60(C)(79) of the NEC for three conductor copper cable in underground ducts (three conductors per duct), based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient earth temperature of 20˚C (68˚F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.
(3) Ampacities are based on three conductor Type MV-105 cables in single layer in an uncovered tray with maintained spacing of not less than one cable diameter between cables, in accordance with Section 392.80(B)(1) of the NEC at an ambient air temperature of 40˚C (104˚F); the ampacities are per Table 310.60(C)(71), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 95% of the values in NEC Table 310.60(C)(75).
Note: a) All sizes are “FOR CT USE”.
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

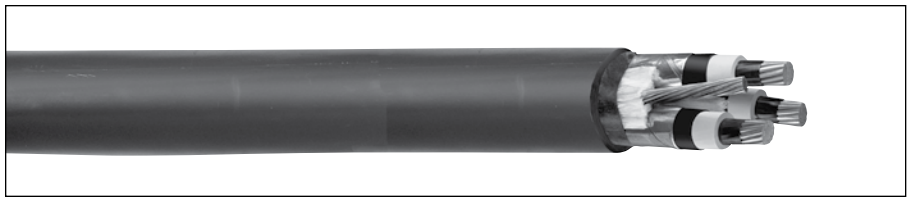
General Cable
Phone: 888-593-3355
www.generalcable.com

RoHS Compliant Directive 2011/65/EU

UL LISTED

GenFree® Uniblend® High Speed

EPR/Copper Tape Shield with Overall LSZH Jacket, Medium-Voltage Power, Shielded 5 kV and 8 kV, UL Type MV-105, 133%/100% Ins. Levels, 115 Mils, Three Conductor



Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Grounding Conductor:
- 1 bare grounding conductor may be in contact with metallic shielding tape

Overall Jacket:
- Lead-free, moisture- and sunlight-resistant Low-Smoke, Zero-Halogen Polyolefin (LSZH)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Suited for use in a broad range of commercial, industrial and utility applications, where reliability is the major concern, space is limited and ease of installation is critical
- In wet or dry locations when installed in accordance with NEC
- In aerial, direct burial, conduit, open tray and underground duct installations

Features:
- Rated at 105°C
- Excellent heat, moisture and sunlight resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High Speed low friction technology for easy cable pulling
- High dielectric strength

Features (cont'd.):
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- ICEA T-33-655
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (70,000 BTU/hr)
- OSHA Acceptable
- RoHS Compliant

Optional Flame Tests:
- IEEE 1202 (70,000 BTU/hr)/CSA FT4

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		GROUND WIRE (AWG)	NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)	
		INCHES	MIN.	MAX.		INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C
5 kV AND 8 kV, UL TYPE MV-105, 133%/100% INS. LEVELS, 115 MILS																			
15693.400605*	6	0.17	0.415	0.490	6	0.080	2.03	1.29	32.77	939	1397	460	685	83	92	88	95	93	105
15693.400405*	4	0.22	0.455	0.535	6	0.080	2.03	1.39	35.31	1158	1723	616	917	105	120	115	125	120	135
15693.400205*	2	0.27	0.510	0.590	6	0.080	2.03	1.51	38.35	1511	2249	860	1279	145	165	150	160	165	185
15693.405105*	1/0	0.34	0.580	0.655	4	0.080	2.03	1.67	42.42	2030	3021	1290	1919	195	215	195	210	215	240
15693.405205*	2/0	0.38	0.620	0.695	4	0.080	2.03	1.82	46.23	2449	3645	1556	2315	220	245	220	235	245	275
15693.405405*	4/0	0.48	0.720	0.795	3	0.110	2.79	2.07	52.58	3438	5116	2344	3488	290	320	285	305	325	360
15693.406005*	250	0.53	0.770	0.850	2	0.110	2.79	2.15	54.61	3968	5904	2759	4105	315	350	310	335	360	400
15693.406205*	350	0.62	0.870	0.945	2	0.110	2.79	2.36	59.94	5009	7454	3713	5525	385	430	375	400	435	490
15693.406505*	500	0.74	0.990	1.065	1	0.110	2.79	2.64	67.06	6793	10065	5191	7724	470	525	450	485	535	600
15693.407005*	750	0.91	1.170	1.250	1/0	0.140	3.56	3.14	79.76	9833	14633	7629	11352	570	635	545	585	670	745
15693.407505*	1000	1.06	1.320	1.400	2/0	0.140	3.56	3.48	88.39	12601	18753	10070	14985	650	725	615	660	770	860

Dimensions and weights are nominal. Subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
(1) Ampacities are in accordance with Table 310.60(C)(75) of the NEC for three conductor copper cable in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).
(2) Ampacities are in accordance with Table 310.60(C)(79) of the NEC for three conductor copper cable in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.
(3) Ampacities are based on three conductor Type MV-105 cables in single layer in an uncovered tray with maintained spacing of not less than one cable diameter between cables, in accordance with Section 392.80(B)(1) of the NEC at an ambient air temperature of 40°C (104°F); the ampacities are per Table 310.60(C)(71), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 95% of the values in NEC Table 310.60(C)(75).
Note: a) All sizes are "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

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Uniblend® PVC High Speed

EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 15 kV, UL Type MV-105, 133% Ins. Level, 220 Mils

XTRA LOW FRICTION XLF TECHNOLOGY

Product Construction:

Conductor:
- 2 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

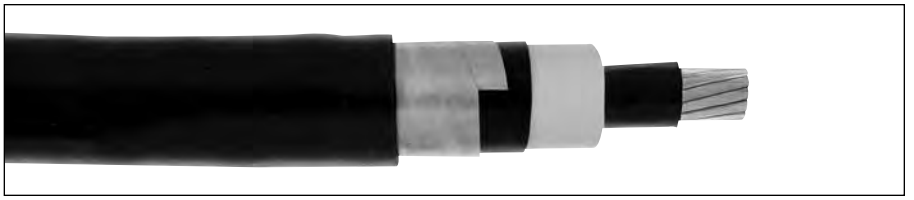
Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Jacket:
- Low-friction, lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications



Applications (cont'd.):
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105°C
- High Speed low friction technology for easy cable pulling
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test
- Sizes 1/0 AWG and larger are listed and marked "Sunlight-Resistant FOR CT USE" in accordance with NEC
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)		CONDUIT SIZING (4) (INCHES)
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C	
15 kV¥, UL TYPE MV-105, 133% INS. LEVEL, 220 MILS																			
17031.130205	2	0.27	0.710	0.800	0.080	2.03	0.99	25.14	658	979	276	411	150	165	155	165	-	-	3
17031.130105*	1	0.31	0.745	0.830	0.080	2.03	1.02	25.91	733	1090	332	494	170	190	175	185	-	-	3.5
17031.135105	1/0	0.34	0.780	0.865	0.080	2.03	1.06	26.92	825	1228	403	600	195	215	200	215	195	220	3.5
17031.135205	2/0	0.38	0.820	0.905	0.080	2.03	1.10	27.94	938	1396	492	732	225	255	230	245	225	250	3.5
17031.135305*	3/0	0.43	0.865	0.955	0.080	2.03	1.14	28.95	1078	1604	603	897	260	290	260	275	260	290	3.5
17031.135405	4/0	0.48	0.920	1.005	0.080	2.03	1.21	30.73	1261	1876	743	1105	295	330	295	315	300	335	4
17031.136005	250	0.53	0.970	1.060	0.080	2.03	1.25	31.75	1407	2093	866	1289	330	365	325	345	335	370	4
17031.136205	350	0.62	1.070	1.155	0.080	2.03	1.35	34.29	1783	2653	1184	1761	395	440	390	415	415	460	5
17031.136505	500	0.74	1.190	1.275	0.080	2.03	1.47	37.34	2331	3468	1657	2466	480	535	465	500	515	575	5
17031.137005	750	0.91	1.370	1.460	0.080	2.03	1.65	41.91	3234	4812	2445	3638	585	655	565	610	665	745	6
17031.137505	1000	1.06	1.520	1.610	0.110	2.79	1.86	47.24	4219	6278	3228	4803	675	755	640	690	795	890	6

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(73) of the NEC for triplexed or three single conductor copper cables in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(77) of the NEC for triplexed or three single conductor copper cables in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194 °F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40°C (104°F) the ampacities are based on 75% of the values per Table 310.60(C)(69), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(69).

(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

¥ 100% insulation level is available upon request.

Note: a) Sizes smaller than 1/0 AWG do not include "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

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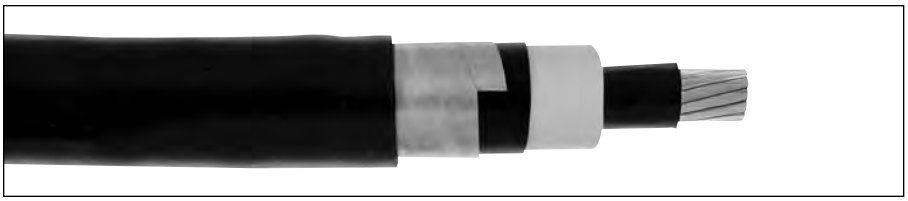
Aluminum Uniblend® PVC High Speed

EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 15 kV, UL Type MV-105, 133% Ins. Level, 220 Mils



Product Construction:

Conductor:
- 2 AWG thru 1000 kcmil 1350 aluminum compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Jacket:
- Low-friction, lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105°C
- High Speed low friction technology for easy cable pulling
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant

Features (cont'd.):
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test
- Sizes 1/0 AWG and larger are listed and marked "Sunlight-Resistant FOR CT USE" in accordance with NEC
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
  EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		ALUMINUM WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)		CONDUIT SIZING (4) (INCHES)
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C	
15 kV¥, UL TYPE MV-105, 133% INS. LEVEL, 220 MILS																					
17031.130208*	2	0.27	0.710	0.800	0.080	2.03	0.99	25.14	515	767	62	92	71	106	115	130	120	130	-	-	3
17031.130108*	1	0.31	0.745	0.830	0.080	2.03	1.02	25.91	553	822	78	116	74	110	130	150	135	145	-	-	3.5
17031.135108	1/0	0.34	0.780	0.865	0.080	2.03	1.06	26.92	598	890	99	147	77	115	150	170	155	165	150	170	3.5
17031.135208*	2/0	0.38	0.820	0.905	0.080	2.03	1.10	27.94	652	970	125	186	81	121	175	200	175	190	175	195	3.5
17031.135308*	3/0	0.43	0.865	0.955	0.080	2.03	1.14	28.95	718	1068	158	235	85	126	200	225	200	215	205	225	3.5
17031.135408	4/0	0.48	0.920	1.005	0.080	2.03	1.21	30.73	807	1201	199	296	90	134	230	260	230	245	235	265	4
17031.136008*	250	0.53	0.970	1.060	0.080	2.03	1.25	31.75	869	1293	234	348	94	140	255	290	250	270	260	290	4
17031.136208	350	0.62	1.070	1.155	0.080	2.03	1.35	34.29	1031	1534	329	490	103	153	310	350	305	330	325	360	5
17031.136508	500	0.74	1.190	1.275	0.080	2.03	1.47	37.34	1255	1868	468	696	113	168	385	430	370	400	400	450	5
17031.137008	750	0.91	1.370	1.460	0.080	2.03	1.65	41.91	1621	2412	703	1046	129	192	485	540	455	490	515	585	6
17031.137508	1000	1.06	1.520	1.610	0.110	2.79	1.86	47.24	2068	3078	937	1394	140	208	565	640	525	565	620	705	6

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(74) of the NEC for triplexed or three single conductor aluminum cables in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(78) of the NEC for triplexed or three single conductor aluminum cables in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40°C (104°F) the ampacities are based on 75% of the values per Table 310.60(C)(70), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(70).

(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

¥ 100% insulation level is available upon request.

Note: a) Sizes smaller than 1/0 AWG do not include "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

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Uniblend® CPE High Speed

EPR/Copper Tape Shield/CPE, Medium-Voltage Power, Shielded 15 kV, UL Type MV-105, 133% Ins. Level, 220 Mils

Product Construction:

Conductor:
- 2 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

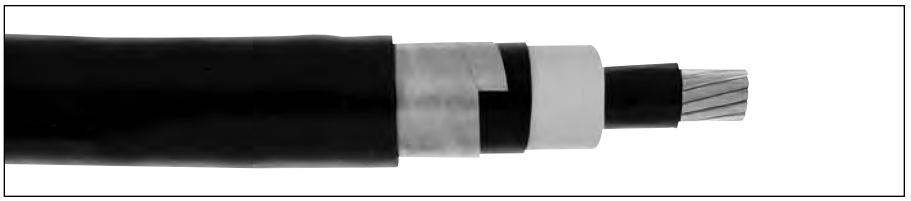
Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Chlorinated Polyethylene (CPE)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications



Applications (cont'd.):
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105°C
- Excellent flame resistance – burns to an ash; does not exhibit thermoplastic drip
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High Speed low friction technology for easy cable pulling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test
- Sizes 1/0 AWG and larger are listed and marked "Sunlight-Resistant FOR CT USE" in accordance with NEC
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)		CONDUIT SIZING (4) (INCHES)
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C	
15 kV¥, UL TYPE MV-105, 133% INS. LEVEL, 220 MILS																			
17131.130205	2	0.27	0.710	0.800	0.080	2.03	0.99	25.14	655	975	276	411	150	165	155	165	-	-	3
17131.130105	1	0.31	0.745	0.830	0.080	2.03	1.02	25.91	730	1086	332	494	170	190	175	185	-	-	3.5
17131.135105	1/0	0.34	0.780	0.865	0.080	2.03	1.06	26.92	820	1220	403	600	195	215	200	215	195	220	3.5
17131.135205	2/0	0.38	0.820	0.905	0.080	2.03	1.10	27.94	933	1388	492	732	225	255	230	245	225	250	3.5
17131.135305*	3/0	0.43	0.865	0.955	0.080	2.03	1.14	28.95	1072	1595	603	897	260	290	260	275	260	290	3.5
17131.135405	4/0	0.48	0.920	1.005	0.080	2.03	1.21	30.73	1248	1857	743	1105	295	330	295	315	300	335	4
17131.136005	250	0.53	0.970	1.060	0.080	2.03	1.25	31.75	1402	2086	866	1289	330	365	325	345	335	370	4
17131.136205	350	0.62	1.070	1.155	0.080	2.03	1.35	34.29	1778	2646	1184	1761	395	440	390	415	415	460	5
17131.136505	500	0.74	1.190	1.275	0.080	2.03	1.47	37.34	2325	3460	1657	2466	480	535	465	500	515	575	5
17131.137005	750	0.91	1.370	1.460	0.080	2.03	1.65	41.91	3250	4836	2445	3638	585	655	565	610	665	745	6
17131.637505	1000	1.06	1.520	1.610	0.110	2.79	1.86	47.24	4209	6263	3228	4803	675	755	640	690	795	890	6

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(73) of the NEC for triplexed or three single conductor copper cables in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(77) of the NEC for triplexed or three single conductor copper cables in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40°C (104°F) the ampacities are based on 75% of the values per Table 310.60(C)(69), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(69).

(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

¥ 100% insulation level is available upon request.

Note: a) Sizes smaller than 1/0 AWG do not include "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

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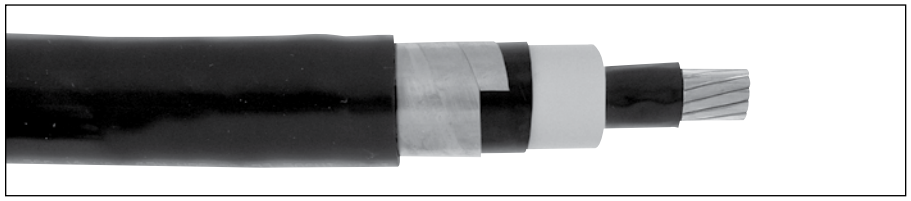
GenFree® Uniblend® High Speed

EPR/Copper Tape Shield/LSZH, Medium-Voltage Power, Shielded 15 kV, UL Type MV-105/ST1, 133% Ins. Level, 220 Mils



Product Construction:

Conductor:
- 2 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Overall Jacket:
- Lead-free, moisture- and sunlight-resistant Low-Smoke, Zero-Halogen Polyolefin (LSZH)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105°C
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High Speed low friction technology for easy cable pulling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant

Features (cont'd.):
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- ICEA T-33-655
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test
- UL 1685 Vertical Flame and ST1 Smoke Release Test
- Sizes 1/0 AWG and larger are listed and marked "Sunlight-Resistant FOR CT USE" in accordance with NEC
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)		CONDUIT SIZING (4) (INCHES)
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C	
15 kV¥, UL TYPE MV-105, 133% INS. LEVEL, 220 MILS																			
17231.130205*	2	0.27	0.710	0.800	0.080	2.03	0.99	25.14	658	979	276	411	150	165	155	165	-	-	3
17231.130105*	1	0.31	0.745	0.830	0.080	2.03	1.02	25.91	733	1090	332	494	170	190	175	185	-	-	3.5
17231.135105*	1/0	0.34	0.780	0.865	0.080	2.03	1.06	26.92	825	1228	403	600	195	215	200	215	195	220	3.5
17231.135205*	2/0	0.38	0.820	0.905	0.080	2.03	1.10	27.94	938	1396	492	732	225	255	230	245	225	250	3.5
17231.135305*	3/0	0.43	0.865	0.955	0.080	2.03	1.14	28.95	1078	1604	603	897	260	290	260	275	260	290	3.5
17231.135405*	4/0	0.48	0.920	1.005	0.080	2.03	1.21	30.73	1261	1876	743	1105	295	330	295	315	300	335	4
17231.136005*	250	0.53	0.970	1.060	0.080	2.03	1.25	31.75	1407	2093	866	1289	330	365	325	345	335	370	4
17231.136205*	350	0.62	1.070	1.155	0.080	2.03	1.35	34.29	1783	2653	1184	1761	395	440	390	415	415	460	5
17231.136505*	500	0.74	1.190	1.275	0.080	2.03	1.47	37.34	2331	3468	1657	2466	480	535	465	500	515	575	5
17231.137005*	750	0.91	1.370	1.460	0.080	2.03	1.65	41.91	3234	4812	2445	3638	585	655	565	610	665	745	6
17231.137505*	1000	1.06	1.520	1.610	0.110	2.79	1.86	47.24	4219	6278	3228	4803	675	755	640	690	795	890	6

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(73) of the NEC for triplexed or three single conductor copper cables in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(77) of the NEC for triplexed or three single conductor copper cables in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40°C (104°F) the ampacities are based on 75% of the values per Table 310.60(C)(69), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(69).

(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

¥ 100% insulation level is available upon request.

Note: a) Sizes smaller than 1/0 AWG do not include "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

UL LISTED

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

Uniblend® PVC High Speed EPR/Copper Tape Shield with Overall PVC Jacket, Medium-Voltage Power, Shielded, 15 kV UL Type MV-105, 133% Ins. Level, 220 Mils, Three Conductor

XTRA LOW FRICTION XLF TECHNOLOGY

Product Construction:

Conductor:
- 2 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

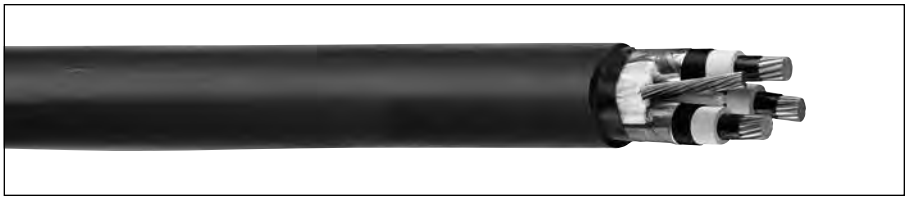
Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Grounding Conductor:
- 1 bare grounding conductor may be in contact with metallic shielding tape

Overall Jacket:
- Low-friction, lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610



Applications:
- Suited for use in a broad range of commercial, industrial and utility applications, where reliability is the major concern, space is limited and ease of installation is critical
- In wet or dry locations when installed in accordance with NEC
- In aerial, direct burial, conduit, open tray and underground duct installations

Features:
- Rated at 105˚C
- High Speed low friction technology for easy cable pulling
- Excellent heat, moisture and sunlight resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35˚C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (70,000 BTU/hr)
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Optional Flame Tests:
- IEEE 1202 (70,000 BTU/hr)/CSA FT4

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		GROUND WIRE (AWG)	NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)	
		INCHES	MIN.	MAX.		INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90˚C	105˚C	90˚C	105˚C	90˚C	105˚C
15 kV¥, UL TYPE MV-105, 133% INS. LEVEL, 220 MILS, THREE CONDUCTOR																			
15493.440205	2	0.27	0.710	0.800	6	0.110	2.79	2.04	51.82	2226	3313	913	1358	145	165	150	160	165	185
15493.445105	1/0	0.34	0.780	0.865	4	0.110	2.79	2.20	55.88	2811	4183	1343	1998	195	215	195	210	215	240
15493.445205	2/0	0.38	0.820	0.905	4	0.110	2.79	2.30	58.42	3163	4707	1609	2394	220	245	220	235	245	275
15493.445405	4/0	0.48	0.920	1.005	3	0.110	2.79	2.52	64.01	4203	6255	2398	3567	290	320	285	305	325	360
15493.446005*	250	0.53	0.970	1.060	2	0.110	2.79	2.66	67.56	4775	7106	2812	4184	315	350	310	335	360	400
15493.446205	350	0.62	1.070	1.155	2	0.110	2.79	2.94	74.68	6182	9200	3766	5604	385	430	375	400	435	490
15493.446505	500	0.74	1.190	1.275	1	0.140	3.56	3.21	81.53	7686	11438	5244	7803	470	525	450	485	535	600
15493.447005*	750	0.91	1.370	1.460	1/0	0.140	3.56	3.61	91.69	10978	16337	7682	11431	570	635	545	585	670	745
15493.447505*	1000	1.06	1.520	1.610	2/0	0.140	3.56	3.99	101.35	13983	20810	10124	15064	650	725	615	660	770	860

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(75) of the NEC for three conductor copper cable in isolated conduit in air based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient air temperature of 40˚C (104˚F).

(2) Ampacities are in accordance with Table 310.60(C)(79) of the NEC for three conductor copper cable in underground ducts (three conductors per duct), based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient earth temperature of 20˚C (68˚F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on three conductor Type MV-105 cables in single layer in an uncovered tray with maintained spacing of not less than one cable diameter between cables, in accordance with Section 392.80(B)(1) of the NEC at an ambient air temperature of 40˚C (104˚F); the ampacities are per Table 310.60(C)(71), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 95% of the values in NEC Table 310.60(C)(75).

¥ 100% insulation level is available upon request.

Note: a) All sizes are "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

General Cable
Phone: 888-593-3355
www.generalcable.com

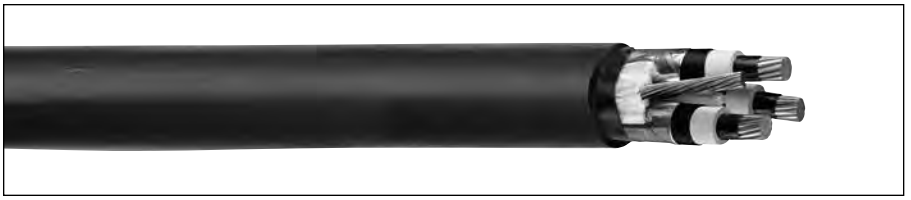
RoHS Compliant Directive 2011/65/EU

UL LISTED

Uniblend® CPE High Speed

EPR/Copper Tape Shield with Overall CPE Jacket, Medium-Voltage Power, Shielded 15 kV, UL Type MV-105, 133% Ins. Level, 220 Mils, Three Conductor

XTRA LOW FRICTION XLF TECHNOLOGY



Product Construction:

Conductor:
- 2 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Grounding Conductor:
- 1 bare grounding conductor may be in contact with metallic shielding tape

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Chlorinated Polyethylene (CPE)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Suited for use in a broad range of commercial, industrial and utility applications, where reliability is the major concern, space is limited and ease of installation is critical
- In wet or dry locations when installed in accordance with NEC
- In aerial, direct burial, conduit, open tray and underground duct installations

Features:
- Rated at 105°C
- Excellent flame resistance – burns to an ash; does not exhibit thermoplastic drip
- Excellent heat, moisture and sunlight resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High Speed low friction technology for easy cable pulling

Features (cont'd.):
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (70,000 BTU/hr)
- OSHA Acceptable
- RoHS Compliant

Optional Flame Tests:
- IEEE 1202 (70,000 BTU/hr)/CSA FT4

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		GROUND WIRE (AWG)	NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)	
		INCHES	MIN.	MAX.		INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C
15 kV¥, UL TYPE MV-105, 133% INS. LEVEL, 220 MILS, THREE CONDUCTOR																			
15593.440205*	2	0.27	0.710	0.800	6	0.110	2.79	2.04	51.82	2226	3313	913	1358	145	165	150	160	165	185
15593.445105*	1/0	0.34	0.780	0.865	4	0.110	2.79	2.20	55.88	2811	4183	1343	1998	195	215	195	210	215	240
15593.445205*	2/0	0.38	0.820	0.905	4	0.110	2.79	2.30	58.42	3163	4707	1609	2394	220	245	220	235	245	275
15593.445405*	4/0	0.48	0.920	1.005	3	0.110	2.79	2.52	64.01	4203	6255	2398	3567	290	320	285	305	325	360
15593.446005*	250	0.53	0.970	1.060	2	0.110	2.79	2.66	67.56	4775	7106	2812	4184	315	350	310	335	360	400
15593.446205*	350	0.62	1.070	1.155	2	0.110	2.79	2.94	74.68	6182	9200	3766	5604	385	430	375	400	435	490
15593.446505*	500	0.74	1.190	1.275	1	0.140	3.56	3.21	81.53	7686	11438	5244	7803	470	525	450	485	535	600
15593.447005*	750	0.91	1.370	1.460	1/0	0.140	3.56	3.61	91.69	10978	16337	7682	11431	570	635	545	585	670	745
15593.447505*	1000	1.06	1.520	1.610	2/0	0.140	3.56	3.99	101.35	13983	20810	10124	15064	650	725	615	660	770	860

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(75) of the NEC for three conductor copper cable in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(79) of the NEC for three conductor copper cable in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on three conductor Type MV-105 cables in single layer in an uncovered tray with maintained spacing of not less than one cable diameter between cables, in accordance with Section 392.80(B)(1) of the NEC at an ambient air temperature of 40°C (104°F); the ampacities are per Table 310.60(C)(71), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 95% of the values in NEC Table 310.60(C)(75).

¥ 100% insulation level is available upon request.

Note: a) All sizes are "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

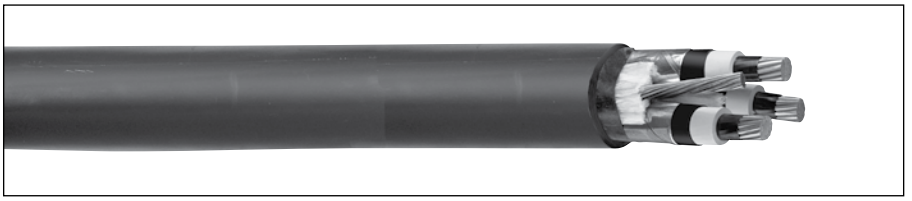
UL LISTED

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

GenFree® Uniblend® High Speed

EPR/Copper Tape Shield with Overall LSZH Jacket, Medium-Voltage Power, Shielded 15 kV, UL Type MV-105, 133% Ins. Level, 220 Mils, Three Conductor



Product Construction:

Conductor:
- 2 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Grounding Conductor:
- 1 bare grounding conductor may be in contact with metallic shielding tape

Overall Jacket:
- Lead-free, moisture- and sunlight-resistant Low-Smoke, Zero-Halogen Polyolefin (LSZH)

Options:
- STRANDFILL® – blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Suited for use in a broad range of commercial, industrial and utility applications, where reliability is the major concern, space is limited and ease of installation is critical
- In wet or dry locations when installed in accordance with NEC
- In aerial, direct burial, conduit, open tray and underground duct installations

Features:
- Rated at 105˚C
- Excellent heat, moisture and sunlight resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High Speed low friction technology for easy cable pulling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35˚C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- ICEA T-33-655
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (70,000 BTU/hr)
- OSHA Acceptable
- RoHS Compliant

Optional Flame Tests:
- IEEE 1202 (70,000 BTU/hr)/CSA FT4

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		GROUND WIRE (AWG)	NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)	
		INCHES	MIN.	MAX.		INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90˚C	105˚C	90˚C	105˚C	90˚C	105˚C
15 kV¥, UL TYPE MV-105, 133% INS. LEVEL, 220 MILS, THREE CONDUCTOR																			
15793.440205*	2	0.27	0.710	0.800	6	0.110	2.79	2.04	51.82	2226	3313	913	1358	145	165	150	160	165	185
15793.445105*	1/0	0.34	0.780	0.865	4	0.110	2.79	2.20	55.88	2811	4183	1343	1998	195	215	195	210	215	240
15793.445205*	2/0	0.38	0.820	0.905	4	0.110	2.79	2.30	58.42	3163	4707	1609	2394	220	245	220	235	245	275
15793.445405*	4/0	0.48	0.920	1.005	3	0.110	2.79	2.52	64.01	4203	6255	2398	3567	290	320	285	305	325	360
15793.446005*	250	0.53	0.970	1.060	2	0.110	2.79	2.66	67.56	4775	7106	2812	4184	315	350	310	335	360	400
15793.446205*	350	0.62	1.070	1.155	2	0.110	2.79	2.94	74.68	6182	9200	3766	5604	385	430	375	400	435	490
15793.446505*	500	0.74	1.190	1.275	1	0.140	3.56	3.21	81.53	7686	11438	5244	7803	470	525	450	485	535	600
15793.447005*	750	0.91	1.370	1.460	1/0	0.140	3.56	3.61	91.69	10978	16337	7682	11431	570	635	545	585	670	745
15793.447505*	1000	1.06	1.520	1.610	2/0	0.140	3.56	3.99	101.35	13983	20810	10124	15064	650	725	615	660	770	860

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(75) of the NEC for three conductor copper cable in isolated conduit in air based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient air temperature of 40˚C (104˚F).

(2) Ampacities are in accordance with Table 310.60(C)(79) of the NEC for three conductor copper cable in underground ducts (three conductors per duct), based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient earth temperature of 20˚C (68˚F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on three conductor Type MV-105 cables in single layer in an uncovered tray with maintained spacing of not less than one cable diameter between cables, in accordance with Section 392.80(B)(1) of the NEC at an ambient air temperature of 40˚C (104˚F); the ampacities are per Table 310.60(C)(71), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 95% of the values in NEC Table 310.60(C)(75).

¥ 100% insulation level is available upon request.

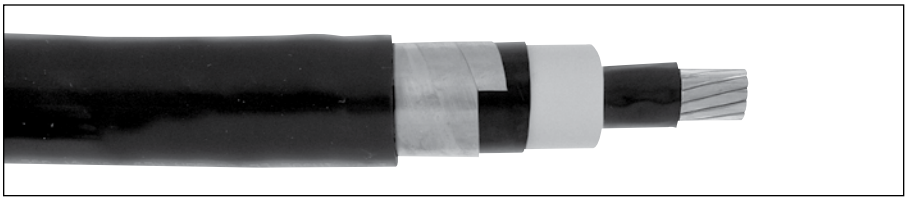
Note: a) All sizes are "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

General Cable
Phone: 888-593-3355
www.generalcable.com

Uniblend® PVC High Speed

EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 25 kV and 35 kV, UL Type MV-105, 133%/100% Ins. Levels, 345 Mils

XTRA LOW FRICTION XLF TECHNOLOGY



Product Construction:

Conductor:
- 1/0 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Jacket:
- Low-friction, lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC)

Options:
- STRANDFILL® - blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105°C
- High Speed low friction technology for easy cable pulling
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance

Features (cont'd.):
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 UL Flame Exposure Test
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE				COPPER WEIGHT		AMPACITY						CONDUIT SIZING (4) (INCHES)
							DIAMETER		WEIGHT				CONDUIT IN AIR (1)		UNDERGROUND DUCT (2)		TRAY (3)		
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C	
25 kV¥ & 35 kV¥¥, UL TYPE MV-105, 133%/100% INS. LEVEL, 345 MILS																			
17061.135105	1/0	0.34	1.020	1.120	0.080	2.03	1.31	33.27	1090	1622	425	633	195	215	200	215	195	220	5
17061.135205*	2/0	0.38	1.060	1.160	0.080	2.03	1.35	34.29	1211	1802	514	765	225	255	230	245	225	250	5
17061.135305*	3/0	0.43	1.105	1.205	0.080	2.03	1.40	35.56	1360	2024	625	930	260	290	260	275	260	285	5
17061.135405	4/0	0.48	1.160	1.260	0.080	2.03	1.45	36.83	1547	2302	765	1138	295	330	295	315	295	335	5
17061.136005*	250	0.53	1.210	1.315	0.080	2.03	1.51	38.35	1712	2547	888	1322	330	365	325	345	330	370	5
17061.136205	350	0.62	1.310	1.410	0.080	2.03	1.60	40.64	2108	3137	1206	1794	395	440	390	415	410	455	5
17061.136505	500	0.74	1.430	1.530	0.080	2.03	1.72	45.21	2650	4141	1679	2498	480	535	465	500	510	565	6
17061.137005	750	0.91	1.610	1.710	0.110	2.79	1.96	49.78	3733	5555	2467	3670	585	655	565	610	655	730	6
17061.137505*	1000	1.06	1.760	1.865	0.110	2.79	2.10	53.59	4651	6921	3250	4836	675	755	640	690	780	870	8

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(73) of the NEC for triplexed or three single conductor copper cables in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(77) of the NEC for triplexed or three single conductor copper cables in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40°C (104°F) the ampacities are based on 75% of the values per Table 310.60(C)(69), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(69).

(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

¥ 100% insulation level is available upon request.

¥¥ 133% insulation level is available upon request.

Note: a) Sizes smaller than 1/0 AWG do not include "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

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RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

Aluminum Uniblend® PVC High Speed

EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 25 kV and 35 kV, UL Type MV-105, 133%/100% Ins. Levels, 345 Mils

XTRA LOW FRICTION XLF TECHNOLOGY

Product Construction:

Conductor:
- 1/0 AWG thru 1000 kcmil 1350 aluminum compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

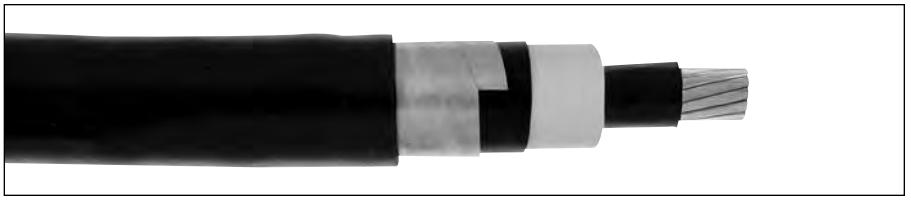
Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Jacket:
- Low-friction, lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC)

Options:
- STRANDFILL® - blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications



Applications (cont'd.):
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105˚C
- High Speed low friction technology for easy cable pulling
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35˚C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 UL Flame Exposure Test
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		ALUMINUM WEIGHT		COPPER WEIGHT		AMPACITY: CONDUIT IN AIR (1)		AMPACITY: UNDERGROUND DUCT (2)		AMPACITY: TRAY (3)		CONDUIT SIZING (4) (INCHES)
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90˚C	105˚C	90˚C	105˚C	90˚C	105˚C	
25 kV¥ & 35 kV¥¥, UL TYPE MV-105, 133%/100% INS. LEVEL, 345 MILS																					
17061.135108*	1/0	0.34	1.020	1.120	0.080	2.03	1.31	33.27	863	1285	99	147	99	147	150	170	155	165	150	170	5
17061.135208*	2/0	0.38	1.060	1.160	0.080	2.03	1.35	34.29	925	1377	125	186	103	153	175	200	175	190	175	195	5
17061.135308*	3/0	0.43	1.105	1.205	0.080	2.03	1.40	35.56	1000	1488	158	235	107	159	200	225	200	215	205	225	5
17061.135408	4/0	0.48	1.160	1.260	0.080	2.03	1.45	36.83	1093	1626	199	296	112	167	230	260	230	245	235	260	5
17061.136008*	250	0.53	1.210	1.315	0.080	2.03	1.51	38.35	1174	1747	234	348	116	173	255	290	250	270	260	285	5
17061.136208	350	0.62	1.310	1.410	0.080	2.03	1.60	40.64	1356	2018	329	490	125	186	310	350	305	330	325	355	5
17061.136508	500	0.74	1.430	1.530	0.080	2.03	1.72	45.21	1707	2540	468	696	135	201	385	430	370	400	400	445	6
17061.137008	750	0.91	1.610	1.710	0.110	2.79	1.96	49.78	2120	3155	703	1046	151	225	485	540	455	490	515	575	6
17061.137508	1000	1.06	1.760	1.865	0.110	2.79	2.10	53.59	2500	3720	937	1394	162	241	565	640	525	565	620	690	8

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(74) of the NEC for triplexed or three single conductor aluminum cables in isolated conduit in air based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient air temperature of 40˚C (104˚F).

(2) Ampacities are in accordance with Table 310.60(C)(78) of the NEC for triplexed or three single conductor aluminum cables in underground ducts (three conductors per duct), based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient earth temperature of 20˚C (68˚F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40˚C (104˚F) the ampacities are based on 75% of the values per Table 310.60(C)(70), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(70).

(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

¥ 100% insulation level is available upon request.

¥¥ 133% insulation level is available upon request.

Note: a) Sizes smaller than 1/0 AWG do not include "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

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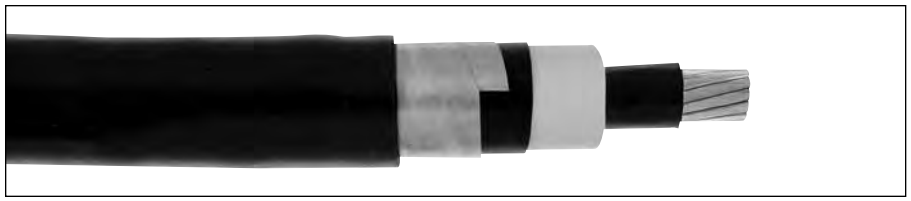
Uniblend® CPE High Speed

EPR/Copper Tape Shield/CPE, Medium-Voltage Power, Shielded 25 kV and 35 kV, UL Type MV-105, 133%/100% Ins. Levels, 345 Mils



Product Construction:

Conductor:
- 1/0 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Chlorinated Polyethylene (CPE)

Options:
- STRANDFILL® - blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105°C
- Excellent flame resistance – burns to an ash; does not exhibit thermoplastic drip
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High Speed low friction technology for easy cable pulling
- High dielectric strength

Features (cont'd.):
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test
- Sizes 1/0 AWG and larger are listed and marked "Sunlight-Resistant FOR CT USE" in accordance with NEC
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE				COPPER WEIGHT		AMPACITY						CONDUIT SIZING (4) (INCHES)
							DIAMETER		WEIGHT				CONDUIT IN AIR (1)		UNDERGROUND DUCT (2)		TRAY (3)		
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C	
25 kV¥ & 35 kV¥¥, UL TYPE MV-105, 133%/100% INS. LEVEL, 345 MILS																			
17161.135105	1/0	0.34	1.020	1.120	0.080	2.03	1.31	33.27	1066	1586	425	633	195	215	200	215	195	220	5
17161.135205*	2/0	0.38	1.060	1.160	0.080	2.03	1.35	34.29	1187	1766	514	765	225	255	230	245	225	250	5
17161.135305*	3/0	0.43	1.105	1.205	0.080	2.03	1.40	35.56	1335	1986	625	930	260	290	260	275	260	285	5
17161.135405	4/0	0.48	1.160	1.260	0.080	2.03	1.45	36.83	1516	2256	765	1138	295	330	295	315	295	335	5
17161.136005*	250	0.53	1.210	1.315	0.080	2.03	1.51	38.35	1681	2501	888	1322	330	365	325	345	330	370	5
17161.136205	350	0.63	1.310	1.410	0.080	2.03	1.60	40.64	2075	3088	1206	1794	395	440	390	415	410	455	5
17161.136505	500	0.74	1.430	1.530	0.080	2.03	1.72	45.21	2650	3934	1679	2498	480	535	465	500	510	565	6
17161.137005	750	0.91	1.610	1.710	0.110	2.79	1.96	49.78	3687	5486	2467	3670	585	655	565	610	655	730	6
17161.137505*	1000	1.06	1.760	1.865	0.110	2.79	2.10	53.59	4603	6849	3250	4836	675	755	640	690	780	870	8

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(73) of the NEC for triplexed or three single conductor copper cables in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(77) of the NEC for triplexed or three single conductor copper cables in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40°C (104°F) the ampacities are based on 75% of the values per Table 310.60(C)(69), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(69).

(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

¥ 100% insulation level is available upon request.

¥¥ 133% insulation level is available upon request.

Note: a) Sizes smaller than 1/0 AWG do not include "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

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General Cable
Phone: 888-593-3355
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GenFree® Uniblend® High Speed

EPR/Copper Tape Shield/LSZH, Medium-Voltage Power, Shielded 25 kV and 35 kV, UL Type MV-105/ST1, 133%/100% Ins. Levels, 345 Mils

Product Construction:

Conductor:
- 1/0 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

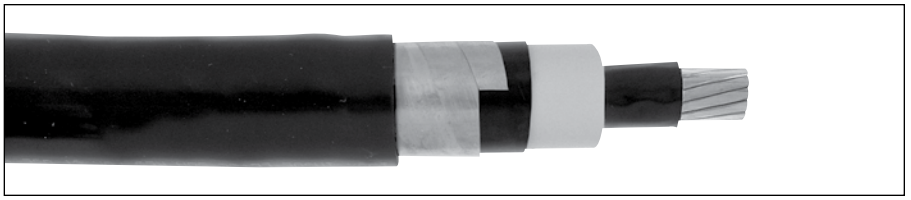
Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Overall Jacket:
- Lead-free, moisture- and sunlight-resistant Low-Smoke, Zero-Halogen Polyolefin (LSZH)

Options:
- STRANDFILL® - blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications



Applications (cont'd.):
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105°C
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High Speed low friction technology for easy cable pulling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- ICEA T-33-655
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test
- UL 1685 Vertical Flame and ST1 Smoke Release Test
- Sizes 1/0 AWG and larger are listed and marked "Sunlight-Resistant FOR CT USE" in accordance with NEC
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

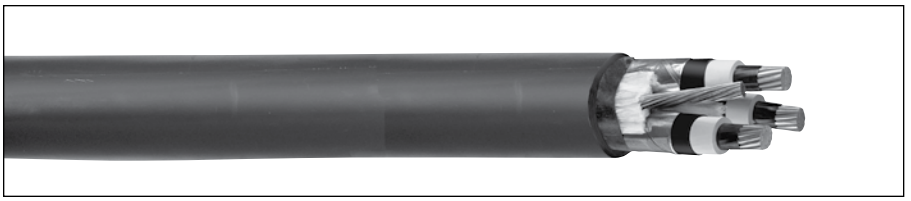
CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)		CONDUIT SIZING (4) (INCHES)
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C	
25 kV¥ & 35 kV¥¥, UL TYPE MV-105, 133%/100% INS. LEVEL, 345 MILS																			
17261.135105*	1/0	0.34	1.020	1.120	0.080	2.03	1.31	33.27	1090	1622	425	633	195	215	200	215	195	220	5
17261.135205*	2/0	0.38	1.060	1.160	0.080	2.03	1.35	34.29	1211	1802	514	765	225	255	230	245	225	250	5
17261.135305*	3/0	0.43	1.105	1.205	0.080	2.03	1.40	35.56	1360	2024	625	930	260	290	260	275	260	285	5
17261.135405*	4/0	0.48	1.160	1.260	0.080	2.03	1.45	36.83	1547	2302	765	1138	295	330	295	315	295	335	5
17261.136005*	250	0.53	1.210	1.315	0.080	2.03	1.51	38.35	1712	2547	888	1322	330	365	325	345	330	370	5
17261.136205*	350	0.62	1.310	1.410	0.080	2.03	1.60	40.64	2108	3137	1206	1794	395	440	390	415	410	455	5
17261.136505*	500	0.74	1.430	1.530	0.080	2.03	1.72	45.21	2650	4141	1679	2498	480	535	465	500	510	565	6
17261.137005*	750	0.91	1.610	1.710	0.110	2.79	1.96	49.78	3733	5555	2467	3670	585	655	565	610	655	730	6
17261.137505*	1000	1.06	1.760	1.865	0.110	2.79	2.10	53.59	4651	6921	3250	4836	675	755	640	690	780	870	8

Dimensions and weights are nominal. Subject to industry tolerances.
* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
(1) Ampacities are in accordance with Table 310.60(C)(73) of the NEC for triplexed or three single conductor copper cables in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).
(2) Ampacities are in accordance with Table 310.60(C)(77) of the NEC for triplexed or three single conductor copper cables in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.
(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40°C (104°F) the ampacities are based on 75% of the values per Table 310.60(C)(69), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(69).
(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.
¥ 100% insulation level is available upon request.
¥¥ 133% insulation level is available upon request.
Note: a) Sizes smaller than 1/0 AWG do not include "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

General Cable
Phone: 888-593-3355
www.generalcable.com

Uniblend® PVC High Speed EPR/Copper Tape Shield with Overall PVC Jacket, Medium-Voltage Power, Shielded, 25 kV and 35 kV UL Type MV-105, 133%/100% Ins. Level, 345 Mils, Three Conductor

XTRA LOW FRICTION XLF TECHNOLOGY



Product Construction:

Conductor:
- 1/0 AWG thru 750 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Grounding Conductor:
- 1 bare grounding conductor may be in contact with metallic shielding tape

Overall Jacket:
- Low-friction, lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC)

Options:
- STRANDFILL® - blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Suited for use in a broad range of commercial, industrial and utility applications, where reliability is the major concern, space is limited and ease of installation is critical
- Suitable for use in wet or dry locations when installed in accordance with NEC
- In aerial, direct burial, conduit, open tray and underground duct installations

Features:
- Rated at 105˚C
- High Speed low friction technology for easy cable pulling
- Excellent heat, moisture and sunlight resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength

Features (cont'd.):
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35˚C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- UL 1685 (70,000 BTU/hr)
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Optional Flame Tests:
- IEEE 1202 (70,000 BTU/hr)/CSA FT4

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		GROUND WIRE (AWG)	NOMINAL JACKET THICKNESS		NOMINAL CABLE				COPPER WEIGHT		AMPACITY					
								DIAMETER		WEIGHT				CONDUIT IN AIR (1)		UNDERGROUND DUCT (2)		TRAY (3)	
		INCHES	MIN.	MAX.		INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90˚C	105˚C	90˚C	105˚C	90˚C	105˚C
25 kV¥ & 35 kV¥¥, UL TYPE MV-105, 133%/100% INS. LEVEL, 345 MILS, THREE CONDUCTOR																			
15493.485105*	1/0	0.34	1.020	1.120	4	0.110	2.79	2.73	69.34	3672	5464	1410	2098	195	215	195	210	215	240
15493.485205*	2/0	0.38	1.060	1.160	4	0.110	2.79	2.81	71.37	4061	6042	1675	2492	220	245	220	235	245	275
15493.485405*	4/0	0.48	1.160	1.260	3	0.140	3.56	3.10	78.74	5313	7906	2465	3668	290	320	285	305	325	360
15493.486005*	250	0.53	1.210	1.315	2	0.140	3.56	3.21	81.53	6214	9246	2879	4284	315	350	310	335	360	400
15493.486205*	350	0.62	1.310	1.410	2	0.140	3.56	3.42	86.86	7138	10621	3834	5705	385	430	375	400	435	490
15493.486505*	500	0.74	1.430	1.530	1	0.140	3.56	3.68	93.47	9012	13410	5312	7904	470	525	450	485	535	600
15493.487005*	750	0.91	1.610	1.710	1/0	0.140	3.56	4.10	104.14	12030	17901	7750	11532	570	635	545	585	670	745

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(75) of the NEC for three conductor copper cable in isolated conduit in air based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient air temperature of 40˚C (104˚F).

(2) Ampacities are in accordance with Table 310.60(C)(79) of the NEC for three conductor copper cable in underground ducts (three conductors per duct), based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient earth temperature of 20˚C (68˚F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on three conductor Type MV-105 cables in single layer in an uncovered tray with maintained spacing of not less than one cable diameter between cables, in accordance with Section 392.80(B)(1) of the NEC at an ambient air temperature of 40˚C (104˚F); the ampacities are per Table 310.60(C)(71), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 95% of the values in NEC Table 310.60(C)(75).

¥ 100% insulation level is available upon request.

¥¥ 133% insulation level is available upon request.

Note: a) All sizes are "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

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General Cable
Phone: 888-593-3355
www.generalcable.com

Uniblend® PVC High Speed

EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 35 kV, UL Type MV-105, 133% Ins. Levels, 420 Mils

XTRA LOW FRICTION XLF TECHNOLOGY

Product Construction:

Conductor:
- 1/0 AWG thru 1000 kcmil annealed bare copper compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

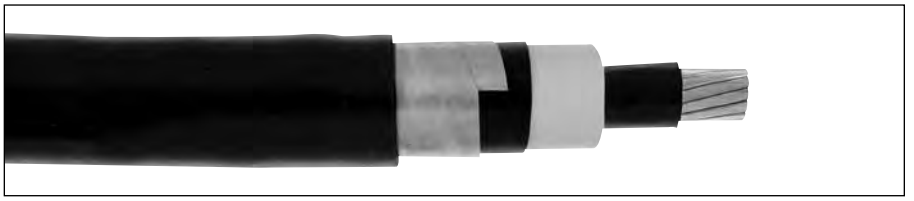
Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Jacket:
- Low-friction, lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC)

Options:
- STRANDFILL® - blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications



Applications (cont'd.):
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105˚C
- High Speed low friction technology for easy cable pulling
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35˚C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE DIAMETER		NOMINAL CABLE WEIGHT		COPPER WEIGHT		AMPACITY CONDUIT IN AIR (1)		AMPACITY UNDERGROUND DUCT (2)		AMPACITY TRAY (3)		CONDUIT SIZING (4) (INCHES)
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90˚C	105˚C	90˚C	105˚C	90˚C	105˚C	
35 kV, UL TYPE MV-105, 133% INS. LEVEL, 420 MILS																			
17071.135105*	1/0	0.34	1.060	1.265	0.080	2.03	1.47	37.34	1253	1864	437	650	195	215	200	215	195	220	5
17071.135205*	2/0	0.38	1.200	1.305	0.080	2.03	1.49	37.85	1378	2050	525	781	225	255	230	245	225	250	5
17071.135305*	3/0	0.43	1.245	1.355	0.080	2.03	1.53	38.86	1532	2280	636	946	260	290	260	275	260	285	5
17071.135405	4/0	0.48	1.300	1.405	0.080	2.03	1.59	40.39	1716	2553	776	1155	295	330	295	315	295	335	5
17071.136005*	250	0.53	1.350	1.460	0.080	2.03	1.64	41.66	1888	2809	899	1338	330	365	325	345	330	370	6
17071.136205	350	0.62	1.450	1.555	0.110	2.79	1.79	45.47	2396	3565	1217	1811	395	440	390	415	410	455	6
17071.136505	500	0.74	1.570	1.675	0.110	2.79	1.91	48.50	2986	4443	1690	2515	480	535	465	500	510	565	6
17071.137005	750	0.91	1.750	1.860	0.110	2.79	2.09	53.09	3954	5884	2477	3685	585	655	565	610	655	730	8
17071.137505*	1000	1.06	1.900	2.010	0.110	2.79	2.25	57.15	4885	7269	3263	4855	675	755	640	690	780	870	8

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(73) of the NEC for triplexed or three single conductor copper cables in isolated conduit in air based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient air temperature of 40˚C (104˚F).

(2) Ampacities are in accordance with Table 310.60(C)(77) of the NEC for triplexed or three single conductor copper cables in underground ducts (three conductors per duct), based on a conductor temperature of 90˚C (194˚F) or 105˚C (221˚F), temperature denoted in column header, and an ambient earth temperature of 20˚C (68˚F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40˚C (104˚F) the ampacities are based on 75% of the values per Table 310.60(C)(69), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(69).

(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

Note: a) All sizes are "FOR CT USE".
b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

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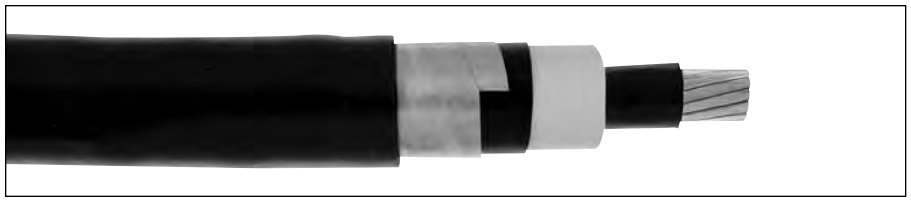
Aluminum Uniblend® PVC High Speed

EPR/Copper Tape Shield/PVC, Medium-Voltage Power, Shielded 35 kV, UL Type MV-105, 133% Ins. Levels, 420 Mils



Product Construction:

Conductor:
- 1/0 AWG thru 1000 kcmil 1350 aluminum compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress-control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Metallic Shield:
- 5 mil annealed copper tape with an overlap of 25%

Jacket:
- Low-friction, lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC)

Options:
- STRANDFILL® - blocked conductor. Tested in accordance with ICEA T-31-610

Applications:
- Superior performance in petrochemical plants, pulp and paper mills, sewage and water treatment plants, environmental protection systems, railroads, mines, utility power generating stations, steel mills, textile plants and other industrial three-phase applications
- For use in wet or dry locations when installed in accordance with NEC
- For use in aerial, conduit, open tray and underground duct installations
- For use in direct burial if installed in a system with a ground conductor that is in close proximity, and conforms with NEC 250.4(A)(5)

Features:
- Rated at 105°C
- High Speed low friction technology for easy cable pulling
- Excellent heat, moisture and sunlight resistance
- Excellent flame resistance
- Outstanding corona resistance

Features (cont'd.):
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical-resistant
- Meets cold bend test at -35°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions

Compliances:
- National Electrical Code (NEC)
- UL 1072
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- UL listed as Type MV-105 for use in accordance with NEC, UL File # E90501
- IEEE 1202 (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels. Lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit
- Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and triplexing

CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NOMINAL CONDUCTOR DIAMETER	INSULATION DIAMETER INCHES		NOMINAL JACKET THICKNESS		NOMINAL CABLE				ALUMINUM WEIGHT		COPPER WEIGHT		AMPACITY						CONDUIT SIZING (4) (INCHES)
							DIAMETER		WEIGHT						CONDUIT IN AIR (1)		UNDERGROUND DUCT (2)		TRAY (3)		
		INCHES	MIN.	MAX.	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	90°C	105°C	90°C	105°C	90°C	105°C	
35 kV, UL TYPE MV-105, 133% INS. LEVEL, 420 MILS																					
17071.135108*	1/0	0.34	1.060	1.265	0.080	2.03	1.47	37.34	1026	1527	99	147	111	165	150	170	155	165	150	170	5
17071.135208*	2/0	0.38	1.200	1.305	0.080	2.03	1.49	37.85	1092	1625	125	186	114	170	175	200	175	190	175	195	5
17071.135308*	3/0	0.43	1.245	1.355	0.080	2.03	1.53	38.86	1172	1744	158	235	118	175	200	225	200	215	205	225	5
17071.135408*	4/0	0.48	1.300	1.405	0.080	2.03	1.59	40.39	1262	1878	199	296	123	183	230	260	230	245	235	260	6
17071.136008*	250	0.53	1.350	1.460	0.080	2.03	1.64	41.66	1350	2009	234	348	127	189	255	290	250	270	260	285	6
17071.136208*	350	0.62	1.450	1.555	0.110	2.79	1.79	45.47	1644	2447	329	490	136	202	310	350	305	330	325	355	6
17071.136508*	500	0.74	1.570	1.675	0.110	2.79	1.91	48.50	1910	2842	468	696	146	217	385	430	370	400	400	445	6
17071.137008*	750	0.91	1.750	1.860	0.110	2.79	2.09	53.09	2341	3484	703	1046	161	240	485	540	455	490	515	575	8
17071.137508*	1000	1.06	1.900	2.010	0.110	2.79	2.25	57.15	2734	4069	937	1394	175	260	565	640	525	565	620	690	8

Dimensions and weights are nominal. Subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities are in accordance with Table 310.60(C)(74) of the NEC for triplexed or three single conductor aluminum cables in isolated conduit in air based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with Table 310.60(C)(78) of the NEC for triplexed or three single conductor aluminum cables in underground ducts (three conductors per duct), based on a conductor temperature of 90°C (194°F) or 105°C (221°F), temperature denoted in column header, and an ambient earth temperature of 20°C (68°F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

(3) Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40°C (104°F) the ampacities are based on 75% of the values per Table 310.60(C)(70), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(70).

(4) Based on nominal cable diameters, three single cables in the duct (PVC Schedule 40) with no ground wire and a maximum of 40% fill. Jam ratio has been considered but should be checked for individual installations.

Note: a) All sizes are "FOR CT USE".

b) The NESC Lightning bolt symbol is on all Uniblend® constructions.

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General Cable
Phone: 888-593-3355
www.generalcable.com

600 V – 35 kV Industrial Armored Cables

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
7050†	Duralox®	XLPE/AIA/PVC, Control, Armored 600 V, UL Type MC, Multi-Conductor	Sept. 2016
7100†	Duralox®	XLPE/AIA/PVC, Power, Armored 600 V, UL Type MC, Three and Four Conductor (8 AWG - 4/0 AWG)	Sept. 2016
7150†	Duralox®	XLPE/AIA/PVC, Power, Armored 600 V, UL Type MC, Three and Four Conductor (250 kcmil - 1000 kcmil)	Sept. 2016
7160†	Duralox®	XLPE/AIA/PVC, Power, Armored, with Enhanced Ground Wires (50%) 600 V, UL Type MC, Three Conductor (1/0 AWG - 1000 kcmil)	Sept. 2016
7200†	Duralox®	EPR/AIA/PVC, Power, Nonshielded, Armored 2400 V, UL Type MV-90 or MC, Three Conductor	Sept. 2016
7250†	Duralox® Uniblend®	EPR/AIA/PVC, Power, Shielded, Armored 5 kV/8 kV, UL Type MV-105 or MC, 133%/100% Ins. Levels, 115 Mils Three Conductor	Sept. 2016
7300†	Duralox® Uniblend®	EPR/AIA/PVC, Power, Shielded, Armored 15 kV, UL Type MV-105 or MC, 133% Ins. Level, 220 Mils, Three Conductor	Sept. 2016
7310	Duralox® Uniblend®	EPR/AIA/PVC, Power, Shielded, Armored, with Enhanced Ground Wires (50%) 15 kV, UL Type MV-105 or MC, 133% Ins. Level, 220 Mils, Three Conductor	Sept. 2016
7350	Duralox® Uniblend®	EPR/AIA/PVC, Power, Shielded, Armored 25 kV, UL Type MV-105 or MC, 100% Ins. Level, 260 Mils, Three Conductor	Sept. 2016
7400	Duralox® Uniblend®	EPR/AIA/PVC, Power, Shielded, Armored 35 kV, UL Type MV-105 or MC, 100% Ins. Level, 345 Mils, Three Conductor	Sept. 2016

†Indicates these products are stocked by General Cable

Duralox®

XLPE/AIA/PVC, Control, Armored
600 V, UL Type MC, Multi-Conductor

Product Construction:

Conductor:
- 14 AWG thru 10 AWG bare compressed copper
- Class B stranding per ASTM B3 and B8

Insulation:
- Flame-retardant Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 1, Table E-2 (does not include white or green)

Ground:
- Annealed bare copper Class B stranding per ASTM B8

Armor:
- Aluminum Interlocked Armor (AIA)

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- In all raceways or direct burial
- In wet or dry locations
- Permitted for use per NEC Article 330
  - Class I, Division 2
  - Class II, Division 2
  - Class III, Divisions 1 and 2

Features:
- Rated at 90˚C wet or dry
- Sunlight-resistant for CT use
- Provides excellent oil and chemical resistance
- Excellent crush resistance
- Provides a long service life
- Flame-retardant and resistant to moisture
- Cost-effective alternative to installations in conduit
- Meets cold bend test at -40˚C

Compliances:

Industry Compliances:
- UL 1569
- UL 44
- ICEA S-95-658/NEMA WC70
- UL Type MC-600 volts, UL File # E90496
- NEC Type XHHW-2 conductors

Flame Test Compliances:
- IEEE 383 (70,000 BTU/hr)
- UL 1685 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	MINIMUM INSULATION THICKNESS		GRND. WIRE SIZE (AWG)	NOM. DIA. (OVER) ARMOR		NOMINAL JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
			INCHES	mm		INCHES	mm	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km
14 AWG CONDUCTORS															
346410*	2	14	0.030	0.76	14	0.49	12.5	0.050	1.27	0.60	15.3	39	58	175	261
346420	3	14	0.030	0.76	14	0.52	13.2	0.050	1.27	0.63	16.0	52	78	183	273
346430*	4	14	0.030	0.76	14	0.55	14.0	0.050	1.27	0.66	16.8	65	97	233	347
346440	5	14	0.030	0.76	14	0.59	15.0	0.050	1.27	0.69	17.6	79	118	246	367
346450	7	14	0.030	0.76	14	0.64	16.3	0.050	1.27	0.74	18.8	104	155	297	443
346460	9	14	0.030	0.76	14	0.72	18.3	0.050	1.27	0.83	21.1	130	193	379	564
346470	12	14	0.030	0.76	14	0.80	20.3	0.050	1.27	0.90	22.9	168	250	460	685
346480	19	14	0.030	0.76	14	0.99	25.2	0.050	1.27	1.02	25.9	259	385	621	924
346490*	25	14	0.030	0.76	14	1.07	27.2	0.050	1.27	1.17	29.7	337	502	776	1155
346500*	37	14	0.030	0.76	14	1.19	30.3	0.050	1.27	1.29	32.8	492	732	1043	1533
12 AWG CONDUCTORS															
346510*	2	12	0.030	0.76	12	0.53	13.5	0.050	1.27	0.64	16.3	64	96	218	324
346520	3	12	0.030	0.76	12	0.56	14.3	0.050	1.27	0.66	16.8	83	124	227	338
346530	4	12	0.030	0.76	12	0.60	15.3	0.050	1.27	0.71	18.1	103	154	272	405
346540	5	12	0.030	0.76	12	0.64	16.3	0.050	1.27	0.75	19.1	129	192	336	500
346550	7	12	0.030	0.76	12	0.70	17.8	0.050	1.27	0.81	20.6	165	246	380	566
346560*	9	12	0.030	0.76	12	0.78	19.8	0.050	1.27	0.89	22.6	214	319	479	713
346570	12	12	0.030	0.76	12	0.86	21.9	0.050	1.27	0.97	24.7	279	416	596	887
346580*	19	12	0.030	0.76	12	0.99	25.2	0.050	1.27	1.10	28.0	428	637	830	1235
346590*	25	12	0.030	0.76	12	1.18	30.0	0.050	1.27	1.28	32.5	557	829	1058	1575
346600*	37	12	0.030	0.76	12	1.31	33.3	0.050	1.27	1.41	35.8	793	1180	1403	2088
10 AWG CONDUCTORS															
346610	3	10	0.030	0.76	10	0.61	15.5	0.050	1.27	0.72	18.3	131	195	301	448
346620	4	10	0.030	0.76	10	0.66	16.8	0.050	1.27	0.77	19.6	164	244	355	529

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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XLPE/AIA/PVC, Power, Armored
600 V, UL Type MC, Three and Four Conductor (8 AWG—4/0 AWG)

Product Construction:

Conductors:
- 8 AWG bare compressed copper, Class B stranding per ASTM B8
- 6 AWG thru 4/0 AWG bare compact copper, Class B stranding per ASTM B496

Insulation:
- Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 3, Table E-2

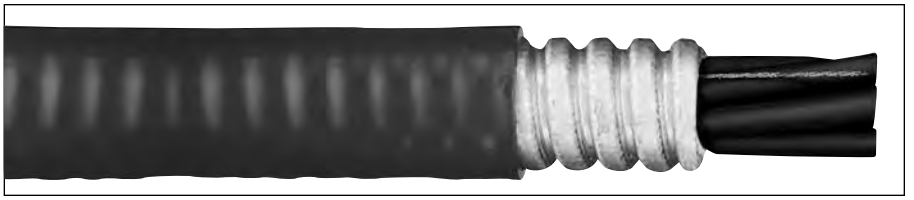
Ground:
- Annealed bare copper Class B stranding per ASTM B8

Armor:
- Aluminum Interlocked Armor (AIA)

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- Ideally suited for use in a broad range of commercial, industrial and utility applications, where maximum performance is demanded, ease of installation desired and fire resistance is critical
- Permitted for use per NEC Article 330
  - Class I, Division 2
  - Class II, Division 2
  - Class III, Divisions 1 and 2



Applications (cont'd.):
- Installed in both exposed or concealed work, wet or dry locations, indoors or outdoors, direct burial and cable trays

Features:
- Rated at 90˚C wet or dry
- Provides excellent oil and chemical resistance
- Excellent crush resistance
- Provides a long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend test at -40˚C
- Sunlight-resistant for CT use

Compliances:
Industry Compliances:
- UL 1569
- UL 44
- ICEA S-95-658/NEMA WC70
- UL Type MC-600 volts, UL File # E90496
- NEC Type XHHW-2 conductors

Compliances (cont'd.):
Flame Test Compliances:
- IEEE 383 (70,000 BTU/hr)
- UL 1685 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GRND. WIRE SIZE (AWG)	MINIMUM INSULATION THICKNESS		NOM. DIA. (OVER) ARMOR		NOMINAL JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km
8 AWG - 4/0 AWG CONDUCTORS															
346630	3	8	10	0.045	1.14	0.74	18.8	0.050	1.27	0.84	21.4	189	281	420	625
346640*	4	8	10	0.045	1.14	0.80	20.3	0.050	1.27	0.90	22.9	241	359	507	755
11298.030600	3	6	8	0.045	1.14	0.79	20.1	0.050	1.27	0.90	22.9	286	426	546	813
11298.040600*	4	6	8	0.045	1.14	0.86	21.8	0.050	1.27	0.97	24.6	365	543	659	980
11298.030400	3	4	8	0.045	1.14	0.89	22.5	0.050	1.27	1.00	25.3	434	646	736	1096
11298.040400*	4	4	8	0.045	1.14	0.97	24.6	0.050	1.27	1.08	27.4	562	836	906	1349
11298.030200	3	2	6	0.045	1.14	1.00	25.5	0.050	1.27	1.11	28.3	673	1002	1028	1530
11298.040200*	4	2	6	0.045	1.14	1.10	27.9	0.050	1.27	1.21	30.7	869	1293	1283	1909
11298.030100*	3	1	6	0.055	1.40	1.12	28.4	0.050	1.27	1.23	31.2	834	1241	1273	1894
11298.040100*	4	1	6	0.055	1.40	1.23	31.2	0.050	1.27	1.34	34.0	1083	1612	1568	2334
11298.035100	3	1/0	6	0.055	1.40	1.20	30.5	0.050	1.27	1.31	33.3	1050	1563	1490	2217
11298.045100*	4	1/0	6	0.055	1.40	1.32	33.5	0.050	1.27	1.43	36.3	1373	2043	1890	2812
11298.035200	3	2/0	6	0.055	1.40	1.29	32.8	0.050	1.27	1.40	35.6	1284	1911	1775	2642
11298.045200*	4	2/0	6	0.055	1.40	1.42	36.1	0.050	1.27	1.53	38.8	1685	2508	2216	3298
11298.035300	3	3/0	4	0.055	1.40	1.39	35.4	0.050	1.27	1.50	38.2	1621	2412	2071	3082
11298.045300*	4	3/0	4	0.055	1.40	1.54	39.0	0.060	1.52	1.67	42.4	2120	3155	2754	4098
11298.035400	3	4/0	4	0.055	1.40	1.50	38.2	0.060	1.52	1.63	41.5	2027	3017	2619	3898
11298.045400*	4	4/0	4	0.055	1.40	1.75	44.4	0.060	1.52	1.88	47.7	2657	3954	3485	5187

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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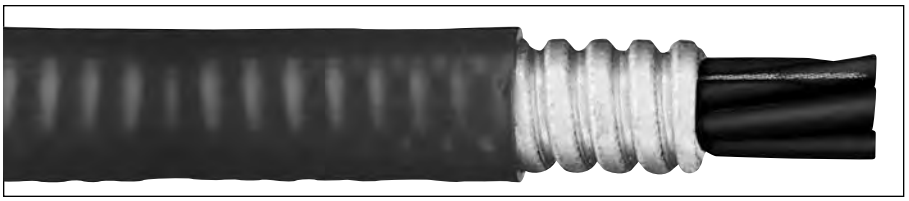
XLPE/AIA/PVC, Power, Armored
600 V, UL Type MC, Three and Four Conductor (250 kcmil—1000 kcmil)



Product Construction:

Conductors:
- 250 kcmil thru 1000 kcmil bare compact copper, Class B stranding per ASTM B496

Insulation:
- Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 3, Table E-2

Ground:
- Annealed bare copper Class B stranding per ASTM B8

Armor:
- Aluminum Interlocked Armor (AIA)

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- Ideally suited for use in a broad range of commercial, industrial and utility applications, where maximum performance is demanded, ease of installation desired and fire resistance is critical
- Permitted for use per NEC Article 330
  - Class I, Division 2
  - Class II, Division 2
  - Class III, Divisions 1 and 2
- Installed in both exposed or concealed work, wet or dry locations, indoors or outdoors, direct burial and cable trays

Features:
- Rated at 90˚C wet or dry
- Provides excellent oil and chemical resistance
- Excellent crush resistance
- Provides a long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend test at -40˚C
- Sunlight-resistant for CT use

Compliances:
Industry Compliances:
- UL 1569
- UL 44
- ICEA S-95-658/NEMA WC70
- UL Type MC-600 volts, UL File # E90496
- NEC Type XHHW-2 conductors

Flame Test Compliances:
- IEEE 383 (70,000 BTU/hr)
- UL 1685 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GRND. WIRE SIZE (AWG)	MINIMUM INSULATION THICKNESS		NOM. DIA. (OVER) ARMOR		NOMINAL JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km
250 kcmil - 1000 kcmil CONDUCTORS															
11298.036000	3	250	4	0.065	1.65	1.72	43.6	0.060	1.52	1.85	46.9	2389	3554	3180	4733
11298.046000*	4	250	4	0.065	1.65	1.89	48.0	0.060	1.52	2.02	51.3	3141	4674	4128	6144
11298.036200	3	350	3	0.065	1.65	1.92	48.9	0.060	1.52	2.05	52.2	3313	4930	4239	6309
11298.046200	4	350	3	0.065	1.65	2.12	53.9	0.060	1.52	2.25	57.2	4360	6488	5457	8120
11298.036500	3	500	2	0.065	1.65	2.18	55.5	0.060	1.52	2.31	58.8	4695	6986	5821	8662
11298.046500	4	500	2	0.065	1.65	2.41	61.2	0.075	1.91	2.57	65.3	6187	9208	7583	11284
11298.037000*	3	750	1	0.080	2.03	2.62	66.5	0.075	1.91	2.78	70.6	7047	10488	8610	12813
11298.047000*	4	750	1	0.080	2.03	2.90	73.6	0.075	1.91	3.06	77.7	9307	13851	11178	16635
11298.037500*	3	1000	1/0	0.080	2.03	2.95	74.8	0.075	1.91	3.11	79.0	9474	14099	11233	16716
11298.047500*	4	1000	1/0	0.080	2.03	3.26	82.9	0.085	2.16	3.45	87.6	12528	18644	14713	21896

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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XLPE/AIA/PVC, Power, Armored, with Enhanced Ground Wires (50%) 600 V, UL Type MC, Three Conductor (1/0 AWG—1000 kcmil)

Product Construction:

Conductors:
- 1/0 AWG thru 1000 kcmil bare compact copper, Class B stranding per ASTM B496

Insulation:
- Cross-linked Polyethylene (XLPE)
- Color-coded per ICEA Method 3, Table E-2

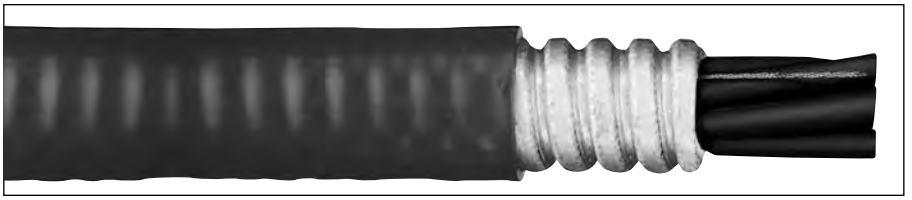
Ground:
- Annealed bare copper Class B stranding per ASTM B8

Armor:
- Aluminum Interlocked Armor (AIA)

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- Ideally suited for use in a broad range of commercial, industrial and utility applications, where maximum performance is demanded, ease of installation desired and fire resistance is critical
- Permitted for use per NEC Article 330
  - Class I, Division 2
  - Class II, Division 2
  - Class III, Divisions 1 and 2
- Installed in both exposed or concealed work, wet or dry locations, indoors or outdoors, direct burial and cable trays



Features:
- Rated at 90˚C wet or dry
- Provides excellent oil and chemical resistance
- Excellent crush resistance
- Provides a long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend test at -40˚C
- Sunlight-resistant for CT use

Compliances:
Industry Compliances:
- UL 1569
- UL 44
- ICEA S-95-658/NEMA WC70
- UL Type MC-600 volts, UL File # E90496
- NEC Type XHHW-2 conductors

Flame Test Compliances:
- IEEE 383 (70,000 BTU/hr)
- UL 1685 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-29-520 (210,000 BTU/hr)

Compliances (cont'd.):
Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GRND. WIRE SIZE (AWG)	MINIMUM INSULATION THICKNESS		NOM. DIA. (OVER) ARMOR		NOMINAL JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km
1/0 AWG - 1000 kcmil CONDUCTORS															
11298.515100*	3	1/0	3x6	0.055	1.40	1.20	30.5	0.050	1.27	1.31	33.3	1211	1802	1626	2420
11298.515200*	3	2/0	3x6	0.055	1.40	1.29	32.8	0.050	1.27	1.40	35.6	1445	2150	1945	2894
11298.515300*	3	3/0	3x5	0.055	1.40	1.39	35.4	0.050	1.27	1.50	38.2	1800	2679	2382	3544
11298.515400*	3	4/0	3x4	0.055	1.40	1.59	40.5	0.060	1.52	1.72	43.8	2283	3397	2981	4436
11298.516000*	3	250	3x4	0.065	1.65	1.72	43.6	0.060	1.52	1.85	46.9	2644	3935	3418	5086
11298.516200*	3	350	3x2	0.065	1.65	1.92	48.9	0.060	1.52	2.05	52.2	3761	5597	4675	6957
11298.516500	3	500	3x1	0.065	1.65	2.18	55.5	0.060	1.52	2.31	58.8	5260	7827	6399	9523
11298.517000*	3	750	3x2/0	0.080	2.03	2.62	66.5	0.075	1.91	2.78	70.6	7987	11886	9098	13539
11298.517500*	3	1000	3x3/0	0.080	2.03	2.95	74.8	0.075	1.91	3.11	79.0	10357	15412	11829	17604

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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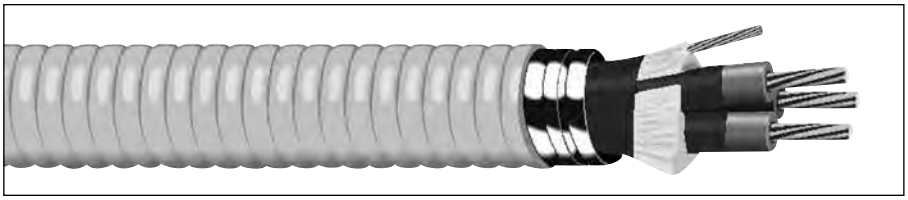
EPR/AIA/PVC, Power, Nonshielded, Armored
2400 V, UL Type MV-90 or MC, Three Conductor



Product Construction:

Conductors:
- 6 AWG thru 1000 kcmil bare copper, compact Class B strand

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conducting stress control layer over conductor

Insulation:
- Ethylene Propylene Rubber (EPR), colored to contrast with black conducting shield layer

Ground:
- Annealed bare copper Class B stranding per ASTM B8

Armor:
- Aluminum Interlocked Armor (AIA)

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), yellow

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- Ideally suited for use in a broad range of commercial, industrial and utility applications where reliability is the major concern, maximum performance will be demanded, space is limited, ease of installation is critical and fire resistance is necessary
- May be installed in wet or dry locations, indoors or outdoors, direct burial and in exposed or concealed work
- May be used in cable trays or on approved supports in protected areas
- Permitted for use per NEC Article 330
  - Class I, Division 2
  - Class II, Division 2
  - Class III, Divisions 1 and 2

Features:
- Rated at 90˚C wet or dry
- Excellent heat and moisture resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss

Features (cont'd.):
- Chemical- and radiation-resistant
- Excellent crush resistance
- Flame or sunlight resistance
- Cost-effective alternative to installations in conduit
- Meets cold bend test at -40˚C
- 90°C rating for continuous operation
- 130°C rating for emergency overload conditions
- 250°C rating for short circuit conditions
- Sunlight-resistant for CT use

Compliances:
Industry Compliances:
- UL 1569
- UL 1072
- ICEA S-96-659/NEMA WC71
- UL Type MV-90, UL File # E90501
- UL Type MC, UL File # E90496

Flame Test Compliances:
- IEEE 383 (70,000 BTU/hr)
- UL 1685 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-29-520 (210,000 BTU/hr)
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable

Packaging:
- Material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. DIA. INCHES	GRND. WIRE SIZE (AWG)	MINIMUM INSULATION THICKNESS		NOM. DIA. (OVER) ARMOR		NOMINAL JACKET THICKNESS		NOMINAL CABLE O.D.		COPPER WEIGHT		NET WEIGHT	
					INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km
6 AWG - 1000 kcmil CONDUCTORS - 115 MILS INS.																
17471.580600*	3	6	0.17	6	0.115	2.92	1.16	29.4	0.050	1.27	1.27	32.2	327	487	854	1272
17471.580400*	3	4	0.21	6	0.115	2.92	1.26	31.9	0.050	1.27	1.37	34.7	473	704	1056	1572
17471.580200	3	2	0.27	6	0.115	2.92	1.37	34.8	0.050	1.27	1.48	37.6	703	1047	1363	2030
17471.585100*	3	1/0	0.34	4	0.115	2.92	1.61	41.0	0.060	1.52	1.74	44.3	1118	1665	2003	2982
17471.585200	3	2/0	0.38	4	0.115	2.92	1.71	43.3	0.060	1.52	1.84	46.6	1376	2049	2326	3463
17471.585400	3	4/0	0.48	3	0.115	2.92	1.92	48.7	0.060	1.52	2.05	52.0	2143	3191	3256	4848
17471.586000*	3	250	0.52	3	0.115	2.92	2.00	50.7	0.060	1.52	2.13	54.1	2503	3727	3689	5493
17471.586200	3	350	0.62	2	0.115	2.92	2.21	56.0	0.060	1.52	2.34	59.3	3479	5180	4825	7184
17471.586500	3	500	0.74	1	0.115	2.92	2.46	62.6	0.075	1.91	2.63	66.7	4933	7345	6567	9778
17471.587000*	3	750	0.91	1/0	0.115	2.92	2.83	72.0	0.075	1.91	3.00	76.1	7347	10940	9320	13877
17471.587500*	3	1000	1.07	1/0	0.115	2.92	3.16	80.3	0.085	2.16	3.35	85.0	9680	14414	12023	17902

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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Duralox® Uniblend®

EPR/AIA/PVC, Power, Shielded, Armored
5 kV/8 kV, UL Type MV-105 or MC, 133%/100% Ins. Levels, 115 Mils, Three Conductor

Product Construction:

Conductors:
- 6 AWG thru 1000 kcmil bare, copper compact Class B strand

Extruded Strand Shield (ESS):
- Thermoset semi-conducting extruded stress control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Shield:
- 5 mil annealed copper tape with a minimum 25% overlap

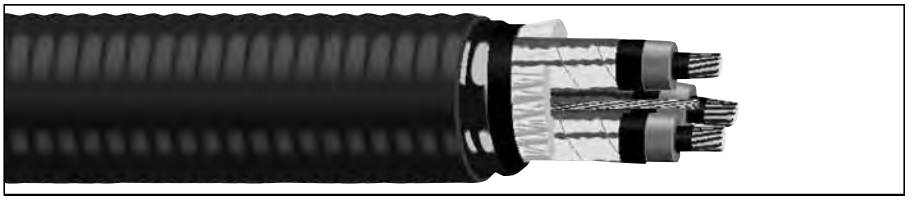
Ground:
- Annealed bare copper Class B stranding per ASTM B8

Armor:
- Aluminum Interlocked Armor (AIA)

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), yellow

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- Ideally suited for use in a broad range of commercial, industrial and utility applications where reliability is the major concern, maximum performance is demanded, space is limited, ease of installation is critical and fire resistance is necessary



Applications (cont'd.):
- Installed in wet or dry locations, indoors or outdoors, direct burial and in exposed or concealed work
- May be used in cable trays or on approved support in protected areas
- Permitted for use per NEC Article 330
  - Class I, Division 2
  - Class II, Division 2
  - Class III, Divisions 1 and 2

Features:
- Rated at 105˚C wet or dry
- Excellent heat and moisture resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical- and radiation-resistant
- Excellent crush resistance
- Cost-effective alternative to installations in conduit
- Meets cold bend test at -40˚C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions
- Sunlight-resistant for CT use

Compliances:
Industry Compliances:
- UL 1072
- ICEA S-93-639/NEMA WC74
- AEIC CS8
- UL Type MV-105, UL File # E90501
- UL Type MC, UL File # E90496

Flame Test Compliances:
- IEEE 383 (70,000 BTU/hr)
- UL 1685 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-29-520 (210,000 BTU/hr)
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	COND. DIA. INCHES	INSULATION DIAMETER MIN. INCHES	MIN. mm	MAX. INCHES	MAX. mm	GRND. WIRE SIZE (AWG)	NOM. DIA. (OVER) ARMOR INCHES	ARMOR mm	NOMINAL JACKET THICKNESS INCHES	JACKET THICKNESS mm	NOMINAL CABLE O.D. INCHES	O.D. mm	COPPER WEIGHT LBS/ 1000 FT	COPPER WEIGHT kg/ km	NET WEIGHT W/AL ARMOR LBS/ 1000 FT	NET WEIGHT W/AL ARMOR kg/ km
6 AWG - 1000 kcmil CONDUCTORS 5 kV, 133% INS. LEVEL OR 8 kV, 100% INS. LEVEL, 115 MILS INS.																		
17473.530600*	3	6	0.17	0.42	10.5	0.49	12.5	6	1.33	33.8	0.050	1.27	1.44	36.6	462	688	1133	1687
17473.530400*	3	4	0.21	0.46	11.6	0.54	13.7	6	1.43	36.2	0.050	1.27	1.54	39.1	619	922	1354	2016
17473.530200	3	2	0.27	0.51	13.0	0.59	14.9	6	1.64	41.6	0.060	1.52	1.77	44.9	864	1286	1819	2708
17473.535100*	3	1/0	0.34	0.58	14.7	0.66	16.7	4	1.79	45.3	0.060	1.52	1.92	48.6	1298	1933	2364	3520
17473.535200	3	2/0	0.38	0.62	15.7	0.70	17.7	4	1.87	47.5	0.060	1.52	2.00	50.8	1566	2332	2696	4014
17473.535400	3	4/0	0.48	0.72	18.3	0.80	20.3	3	2.09	53.2	0.060	1.52	2.22	56.5	2360	3514	3687	5490
17473.536000*	3	250	0.52	0.77	19.6	0.85	21.5	2	2.21	56.0	0.060	1.52	2.34	59.3	2735	4072	4165	6202
17473.536200	3	350	0.62	0.87	22.1	0.95	24.1	2	2.41	61.3	0.075	1.91	2.57	65.4	3736	5563	5436	8094
17473.536500	3	500	0.74	0.99	25.1	1.07	27.1	1	2.64	67.0	0.075	1.91	2.84	72.0	5222	7776	7170	10676
17473.537000*	3	750	0.91	1.17	29.7	1.25	31.8	1/0	3.06	77.8	0.085	2.16	3.25	82.4	7684	11441	10084	15015
17473.537500*	3	1000	1.07	1.33	33.8	1.40	35.6	2/0	3.39	86.1	0.085	2.16	3.57	90.8	10057	14975	12793	19049

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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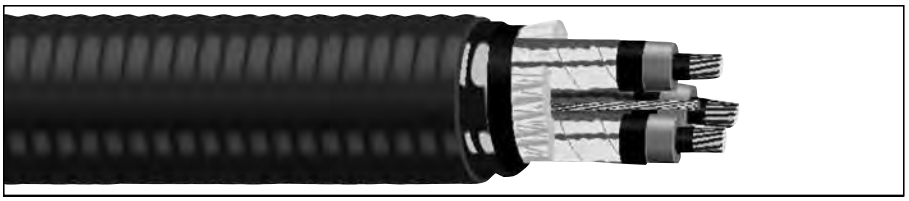
EPR/AIA/PVC, Power, Shielded, Armored
15 kV, UL Type MV-105 or MC, 133% Ins. Level, 220 Mils, Three Conductor



Product Construction:

Conductors:
- 2 AWG thru 1000 kcmil bare, copper compact Class B strand

Extruded Strand Shield (ESS):
- Thermoset semi-conducting extruded stress control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Shield:
- 5 mil annealed copper tape with a minimum 25% overlap

Ground:
- Annealed bare copper Class B stranding per ASTM B8

Armor:
- Aluminum Interlocked Armor (AIA)

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), red

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- Ideally suited for use in a broad range of commercial, industrial and utility applications where reliability is the major concern, maximum performance is demanded, space is limited, ease of installation is critical and fire resistance is necessary
- Installed in wet or dry locations, indoors or outdoors, direct burial and in exposed or concealed work
- May be used in cable trays or on approved support in protected areas
- Permitted for use per NEC Article 330
  - Class I, Division 2
  - Class II, Division 2
  - Class III, Divisions 1 and 2

Features:
- Rated at 105°C wet or dry
- Excellent heat and moisture resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength

Features (cont'd.):
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical- and radiation-resistant
- Excellent crush resistance
- Cost-effective alternative to installations in conduit
- Meets cold bend test at -40°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions
- Sunlight-resistant for CT use

Compliances:
Industry Compliances:
- UL 1072
- ICEA S-93-639/NEMA WC74
- AEIC CS8
- UL Type MV-105, UL File # E90501
- UL Type MC, UL File # E90496

Flame Test Compliances:
- IEEE 383 (70,000 BTU/hr)
- UL 1685 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-29-520 (210,000 BTU/hr)
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/) kcmil	COND. DIA. INCHES	INSULATION DIAMETER MIN. INCHES	MIN. mm	MAX. INCHES	MAX. mm	GRND. WIRE SIZE (AWG)	NOM. DIA. (OVER) ARMOR INCHES	ARMOR mm	NOMINAL JACKET THICKNESS INCHES	JACKET THICKNESS mm	NOMINAL CABLE O.D. INCHES	O.D. mm	COPPER WEIGHT LBS/ 1000 FT	COPPER WEIGHT kg/ km	NET WEIGHT W/AL ARMOR LBS/ 1000 FT	NET WEIGHT W/AL ARMOR kg/ km
2 AWG - 1000 kcmil CONDUCTORS 15 kV, 133% INS. LEVEL, 220 MILS INS.																		
17476.530200	3	2	0.27	0.71	18.0	0.80	20.3	6	2.08	52.8	0.060	1.52	2.21	56.1	919	1368	2416	3597
17476.535100*	3	1/0	0.34	0.78	19.8	0.87	22.0	4	2.22	56.5	0.060	1.52	2.35	59.8	1352	2013	2997	4463
17476.535200	3	2/0	0.38	0.82	20.8	0.91	24.3	4	2.31	58.7	0.060	1.52	2.44	62.0	1620	2412	3371	5019
17476.535400	3	4/0	0.48	0.92	23.4	1.01	25.6	3	2.53	64.3	0.075	1.91	2.70	68.5	2114	3594	4502	6703
17476.536000*	3	250	0.53	0.97	24.6	1.06	26.9	2	2.65	67.2	0.075	1.91	2.81	71.3	2789	4153	5005	7452
17476.536200	3	350	0.62	1.07	27.2	1.16	29.4	2	2.85	72.4	0.075	1.91	3.01	76.6	3790	5643	6252	9309
17476.536500	3	500	0.74	1.19	30.2	1.28	32.4	1	3.11	79.0	0.085	2.16	3.30	83.7	5276	7856	8091	12047
17476.537000*	3	750	0.91	1.37	34.8	1.46	37.1	1/0	3.50	89.0	0.085	2.16	3.69	93.6	7738	11522	11086	16507
17476.537500*	3	1000	1.06	1.52	38.6	1.61	40.9	2/0	3.83	97.3	0.085	2.16	4.01	101.9	10111	15055	13870	20652

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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Duralox® Uniblend®

EPR/AIA/PVC, Power, Shielded, Armored, with Enhanced Ground Wires (50%) 15 kV, UL Type MV-105 or MC, 133% Ins. Level, 220 Mils, Three Conductor

Product Construction:

Conductors:
- 1/0 AWG thru 1000 kcmil bare, copper compact Class B strand

Extruded Strand Shield (ESS):
- Thermoset semi-conducting extruded stress control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Shield:
- 5 mil annealed copper tape with a minimum 25% overlap

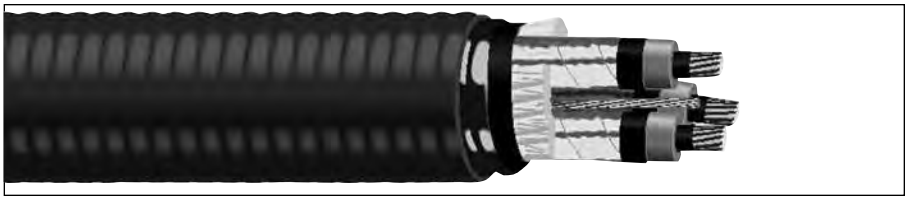
Ground:
- Annealed bare copper Class B stranding per ASTM B8

Armor:
- Aluminum Interlocked Armor (AIA)

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), red

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- Ideally suited for use in a broad range of commercial, industrial and utility applications where reliability is the major concern, maximum performance is demanded, space is limited, ease of installation is critical and fire resistance is necessary



Applications (cont'd.):
- Installed in wet or dry locations, indoors or outdoors, direct burial and in exposed or concealed work
- May be used in cable trays or on approved support in protected areas
- Permitted for use per NEC Article 330
  - Class I, Division 2
  - Class II, Division 2
  - Class III, Divisions 1 and 2

Features:
- Rated at 105˚C wet or dry
- Excellent heat and moisture resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical- and radiation-resistant
- Excellent crush resistance
- Cost-effective alternative to installations in conduit
- Meets cold bend test at -40˚C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions
- Sunlight-resistant for CT use

Compliances:
Industry Compliances:
- UL 1072
- ICEA S-93-639/NEMA WC74
- AEIC CS8
- UL Type MV-105, UL File # E90501
- UL Type MC, UL File # E90496

Flame Test Compliances:
- IEEE 383 (70,000 BTU/hr)
- UL 1685 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-29-520 (210,000 BTU/hr)
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/) kcmil	COND. DIA. INCHES	INSULATION DIAMETER MIN. INCHES	MIN. mm	MAX. INCHES	MAX. mm	GRND. WIRE SIZE (AWG)	NOM. DIA. (OVER) ARMOR INCHES	ARMOR mm	NOMINAL JACKET THICKNESS INCHES	THICKNESS mm	NOMINAL CABLE O.D. INCHES	O.D. mm	COPPER WEIGHT LBS/ 1000FT	COPPER WEIGHT kg/ km	NET WEIGHT W/AL ARMOR LBS/ 1000FT	NET WEIGHT W/AL ARMOR kg/ km
1/0 AWG - 1000 kcmil CONDUCTORS 15 kV, 133% INS. LEVEL, 220 MILS INS.																		
17476.515100*	3	1/0	0.34	0.78	19.8	0.87	22.0	3x6	2.22	56.5	0.060	1.52	2.35	59.8	1469	2187	3119	4644
17476.515200*	3	2/0	0.38	0.82	20.8	0.91	24.3	3x6	2.31	58.7	0.060	1.52	2.44	62.0	1748	2603	3499	5210
17476.515400*	3	4/0	0.48	0.92	23.4	1.01	25.6	3x4	2.53	64.3	0.075	1.91	2.70	68.5	2661	3962	4752	7076
17476.516000*	3	250	0.53	0.97	24.6	1.06	26.9	3x4	2.65	67.2	0.075	1.91	2.81	71.3	3145	4683	5265	7840
17476.516200*	3	350	0.62	1.07	27.2	1.16	29.4	3x2	2.85	72.4	0.075	1.91	3.01	76.6	4212	6272	6674	9938
17476.516500*	3	500	0.74	1.19	30.2	1.28	32.4	3x1	3.11	79.0	0.085	2.16	3.30	83.7	5807	8647	8550	12731
17476.517000*	3	750	0.91	1.37	34.8	1.46	37.1	3x2/0	3.50	89.0	0.085	2.16	3.69	93.6	8574	12767	11932	17767
17476.517500*	3	1000	1.06	1.52	38.6	1.61	40.9	3x3/0	3.83	97.3	0.085	2.16	4.01	101.9	11198	16674	14957	22271

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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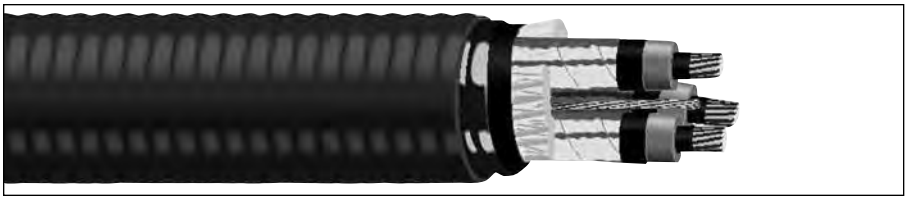
EPR/AIA/PVC, Power, Shielded, Armored
25 kV, UL Type MV-105 or MC, 100% Ins. Level, 260 Mils, Three Conductor



Product Construction:

Conductors:
- 1/0 AWG thru 1000 kcmil bare, copper compact Class B strand

Extruded Strand Shield (ESS):
- Thermoset semi-conducting extruded stress control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Shield:
- 5 mil annealed copper tape with a minimum 25% overlap

Ground:
- Annealed bare copper Class B stranding per ASTM B8

Armor:
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Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), red

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- Permitted for use per NEC Article 330
  - Class I, Division 2
  - Class II, Division 2
  - Class III, Divisions 1 and 2

Features:
- Rated at 105°C wet or dry
- Excellent heat and moisture resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength

Features (cont'd.):
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical- and radiation-resistant
- Excellent crush resistance
- Cost-effective alternative to installations in conduit
- Meets cold bend test at -40°C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions
- Sunlight-resistant for CT use

Compliances:

Industry Compliances:
- UL 1072
- ICEA S-93-639/NEMA WC74
- AEIC CS8
- UL Type MV-105, UL File # E90501
- UL Type MC, UL File # E90496

Flame Test Compliances:
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- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-29-520 (210,000 BTU/hr)
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
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- OSHA Acceptable
- RoHS Compliant

Packaging:
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CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/) kcmil	COND. DIA. INCHES	INSULATION DIAMETER MIN. INCHES	MIN. mm	MAX. INCHES	MAX. mm	GRND. WIRE SIZE (AWG)	NOM. DIA. (OVER) ARMOR INCHES	NOM. DIA. (OVER) ARMOR mm	NOMINAL JACKET THICKNESS INCHES	NOMINAL JACKET THICKNESS mm	NOMINAL CABLE O.D. INCHES	NOMINAL CABLE O.D. mm	COPPER WEIGHT LBS/ 1000 FT	COPPER WEIGHT kg/ km	NET WEIGHT W/AL ARMOR LBS/ 1000 FT	NET WEIGHT W/AL ARMOR kg/ km
1/0 AWG - 1000 kcmil CONDUCTORS 25 kV, 100% INS. LEVEL, 260 MILS INS.																		
17477.535100*	3	1/0	0.34	0.85	21.6	0.94	23.9	4	2.39	60.8	0.075	1.91	2.56	64.9	1372	2043	3358	5000
17477.535200*	3	2/0	0.38	0.89	22.6	0.98	24.9	4	2.48	63.0	0.075	1.91	2.64	67.1	1641	2443	3743	5573
17477.535400*	3	4/0	0.48	0.99	25.1	1.08	27.4	3	2.70	68.6	0.075	1.91	2.86	72.7	2435	3626	4807	7158
17477.536000*	3	250	0.53	1.04	26.4	1.14	28.8	2	2.81	71.5	0.075	1.91	2.98	75.6	2810	4184	5307	7902
17477.536200*	3	350	0.62	1.14	29.0	1.23	31.2	2	3.02	76.7	0.075	1.91	3.18	80.8	3811	5675	6595	9820
17477.536500*	3	500	0.74	1.26	32.0	1.35	34.3	1	3.28	83.3	0.085	2.16	3.46	88.0	5297	7887	8485	12634
17477.537000*	3	750	0.91	1.44	36.6	1.54	39.0	1/0	3.67	93.2	0.085	2.16	3.85	97.9	7758	11552	11491	17110
17477.517500*	3	1000	1.06	1.59	40.4	1.69	42.8	2/0	4.00	101.5	0.085	2.16	4.18	106.2	10132	15087	14303	21297

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

Duralox® Uniblend®

EPR/AIA/PVC, Power, Shielded, Armored
35 kV, UL Type MV-105 or MC, 100% Ins. Level, 345 Mils, Three Conductor

Product Construction:

Conductors:
- 1/0 AWG thru 750 kcmil bare, copper compact Class B strand

Extruded Strand Shield (ESS):
- Thermoset semi-conducting extruded stress control layer over conductor

Insulation:
- Lead-free Ethylene Propylene Rubber (EPR) insulation, contrasting in color to the black semi-conducting shield layers

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer free stripping from insulation

Shield:
- 5 mil annealed copper tape with a minimum 25% overlap

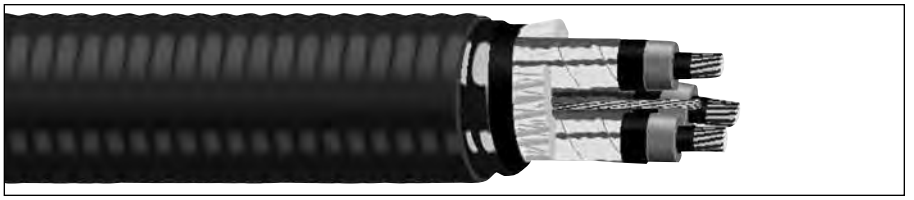
Ground:
- Annealed bare copper Class B stranding per ASTM B8

Armor:
- Aluminum Interlocked Armor (AIA)

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), red

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- Ideally suited for use in a broad range of commercial, industrial and utility applications where reliability is the major concern, maximum performance is demanded, space is limited, ease of installation is critical and fire resistance is necessary



Applications (cont'd.):
- Installed in wet or dry locations, indoors or outdoors, direct burial and in exposed or concealed work
- May be used in cable trays or on approved support in protected areas
- Permitted for use per NEC Article 330
  - Class I, Division 2
  - Class II, Division 2
  - Class III, Divisions 1 and 2

Features:
- Rated at 105˚C wet or dry
- Excellent heat and moisture resistance
- Outstanding corona resistance
- Flexibility for easy handling
- High dielectric strength
- Low moisture absorption
- Electrical stability under stress
- Low dielectric loss
- Chemical- and radiation-resistant
- Excellent crush resistance
- Cost-effective alternative to installations in conduit
- Meets cold bend test at -40˚C
- 105°C rating for continuous operation
- 140°C rating for emergency overload conditions
- 250°C rating for short circuit conditions
- Sunlight-resistant for CT use

Compliances:
Industry Compliances:
- UL 1072
- ICEA S-93-639/NEMA WC74
- AEIC CS8
- UL Type MV-105, UL File # E90501
- UL Type MC, UL File # E90496

Flame Test Compliances:
- IEEE 383 (70,000 BTU/hr)
- UL 1685 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-29-520 (210,000 BTU/hr)
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- Material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/) kcmil	COND. DIA. INCHES	INSULATION DIAMETER MIN. INCHES	MIN. mm	MAX. INCHES	MAX. mm	GRND. WIRE SIZE (AWG)	NOM. DIA. (OVER) ARMOR INCHES	ARMOR mm	NOMINAL JACKET THICKNESS INCHES	JACKET THICKNESS mm	NOMINAL CABLE O.D. INCHES	CABLE O.D. mm	COPPER WEIGHT LBS/ 1000 FT	COPPER WEIGHT kg/ km	NET WEIGHT W/AL ARMOR LBS/ 1000 FT	NET WEIGHT W/AL ARMOR kg/ km
1/0 AWG - 750 kcmil CONDUCTORS 35 kV, 100% INS. LEVEL, 345 MILS INS.																		
17480.535100*	3	1/0	0.34	1.02	25.9	1.12	28.4	4	2.77	70.4	0.075	1.91	2.93	74.5	1419	2113	4063	6050
17480.535200*	3	2/0	0.38	1.06	26.9	1.16	29.5	4	2.86	72.6	0.075	1.91	3.02	76.7	1687	2512	4441	6613
17480.535400*	3	4/0	0.48	1.16	29.5	1.26	32.0	3	3.08	78.2	0.075	1.91	3.24	82.3	2482	3696	5572	8297
17480.536000*	3	250	0.53	1.21	30.7	1.32	33.4	2	3.19	81.1	0.085	2.16	3.38	85.7	2856	4253	6165	9180
17480.536200*	3	350	0.62	1.31	33.3	1.41	35.8	2	3.40	86.3	0.085	2.16	3.58	91.0	3858	5745	7499	11166
17480.536500*	3	500	0.74	1.43	36.3	1.53	38.9	1	3.66	93.0	0.085	2.16	3.83	97.3	5344	7957	9400	13997
17480.537000*	3	750	0.91	1.61	40.9	1.71	43.4	2/0	4.05	102.9	0.085	2.16	4.23	107.5	7805	11622	12843	19123

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

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RoHS Compliant Directive 2011/65/EU

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600 V – 28 kV TECK90 Armored Control and Power Cables

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
8025†	TECK90	XLPE/PVC/AIA/PVC, Control, Armored 600 V, CSA TECK90, Multi-Conductor, 14 AWG	Sept. 2016
8050†	TECK90	XLPE/PVC/AIA/PVC, Control, Armored 600 V, CSA TECK90, Multi-Conductor, 12 AWG	Sept. 2016
8075†	TECK90	XLPE/PVC/AIA/PVC, Control, Armored 600 V, CSA TECK90, Multi-Conductor, 10 AWG	Sept. 2016
8100	TECK90	XLPE/PVC/AIA/PVC, Power, Armored 1000 V, CSA TECK90, Single Conductor	Sept. 2016
8125	TECK90	XLPE/PVC/AIA/PVC, Control and Power, Armored 1000 V, CSA TECK90, Two Conductor	Sept. 2016
8150†	TECK90	XLPE/PVC/AIA/PVC, Control and Power, Armored 1000 V, CSA TECK90, Three Conductor	Sept. 2016
8175†	TECK90	XLPE/PVC/AIA/PVC, Control and Power, Armored 1000 V, CSA TECK90, Four Conductor	Sept. 2016
8200	TECK90	XLPE/PVC/AIA/PVC, Power/Control Composite 600 V, CSA TECK90, Three Power and Three 14 AWG Control Conductors	Sept. 2016
8225	TECK90	TRXLPE/PVC/AIA/PVC, Power, Unshielded, Armored 5 kV, CSA TECK90, Single Conductor	Sept. 2016
8250†	TECK90	TRXLPE/PVC/AIA/PVC, Power, Unshielded, Armored 5 kV, CSA TECK90, Three Conductor	Sept. 2016
8275	HVTECK	TRXLPE/Wire Shield/PVC/AIA/PVC, Power, Shielded, Armored 5 kV, CSA HVTECK, 100% Ins. Level, 90 Mils, Single Conductor	Sept. 2016
8300	HVTECK	TRXLPE/Wire Shield/PVC/AIA/PVC, Power, Shielded, Armored 5 kV (133% Ins. Level)/8 kV (100% Ins. Level), 115 Mils, CSA HVTECK Single Conductor	Sept. 2016
8325	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 5 kV, CSA HVTECK, 100% Ins. Level, 90 Mils, Three Conductor	Sept. 2016
8350	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 5 kV (133% Ins. Level)/8 kV (100% Ins. Level), 115 Mils, CSA HVTECK Three Conductor	Sept. 2016
8375	HVTECK	TRXLPE/Wire Shield/PVC/AIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 100% Ins. Level, 175 Mils, Single Conductor	Sept. 2016
8400	HVTECK	TRXLPE/Wire Shield/PVC/AIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 133% Ins. Level, 220 Mils, Single Conductor	Sept. 2016
8425	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 100% Ins. Level, 175 Mils, Three Conductor	Sept. 2016
8450†	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 133% Ins. Level, 220 Mils, Three Conductor	Sept. 2016
8475	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 25 kV, CSA HVTECK, 100% Ins. Level, 260 Mils, Three Conductor	Sept. 2016
8500	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 25 kV, CSA HVTECK, 133% Ins. Level, 320 Mils, Three Conductor	Sept. 2016
8525	HVTECK	TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 28 kV, CSA HVTECK, 133% Ins. Level, 345 Mils, Three Conductor	Sept. 2016

†Indicates these products are stocked by General Cable

600 V – 28 kV TECK90 Armored Control and Power Cables

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
8550	VERTITECK® TECK90	XLPE/PVC/GSIA/PVC, Power, Unshielded, Armored 1 kV, CSA TECK90, Three Conductor	Sept. 2016
8575	VERTITECK® TECK90	XLPE/PVC/GSIA/PVC, Power, Unshielded, Armored 5 kV, CSA TECK90, 90 Mils, Three Conductor	Sept. 2016
8600	VERTITECK® HVTECK	TRXLPE/Tape Shield/PVC/GSIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 133% Ins. Level, 220 Mils, Three Conductor	Sept. 2016
8625	VERTITECK® HVTECK	TRXLPE/Tape Shield/PVC/GSIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 100% Ins. Level, 175 Mils, Three Conductor	Sept. 2016

†Indicates these products are stocked by General Cable

TECK90

XLPE/PVC/AIA/PVC, Control, Armored
600 V, CSA TECK90, Multi-Conductor, 14 AWG

Product Construction:

Conductors:
- 14 AWG bare copper Class B compressed concentric round to ASTM B8

Insulation:
- Cross-linked Polyethylene (XLPE), Type RW90
- Color-coded: 1 to 4 conductors—black, white, red and blue; over 4 conductors—per ICEA Method 4, individual conductors colored black with conductor number surface printed in contrasting ink

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)						COPPER WEIGHT		NET WEIGHT W/ARMOR				AMPACITY** (30˚C AMBIENT)
				INSULATION		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
14 AWG—MULTI-CONDUCTOR—30 MILS INS. (.76 mm), 600 V																
780220	2	14	14	0.13	3.4	0.58	14.8	0.67	16.9	39	58	195	310	290	462	25
780250	3	14	14	0.13	3.4	0.60	15.4	0.69	17.4	52	78	226	346	336	515	25
780280	4	14	14	0.13	3.4	0.64	16.2	0.72	18.3	68	101	256	385	381	573	25
794540	5	14	14	0.13	3.4	0.68	17.3	0.76	19.3	81	121	290	430	432	640	20
792940	6	14	14	0.13	3.4	0.72	18.3	0.80	20.3	95	142	316	464	471	691	20
780310	7	14	14	0.13	3.4	0.74	18.8	0.82	20.8	104	155	338	490	503	730	17.5
330090	8	14	14	0.13	3.4	0.79	20.1	0.87	22.2	117	174	373	537	555	799	17.5
792960	10	14	14	0.13	3.4	0.88	22.3	0.96	24.3	149	222	451	637	671	948	17.5
792980	12	14	14	0.13	3.4	0.90	23.0	0.99	25.0	176	262	511	702	761	1045	17.5
793000	15	14	14	0.13	3.4	0.96	24.3	1.04	26.3	217	323	586	791	872	1177	17.5
780290	20	14	14	0.13	3.4	1.13	28.7	1.21	30.8	285	424	789	1117	1174	1662	17.5
308190*	25	14	14	0.13	3.4	1.22	30.9	1.30	33.0	337	502	958	1315	1426	1957	15
333750*	30	14	14	0.13	3.4	1.28	32.5	1.36	34.6	402	599	1015	1390	1511	2069	15
330280*	40	14	14	0.13	3.4	1.40	35.6	1.48	37.7	531	791	1234	1649	1837	2454	15
299980*	50	14	14	0.13	3.4	1.52	38.5	1.60	40.6	661	984	1463	1916	2178	2851	12.5

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
** Ampacity is based on CE Code Part 1, Table 2 for 3 conductors in raceway (conduit). Ampacity of 4 conductor cable is based on 3 current-carrying conductors and 1 neutral. Ampacity at 5 or more conductors is modified by Table 5C.

Canadian Standard Association

RoHS Compliant Directive 2011/65/EU

General Cable
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www.generalcable.com

TECK90

XLPE/PVC/AIA/PVC, Control, Armored
600 V, CSA TECK90, Multi-Conductor, 12 AWG

Product Construction:

Conductor:
- 12 AWG bare copper Class B compressed concentric round to ASTM B8

Insulation:
- Cross-linked Polyethylene (XLPE), Type RW90
- Color-coded: 1 to 4 conductors—black, white, red and blue; over 4 conductors—per ICEA Method 4, individual conductors colored black with conductor number surface printed in contrasting ink

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

Compliances (cont'd.):
Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)						COPPER WEIGHT		NET WEIGHT W/ARMOR				AMPACITY** (30˚C AMBIENT)
				INSULATION		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
12 AWG—MULTI-CONDUCTOR—30 MILS INS. (.76 mm), 600 V																
780210	2	12	14	0.15	3.9	0.62	15.8	0.70	17.9	55	82	228	352	340	524	30
780240	3	12	14	0.15	3.9	0.65	16.4	0.73	18.5	75	112	254	386	378	575	30
780320	4	12	14	0.15	3.9	0.69	17.4	0.77	19.5	96	143	293	434	436	646	30
312910	5	12	14	0.15	3.9	0.73	18.5	0.81	20.6	116	173	350	501	521	746	24
331190*	6	12	14	0.15	3.9	0.81	20.5	0.89	22.5	137	204	416	585	619	871	24
315020*	7	12	14	0.15	3.9	0.83	21.0	0.91	23.1	157	234	443	616	660	917	21
311560*	8	12	14	0.15	3.9	0.86	21.7	0.94	23.8	177	264	492	673	732	1002	21
304030*	10	12	14	0.15	3.9	0.95	24.2	1.04	26.2	219	326	555	757	826	1127	21
331130*	12	12	14	0.15	3.9	1.01	25.7	1.10	27.8	261	389	653	942	972	1402	21
312990*	15	12	14	0.15	3.9	1.07	27.2	1.16	29.3	322	480	757	1065	1127	1585	21
299950*	20	12	14	0.15	3.9	1.23	31.3	1.32	33.4	424	631	986	1346	1468	2003	21
307470*	25	12	14	0.15	3.9	1.33	33.8	1.42	35.9	527	785	1210	1602	1801	2384	18
318730*	30	12	14	0.15	3.9	1.40	35.6	1.49	37.7	630	938	1320	1735	1965	2582	18
346880*	40	12	14	0.15	3.9	1.54	39.1	1.64	41.6	837	1246	1725	2185	2567	3252	18
346890*	50	12	14	0.15	3.9	1.67	42.4	1.77	44.9	1044	1553	2055	2556	3058	3804	15

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
** Ampacity is based on CE Code Part 1, Table 2 for 3 conductors in raceway (conduit). Ampacity of 4 conductor cable is based on 3 current-carrying conductors and 1 neutral. Ampacity at 5 or more conductors is modified by Table 5C.

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RoHS Compliant Directive 2011/65/EU

Canadian Standard Association

TECK90

XLPE/PVC/AIA/PVC, Control, Armored
600 V, CSA TECK90, Multi-Conductor, 10 AWG

Product Construction:

Conductor:
- 10 AWG bare copper Class B compressed concentric round to ASTM B8

Insulation:
- Cross-linked Polyethylene (XLPE), Type RW90
- Color-coded: 1 to 4 conductors—black, white, red and blue; over 4 conductors—per ICEA Method 4, individual conductors colored black with conductor number surface printed in contrasting ink

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor
- Color-coded per ICEA Method 4; individual conductors colored black with conductor number surface printed in contrasting ink

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)						COPPER WEIGHT		NET WEIGHT W/ARMOR				AMPACITY** (30˚C AMBIENT)
				INSULATION		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
10 AWG—MULTI-CONDUCTOR—30 MILS INS. (.76 mm), 600 V																
780200	2	10	12	0.18	4.5	0.67	17.0	0.75	19.0	87	130	275	411	410	612	40
780230	3	10	12	0.18	4.5	0.70	17.7	0.78	19.7	119	177	327	470	487	700	40
780270	4	10	12	0.18	4.5	0.74	18.8	0.83	20.9	150	223	413	565	615	841	40
319480*	5	10	12	0.18	4.5	0.82	20.9	0.91	22.9	184	274	473	644	704	959	32
333160*	6	10	12	0.18	4.5	0.88	22.2	0.96	24.3	217	323	515	717	766	1066	32
346870*	7	10	12	0.18	4.5	0.90	22.9	0.99	25.0	248	369	552	754	821	1122	28
318740*	8	10	12	0.18	4.5	0.93	23.6	1.02	25.7	282	420	613	830	912	1235	28
311570*	10	10	12	0.18	4.5	1.08	27.3	1.16	29.4	348	518	828	1181	1232	1757	28
317890*	12	10	12	0.18	4.5	1.15	29.2	1.23	31.3	414	617	916	1276	1363	1899	28
318750*	15	10	12	0.18	4.5	1.22	30.9	1.30	33.0	512	762	1084	1481	1613	2203	28
308180*	20	10	12	0.18	4.5	1.36	34.4	1.44	36.5	675	1005	1316	1750	1958	2604	28
307450*	25	10	12	0.18	4.5	1.47	37.3	1.55	39.4	835	1243	1612	2099	2399	3124	24
293570*	30	10	12	0.18	4.5	1.55	39.4	1.65	41.8	998	1493	1821	2323	2709	3457	24
307460*	40	10	12	0.18	4.5	1.71	43.4	1.81	45.9	1321	1966	2278	2837	3390	4222	24
346900*	50	10	12	0.18	4.5	1.87	47.5	1.97	49.9	1648	2453	2820	3557	4196	5293	20

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
** Ampacity is based on CE Code Part 1, Table 2 for 3 conductors in raceway (conduit). Ampacity of 4 conductor cable is based on 3 current-carrying conductors and 1 neutral. Ampacity at 5 or more conductors is modified by Table 5C.

Canadian Standard Association

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

TECK90

XLPE/PVC/AIA/PVC, Power, Armored
1000 V, CSA TECK90, Single Conductor

Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil bare copper compact Class B strand

Insulation:
- Cross-linked Polyethylene (XLPE), Type RW90
- Color-coded: black

Ground (Bonding) Conductor:
- The conductor is a concentric serving of solid bare copper wires applied over the insulation

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations

Applications (cont'd.):
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Cost effective alternative to installations in conduit
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

Compliances (cont'd.):
Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	MIN. AVG. INS. THICKNESS		NOMINAL DIAMETER (OVER)						COPPER WEIGHT		NET WEIGHT		AMPACITY** (30˚C AMBIENT)
						INSULATION		ARMOR		CABLE						
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	LBS/1000 FT	kg/km	
6 AWG THRU 1000 kcmil—SINGLE CONDUCTOR—1000 V																
11288.040600*	1	6	8	.060	1.52	0.31	7.8	0.68	17.3	0.77	19.6	137	204	320	470	105
11288.050400*	1	4	6	.060	1.52	0.35	8.8	0.73	18.6	0.81	20.6	211	314	410	610	140
11288.030300*	1	3	6	.060	1.52	0.38	9.8	0.76	19.3	0.84	21.4	244	363	450	680	165
11288.050200*	1	2	6	.060	1.52	0.42	10.5	0.78	19.8	0.87	22.1	286	426	510	760	190
11288.050100*	1	1	4	.080	2.03	0.49	12.5	0.88	22.4	0.96	24.4	390	581	680	1010	220
11288.035100*	1	1/0	4	.080	2.03	0.53	13.5	0.91	23.2	1.00	25.4	458	682	760	1130	260
11288.035200*	1	2/0	4	.080	2.03	0.58	14.7	0.95	24.1	1.04	26.4	544	810	860	1280	300
11288.035300*	1	3/0	3	.080	2.03	0.63	15.9	1.03	26.2	1.12	28.5	685	1020	1080	1610	350
11288.025400*	1	4/0	3	.080	2.03	0.69	17.5	1.08	27.5	1.17	29.7	820	1220	1270	1890	405
11288.026000*	1	250	2	.090	2.29	0.75	19.2	1.21	30.8	1.29	32.8	980	1459	1490	2210	455
11288.036200*	1	350	1	.090	2.29	0.86	21.7	1.30	33.0	1.39	35.3	1340	1994	1910	2840	570
11288.026500*	1	500	1/0	.090	2.29	0.99	25.0	1.42	36.1	1.51	38.4	1750	2604	2510	3740	700
11288.027000*	1	750	2/0	.090	2.29	1.16	29.4	1.59	40.4	1.69	43.0	2570	3825	3510	5230	885
11288.027500*	1	1000	2/0	.090	2.29	1.31	33.2	1.81	46.0	1.90	48.3	3340	4970	4430	6590	1055

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Ampacity is based on CE Code Part 1, Table 1 (single conductor in free air) and Rule 4-004.

General Cable
Phone: 888-593-3355
www.generalcable.com

RoHS Compliant
Directive 2011/65/EU

Canadian Standard Association

TECK90

XLPE/PVC/AIA/PVC, Control and Power, Armored 1000 V, CSA TECK90, Two Conductor

Product Construction:

Conductor:
- 14 AWG thru 8 AWG bare copper Class B compressed concentric round to ASTM B8
- 6 AWG thru 1000 kcmil bare copper compact Class B strand

Insulation:
- Cross-linked Polyethylene (XLPE), Type RW90
- Color-coded: 14 AWG to 2 AWG—black and white; 1 AWG to 1000 kcmil—printed numbers

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	MIN. AVG. INS. THICKNESS		NOMINAL DIAMETER (OVER)						COPPER WEIGHT		NET WEIGHT W/ARMOR				AMPACITY** (30˚C AMBIENT)
						INSULATION		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
14 AWG THRU 1000 kcmil—TWO CONDUCTOR—1000 V																		
794520*	2	14	14	.045	1.14	0.17	4.2	0.65	16.5	0.73	18.5	39	58	219	350	326	521	25
308550*	2	12	14	.045	1.14	0.18	4.6	0.69	17.6	0.77	19.6	55	82	255	412	380	613	30
793140*	2	10	12	.045	1.14	0.21	5.3	0.73	18.5	0.81	20.6	86	128	291	441	433	657	40
331260*	2	8	10	.045	1.14	0.24	6.1	0.82	20.8	0.90	22.9	137	204	392	564	584	840	55
11206.332083*	2	6	8	.060	1.52	0.31	7.8	0.94	23.9	1.02	25.9	215	320	556	758	827	1128	75
11288.040400*	2	4	8	.060	1.52	0.35	8.8	1.07	27.2	1.16	29.5	312	464	744	1052	1107	1565	95
11288.220300*	2	3	6	.060	1.52	0.38	9.8	1.15	29.2	1.23	31.3	415	618	905	1239	1347	1844	115
11288.040200*	2	2	6	.060	1.52	0.42	10.5	1.20	30.5	1.28	32.5	502	747	1030	1380	1533	2054	130
11288.020100*	2	1	6	.080	2.03	0.49	12.5	1.34	34.0	1.42	36.1	612	911	1235	1630	1838	2425	145
11288.045100*	2	1/0	6	.080	2.03	0.53	13.5	1.45	36.8	1.53	38.9	740	1101	1425	1854	2120	2759	170
11288.045200*	2	2/0	6	.080	2.03	0.58	14.8	1.50	38.1	1.58	40.1	922	1372	1660	2107	2470	3135	195
11288.045300*	2	3/0	4	.080	2.03	0.63	15.9	1.59	40.4	1.69	42.9	1190	1771	1995	2471	2969	3677	225
11288.145400*	2	4/0	4	.080	2.03	0.69	17.5	1.70	43.2	1.79	45.5	1466	2182	2350	2862	3497	4259	260
11288.226000*	2	250	4	.090	2.29	0.75	19.2	1.84	46.8	1.93	49.0	1709	2543	2779	3332	4135	4958	290
11288.226200*	2	350	3	.090	2.29	0.86	21.7	2.09	53.1	2.18	55.4	2373	3561	3650	4285	5431	6376	350
11288.226500*	2	500	3	.090	2.29	0.99	25.0	2.33	59.2	2.45	62.2	3316	4935	4895	5607	7284	8343	430
11288.227000*	2	750	2	.090	2.29	1.16	29.4	2.67	67.8	2.79	70.9	4941	7353	6872	7695	10226	11450	535
11288.227500*	2	1000	1	.090	2.29	1.31	33.2	2.98	75.7	3.10	78.8	6562	9766	8993	10376	13382	15439	615

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Ampacity is based on CE Code Part 1, Table 2 (Three conductors in raceway [conduit]) and Rule 4-004.

Canadian Standard Association

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

TECK90

XLPE/PVC/AIA/PVC, Control and Power, Armored
1000 V, CSA TECK90, Three Conductor

Product Construction:

Conductor:
- 14 AWG thru 8 AWG bare copper Class B compressed concentric round to ASTM B8
- 6 AWG thru 1000 kcmil bare copper compact Class B strand

Insulation:
- Cross-linked Polyethylene (XLPE), Type RW90
- Color-coded: 14 AWG to 2 AWG—black, red and blue; 1 AWG to 1000 kcmil—printed numbers

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For exposed and concealed wiring in dry, damp or wet locations

Applications (cont'd.):
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands

Features:
- Rated at 90˚C wet or dry
- Excellent crush resistance, oil and chemical resistance
- Provides long service life
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

Compliances (cont'd.):
Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	MIN. AVG. INS. THICKNESS		NOMINAL DIAMETER (OVER)						COPPER WEIGHT		NET WEIGHT W/ARMOR				AMPACITY** (30˚C AMBIENT)
						INSULATION		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
14 AWG THRU 1000 kcmil—THREE CONDUCTOR—1000 V																		
330520*	3	14	14	.045	1.14	0.17	4.2	0.67	17.0	0.76	19.3	52	77	261	398	388	592	25
780260	3	12	14	.045	1.14	0.18	4.6	0.72	18.3	0.80	20.3	75	112	299	445	445	662	30
331120	3	10	12	.045	1.14	0.21	5.3	0.79	20.1	0.88	22.4	124	185	374	539	557	802	40
793200	3	8	10	.045	1.14	0.24	6.1	0.86	21.9	0.94	23.9	189	281	486	666	723	991	55
11288.010600	3	6	8	.060	1.52	0.31	7.8	1.03	26.2	1.13	28.7	300	447	724	836	1078	1244	75
11288.010400	3	4	8	.060	1.52	0.35	8.8	1.16	29.5	1.25	31.8	447	665	970	1327	1444	1975	95
11288.010300	3	3	6	.060	1.52	0.38	9.8	1.22	31.0	1.30	33.0	582	866	1136	1509	1691	2246	115
11288.010200	3	2	6	.060	1.52	0.42	10.5	1.28	32.5	1.37	34.8	710	1056	1311	1702	1951	2533	130
11288.010100	3	1	6	.080	2.03	0.49	12.5	1.44	36.6	1.54	39.1	866	1288	1593	2045	2371	3043	145
11288.015100	3	1/0	6	.080	2.03	0.53	13.5	1.56	39.6	1.68	42.7	1069	1590	1906	2389	2837	3555	170
11288.015200	3	2/0	6	.080	2.03	0.58	14.8	1.65	41.9	1.77	45.0	1327	1974	2225	2732	3311	4066	195
11288.015300	3	3/0	4	.080	2.03	0.63	15.9	1.75	44.5	1.87	47.5	1670	2485	2666	3261	3967	4853	225
11288.015400	3	4/0	4	.080	2.03	0.69	17.5	1.86	47.2	1.98	50.3	2109	3138	3207	3806	4772	5664	260
11288.016000	3	250	4	.090	2.29	0.75	19.2	2.05	52.1	2.17	55.1	2470	3675	3800	4513	5655	6716	290
11288.016200	3	350	3	.090	2.29	0.86	21.7	2.26	57.4	2.40	61.0	3437	5114	4979	5906	7409	8789	350
11288.016500	3	500	3	.090	2.29	0.99	25.0	2.52	64.0	2.66	67.6	4839	7200	6586	7627	9798	11349	430
11270.891327	3	750	2	.090	2.29	1.16	29.4	2.89	73.4	3.03	77.0	7225	10751	9267	10470	13790	15580	535
11288.017500*	3	1000	1	.090	2.29	1.31	33.2	3.28	83.3	3.44	87.4	9612	14303	12184	13566	18130	20187	615

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Ampacity is based on CE Code Part 1, Table 2 (Three conductors in raceway [conduit]) and Rule 4-004.

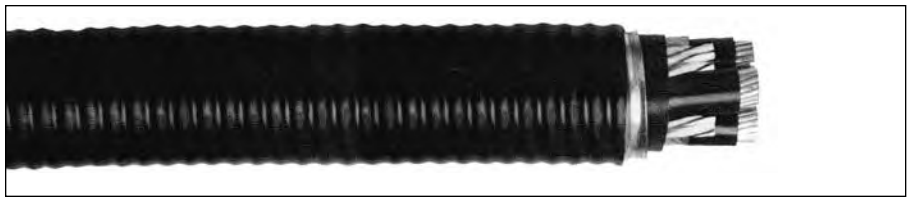
General Cable
Phone: 888-593-3355
www.generalcable.com

RoHS Compliant Directive 2011/65/EU

Canadian Standard Association

TECK90

XLPE/PVC/AIA/PVC, Control and Power, Armored 1000 V, CSA TECK90, Four Conductor



Product Construction:

Conductor:
- 14 AWG thru 8 AWG bare copper Class B compressed concentric round to ASTM B8
- 6 AWG thru 1000 kcmil bare copper compact Class B strand

Insulation:
- Cross-linked Polyethylene (XLPE), Type RW90
- Color-coded: 14 AWG to 2 AWG—black, red, blue and white; 1 AWG to 1000 kcmil—printed numbers

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	MIN. AVG. INS. THICKNESS		NOMINAL DIAMETER (OVER)						COPPER WEIGHT		NET WEIGHT W/ARMOR				AMPACITY** (30˚C AMBIENT)
						INSULATION		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
14 AWG THRU 1000 kcmil—FOUR CONDUCTOR—1000 V																		
321940*	4	14	14	.045	1.14	0.17	4.2	0.72	18.3	0.80	20.3	68	101	290	440	430	660	25
793180*	4	12	14	.045	1.14	0.18	4.6	0.79	20.1	0.88	22.4	96	143	357	521	531	776	30
793160*	4	10	12	.045	1.14	0.21	5.3	0.85	21.6	0.93	23.6	150	223	455	632	677	941	40
331250	4	8	10	.045	1.14	0.24	6.1	0.92	23.4	1.00	25.4	241	359	548	736	816	1096	55
11288.030600	4	6	8	.060	1.52	0.31	7.8	1.15	29.2	1.25	31.8	383	570	907	1261	1350	1877	75
11288.020400	4	4	8	.060	1.52	0.35	8.8	1.26	32.0	1.35	34.3	579	862	1168	1558	1738	2319	95
11288.020300	4	3	6	.060	1.52	0.38	9.8	1.31	33.3	1.40	35.6	748	1113	1373	1782	2043	2652	115
11288.020200	4	2	6	.060	1.52	0.42	10.5	1.37	34.8	1.46	37.1	919	1368	1583	2013	2356	2996	130
11288.040100	4	1	6	.080	2.03	0.49	12.5	1.60	40.6	1.72	43.7	1128	1679	2032	2551	3024	3796	145
11288.025100	4	1/0	6	.080	2.03	0.53	13.5	1.69	42.9	1.81	46.0	1398	2081	2365	2914	3520	4336	170
11288.025200	4	2/0	6	.080	2.03	0.58	14.8	1.79	45.5	1.91	48.5	1742	2593	2745	3331	4085	4957	195
11288.025300	4	3/0	4	.080	2.03	0.63	15.9	1.91	48.5	2.03	51.6	2223	3308	3398	4135	5057	6153	225
11288.045400	4	4/0	4	.080	2.03	0.69	17.5	2.09	53.1	2.21	56.1	2769	4121	4170	4983	6205	7415	260
11288.046000	4	250	4	.090	2.29	0.75	19.2	2.23	56.7	2.35	59.7	3249	4835	4789	5661	7126	8424	290
11288.026200	4	350	3	.090	2.29	0.86	21.7	2.46	62.5	2.60	66.0	4528	6738	6307	7264	9385	10809	350
11288.036500*	4	500	3	.090	2.29	0.99	25.0	2.76	70.1	2.90	73.7	6395	9516	8438	9515	12556	14159	430
11288.057000*	4	750	2	.090	2.29	1.16	29.4	3.24	82.3	3.42	86.9	9564	14232	12411	13683	18468	20360	535
11288.037500*	4	1000	1	.090	2.29	1.31	33.2	3.65	92.7	3.84	97.6	12885	19173	15800	23510	23500	34968	615

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Ampacity is based on CE Code Part 1, Table 2 (Three conductors in raceway [conduit]) and Rule 4-004.
Ampacity of 4 conductor cable is based on 3 current-carrying conductors and 1 neutral.

Canadian Standard Association

RoHS Compliant Directive 2011/65/EU

General Cable

Phone: 888-593-3355
www.generalcable.com

TECK90

XLPE/PVC/AIA/PVC, Power/Control Composite
600 V, CSA TECK90, Three Power and Three 14 AWG Control Conductors

Product Construction:

Conductor:
- 12 AWG thru 8 AWG bare copper Class B compressed concentric round to ASTM B8
- 6 AWG thru 4/0 AWG bare copper compact Class B strand

Insulation:
- Cross-linked Polyethylene (XLPE), Type RW90
- Color-coded: 14 AWG to 2 AWG—black, red and blue; 1 AWG to 4/0 AWG—printed numbers

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For exposed and concealed wiring in dry, damp or wet locations

Applications (cont'd.):
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

Compliances (cont'd.):
Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	MIN. AVG. INS. THICKNESS		NOMINAL DIAMETER (OVER)						COPPER WEIGHT		NET WEIGHT W/ARMOR				AMPACITY** POWER COND. (30˚C AMBIENT)
						INSULATION		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
12 AWG THRU 4/0 AWG—THREE POWER CONDUCTORS AND THREE 14 AWG CONTROL CONDUCTORS—30 MILS (.76 mm)—600 V																		
333410*†	3	12	14	.030	0.76	0.15	3.9	0.78	19.8	0.86	21.8	114	170	356	519	530	789	30
311320*†	3	10	12	.030	0.76	0.18	4.5	0.81	20.6	0.89	22.6	158	235	416	586	619	921	40
311330*†	3	8	10	.045	1.14	0.24	6.1	0.95	24.0	1.00	25.4	208	310	541	729	805	1198	55
11288.210600*	3	6	8	.045	1.14	0.28	7.0	0.99	25.0	1.20	30.5	338	503	696	896	1035	1540	75
11288.210400*	3	4	8	.045	1.14	0.32	8.2	1.14	28.8	1.25	31.8	485	722	972	1293	1446	2151	95
11288.210200*	3	2	6	.045	1.14	0.38	9.7	1.27	32.3	1.39	35.2	747	1112	1295	1662	1927	2868	130
11288.210100*	3	1	6	.055	1.40	0.44	11.1	1.39	35.2	1.50	38.1	911	1356	1539	1941	2290	3408	145
11288.215100*	3	1/0	6	.055	1.40	0.48	12.2	1.47	37.3	1.59	40.3	1117	1662	1798	2227	2676	3982	170
11288.215200*	3	2/0	6	.055	1.40	0.53	13.3	1.57	39.8	1.71	43.3	1378	2051	2150	2609	3199	4760	195
11288.215300*	3	3/0	4	.055	1.40	0.58	17.1	1.68	42.5	1.82	46.1	1753	2609	2592	3087	3857	5740	225
11288.215400*	3	4/0	4	.055	1.40	0.63	16.0	1.80	45.7	1.94	49.1	2167	3225	3080	3615	4583	6820	260

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
†Contact Customer Service for steel catalog number.
**Ampacity is based on CE Code Part 1, Table 2 (Three conductors in raceway [conduit]) and Rule 4-004.

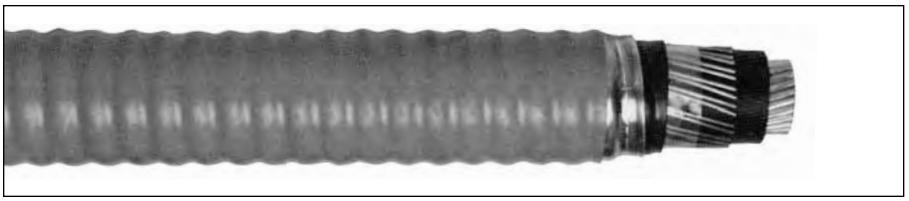
General Cable
Phone: 888-593-3355
www.generalcable.com

RoHS Compliant Directive 2011/65/EU

Canadian Standard Association

TECK90

TRXLPE/PVC/AIA/PVC, Power, Unshielded, Armored 5 kV, CSA TECK90, Single Conductor



Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE), Type RW90

Ground (Bonding) Conductor:
- The conductor is a concentric serving of solid bare copper wires applied over the insulation

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), orange

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)						COPPER WEIGHT		NET WEIGHT W/AL ARMOR		AMPACITY** (30˚C AMBIENT)
				INSULATION		ARMOR		CABLE						
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	LBS/ 1000 FT	kg/ km	
6 AWG THRU 1000 kcmil—SINGLE CONDUCTOR—UNSHIELDED—90 MILS INS. (2.29 mm)—5 kV														
17496.100600*	1	6	8	0.39	10.0	0.76	19.3	0.85	21.6	143	213	370	550	105
17496.100400*	1	4	6	0.43	10.5	0.84	21.4	0.93	23.7	223	332	490	730	140
17496.100300*	1	3	6	0.46	11.7	0.86	21.9	0.95	24.2	229	341	540	800	165
17496.100200*	1	2	6	0.49	12.5	0.89	22.6	0.98	24.9	301	448	590	890	190
17496.100100*	1	1	4	0.52	13.3	0.93	23.6	1.02	25.9	405	603	720	1060	220
17496.105100*	1	1/0	4	0.56	14.2	0.96	24.4	1.06	26.9	474	705	800	1190	260
17496.105200*	1	2/0	4	0.60	15.2	1.03	26.2	1.13	28.7	561	835	900	1350	300
17496.105300*	1	3/0	3	0.64	16.3	1.08	27.5	1.18	30.0	708	1054	1130	1680	350
17496.105400*	1	4/0	3	0.70	17.8	1.16	29.5	1.26	32.0	847	1261	1330	1970	405
17496.106000*	1	250	2	0.75	19.1	1.24	31.5	1.34	34.1	1012	1506	1530	2280	455
17496.106200*	1	350	1	0.85	21.5	1.34	34.0	1.44	36.6	1388	2066	1960	2910	570
17496.106500*	1	500	1/0	0.97	24.6	1.49	37.9	1.59	40.4	1548	2304	2570	3830	700
17496.107000*	1	750	2/0	1.15	29.2	1.68	42.7	1.78	45.2	2243	3338	3900	5800	885

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Ampacity is based on CE Code Part 1, Table 1 (single conductor in free air) and Rule 4-004.

Canadian Standard Association

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

TECK90

TRXLPE/PVC/AIA/PVC, Power, Unshielded, Armored
5 kV, CSA TECK90, Three Conductor

Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE), Type RW90
- Color-coded: Black with printed numbers

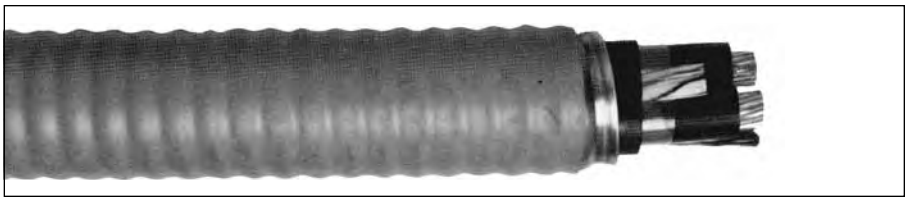
Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), orange

Options:
- Galvanized Steel Interlocked Armor (GSIA)



Applications:
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

Compliances (cont'd.):
Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)						COPPER WEIGHT		NET WEIGHT W/ARMOR				AMPACITY** (30˚C AMBIENT)
				INSULATION		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
6 AWG THRU 1000 kcmil—THREE CONDUCTOR—UNSHIELDED—90 MILS INS. (2.29 mm)—5 kV																
17496.020600	3	6	8	0.39	10.0	1.27	32.3	1.37	34.8	301	448	927	1340	1380	2000	75
17496.020400	3	4	8	0.43	10.5	1.37	34.8	1.47	37.4	442	658	1138	1590	1694	2370	95
17496.010300*	3	3	6	0.46	11.7	1.42	36.1	1.52	38.6	583	868	1310	1780	1950	2640	115
17496.020200	3	2	6	0.49	12.5	1.49	37.9	1.59	40.4	703	1046	1476	1980	2197	2940	130
17496.020100*	3	1	6	0.52	13.3	1.59	40.4	1.69	43.0	970	1444	1752	2230	2607	3350	145
17496.025100	3	1/0	6	0.56	14.2	1.67	42.4	1.77	45.0	1082	1610	2012	2540	2994	3780	170
17496.025200	3	2/0	6	0.60	15.2	1.76	44.7	1.86	47.3	1343	1999	2334	2880	3473	4290	195
17496.035300*	3	3/0	4	0.64	16.3	1.87	47.5	1.97	50.1	1720	2560	2835	3370	4219	5010	225
17496.025400	3	4/0	4	0.70	17.8	1.98	50.3	2.08	52.9	2315	3445	3328	4090	4952	6090	260
17496.056000	3	250	4	0.75	19.1	2.15	54.6	2.25	57.2	2469	3674	3910	4780	5819	7110	290
17496.026200	3	350	3	0.85	21.5	2.36	60.0	2.49	63.3	3476	5173	5102	6100	7592	9070	350
17496.046500	3	500	3	0.97	24.6	2.62	66.6	2.75	69.9	4837	7198	6721	7880	10001	11720	430
17496.077000	3	750	2	1.15	29.2	3.01	76.5	3.14	79.8	7224	10750	9469	11750	14090	17480	535
17496.017500*	3	1000	1	1.30	33.0	3.39	86.1	3.54	89.9	9715	14458	13790	15220	20520	22650	615

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
** Ampacity is based on CE Code Part 1, Table 2 (Three conductors in raceway [conduit]) and Rule 4-004.

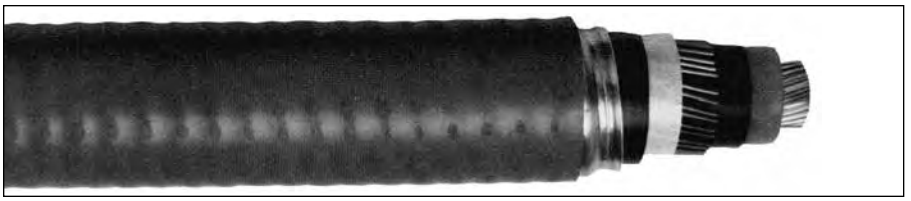
General Cable
Phone: 888-593-3355
www.generalcable.com

RoHS Compliant Directive 2011/65/EU

Canadian Standard Association

HVTECK

TRXLPE/Wire Shield/PVC/AIA/PVC, Power, Shielded, Armored 5 kV, CSA HVTECK, 100% Ins. Level, 90 Mils, Single Conductor



Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE)

Insulation Shield:
- Black semi-conducting thermosetting layer, applied in a triple extrusive process, plus a concentric serving of solid copper wires acting as both a drain wire shield and a grounding (bonding) conductor

Ground (Bonding) Conductor:
- The conductor is a concentric serving of solid copper wires applied over the thermosetting insulation shield

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), orange

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For wiring in all hazardous locations when used with certified HL cable glands
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C68.10

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)										COPPER WEIGHT		NET WEIGHT W/AL ARMOR		OUTDOOR AMPACITY** (40˚C AMBIENT)
				INSULATION		INSULATION SHIELD		INNER JACKET		ARMOR		CABLE						
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	LBS/ 1000 FT	kg/ km	
6 AWG THRU 1000 kcmil—SINGLE CONDUCTOR—SHIELDED, 100% INS. LEVEL, 90 MILS INS. (2.29 mm)—5 kV																		
17496.700600*	1	6	8	0.39	10.0	0.47	11.9	0.68	17.3	0.90	22.9	0.99	25.2	144	214	510	770	112
17496.700400*	1	4	6	0.43	10.5	0.51	13.0	0.72	18.3	0.94	23.9	1.03	26.2	224	333	590	880	148
17496.700200*	1	2	6	0.49	12.5	0.57	14.5	0.78	19.8	1.03	26.2	1.12	28.5	302	449	750	1120	198
17496.700100*	1	1	4	0.52	13.3	0.60	15.3	0.81	20.6	1.06	27.0	1.15	29.2	406	604	870	1300	225
17496.705100*	1	1/0	4	0.56	14.2	0.63	16.0	0.88	22.4	1.13	28.7	1.22	31.0	475	707	1010	1500	255
17496.705200*	1	2/0	4	0.60	15.2	0.67	17.0	0.92	23.4	1.17	29.7	1.26	32.0	562	836	1120	1670	291
17496.705300*	1	3/0	3	0.64	16.3	0.71	18.1	0.97	24.7	1.22	31.0	1.31	33.3	709	1055	1300	1930	327
17496.705400*	1	4/0	3	0.70	17.8	0.76	19.3	1.02	25.9	1.27	32.3	1.36	34.6	843	1255	1470	2180	373
17496.706000*	1	250	2	0.75	19.1	0.82	20.8	1.10	28.0	1.38	35.1	1.48	37.6	1013	1508	1680	2500	417
17496.706200*	1	350	1	0.85	21.5	0.96	24.4	1.24	31.5	1.52	38.6	1.62	41.2	1389	2067	2120	3150	491
17496.706500*	1	500	1/0	0.97	24.6	1.04	26.4	1.34	34.0	1.62	41.2	1.72	43.7	1928	2869	2770	4130	562
17496.707000*	1	750	2/0	1.15	29.2	1.24	31.5	1.54	39.1	1.83	46.5	1.93	49.0	2820	4197	3780	5760	642
17496.707500*	1	1000	2/0	1.30	33.0	1.39	35.3	1.76	44.7	2.05	52.1	2.15	54.6	3607	5368	5010	7460	740

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Open circuit (shield/armor) is assumed. Ampacities at other voltage levels do not vary significantly.
Special approval by local electrical inspection authorities may be required (Ref. CE Code Part 1, Appendix B, Rule 4-004).
Ampacity based on CE Code Table D17M and Rule 4-004.

Canadian Standard Association

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

HVTECK

TRXLPE/Wire Shield/PVC/AIA/PVC, Power, Shielded, Armored
5 kV (133% Ins. Level)/8 kV (100% Ins. Level), 115 Mils, CSA HVTECK, Single Conductor

Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE)

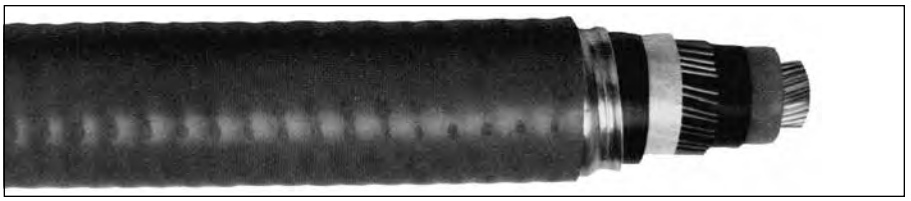
Insulation Shield:
- Black semi-conducting thermosetting layer, applied in a triple extrusion process, plus a concentric serving of solid copper wires acting as both a drain wire shield and a grounding (bonding) conductor

Ground (Bonding) Conductor:
- The conductor is a concentric serving of solid copper wires applied over the thermosetting insulation shield

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), orange



Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For wiring in all hazardous locations when used with certified HL cable glands
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provide long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend and impact tests at -40˚C

Compliances:

Industry Compliances:
- CSA Standard C68.10

Compliances (cont'd.):

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)										COPPER WEIGHT		NET WEIGHT W/AL ARMOR		OUTDOOR AMPACITY** (40˚C AMBIENT)
				INSULATION		INSULATION SHIELD		INNER JACKET		ARMOR		CABLE						
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	LBS/ 1000 FT	kg/ km	
6 AWG THRU 1000 kcmil—SINGLE CONDUCTOR—SHIELDED, 5 kV 133% / 8 kV 100% INS. LEVEL, 115 MILS INS. (2.92 mm) (TO AEIC)																		
17496.710600*	1	6	8	0.44	11.2	0.51	13.0	0.73	18.6	0.95	24.2	1.04	26.4	145	216	550	820	112
17496.710400*	1	4	6	0.48	12.3	0.55	13.9	0.77	19.6	0.99	25.2	1.08	27.5	225	335	680	1010	148
17496.710200*	1	2	6	0.54	13.7	0.61	15.5	0.83	21.1	1.08	27.5	1.17	29.7	303	451	840	1250	198
17496.710100*	1	1	4	0.57	14.5	0.64	16.3	0.91	23.0	1.16	29.5	1.25	31.8	407	606	960	1430	225
17496.715100*	1	1/0	4	0.61	15.4	0.68	17.3	0.94	23.9	1.19	30.3	1.28	32.5	476	708	1060	1570	255
17496.715200*	1	2/0	4	0.65	16.4	0.72	18.3	0.98	25.0	1.23	31.3	1.32	33.6	563	838	1170	1740	291
17496.715300*	1	3/0	3	0.70	17.7	0.76	19.3	1.03	26.3	1.31	33.3	1.40	35.6	710	1057	1350	2000	327
17496.715400*	1	4/0	3	0.75	18.9	0.81	20.6	1.08	27.5	1.36	34.6	1.45	36.9	849	1263	1520	2260	373
17496.716000*	1	250	2	0.80	20.3	0.87	22.1	1.16	29.6	1.44	36.6	1.53	38.9	1018	1515	1730	2580	417
17496.716200*	1	350	1	0.94	23.9	1.01	25.7	1.29	32.8	1.57	39.9	1.67	42.4	1390	2069	2170	3230	491
17496.716500*	1	500	1/0	1.02	26.0	1.11	28.2	1.41	35.8	1.69	43.0	1.79	45.6	1945	2895	2860	4260	562
17496.717000*	1	750	2/0	1.20	30.6	1.29	32.8	1.60	40.7	1.89	48.0	1.99	50.6	2821	4198	3940	5860	642
17496.717500*	1	1000	2/0	1.35	34.3	1.44	36.6	1.81	46.0	2.10	53.4	2.20	55.9	3608	5369	5090	7570	740

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Open circuit (shield/armor) is assumed. Ampacities at other voltage levels do not vary significantly.
Special approval by local electrical inspection authorities may be required (Ref. CE Code Part 1, Appendix B, Rule 4-004).
Ampacity based on CE Code Table D17M and Rule 4-004.

General Cable
Phone: 888-593-3355
www.generalcable.com

RoHS Compliant Directive 2011/65/EU

Canadian Standard Association

HVTECK

TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 5 kV, CSA HVTECK, 100% Ins. Level, 90 Mils, Three Conductor

Product Construction:

Conductor:
- 6 AWG thru 1000 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE)

Insulation Shield:
- A semi-conducting thermosetting layer, applied in a triple extrusion process, plus a helically applied gapped copper tape
- Color-coded: black, red or blue colored tape placed longitudinally under the copper tape shield

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), orange

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For wiring in all hazardous locations when used with certified HL cable glands
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C68.10

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)										COPPER WEIGHT		NET WEIGHT W/ARMOR				OUTDOOR AMPACITY** (40˚C AMBIENT)
				INSULATION		INSULATION SHIELD		INNER JACKET		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
6 AWG THRU 1000 kcmil—THREE CONDUCTOR—SHIELDED, 100% INS. LEVEL, 90 MILS INS. (2.29 mm)—5 kV																				
17496.740600*	3	6	8	0.39	10.0	0.47	11.9	1.17	29.7	1.45	36.9	1.54	39.2	349	519	1120	1590	1670	2360	93
17496.740400*	3	4	8	0.43	10.5	0.51	13.0	1.26	32.0	1.54	39.1	1.63	41.4	503	749	1350	1850	1670	2760	122
17496.740200*	3	2	6	0.49	12.5	0.57	14.5	1.39	35.3	1.67	42.4	1.77	45.0	771	1147	1740	2290	2590	3410	141
17496.740100*	3	1	6	0.52	13.3	0.60	15.3	1.45	36.9	1.73	43.9	1.83	46.5	939	1397	1960	2540	2920	3780	161
17496.745100*	3	1/0	6	0.56	14.2	0.63	16.0	1.53	38.9	1.81	46.0	1.91	48.5	1148	1708	2290	3010	3410	4490	184
17496.745200*	3	2/0	6	0.60	15.2	0.67	17.0	1.62	41.2	1.91	48.5	2.01	51.1	1414	2104	2620	3380	3900	5030	212
17496.745300*	3	3/0	4	0.64	16.3	0.71	18.1	1.78	45.2	2.07	52.6	2.17	55.1	1798	2668	3210	4040	4780	6020	242
17496.745400*	3	4/0	4	0.70	17.8	0.76	19.3	1.90	48.3	2.19	55.6	2.29	58.2	2212	3292	3720	4600	5530	6840	278
17496.746000*	3	250	4	0.75	19.1	0.82	20.8	2.01	51.1	2.30	58.4	2.43	61.8	2583	3844	4300	5240	6400	7800	306
17496.746200*	3	350	3	0.85	21.5	0.96	24.4	2.32	58.9	2.61	66.3	2.74	69.6	3569	5311	5480	6520	8160	9700	373
17496.746500*	3	500	3	0.97	24.6	1.04	26.4	2.48	63.0	2.77	70.4	2.90	73.7	4998	7438	7130	8280	10610	12320	450
17496.747000*	3	750	2	1.15	29.2	1.24	31.5	2.98	75.7	3.27	83.1	3.42	86.9	7440	11072	10330	11700	15370	17410	545
17496.747500*	3	1000	1	1.30	33.0	1.39	35.3	3.31	84.1	3.60	91.5	3.75	95.3	9860	14674	13080	14600	19460	21730	640

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Ampacities at other voltage levels do not vary significantly.
Special approval by local electrical inspection authorities may be required (Ref. CE Code Part 1, Appendix B, Rule 4-004).
Ampacity based on CE Code Table D17N and Rule 4-004.

Canadian Standard Association

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

HVTECK

TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 5 kV (133% Ins. Level)/8 kV (100% Ins. Level), 115 Mils, CSA HVTECK, Three Conductor

Product Construction:

Conductor:
- 4 AWG thru 1000 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE)

Insulation Shield:
- A semi-conducting thermosetting layer, applied in a triple extrusion process, plus a helically applied gapped copper tape
- Color-coded: black, red or blue colored tape placed longitudinally under the copper tape shield

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), orange

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For wiring in all hazardous locations when used with certified HL cable glands
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend and impact tests at -40˚C

Compliances:

Industry Compliances:
- CSA Standard C68.10

Compliances (cont'd.):

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)										COPPER WEIGHT		NET WEIGHT W/ARMOR				OUTDOOR AMPACITY** (40˚C AMBIENT)
				INSULATION		INSULATION SHIELD		INNER JACKET		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
4 AWG THRU 1000 kcmil—THREE CONDUCTOR—SHIELDED, 5 kV 133% / 8 kV 100% INS. LEVEL, 115 MILS INS. (2.92 mm) (TO AEIC)																				
17496.750400*	3	4	8	0.48	12.3	0.55	13.9	1.37	34.8	1.65	41.9	1.75	44.5	505	752	1500	2040	2230	3040	122
17496.750200*	3	2	6	0.54	13.7	0.61	15.5	1.50	38.2	1.78	45.2	1.88	47.8	774	1152	1930	2630	2870	3910	141
17496.750100*	3	1	6	0.57	14.5	0.64	16.3	1.57	39.9	1.86	47.3	1.96	49.8	943	1403	2150	2880	3200	2490	161
17496.755100*	3	1/0	6	0.61	15.4	0.68	17.3	1.65	41.9	1.94	49.3	2.04	51.8	1151	1713	2430	3200	3620	4760	184
17496.755200*	3	2/0	6	0.65	16.4	0.72	18.3	1.80	45.6	2.09	53.1	2.19	55.7	1417	2109	2890	3720	4300	5540	212
17496.755300*	3	3/0	4	0.70	17.7	0.76	19.3	1.90	48.3	2.19	55.7	2.29	58.2	1796	2673	3360	4240	5000	6310	242
17496.755400*	3	4/0	4	0.75	18.9	0.81	20.6	2.01	51.0	2.30	58.5	2.43	61.8	2215	3296	3940	4870	5860	7240	278
17496.756000*	3	250	4	0.80	20.3	0.87	22.1	2.13	54.1	2.42	61.5	2.55	64.8	2583	3844	4470	5450	6650	8120	306
17496.756200*	3	350	3	0.94	23.9	1.01	25.7	2.43	61.8	2.72	69.1	2.85	72.4	3572	5316	5650	6730	8400	10020	373
17496.756500*	3	500	3	1.02	26.0	1.11	28.2	2.64	67.1	2.93	74.5	3.06	77.8	5004	7447	7440	8660	11070	12880	450
17496.757000*	3	750	2	1.20	30.6	1.29	32.8	3.10	78.8	3.39	86.1	3.54	89.9	7431	11059	10560	11980	15710	17830	545
17496.757500*	3	1000	1	1.35	34.3	1.44	36.6	3.42	86.9	3.71	94.3	3.86	98.1	9863	14678	13300	14870	19790	22130	640

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Ampacities at other voltage levels do not vary significantly.
Special approval by local electrical inspection authorities may be required (Ref. CE Code Part 1, Appendix B, Rule 4-004).
Ampacity based on CE Code Table D17N and Rule 4-004.

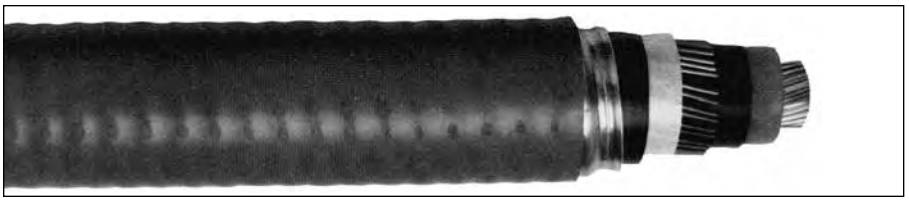
General Cable
Phone: 888-593-3355
www.generalcable.com

RoHS Compliant Directive 2011/65/EU

Canadian Standard Association

HVTECK

TRXLPE/Wire Shield/PVC/AIA/PVC, Power, Shielded, Armored
15 kV, CSA HVTECK, 100% Ins. Level, 175 Mils, Single Conductor



Product Construction:

Conductor:
- 2 AWG thru 1000 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE)

Insulation Shield:
- Black semi-conducting thermosetting layer, applied in a triple extrusion process, plus a concentric serving of solid copper wires acting as both a drain wire shield and a grounding (bonding) conductor

Ground (Bonding) Conductor:
- The conductor is a concentric serving of solid copper wires applied over the thermosetting insulation shield

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), red

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For wiring in all hazardous locations when used with certified HL cable glands
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C68.10

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)										COPPER WEIGHT		NET WEIGHT W/AL ARMOR		OUTDOOR AMPACITY** (40˚C AMBIENT)
				INSULATION		INSULATION SHIELD		INNER JACKET		ARMOR		CABLE						
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	LBS/ 1000 FT	kg/ km	
2 AWG THRU 1000 kcmil—SINGLE CONDUCTOR—100% INS. LEVELS, 175 MILS INS. (4.45 mm)—15 kV																		
17496.810200*	1	2	6	0.66	16.7	0.73	18.6	0.99	25.3	1.24	31.5	1.33	33.8	259	385	950	1420	198
17496.810100*	1	1	4	0.69	17.5	0.76	19.3	1.03	26.1	1.28	32.5	1.37	34.8	391	582	1080	1600	225
17496.815100*	1	1/0	4	0.73	18.5	0.80	20.3	1.06	27.0	1.31	33.3	1.40	35.6	460	685	1170	1750	255
17496.815200*	1	2/0	4	0.77	19.5	0.84	21.3	1.10	27.9	1.35	34.3	1.44	36.6	545	811	1290	1920	291
17496.815300*	1	3/0	3	0.82	20.8	0.88	22.4	1.15	29.2	1.40	35.6	1.49	37.9	688	1024	1470	2190	327
17496.815400*	1	4/0	3	0.87	22.0	0.94	23.9	1.21	30.6	1.46	37.1	1.55	39.4	824	1226	1640	2450	373
17496.816000*	1	250	2	0.93	23.5	0.99	25.2	1.28	32.5	1.53	38.9	1.63	41.4	944	1405	1900	2830	417
17496.816200*	1	350	1	1.07	27.2	1.15	29.2	1.43	36.3	1.71	43.5	1.81	46.0	1352	2012	2370	3530	491
17496.816500*	1	500	1/0	1.14	29.0	1.23	31.2	1.54	39.1	1.83	46.5	1.93	49.1	1887	2808	3080	4590	562
17496.817000*	1	750	2/0	1.32	33.6	1.41	35.9	1.78	45.2	2.07	52.6	2.17	55.2	2754	4099	4240	6320	642
17496.817500*	1	1000	2/0	1.48	37.6	1.57	39.9	1.93	49.0	2.22	56.4	2.32	59.0	3532	5256	5280	7860	740

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Open circuit (shield/armor) is assumed. Ampacities at other voltage levels do not vary significantly.
Special approval by local electrical inspection authorities may be required (Ref. CE Code Part 1, Appendix B, Rule 4-004).

Canadian Standard Association

RoHS Compliant
Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

HVTECK

TRXLPE/Wire Shield/PVC/AIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 133% Ins. Level, 220 Mils, Single Conductor

Product Construction:

Conductor:
- 2 AWG thru 1000 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE)

Insulation Shield:
- Black semi-conducting thermosetting layer, applied in a triple extrusion process, plus a concentric serving of solid copper wires acting as both a drain wire shield and a grounding (bonding) conductor

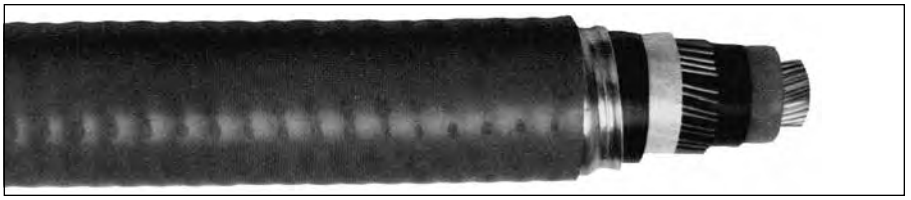
Ground (Bonding) Conductor:
- The conductor is a concentric serving of solid copper wires applied over the thermosetting insulation shield

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), red

Options:
- Galvanized Steel Interlocked Armor (GSIA)



Applications:
- For wiring in all hazardous locations when used with certified HL cable glands
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C68.10

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)
- ICEA T-29-520 (210,000 BTU/hr)

Compliances (cont'd.):
Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)										COPPER WEIGHT		NET WEIGHT W/AL ARMOR		OUTDOOR AMPACITY** (40˚C AMBIENT)
				INSULATION		INSULATION SHIELD		INNER JACKET		ARMOR		CABLE						
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	LBS/ 1000 FT	kg/ km	
2 AWG THRU 1000 kcmil—SINGLE CONDUCTOR—133% INS. LEVELS, 220 MILS INS. (5.59 mm)—15 kV																		
17496.216500*	1	2	6	0.76	19.3	0.83	21.1	1.09	27.7	1.34	34.1	1.43	36.4	286	426	1028	1530	198
17496.820100*	1	1	4	0.79	20.1	0.86	21.9	1.12	28.4	1.37	34.8	1.46	37.1	391	582	1170	1740	225
17496.825100*	1	1/0	4	0.83	21.1	0.89	22.6	1.16	29.4	1.41	35.8	1.50	38.1	459	683	1270	1890	255
17496.825200*	1	2/0	4	0.86	21.8	0.93	23.6	1.20	30.4	1.45	36.9	1.54	39.2	546	813	1390	2060	291
17496.825300*	1	3/0	3	0.91	23.0	0.98	24.9	1.25	31.7	1.50	38.1	1.59	40.4	693	1031	1570	2340	327
17496.825400*	1	4/0	3	0.96	24.3	1.03	26.2	1.30	33.0	1.58	40.2	1.68	42.7	830	1235	1780	2650	373
17496.826000*	1	250	2	1.02	25.8	1.08	27.5	1.38	35.0	1.66	42.2	1.76	44.7	989	1472	2010	2990	417
17496.826200*	1	350	1	1.12	28.3	1.20	30.5	1.50	38.0	1.78	45.2	1.88	47.8	1228	1827	2490	3700	491
17496.826500*	1	500	1/0	1.24	31.5	1.32	33.6	1.65	41.8	1.94	49.3	2.04	51.9	1896	2821	3220	4790	562
17496.827000*	1	750	2/0	1.42	36.0	1.51	38.3	1.89	48.0	2.18	55.4	2.28	57.9	2766	4116	4390	6530	642
17496.827500*	1	1000	2/0	1.57	39.9	1.68	42.6	2.05	52.1	2.34	59.5	2.48	63.0	3552	5286	5550	8260	740

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Open circuit (shield/armor) is assumed. Ampacities at other voltage levels do not vary significantly.
Special approval by local electrical inspection authorities may be required (Ref. CE Code Part 1, Appendix B, Rule 4-004).

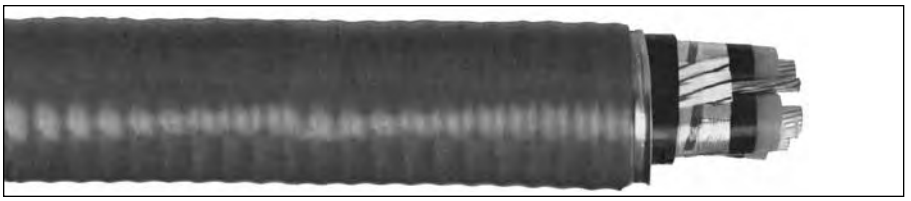
General Cable
Phone: 888-593-3355
www.generalcable.com

RoHS Compliant Directive 2011/65/EU

Canadian Standard Association

HVTECK

TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 100% Ins. Level, 175 Mils, Three Conductor



Product Construction:

Conductor:
- 2 AWG thru 1000 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE)

Insulation Shield:
- This consists of a semi-conducting thermosetting layer, applied in a triple extrusion process, plus a helically applied gapped copper tape
- Color-coded: black, red or blue colored tape placed longitudinally under the copper tape shield

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), red

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For wiring in all hazardous locations when used with certified HL cable glands
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C68.10

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)										COPPER WEIGHT		NET WEIGHT W/ARMOR				OUTDOOR AMPACITY** (40˚C AMBIENT)
				INSULATION		INSULATION SHIELD		INNER JACKET		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
2 AWG THRU 1000 kcmil—THREE CONDUCTOR—100% INS. LEVELS, 175 MILS INS. (4.45 mm)—15 kV																				
17496.030200*	3	2	6	0.66	16.7	0.73	18.6	1.82	46.3	2.11	53.6	2.21	56.2	787	1171	2370	3220	3530	4790	141
17496.830100*	3	1	6	0.69	17.5	0.76	19.3	1.89	48.0	2.18	55.4	2.27	57.7	955	1421	2620	3490	3890	5190	161
17496.835100*	3	1/0	6	0.73	18.5	0.79	20.1	1.97	50.0	2.26	57.4	2.35	59.7	1163	1731	2900	3810	4320	5670	184
17496.835200*	3	2/0	6	0.77	19.5	0.84	21.3	2.06	52.3	2.34	59.5	2.46	62.5	1429	2127	3330	4280	4960	6370	212
17496.835300*	3	3/0	4	0.82	20.8	0.88	22.4	2.16	54.9	2.44	62.0	2.57	65.3	1812	2697	3840	4840	5720	7200	242
17496.835400*	3	4/0	4	0.87	22.0	0.93	23.7	2.27	57.7	2.56	65.1	2.68	68.1	2228	3316	4360	5410	6490	8050	278
17496.836000*	3	250	4	0.93	23.5	0.99	25.2	2.38	60.5	2.68	68.1	2.79	70.9	2598	3866	4880	5990	7260	8910	306
17496.836200*	3	350	3	1.06	26.9	1.15	29.2	2.73	69.4	3.02	76.7	3.14	79.8	3587	5338	6210	7430	9240	11060	373
17496.536500*	3	500	3	1.14	29.0	1.23	31.2	2.97	75.5	3.26	82.8	3.40	86.4	5013	7460	8549	9550	12721	14200	450
17496.837000*	3	750	2	1.32	33.6	1.41	35.9	3.35	85.1	3.64	92.5	3.77	95.8	7446	11081	11100	12640	16520	18810	545
17496.837500*	3	1000	1	1.47	37.4	1.56	39.6	3.72	94.5	3.97	100.8	4.17	105.9	9376	13953	13890	15580	20670	23180	640

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Ampacities at other voltage levels do not vary significantly.
Special approval by local electrical inspection authorities may be required (Ref. CE Code Part 1, Appendix B, Rule 4-004).

Canadian Standard Association

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

HVTECK

TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored
15 kV, CSA HVTECK, 133% Ins. Level, 220 Mils, Three Conductor

Product Construction:

Conductor:
- 2 AWG thru 750 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE)

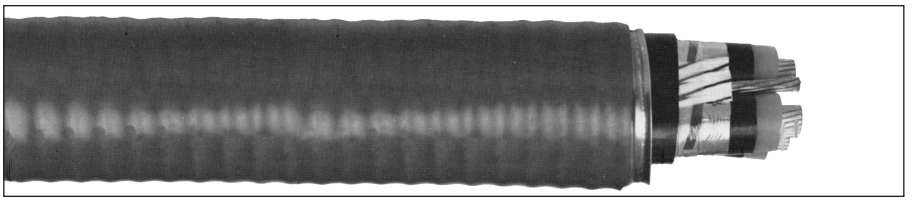
Insulation Shield:
- This consists of a semi-conducting thermosetting layer, applied in a triple extrusion process, plus a helically applied gapped copper tape
- Color-coded: black, red or blue colored tape placed longitudinally under the copper tape shield

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), red



Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For wiring in all hazardous locations when used with certified HL cable glands
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C68.10

Compliances (cont'd.):
Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)										COPPER WEIGHT		NET WEIGHT W/ARMOR				OUTDOOR AMPACITY** (40˚C AMBIENT)
				INSULATION		INSULATION SHIELD		INNER JACKET		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
2 AWG THRU 750 kcmil—THREE CONDUCTOR—133% INS. LEVEL, 220 MILS INS. (5.59 mm)—15 kV																				
17496.230200*	3	2	6	0.76	19.3	0.83	21.1	2.02	51.3	2.31	58.7	2.43	61.7	793	1180	2665	3518	3966	5235	141
17496.010100*	3	1	6	0.79	20.1	0.86	21.9	2.10	53.3	2.37	60.2	2.49	63.3	964	1435	3089	3930	4597	5850	161
17451.316781*	3	1/0	6	0.83	21.1	0.89	22.6	2.17	55.1	2.46	62.5	2.58	65.6	1175	1749	3300	4300	4900	6390	184
17496.015200*	3	2/0	6	0.86	21.8	0.93	23.6	2.26	57.3	2.55	64.8	2.67	67.8	1438	2140	3650	4690	5430	6980	212
17496.025300*	3	3/0	4	0.91	23.0	0.98	24.9	2.36	60.0	2.65	67.3	2.77	70.4	1821	2710	4140	5230	6160	7780	242
17496.055400	3	4/0	4	0.96	24.3	1.03	26.2	2.47	62.8	2.76	70.1	2.88	73.2	2248	3345	4680	5810	6960	8650	278
17496.026000*	3	250	4	1.02	25.8	1.08	27.5	2.59	65.8	2.88	73.2	3.00	76.2	2607	3880	5275	6440	7850	9580	306
17496.046200	3	350	3	1.12	28.3	1.20	30.5	2.90	73.7	3.19	81.0	3.33	84.6	3597	5353	6842	8170	10181	12160	373
17496.056500	3	500	3	1.24	31.5	1.32	33.6	3.16	80.3	3.45	87.6	3.59	91.2	5022	7474	8513	10050	12668	14950	450
17496.037000	3	750	2	1.42	36.0	1.51	38.3	3.57	90.7	3.85	97.8	4.00	101.6	7452	11090	11507	13160	17122	19580	545

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Ampacities at other voltage levels do not vary significantly.
Special approval by local electrical inspection authorities may be required (Ref. CE Code Part 1, Appendix B, Rule 4-004).

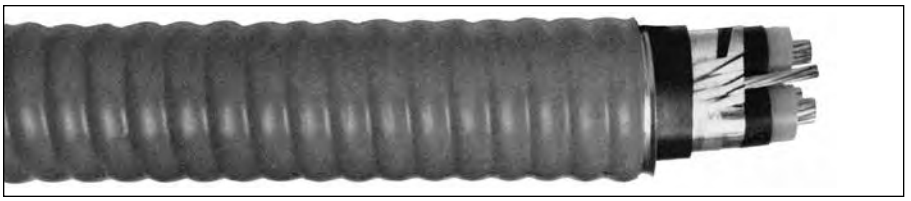
General Cable
Phone: 888-593-3355
www.generalcable.com

RoHS Compliant Directive 2011/65/EU

Canadian Standard Association

HVTECK

TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 25 kV, CSA HVTECK, 100% Ins. Level, 260 Mils, Three Conductor



Product Construction:

Conductor:
- 1 AWG thru 500 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE)

Insulation Shield:
- This consists of a semi-conducting thermosetting layer, applied in a triple extrusion process, plus a helically applied gapped copper tape
- Color-coded: black, red or blue colored tape placed longitudinally under the copper tape shield

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black or as requested

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For wiring in all hazardous locations when used with certified HL cable glands
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C68.10

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)										COPPER WEIGHT		NET WEIGHT W/ARMOR				OUTDOOR AMPACITY** (40˚C AMBIENT)
				INSULATION		INSULATION SHIELD		INNER JACKET		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
1 AWG THRU 500 kcmil—THREE CONDUCTOR—100% INS. LEVEL, 260 MILS INS. (6.60 mm)—25 kV																				
17496.850100*	3	1	6	0.87	22.1	0.94	23.9	2.26	57.5	2.55	64.8	2.67	67.8	973	1448	3250	4300	4840	6390	164
17496.855100*	3	1/0	6	0.91	23.1	0.97	24.6	2.34	59.5	2.63	66.8	2.74	69.6	1181	1758	3550	4630	5290	6890	187
17496.855200*	3	2/0	6	0.95	24.1	1.01	25.7	2.43	61.7	2.72	69.1	2.84	72.2	1446	2152	3930	5040	5850	7500	215
17496.855300*	3	3/0	4	0.99	25.1	1.06	26.9	2.54	64.5	2.82	71.6	2.94	74.7	1827	2719	4440	5600	6610	8340	245
17496.855400*	3	4/0	4	1.04	26.4	1.13	28.7	2.70	68.5	2.98	75.7	3.10	78.8	2249	3347	5090	6320	7580	9410	281
17496.856000*	3	250	4	1.10	27.9	1.18	30.1	2.87	72.9	3.16	80.3	3.29	83.6	2619	3898	5900	7220	8790	10750	310
17496.856200*	3	350	3	1.24	31.5	1.33	33.8	3.17	80.5	3.46	87.9	3.60	91.5	3606	5366	7180	8590	10680	12780	377
17496.856500*	3	500	3	1.32	33.5	1.41	35.8	3.34	84.9	3.63	92.2	3.76	95.5	5032	7489	8950	10480	13320	15590	454

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Ampacities at other voltage levels do not vary significantly.
Special approval by local electrical inspection authorities may be required (Ref. CE Code Part 1, Appendix B, Rule 4-004).

Canadian Standard Association

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

HVTECK

TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 25 kV, CSA HVTECK, 133% Ins. Level, 320 Mils, Three Conductor

Product Construction:

Conductor:
- 1 AWG thru 350 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE)

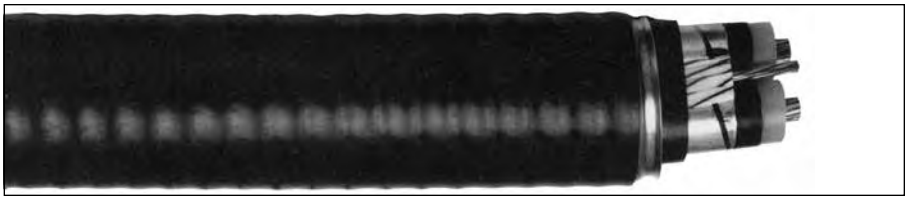
Insulation Shield:
- This consists of a semi-conducting thermosetting layer, applied in a triple extrusion process, plus a helically applied gapped copper tape
- Color-coded: black, red or blue colored tape placed longitudinally under the copper tape shield

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black or as requested



Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For wiring in all hazardous locations when used with certified HL cable glands
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend and impact tests at -40˚C

Compliances:

Industry Compliances:
- CSA Standard C68.10

Compliances (cont'd.):

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)										COPPER WEIGHT		NET WEIGHT W/ARMOR				OUTDOOR AMPACITY** (40˚C AMBIENT)
				INSULATION		INSULATION SHIELD		INNER JACKET		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
1 AWG THRU 350 kcmil—THREE CONDUCTOR—133% INS. LEVEL, 320 MILS INS. (8.13 mm)—25 kV																				
17496.860100*	3	1	6	0.99	25.2	1.06	26.9	2.53	64.2	2.82	71.6	2.94	74.7	985	1466	3690	4850	5490	7210	164
17496.865100*	3	1/0	6	1.03	26.2	1.12	28.5	2.65	67.3	2.94	74.7	3.06	77.7	1193	1775	4110	5330	6120	7930	187
17496.865200*	3	2/0	6	1.07	27.2	1.16	29.5	2.74	69.6	3.03	77.0	3.15	80.0	1460	2173	4490	5740	6680	8540	215
17496.865300*	3	3/0	4	1.12	28.5	1.21	30.8	2.91	73.9	3.19	81.1	3.33	84.6	1842	2741	5270	6600	7840	9820	245
17496.865400*	3	4/0	4	1.17	29.8	1.26	32.0	3.02	76.7	3.31	84.1	3.44	87.4	2261	3365	5840	7220	8700	10740	281
17496.866000*	3	250	4	1.22	30.9	1.31	33.2	3.15	80.0	3.43	87.1	3.58	90.9	2629	3912	6440	7880	9590	11720	310
17496.866200*	3	350	3	1.37	34.8	1.45	36.9	3.44	87.4	3.73	94.8	3.88	98.6	3615	5380	7720	9250	11490	13770	377

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
** Ampacities at other voltage levels do not vary significantly.
Special approval by local electrical inspection authorities may be required (Ref. CE Code Part 1, Appendix B, Rule 4-004).

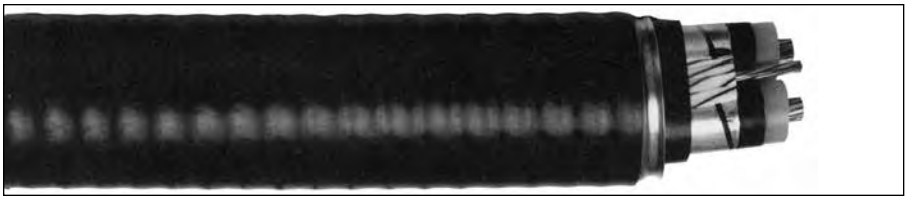
General Cable
Phone: 888-593-3355
www.generalcable.com

RoHS Compliant Directive 2011/65/EU

Canadian Standard Association

HVTECK

TRXLPE/Tape Shield/PVC/AIA/PVC, Power, Shielded, Armored 28 kV (133% Ins. Level) / 35 kV (100% Ins. Level), 345 Mils, CSA HVTECK, Three Conductor



Product Construction:

Conductor:
- 1/0 AWG thru 350 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE)

Insulation Shield:
- This consists of a semi-conducting thermosetting layer, applied in a triple extrusion process, plus a helically applied gapped copper tape
- Color-coded: black, red or blue colored tape placed longitudinally under the copper tape shield

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Aluminum Interlocked Armor (AIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black or as requested

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For wiring in all hazardous locations when used with certified HL cable glands
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)

Features:
- Rated at 90˚C wet or dry
- Excellent crush, oil and chemical resistance
- Provides long service life
- Cost-effective alternative to installations in conduit
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C68.10

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)										COPPER WEIGHT		NET WEIGHT W/ARMOR				OUTDOOR AMPACITY** (40˚C AMBIENT)
				INSULATION		INSULATION SHIELD		INNER JACKET		ARMOR		CABLE				LBS/1000 FT		kg/km		
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/ km	AL	STEEL	AL	STEEL	
1/0 AWG THRU 350 kcmil—THREE CONDUCTOR— 28 kV (133% INS. LEVEL) / 35 kV (100% INS. LEVEL), 345 MILS INS. (8.76 mm)																				
17496.895100*	3	1/0	6	1.08	27.5	1.17	29.7	2.76	70.2	3.05	77.5	3.18	80.8	1200	1786	4360	5620	6490	8370	187
17496.895200*	3	2/0	6	1.12	28.5	1.21	30.8	2.92	74.2	3.21	81.6	3.36	85.4	1466	2182	4950	6280	7370	9350	215
17496.895300*	3	3/0	4	1.17	29.7	1.26	32.0	3.02	76.7	3.31	84.1	3.46	87.9	1848	2750	5490	6860	8160	10210	245
17496.895400*	3	4/0	4	1.22	31.0	1.31	33.3	3.14	79.6	3.43	87.2	3.58	90.9	2264	3369	6090	7510	9060	11180	281
17496.896000*	3	250	4	1.27	32.3	1.37	34.8	3.26	82.9	3.55	90.2	3.70	94.0	2635	3921	6660	8140	9910	12120	310
17496.896200*	3	350	3	1.42	36.1	1.51	38.4	3.56	90.5	3.85	97.8	4.00	101.6	3621	5389	7960	9540	11840	14190	377

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
** Ampacities at other voltage levels do not vary significantly.
Special approval by local electrical inspection authorities may be required (Ref. CE Code Part 1, Appendix B, Rule 4-004).

Canadian Standard Association

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

VERTITECK® TECK90

XLPE/PVC/GSIA/PVC, Power, Unshielded, Armored 1 kV, CSA TECK90, Three Conductor

Product Construction:

Conductor:
- 1/0 AWG thru 1000 kcmil bare copper compact Class B strand

Insulation:
- Cross-linked Polyethylene (XLPE), Type RW90
- Color-coded: printed numbers

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

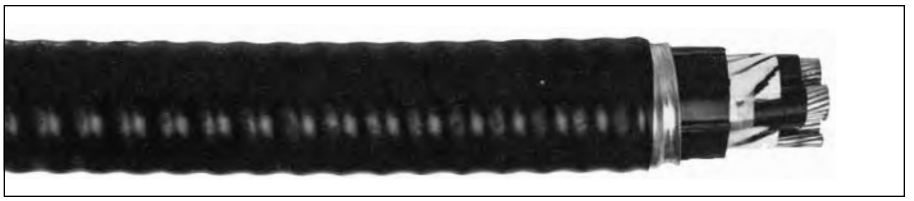
Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Galvanized Steel Interlocked Armor (GSIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp, or wet locations
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands



Applications (cont'd.):
- Cost-effective alternative to installation in conduit
- Typical vertical installations include mine shafts, tall commercial buildings, inclined tunnels and vertical cable trays
  (Note that the overall jacket is required for all damp and wet locations and for all corrosive environments: CE Code Part 1, Rules 12-708 and 22-200)

Features:
- Rated at 90˚C wet or dry
- The jacket under the armor (inner jacket) is designed with longitudinal raised ribs. The armor is then applied and bites into these ribs to provide a solidly locked construction. This feature enables the cable to be self-supporting (core will not slip) during vertical installation when cable weight is supported by the copper conductors
- Lighter than mine shaft cable with conventional steel wire armor (SWA)
- More flexible than SWA cables, resulting in easier handling during installation
- Terminations and connections to electrical cabinets are similar to standard TECK90 cables
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

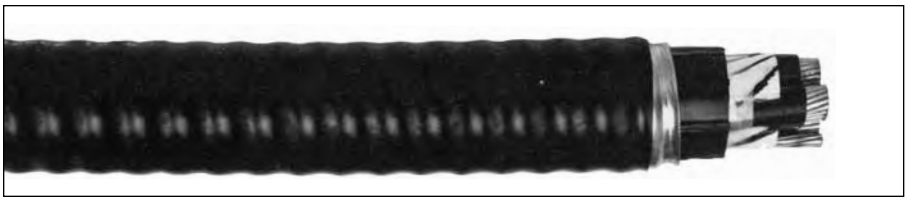
CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	MIN. AVG. INSULATION THICKNESS		NOMINAL DIAMETER (OVER)						COPPER WEIGHT		NET WEIGHT W/STEEL ARMOR		AMPACITY** (30°C AMBIENT)	MAXIMUM SELF-SUPPORTING LENGTH***(m)
						INSULATION		ARMOR		CABLE							
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km		
1/0 AWG THRU 1000 kcmil—THREE CONDUCTOR—1000 V																	
11289.415100*	3	1/0	6	0.080	2.03	0.36	9.0	1.66	42.2	1.78	45.2	1082	1610	2520	3760	170	212
11289.415200*	3	2/0	6	0.080	2.03	0.54	13.8	1.75	44.5	1.87	47.5	1342	1997	2880	4280	195	232
11289.415300*	3	3/0	4	0.080	2.03	0.59	15.0	1.85	47.0	1.97	50.1	1719	2558	3360	5000	225	254
11289.415400*	3	4/0	4	0.080	2.03	0.64	16.3	1.96	49.8	2.08	52.9	2133	3174	4080	6080	260	260
11289.416000*	3	250	4	0.090	2.29	0.71	18.0	2.15	54.6	2.27	57.7	2498	3718	4790	7130	290	270
11289.416200*	3	350	3	0.090	2.29	0.81	20.4	2.36	60.0	2.50	63.5	2475	5171	6100	9080	350	288
11289.416500*	3	500	2	0.090	2.29	0.93	23.5	2.62	66.6	2.76	70.1	4891	7279	7900	11760	430	***
11289.417000*	3	750	2	0.090	2.29	1.10	27.9	2.99	76.0	3.13	79.5	7306	10873	10830	16110	535	***
11289.417500*	3	1000	1	0.090	2.29	1.25	31.8	3.38	85.6	3.54	89.9	9714	14456	13970	20780	615	***

Dimensions and weight are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Ampacity is based on CE Code Part 1, Table 2 (three conductors in raceway [conduit]) and Rule 4-004.
***Maximum self-supporting lengths are based on safety factor of 5 and a tensile strength of 37,000 psi for soft drawn copper.
Higher safety factors or lower tensile strength values may be required to address more stringent safety regulations.

General Cable
Phone: 888-593-3355
www.generalcable.com

VERTITECK® TECK90

TRXLPE/PVC/GSIA/PVC, Power, Unshielded, Armored 5 kV, CSA TECK90, 90 Mils, Three Conductor



Product Construction:

Conductor:
- 1/0 AWG thru 500 kcmil bare copper compact strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE), Type RW90
- Color-coded: printed numbers

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Galvanized Steel Interlocked Armor (GSIA)

Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), orange

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For exposed and concealed wiring in dry, damp or wet locations
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp, or wet locations
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands
- Cost-effective alternative to installation in conduit
- Typical vertical installations include mine shafts, tall commercial buildings, inclined tunnels and vertical cable trays
  (Note that the overall jacket is required for all damp and wet locations and for all corrosive environments: CE Code Part 1, Rules 12-708 and 22-200)

Features:
- Rated at 90˚C wet or dry
- The jacket under the armor (inner jacket) is designed with longitudinal raised ribs. The armor is then applied and bites into these ribs to provide a solidly locked construction. This feature enables the cable to be self-supporting (core will not slip) during vertical installation when cable weight is supported by the copper conductors

Features (cont'd.):
- Lighter than mine shaft cable with conventional steel wire armor (SWA)
- More flexible than SWA cables, resulting in easier handling during installation
- Terminations and connections to electrical cabinets are similar to standard TECK90 cables
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C22.2 No. 131 and No. 174

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)						COPPER WEIGHT		NET WEIGHT W/STEEL ARMOR		AMPACITY** (30°C AMBIENT)	MAXIMUM SELF-SUPPORTING LENGTH***(m)
				INSULATION		ARMOR		CABLE							
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km		
1/0 AWG THRU 500 kcmil—THREE CONDUCTOR—UNSHIELDED, 90 MILS INS. (2.29 mm)—5 kV															
17497.055100*	3	1/0	6	0.56	14.2	1.77	45.0	1.87	47.5	1082	1610	2700	4020	170	200
17497.055200*	3	2/0	6	0.60	15.2	1.86	47.3	1.96	49.8	1343	1999	3060	4550	195	221
17497.055300*	3	3/0	4	0.65	16.4	1.97	50.0	2.07	52.6	1720	2560	3550	5280	225	240
17497.055400*	3	4/0	4	0.70	17.8	2.08	52.9	2.18	55.4	2315	3445	4290	6380	260	249
17497.056000*	3	250	4	0.75	19.1	2.25	57.2	2.35	59.7	2469	3674	4990	7430	290	251
17497.056200*	3	350	3	0.85	21.8	2.46	62.5	2.59	65.8	3476	5173	6340	9430	350	278
17497.056500*	3	500	2	0.98	24.9	2.72	69.1	2.85	72.4	4837	7198	8130	12100	430	230

Dimensions and weight are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Ampacity is based on CE Code Part 1, Table 2 (three conductors in raceway [conduit]) and Rule 4-004.
***Maximum self-supporting lengths are based on safety factor of 5 and a tensile strength of 37,000 psi for soft drawn copper. Higher safety factors or lower tensile strength values may be required to address more stringent safety regulations.

Canadian Standard Association

RoHS Compliant Directive 2011/65/EU

General Cable
Phone: 888-593-3355
www.generalcable.com

VERTITECK® HVTECK

TRXLPE/Tape Shield/PVC/GSIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 133% Ins. Level, 220 Mils, Three Conductor

Product Construction:

Conductor:
- 2 AWG thru 750 kcmil bare copper compact Class B strand

Strand Shield:
- A thermoset semi-conducting strand shield is extruded over the conductor

Insulation:
- Tree-Retardant Cross-linked Polyethylene (TRXLPE)

Insulation Shield:
- This consists of a semi-conducting thermosetting layer, applied in a triple extrusion process, plus a helically applied gapped copper tape
- Color code: black, red, or blue colored tape placed longitudinally under the copper tape shield

Ground (Bonding) Conductor:
- The conductor consists of one uninsulated stranded bare copper conductor

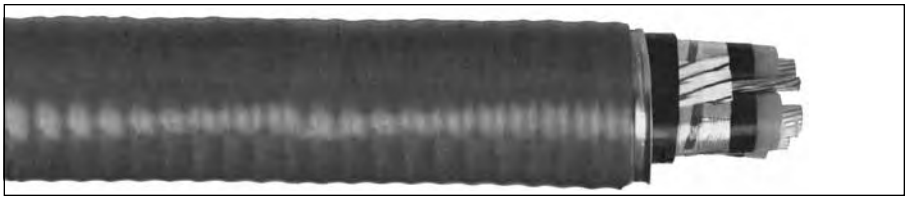
Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Galvanized Steel Interlocked Armor (GSIA)

Overall Jacket:
- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), red

Options:
- Galvanized Steel Interlocked Armor (GSIA)

Applications:
- For exposed and concealed wiring in dry, damp or wet locations



Applications (cont'd.):
- For use in ventilated, non-ventilated and ladder-type cable trays in dry, damp or wet locations
- For direct earth burial (with protection as required by inspection authority)
- For wiring in all hazardous locations when used with certified HL cable glands
- Cost-effective alternative to installation in conduit
- Typical vertical installations include mine shafts, tall commercial buildings, inclined tunnels and vertical cable trays
  (Note that the overall jacket is required for all damp and wet locations and for all corrosive environments: CE Code Part 1, Rules 12-708 and 22-200)

Features:
- Rated at 90˚C wet or dry
- The jacket under the armor (inner jacket) is designed with longitudinal raised ribs. The armor is then applied and bites into these ribs to provide a solidly locked construction. This feature enables the cable to be self-supporting (core will not slip) during vertical installation when cable weight is supported by the copper conductors
- Lighter than mine shaft cable with conventional steel wire armor (SWA)
- More flexible than SWA cables, resulting in easier handling during installation
- Terminations and connections to electrical cabinets are similar to standard TECK90 cables
- Meets cold bend and impact tests at -40˚C

Compliances:
Industry Compliances:
- CSA Standard C68.10

Flame Test Compliances:
- CSA FT1 and FT4
- IEEE 383 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr) CSA FT4
- ICEA T-30-520 (70,000 BTU/hr)
- ICEA T-29-520 (210,000 BTU/hr)

Other Compliances:
- Hazardous Location Rating: HL
- EPA 40 CFR, Part 261 for leachable lead content per TCLP method
- OSHA Acceptable
- RoHS Compliant

Packaging:
- For Canadian customers, lengths are provided on returnable wood or steel reels that require a deposit. Extra charges apply for lagging, pulling eyes, paralleling and plexing
- For U.S. customers, material cut to length and shipped on non-returnable wood reels, while lengths in excess of 10,000 lbs. are provided on returnable steel reels that require a deposit. Extra charges apply for cuts less than 1000 ft., lagging, pulling eyes, paralleling and plexing

CATALOG NUMBER	NO. OF COND.	COND. SIZE (AWG/ kcmil)	GROUND WIRE SIZE (AWG)	NOMINAL DIAMETER (OVER)								COPPER WEIGHT		NET WEIGHT		MAXIMUM SELF-SUPPORTING LENGTH** (M)
				INSULATION		INSULATION SHIELD		ARMOR		CABLE						
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km	
2 AWG THRU 750 kcmil—THREE CONDUCTOR—133% INS. LEVEL, 220 MILS INS. (5.59 mm)—15 kV																
17497.540200*	3	2	6	0.76	19.3	0.82	20.8	2.50	63.5	2.66	67.6	862	1283	4138	6157	85
17497.540100*	3	1	6	0.79	20.1	0.85	21.6	2.57	65.3	2.73	69.3	1034	1539	4424	6583	100
17497.545100*	3	1/0	6	0.83	21.1	0.89	22.6	2.65	67.3	2.81	71.4	1245	1853	4765	7090	118
17497.545200*	3	2/0	6	0.87	22.1	0.93	23.6	2.74	69.6	2.90	73.7	1513	2251	5181	7709	137
17497.545300*	3	3/0	4	0.92	23.4	0.98	24.9	2.84	72.1	3.00	76.2	1899	2826	5757	8566	155
17497.545400*	3	4/0	4	0.97	24.6	1.03	26.2	2.95	74.9	3.12	79.2	2321	3454	6392	9511	176
17497.546000*	3	250	4	1.01	25.7	1.09	27.7	3.08	78.2	3.27	83.1	2697	4013	7096	10559	188
17497.546200*	3	350	3	1.12	28.4	1.18	30.0	3.36	85.3	3.54	89.9	3692	5494	8674	12907	215
17497.546500*	3	500	3	1.23	31.2	1.30	33.0	3.62	91.9	3.80	96.5	5218	7764	10646	15841	250
17497.547000*	3	750	2	1.41	35.8	1.48	37.6	4.00	101.6	4.19	106.4	8124	12089	14417	21452	277

Dimensions and weights are nominal; subject to industry tolerances.
*Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.
**Maximum self-supporting lengths are based on safety factor of 5 and a tensile strength of 37,000 psi for soft drawn copper. Higher safety factors or lower tensile strength values may be required to address more stringent safety regulations.

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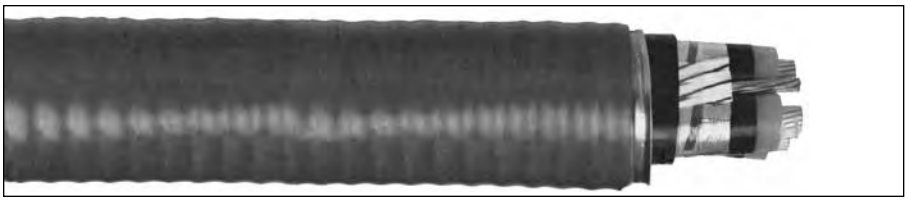
Canadian Standard Association

VERTITECK® HVTECK

TRXLPE/Tape Shield/PVC/GSIA/PVC, Power, Shielded, Armored 15 kV, CSA HVTECK, 100% Ins. Level, 175 Mils, Three Conductor



Product Construction:

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- Color code: black, red, or blue colored tape placed longitudinally under the copper tape shield

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- The conductor consists of one uninsulated stranded bare copper conductor

Inner Jacket:
- Lead-free, flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black

Armor:
- Galvanized Steel Interlocked Armor (GSIA)

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- Lead-free, ACID-FLAME-CHECK ✓✓® AG14 flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), red

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Features:
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Features (cont'd.):
This feature enables the cable to be self-supporting (core will not slip) during vertical installation when cable weight is supported by the copper conductors
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				INSULATION		INSULATION SHIELD		ARMOR		CABLE						
				INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km	
2 AWG THRU 750 kcmil—THREE CONDUCTOR—100% INS. LEVEL, 175 MILS INS. (4.45 mm)—15 kV																
17497.440200*	3	2	6	0.67	17.0	0.72	18.3	2.30	58.4	2.46	62.5	845	1257	3761	5596	94
17497.440100*	3	1	6	0.70	17.8	0.76	19.3	2.37	60.2	2.53	64.3	1017	1513	4022	5985	110
17497.445100*	3	1/0	6	0.74	18.8	0.80	20.3	2.46	62.5	2.61	66.3	1229	1829	4385	6525	128
17497.445200*	3	2/0	6	0.78	19.8	0.84	21.3	2.55	64.8	2.71	68.8	1497	2228	4800	7142	147
17497.445300*	3	3/0	4	0.83	21.1	0.89	22.6	2.67	67.8	2.83	71.9	1882	2800	5354	7967	166
17497.445400*	3	4/0	4	0.88	22.4	0.94	23.9	2.79	70.9	2.95	74.9	2304	3428	5979	8897	188
17497.446000*	3	250	4	0.92	23.4	0.98	24.9	2.89	73.4	3.05	77.5	2677	3983	6518	9699	204
17497.446200*	3	350	3	1.02	25.9	1.09	27.7	3.15	80.0	3.33	84.6	3675	5468	8043	11968	231
17497.446500*	3	500	3	1.14	29.0	1.21	30.7	3.47	88.1	3.66	93.0	5111	7605	10132	15076	262
17497.447000*	3	750	2	1.32	33.5	1.39	35.3	3.86	98.0	4.04	102.6	7555	11242	13403	19944	298

Dimensions and weight are nominal; subject to industry tolerances.
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300 V – 35 kV CCW® Armored Cables for Hazardous Locations

SPECIFICATION NO.		PRODUCT DESCRIPTION		REVISION DATE
9025	CCW® Armor	Thermocouple Extension, Single Pair, Overall Shield (OS) UL Type ITC/PLTC, PVC, 105°C, ABS CWCMC		Oct. 2014
9050	CCW® Armor	Thermocouple Extension, Pairs, Overall Shield (OS) UL Type ITC-HL/PLTC, PVC, 105°C, ABS CWCMC		Oct. 2014
9075	CCW® Armor	Thermocouple Extension, Pairs, Individual and Overall Shield (IS-OS) UL Type ITC-HL/PLTC, PVC, 105°C, ABS CWCMC		Oct. 2014
9125	CCW® Armor	300 V Instrumentation, Pairs/Triads, Overall Shield (OS) UL Type ITC-HL/PLTC, XLPE, 90°C, ABS CWCMC		Oct. 2014
9150	CCW® Armor	300 V Instrumentation, Pairs/Triads, Individual and Overall Shield (IS-OS) UL Type ITC-HL/PLTC, XLPE, 90°C, ABS CWCMC		Oct. 2014
9225	CCW® Armor	300 V Instrumentation, Pairs/Triads, Overall Shield (OS) UL Type ITC-HL/PLTC, PVC, 105°C, ABS CWCMC		Oct. 2014
9250	CCW® Armor	300 V Instrumentation, Pairs/Triads, Individual and Overall Shield (IS-OS) UL Type ITC-HL/PLTC, PVC, 105°C, ABS CWCMC		Oct. 2014
9325	CCW® Armor	600 V Instrumentation, Pairs/Triads, Overall Shield (OS) UL Type MC-HL, PVC/Nylon, 90°C, ABS CWCMC		Oct. 2014
9350	CCW® Armor	600 V Instrumentation, Pairs/Triads, Individual and Overall Shield (IS-OS) UL Type MC-HL, PVC/Nylon, 90°C, ABS CWCMC		Oct. 2014
9400	CCW® Arctic Armor	300 V/600 V Instrumentation, Pairs/Triads, Individual and Overall Shield, UL Type MC-HL 600 V or UL Type ITC-HL, 300 V, XLPE, 90°C, Cable Tray Use, Sunlight-Resistant, Direct Burial UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade		Oct. 2014
9500	CCW® Armor	600 V Control With Grounding Conductor UL Type MC-HL, CSA Type HL, XLPE, 90°C, ABS CWCMC		Oct. 2014
9505	CCW® Arctic Armor	600 V Control With Grounding Conductor UL Type MC-HL, XLPE, 90°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade		Oct. 2014
9510	CCW® Armor	600 V Control With Bare Grounding Conductor UL Type MC-HL, CSA Type HL, XLPE, 90°C, ABS CWCMC		Oct. 2014
9525	CCW® Armor	600 V Control Without Grounding Conductor UL Type MC, CSA Type HL, XLPE, 90°C, ABS CWCMC		Oct. 2014
9600	CCW® Armor	600 V Power, 3/C VFD and 4/C UL Type MC-HL, CSA Type HL, XLPE, 90°C, ABS CWCMC		Oct. 2014
9605	CCW® Arctic Armor	600 V Power, 3/C VFD and 4/C UL Type MC-HL, XLPE, 90°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade		Oct. 2014
9615	CCW® Armor	2000 V Power, 3/C VFD UL Type MC-HL, XLPE, 90°C, ABS CWCMC		Oct. 2014
9625	CCW® Armor	600 V Composite Power and Control UL Type MC-HL, XLPE, 90°C, ABS CWCMC		Oct. 2014
9650	CCW® Armor	600 V Composite Power and Control Without Ground UL Type MC, XLPE, 90°C, ABS CWCMC		Oct. 2014
9675	CCW® Armor	1000 V Power, 3/C VFD CSA Type RA90, HL, XLPE, 90°C		Oct. 2014

†Indicates these products are stocked by General Cable

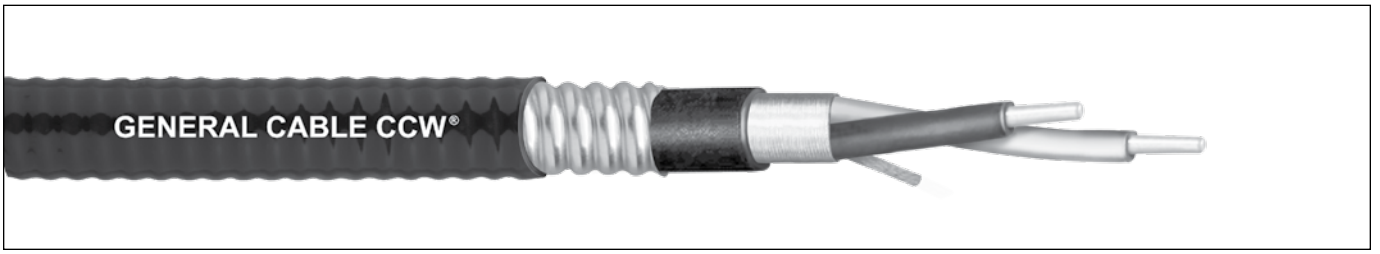
300 V – 35 kV CCW® Armored Cables for Hazardous Locations

SPECIFICATION NO.		PRODUCT DESCRIPTION	REVISION DATE
9700	CCW® Armor	2.4 kV Power, Nonshielded, 3/C VFD UL Type MC-HL or MV-90, EPR, 105°C, ABS CWCMC	Jul. 2014
9800	CCW® Armor	5 kV 133%/8 kV 100% Power, Shielded, 3/C VFD UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9805	CCW® Arctic Armor	5 kV 133%/8 kV 100% Power, Shielded, 3/C VFD UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade	Oct. 2014
9815	CCW® Armor	8 kV 133% Power, Shielded, 3/C VFD UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9825	CCW® Armor	15 kV 100% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9835	CCW® Armor	15 kV 133% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9840	CCW® Arctic Armor	15 kV 133% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade	Oct. 2014
9845	CCW® Armor	25 kV 100% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9855	CCW® Armor	25 kV 133%/35 kV 100% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9860	CCW® Arctic Armor	25 kV 133%/35 kV 100% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade	Oct. 2014
9875	CCW® Armor	35 kV 133% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, ABS CWCMC	Oct. 2014
9880	CCW® Arctic Armor	35 kV 133% Power, Shielded, 3/C UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade	Oct. 2014
9899	CCW® Arctic Armor	Fieldbus Cable Multi-Paired, Individual and Overall Shielded, 18 AWG & 16 AWG UL Type MC-HL, 600 V, 90°C, Sunlight-Resistant, Direct Burial, Arctic-Grade	Oct. 2014
9899	CCW® Arctic Armor	PROFIBUS Cable 22 AWG Shielded Pair, UL Type ITC-HL, 300 V, 90°C, Cable Tray Use Sunlight-Resistant, Direct Burial, Arctic-Grade	Oct. 2014
9900	CCW® Armor	CCW® Armored Cable Tool Kit	Jan. 2010

†Indicates these products are stocked by General Cable

CCW® Armored Thermocouple, Single Pair, Overall Shield

UL Type ITC/PLTC, PVC, 105°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC



Product Construction:

Conductor:
- 16 AWG solid alloy wire per ANSI MC 96.1

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC), rated 105°C per UL Standards 13 and 2250
- Color-coded per ANSI

Pair Assembly:
- Insulated conductors are cabled together with a left-hand lay

Overall Shield:
- Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, same size as insulated conductors

Inner Jacket:
- Flame-retardant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Nylon rip cord to facilitate jacket removal

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250
- ANSI color-coded
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored Thermocouple Extension cables provide superior protection and reliability against physical damage for use in instrumentation and process control applications requiring ITC or PLTC wiring methods
- For use as Power Limited Tray Cable on circuits rated 150 V or less and 5 amps or less in Class 2 or Class 3 circuits in accordance with NEC Article 725
- For use as Instrumentation Tray Cable on circuits rated 150 V or less and 5 amps or less in accordance with NEC Article 727
- Installed indoors or outdoors, in wet or dry locations, in a raceway, as aerial cable on a messenger, in cable trays, or for direct burial
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides superior mechanical protection and an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Meets cold impact at -40°C

Specifications:

Design Adherence:
- UL 13 Power-Limited Circuit Cables
- UL 2250 Instrumentation Tray Cable
- UL 1569 Metal Clad Cables
- UL 1309/CSA C22.2 No. 245 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type PLTC, SUN RES, DIR BUR, -40°C, UL File # E36118
- UL Type ITC, UL File # E177408
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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ABS® RoHS Compliant Directive 2011/65/EU UL® LISTED

CCW® Armored Thermocouple, Single Pair, Overall Shield

UL Type ITC/PLTC, PVC, 105°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	WIRE TYPE/ SIZE (AWG)	NO. OF PAIRS	INSULATION THICKNESS		INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
			mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
9025.16010001	**EX / 16**	1	20	0.51	54	1.37	0.30	7.6	0.47	11.9	50	1.27	0.58	14.7	0.27	160	238
9025.16010002	**JX / 16**	1	20	0.51	54	1.37	0.30	7.6	0.47	11.9	50	1.27	0.58	14.7	0.27	159	237
9025.16010003	**KX / 16**	1	20	0.51	54	1.37	0.30	7.6	0.47	11.9	50	1.27	0.58	14.7	0.27	160	238
9025.16010004	**TX / 16**	1	20	0.51	54	1.37	0.30	7.6	0.47	11.9	50	1.27	0.58	14.7	0.27	161	240

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC® Section 392.22.

ANSI MC 96.1 CONDUCTOR ALLOY AND COLOR CODE						TEMP. RANGE	LIMITS OF ERROR	NOM. LOOP RESISTANCE PER 100 FT @ 20°C
COND. TYPE	POSITIVE WIRE		NEGATIVE WIRE		OUTER JACKET			
	ALLOY	COLOR	ALLOY	COLOR				
EX	Chromel	Purple	Constantan	Red	Purple	0°C To +200°C	+/- 1.7°C	27.8 Ohms
JX	Iron	White	Constantan	Red	Black	0°C To +200°C	+/- 2.2°C	13.9 Ohms
KX	Chromel	Yellow	Alumel	Red	Yellow	0°C To +200°C	+/- 2.2°C	23.6 Ohms
TX	Copper	Blue	Constantan	Red	Blue	-60°C To +100°C	+/- 1.0°C	12.0 Ohms

UL® LISTED

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ABS®

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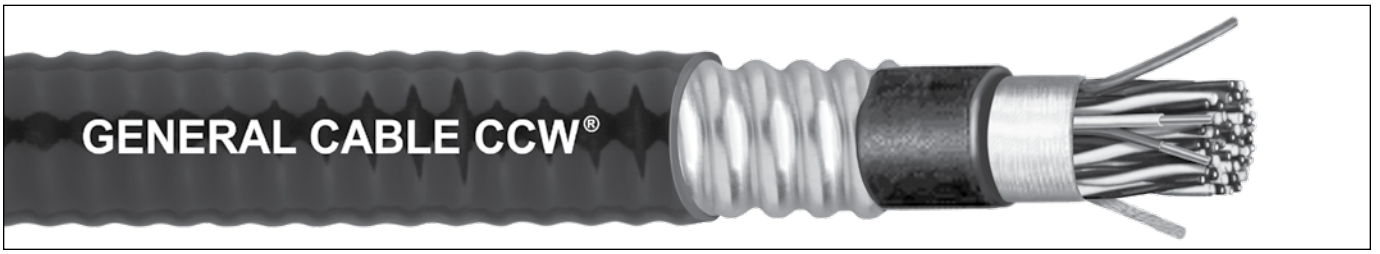
CCW® Armored Thermocouple, Pairs, Overall Shield

UL Type ITC-HL/PLTC, PVC, 105°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC



Product Construction:

Conductor:
- 20 AWG solid alloy wire per ANSI MC 96.1

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC), rated 105°C per UL Standards 13 and 2250
- Color-coded per ANSI with one conductor in each pair printed alphanumerically for easy identification

Cable Assembly:
- Individual pairs and communication wire are cabled together with a left-hand lay
- Communication wire: 22 AWG solid bare copper, flame-retardant Polyvinyl Chloride (PVC), rated 105°C, orange

Overall Shield:
- Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, same size as insulated conductors

Inner Jacket:
- Flame-retardant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250
- ANSI color-coded
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Nylon rip cord to facilitate jacket removal

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569
- CCW armor conductivity meets the grounding requierments of NEC Article 250

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250
- ANSI color-coded
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored Thermocouple Extension cables provide superior protection and reliability against physical damage for use in instrumentation and process control applications requiring ITC-HL or PLTC wiring methods
- For use as Power Limited Tray Cable on circuits rated 150 V or less and 5 amps or less in Class 2 or Class 3 circuits in accordance with NEC Article 725
- For use as Instrumentation Tray Cable on circuits rated 150 V or less and 5 amps or less in accordance with NEC Article 727
- Recognized for use in Class I and III, Divisions 1 and 2; Class II, Division 2; or Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed indoors or outdoors, in wet or dry locations, in a raceway, as aerial cable on a messenger, in cable trays, or for direct burial
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides superior mechanical protection and an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Meets cold impact at -40°C

Specifications:

Design Adherence:
- UL 13 Power-Limited Circuit Cables
- UL 2250 Instrumentation Tray Cable
- UL 1569 Metal Clad Cables
- UL 1309/CSA C22.2 No. 245 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type PLTC, SUN RES, DIR BUR, -40°C, UL File # E36118
- UL Type ITC-HL, UL File # E177408
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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RoHS Compliant Directive 2011/65/EU
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CCW® Armored Thermocouple, Pairs, Overall Shield

UL Type ITC-HL/PLTC, PVC, 105°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	WIRE TYPE/ SIZE (AWG)	NO. OF PAIRS	INSULATION THICKNESS		COMMUNICATION WIRE			INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
					SIZE	INS. THICKNESS														
			mils	mm	AWG	mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
20 AWG TYPE EX MULTIPLE PAIRS OVERALL SHIELDED THERMOCOUPLE EXTENSION CABLE																				
9050.20041221	EX / 20	4	20	0.51	22	12	0.30	78	1.98	0.46	11.7	0.65	16.5	50	1.27	0.76	19.3	0.46	255	379
9050.20081221	EX / 20	8	20	0.51	22	12	0.30	78	1.98	0.57	14.5	0.78	19.8	50	1.27	0.89	22.6	0.63	351	522
9050.20101221	EX / 20	10	20	0.51	22	12	0.30	93	2.36	0.69	17.5	0.93	23.6	50	1.27	1.04	26.4	0.86	463	689
9050.20121221	EX / 20	12	20	0.51	22	12	0.30	93	2.36	0.71	18.0	0.95	24.1	50	1.27	1.06	26.9	0.89	490	729
9050.20161221	EX / 20	16	20	0.51	22	12	0.30	93	2.36	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	550	818
9050.20201221	EX / 20	20	20	0.51	22	12	0.30	93	2.36	0.85	21.6	1.12	26.4	50	1.27	1.23	31.2	1.20	638	949
9050.20241221	EX / 20	24	20	0.51	22	12	0.30	109	2.77	0.96	24.4	1.27	32.3	50	1.27	1.38	35.1	1.52	783	1,165
9050.20361221	EX / 20	36	20	0.51	22	12	0.30	109	2.77	1.09	27.7	1.44	36.6	50	1.27	1.55	39.4	1.91	1,010	1,503
9050.20501221	EX / 20	50	20	0.51	22	12	0.30	109	2.77	1.26	32.0	1.60	40.6	60	1.52	1.73	43.9	2.38	1,290	1,920
20 AWG TYPE JX MULTIPLE PAIRS OVERALL SHIELDED THERMOCOUPLE EXTENSION CABLE																				
9050.20041222	JX / 20	4	20	0.51	22	12	0.30	78	1.98	0.46	11.7	0.65	16.5	50	1.27	0.76	19.3	0.46	253	377
9050.20081222	JX / 20	8	20	0.51	22	12	0.30	78	1.98	0.57	14.5	0.78	19.8	50	1.27	0.89	22.6	0.63	348	518
9050.20101222	JX / 20	10	20	0.51	22	12	0.30	93	2.36	0.69	17.5	0.93	23.6	50	1.27	1.04	26.4	0.86	459	683
9050.20121222	JX / 20	12	20	0.51	22	12	0.30	93	2.36	0.71	18.0	0.95	24.1	50	1.27	1.06	26.9	0.89	485	722
9050.20161222	JX / 20	16	20	0.51	22	12	0.30	93	2.36	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	549	817
9050.20201222	JX / 20	20	20	0.51	22	12	0.30	93	2.36	0.85	21.6	1.12	26.4	50	1.27	1.23	31.2	1.20	630	938
9050.20241222	JX / 20	24	20	0.51	22	12	0.30	109	2.77	0.96	24.4	1.27	32.3	50	1.27	1.38	35.1	1.52	774	1,152
9050.20361222	JX / 20	36	20	0.51	22	12	0.30	109	2.77	1.09	27.7	1.44	36.6	50	1.27	1.55	39.4	1.91	997	1,484
9050.20501222	JX / 20	50	20	0.51	22	12	0.30	109	2.77	1.26	32.0	1.60	40.6	60	1.52	1.73	43.9	2.38	1,271	1,891
20 AWG TYPE KX MULTIPLE PAIRS OVERALL SHIELDED THERMOCOUPLE EXTENSION CABLE																				
9050.20041223	KX / 20	4	20	0.51	22	12	0.30	78	1.98	0.46	11.7	0.65	16.5	50	1.27	0.76	19.3	0.46	255	379
9050.20081223	KX / 20	8	20	0.51	22	12	0.30	78	1.98	0.57	14.5	0.78	19.8	50	1.27	0.89	22.6	0.63	351	522
9050.20101223	KX / 20	10	20	0.51	22	12	0.30	93	2.36	0.69	17.5	0.93	23.6	50	1.27	1.04	26.4	0.86	463	689
9050.20121223	KX / 20	12	20	0.51	22	12	0.30	93	2.36	0.71	18.0	0.95	24.1	50	1.27	1.06	26.9	0.89	490	729
9050.20161223	KX / 20	16	20	0.51	22	12	0.30	93	2.36	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	549	817
9050.20201223	KX / 20	20	20	0.51	22	12	0.30	93	2.36	0.85	21.6	1.12	26.4	50	1.27	1.23	31.2	1.20	637	948
9050.20241223	KX / 20	24	20	0.51	22	12	0.30	109	2.77	0.96	24.4	1.27	32.3	50	1.27	1.38	35.1	1.52	782	1,164
9050.20361223	KX / 20	36	20	0.51	22	12	0.30	109	2.77	1.09	27.7	1.44	36.6	50	1.27	1.55	39.4	1.91	1,008	1,500
9050.20501223	KX / 20	50	20	0.51	22	12	0.30	109	2.77	1.26	32.0	1.60	40.6	60	1.52	1.73	43.9	2.38	1,287	1,915
20 AWG TYPE TX MULTIPLE PAIRS OVERALL SHIELDED THERMOCOUPLE EXTENSION CABLE																				
9050.20041224	TX / 20	4	20	0.51	22	12	0.30	78	1.98	0.46	11.7	0.65	16.5	50	1.27	0.76	19.3	0.46	257	382
9050.20081224	TX / 20	8	20	0.51	22	12	0.30	78	1.98	0.57	14.5	0.78	19.8	50	1.27	0.89	22.6	0.63	354	527
9050.20101224	TX / 20	10	20	0.51	22	12	0.30	93	2.36	0.69	17.5	0.93	23.6	50	1.27	1.04	26.4	0.86	467	695
9050.20121224	TX / 20	12	20	0.51	22	12	0.30	93	2.36	0.71	18.0	0.95	24.1	50	1.27	1.06	26.9	0.89	495	737
9050.20161224	TX / 20	16	20	0.51	22	12	0.30	93	2.36	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	556	827
9050.20201224	TX / 20	20	20	0.51	22	12	0.30	93	2.36	0.85	21.6	1.12	26.4	50	1.27	1.23	31.2	1.20	646	961
9050.20241224	TX / 20	24	20	0.51	22	12	0.30	109	2.77	0.96	24.4	1.27	32.3	50	1.27	1.38	35.1	1.52	792	1,179
9050.20361224	TX / 20	36	20	0.51	22	12	0.30	109	2.77	1.09	27.7	1.44	36.6	50	1.27	1.55	39.4	1.91	1,023	1,522
9050.20501224	TX / 20	50	20	0.51	22	12	0.30	109	2.77	1.26	32.0	1.60	40.6	60	1.52	1.73	43.9	2.38	1,309	1,948

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC® Section 392.22.

ANSI MC 96.1 CONDUCTOR ALLOY AND COLOR CODE								
COND. TYPE	POSITIVE WIRE		NEGATIVE WIRE		OVERALL JACKET COLOR	TEMP. RANGE	LIMITS OF ERROR	NOM. LOOP RESISTANCE PER 100 FT @ 20°C
	ALLOY	COLOR	ALLOY	COLOR				
EX	Chromel	Purple	Constantan	Red	Purple	0°C To +200°C	+/- 1.7°C	70.7 Ohms
JX	Iron	White	Constantan	Red	Black	0°C To +200°C	+/- 2.2°C	35.7 Ohms
KX	Chromel	Yellow	Alumel	Red	Yellow	0°C To +200°C	+/- 2.2°C	59.0 Ohms
TX	Copper	Blue	Constantan	Red	Blue	-60°C To +100°C	+/- 1.0°C	29.8 Ohms

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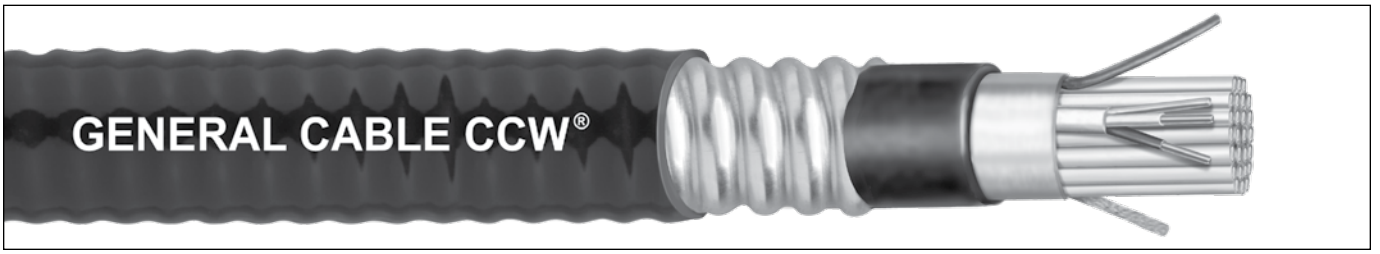
CCW® Armored Thermocouple, Pairs, Individual and Overall Shield

UL Type ITC-HL/PLTC, PVC, 105°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC



Product Construction:

Conductor:
- 20 AWG solid alloy wire per ANSI MC 96.1

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC), rated 105°C per UL Standards 13 and 2250
- ANSI color-coded insulation, with one conductor in each pair printed alpha numerically for easy identification

Shielded Pairs:
- Isolated and individually twisted pairs with a Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, two sizes smaller than insulated conductors

Cable Assembly:
- Individually shielded pairs and communication wire are cabled together with a left-hand lay
- Communication wire: 22 AWG solid bare copper, flame-retardant Polyvinyl Chloride (PVC), rated 105°C, orange

Overall Shield:
- Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, same size as insulated conductors

Inner Jacket:
- Flame-retardant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250
- ANSI color-coded inner jacket
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Nylon rip cord to facilitate jacket removal

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250
- ANSI color-coded overall jacket
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored Thermocouple Extension cables with individually shielded pairs and an overall shield provide superior protection and reliability against physical damage for use in instrumentation and process control applications requiring ITC-HL or PLTC wiring methods where shielding against both external EMI and EMI between pairs is required
- For use as Power Limited Tray Cable on circuits rated 150 V or less and 5 amps or less in Class 2 or Class 3 circuits in accordance with NEC Article 725
- For use as Instrumentation Tray Cable on circuits rated 150 V or less and 5 amps or less in accordance with NEC Article 727
- Recognized for use in Class I and III, Divisions 1 and 2; Class II, Division 2; or Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505

Applications: (cont'd.)

- Installed indoors or outdoors, in wet or dry locations, in a raceway, as aerial cable on a messenger, in cable trays, or for direct burial
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides superior mechanical protection and an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Meets cold impact at -40°C

Specifications:

Design Adherence:
- UL 13 Power-Limited Circuit Cables
- UL 2250 Instrumentation Tray Cable
- UL 1569 Metal Clad Cables
- UL 1309/CSA C22.2 No. 245 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type PLTC, SUN RES, DIR BUR, -40°C, UL File # E36118
- UL Type ITC-HL, UL File # E177408
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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CCW® Armored Thermocouple, Pairs, Individual and Overall Shield

UL Type ITC-HL/PLTC, PVC, 105°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	WIRE TYPE/ SIZE (AWG)	NO. OF PAIRS	INSULATION THICKNESS		COMMUNICATION WIRE			INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
					SIZE	INS. THICKNESS														
			mils	mm	AWG	mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
20 AWG TYPE EX MULTIPLE PAIRS INDIVIDUAL AND OVERALL SHIELDED THERMOCOUPLE EXTENSION CABLE																				
9075.20041221	EX / 20	4	20	0.51	22	12	0.30	78	1.98	0.52	13.2	0.72	18.3	50	1.27	0.83	21.1	0.55	297	442
9075.20081221	EX / 20	8	20	0.51	22	12	0.30	78	1.98	0.65	16.5	0.86	21.8	50	1.27	0.97	24.6	0.75	401	597
9075.20101221	EX / 20	10	20	0.51	22	12	0.30	93	2.36	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	526	783
9075.20121221	EX / 20	12	20	0.51	22	12	0.30	93	2.36	0.80	20.3	1.07	27.2	50	1.27	1.18	30.0	1.11	587	874
9075.20161221	EX / 20	16	20	0.51	22	12	0.30	93	2.36	0.88	22.4	1.15	29.2	50	1.27	1.26	32.0	1.26	667	993
9075.20201221	EX / 20	20	20	0.51	22	12	0.30	109	2.77	1.00	25.4	1.32	33.5	50	1.27	1.43	36.3	1.63	831	1,237
9075.20241221	EX / 20	24	20	0.51	22	12	0.30	109	2.77	1.10	27.9	1.45	36.8	50	1.27	1.56	39.6	1.94	980	1,458
9075.20361221	EX / 20	36	20	0.51	22	12	0.30	109	2.77	1.24	31.5	1.59	40.4	60	1.52	1.72	43.7	2.35	1,231	1,832
9075.20501221	EX / 20	50	20	0.51	22	12	0.30	124	3.15	1.47	37.3	1.73	43.9	60	1.52	1.86	47.2	2.75	1,580	2,351
20 AWG TYPE JX MULTIPLE PAIRS INDIVIDUAL AND OVERALL SHIELDED THERMOCOUPLE EXTENSION CABLE																				
9075.20041222	JX / 20	4	20	0.51	22	12	0.30	78	1.98	0.52	13.2	0.72	18.3	50	1.27	0.83	21.1	0.55	295	439
9075.20081222	JX / 20	8	20	0.51	22	12	0.30	78	1.98	0.65	16.5	0.86	21.8	50	1.27	0.97	24.6	0.75	398	592
9075.20101222	JX / 20	10	20	0.51	22	12	0.30	93	2.36	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	522	777
9075.20121222	JX / 20	12	20	0.51	22	12	0.30	93	2.36	0.80	20.3	1.07	27.2	50	1.27	1.18	30.0	1.11	582	866
9075.20161222	JX / 20	16	20	0.51	22	12	0.30	93	2.36	0.88	22.4	1.15	29.2	50	1.27	1.26	32.0	1.26	661	984
9075.20201222	JX / 20	20	20	0.51	22	12	0.30	109	2.77	1.00	25.4	1.32	33.5	50	1.27	1.43	36.3	1.63	823	1,225
9075.20241222	JX / 20	24	20	0.51	22	12	0.30	109	2.77	1.10	27.9	1.45	36.8	50	1.27	1.56	39.6	1.94	971	1,445
9075.20361222	JX / 20	36	20	0.51	22	12	0.30	109	2.77	1.24	31.5	1.59	40.4	60	1.52	1.72	43.7	2.35	1,218	1,813
9075.20501222	JX / 20	50	20	0.51	22	12	0.30	124	3.15	1.47	37.3	1.73	43.9	60	1.52	1.86	47.2	2.75	1,561	2,323
20 AWG TYPE KX MULTIPLE PAIRS INDIVIDUAL AND OVERALL SHIELDED THERMOCOUPLE EXTENSION CABLE																				
9075.20041223	KX / 20	4	20	0.51	22	12	0.30	78	1.98	0.52	13.2	0.72	18.3	50	1.27	0.83	21.1	0.55	297	432
9075.20081223	KX / 20	8	20	0.51	22	12	0.30	78	1.98	0.65	16.5	0.86	21.8	50	1.27	0.97	24.6	0.75	401	597
9075.20101223	KX / 20	10	20	0.51	22	12	0.30	93	2.36	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	526	783
9075.20121223	KX / 20	12	20	0.51	22	12	0.30	93	2.36	0.80	20.3	1.07	27.2	50	1.27	1.18	30.0	1.11	587	874
9075.20161223	KX / 20	16	20	0.51	22	12	0.30	93	2.36	0.88	22.4	1.15	29.2	50	1.27	1.26	32.0	1.26	666	991
9075.20201223	KX / 20	20	20	0.51	22	12	0.30	109	2.77	1.00	25.4	1.32	33.5	50	1.27	1.43	36.3	1.63	830	1,235
9075.20241223	KX / 20	24	20	0.51	22	12	0.30	109	2.77	1.10	27.9	1.45	36.8	50	1.27	1.56	39.6	1.94	979	1,457
9075.20361223	KX / 20	36	20	0.51	22	12	0.30	109	2.77	1.24	31.5	1.59	40.4	60	1.52	1.72	43.7	2.35	1,229	1,829
9075.20501223	KX / 20	50	20	0.51	22	12	0.30	124	3.15	1.47	37.3	1.73	43.9	60	1.52	1.86	47.2	2.75	1,577	2,347
20 AWG TYPE TX MULTIPLE PAIRS INDIVIDUAL AND OVERALL SHIELDED THERMOCOUPLE EXTENSION CABLE																				
9075.20041224	TX / 20	4	20	0.51	22	12	0.30	78	1.98	0.52	13.2	0.72	18.3	50	1.27	0.83	21.1	0.55	299	445
9075.20081224	TX / 20	8	20	0.51	22	12	0.30	78	1.98	0.65	16.5	0.86	21.8	50	1.27	0.97	24.6	0.75	404	601
9075.20101224	TX / 20	10	20	0.51	22	12	0.30	93	2.36	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	530	789
9075.20121224	TX / 20	12	20	0.51	22	12	0.30	93	2.36	0.80	20.3	1.07	27.2	50	1.27	1.18	30.0	1.11	592	881
9075.20161224	TX / 20	16	20	0.51	22	12	0.30	93	2.36	0.88	22.4	1.15	29.2	50	1.27	1.26	32.0	1.26	672	1,000
9075.20201224	TX / 20	20	20	0.51	22	12	0.30	109	2.77	1.00	25.4	1.32	33.5	50	1.27	1.43	36.3	1.63	839	1,249
9075.20241224	TX / 20	24	20	0.51	22	12	0.30	109	2.77	1.10	27.9	1.45	36.8	50	1.27	1.56	39.6	1.94	989	1,472
9075.20361224	TX / 20	36	20	0.51	22	12	0.30	109	2.77	1.24	31.5	1.59	40.4	60	1.52	1.72	43.7	2.35	1,243	1,850
9075.20501224	TX / 20	50	20	0.51	22	12	0.30	124	3.15	1.47	37.3	1.73	43.9	60	1.52	1.86	47.2	2.75	1,599	2,380

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC® Section 392.22.

ANSI MC 96.1 CONDUCTOR ALLOY AND COLOR CODE								
COND. TYPE	POSITIVE WIRE		NEGATIVE WIRE		OVERALL JACKET COLOR	TEMP. RANGE	LIMITS OF ERROR	NOM. LOOP RESISTANCE PER 100 FT @ 20°C
	ALLOY	COLOR	ALLOY	COLOR				
EX	Chromel	Purple	Constantan	Red	Purple	0°C To +200°C	+/- 1.7°C	70.7 Ohms
JX	Iron	White	Constantan	Red	Black	0°C To +200°C	+/- 2.2°C	35.7 Ohms
KX	Chromel	Yellow	Alumel	Red	Yellow	0°C To +200°C	+/- 2.2°C	59.0 Ohms
TX	Copper	Blue	Constantan	Red	Blue	-60°C To +100°C	+/- 1.0°C	29.8 Ohms

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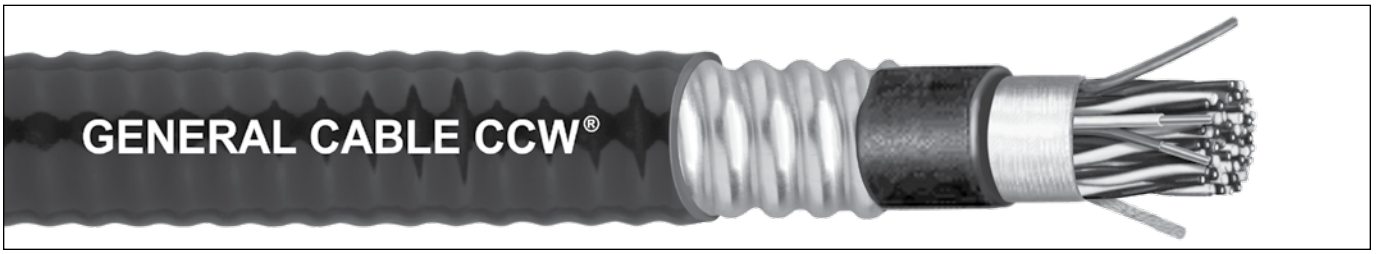
CCW® Armored Instrumentation, Pairs/Triads, Overall Shield

UL Type ITC-HL/PLTC, XLPE, 300 V, 90°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC



Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Cross-Linked Polyethylene (XLPE), rated 90°C per UL Standards 13 and 2250
- Color-coded per ICEA Method 1: pairs – black and white; triads – black, white and red. Each conductor in each pair or triad is printed alphanumerically for easy identification

Cable Assembly:
- Individual pairs or triads and communication wire are cabled together with a left hand lay
- Communication wire: 20 AWG solid bare copper, Cross-Linked Polyethylene (XLPE), rated 90°C, orange
- Communication wire is not included on single pair or single triad cables

Overall Shield:
- Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, same size as insulated conductors

Inner Jacket:
- Flame-retardant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Nylon rip cord to facilitate jacket removal

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored Instrumentation cables with an overall shield provide superior protection and reliability against physical damage for use in instrumentation and process control applications requiring ITC-HL or PLTC wiring methods where shielding against external EMI is required
- For use as Power Limited Tray Cable on circuits rated 150 V or less and 5 amps or less in Class 2 or Class 3 circuits in accordance with NEC Article 725
- For use as Instrumentation Tray Cable on circuits rated 150 V or less and 5 amps or less in accordance with NEC Article 727
- Recognized for use in Class I and III, Divisions 1 and 2; Class II, Division 2; or Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed indoors or outdoors, in wet or dry locations, in a raceway, as aerial cable on a messenger, in cable trays, or for direct burial

Applications: (cont'd.)

- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides superior mechanical protection and an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Meets cold impact at -40°C

Specifications:

Design Adherence:
- UL 13 Power-Limited Circuit Cables
- UL 2250 Instrumentation Tray Cable
- UL 1569 Metal Clad Cables
- UL 1309 / CSA C22.2 No. 245 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type PLTC, SUN RES, DIR BUR, -40°C, UL File # E36118
- UL Type ITC-HL, UL File # E177408
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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CCW® Armored Instrumentation, Pairs/Triads, Overall Shield

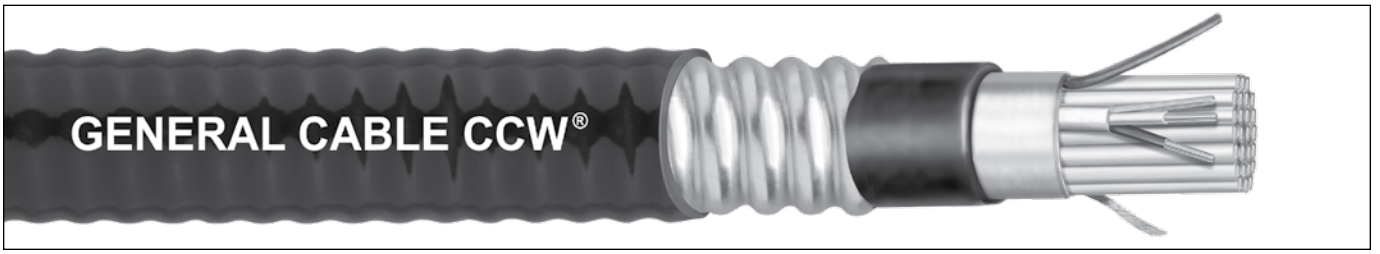
UL Type ITC-HL/PLTC, XLPE, 300 V, 90°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF PAIRS	INSULATION THICKNESS		COMMUNICATION WIRE			INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
					SIZE	INS. THICKNESS														
			mils	mm	AWG	mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
16 AWG 7W (1.31 mm²) OVERALL SHIELDED PAIRS																				
9125.16010001*	16	1	30	0.76	—	—	—	62	1.57	0.38	9.7	0.56	14.2	50	1.27	0.67	17.0	0.36	207	308
9125.16021201	16	2	30	0.76	20	15	0.38	78	1.98	0.56	14.2	0.76	19.3	50	1.27	0.87	22.1	0.60	307	457
9125.16041201	16	4	30	0.76	20	15	0.38	78	1.98	0.64	16.3	0.75	19.1	50	1.27	0.96	24.4	0.73	390	580
9125.16081201	16	8	30	0.76	20	15	0.38	93	2.36	0.85	21.6	1.12	28.4	50	1.27	1.23	31.2	1.20	632	941
9125.16121201	16	12	30	0.76	20	15	0.38	109	2.77	1.05	26.7	1.36	34.5	50	1.27	1.47	37.3	1.72	857	1,275
9125.16161201	16	16	30	0.76	20	15	0.38	109	2.77	1.16	29.5	1.51	38.4	60	1.52	1.64	41.7	2.14	1,081	1,609
9125.16241201	16	24	30	0.76	20	15	0.38	124	3.15	1.44	36.6	1.54	41.7	60	1.52	1.77	45.0	2.49	1,431	2,130
9125.16361201	16	36	30	0.76	20	15	0.38	124	3.15	1.64	41.7	1.96	49.8	60	1.52	2.09	53.1	3.48	1,933	2,877
9125.16501201	16	50	30	0.76	20	15	0.38	140	3.56	1.95	49.5	2.28	57.9	60	1.52	2.41	61.2	4.62	2,550	3,795
16 AWG 7W (1.31 mm²) OVERALL SHIELDED TRIADS																				
9125.16010002*	16	1	30	0.76	—	—	—	62	1.57	0.40	10.2	0.59	15.0	50	1.27	0.70	17.8	0.39	235	350
9125.16021202	16	2	30	0.76	20	15	0.38	93	2.36	0.69	17.5	0.93	23.6	50	1.27	1.04	26.4	0.86	441	656
9125.16041202	16	4	30	0.76	20	15	0.38	93	2.36	0.79	20.1	1.06	25.9	50	1.27	1.17	29.7	1.09	569	847
9125.16081202	16	8	30	0.76	20	15	0.38	109	2.77	1.04	26.4	1.35	34.3	50	1.27	1.46	37.1	1.70	859	1,278
9125.16121202	16	12	30	0.76	20	15	0.38	109	2.77	1.25	31.8	1.60	40.6	60	1.52	1.73	43.9	2.38	1,207	1,796
9125.16161202	16	16	30	0.76	20	15	0.38	124	3.15	1.42	36.1	1.64	41.7	60	1.52	1.77	45.0	2.49	1,424	2,119
9125.16241202	16	24	30	0.76	20	15	0.38	140	3.56	1.77	45.0	2.15	54.6	60	1.52	2.28	57.9	4.14	2,103	3,130
9125.16361202	16	36	30	0.76	20	15	0.38	140	3.56	2.01	51.1	2.23	56.6	60	1.52	2.36	59.9	4.43	2,659	3,957
9125.16501202	16	50	30	0.76	20	15	0.38	171	4.34	2.42	61.5	2.75	69.9	75	1.91	2.91	73.9	6.74	3,800	5,655

Dimensions and weights are nominal; subject to industry tolerances.
* Item rated ITC/PLTC.
[1] Cross-sectional area for cable tray fill is in accordance with NEC® Section 392.22.

CCW® Armored Instrumentation, Pairs/Triads, Individual and Overall Shield

UL Type ITC-HL/PLTC, XLPE, 300 V, 90°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC



Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Cross-Linked Polyethylene (XLPE), rated 90°C per UL Standards 13 and 2250
- Color-coded per ICEA Method 1: pairs – black and white; triads – black, white and red. Each conductor in each pair or triad is printed alphanumerically for easy identification

Shielded Pairs/Triads:
- Isolated and individually twisted pairs or triads with a Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, two sizes smaller than insulated conductors

Cable Assembly:
- Individually shielded pairs or triads and communication wire are cabled together with a left-hand lay
- Communication wire: 20 AWG solid bare copper, Cross-Linked Polyethylene (XLPE), rated 90°C, orange

Overall Shield:
- Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, same size as insulated conductors

Inner Jacket:
- Flame-retardant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Nylon rip cord to facilitate jacket removal

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:
- CCW armored Instrumentation cables with individually shielded pairs or triads and an overall shield provide superior protection and reliability against physical damage for use in instrumentation and process control applications requiring ITC-HL or PLTC wiring methods where shielding against both external EMI and EMI between groups is required
- For use as Power Limited Tray Cable on circuits rated 150 V or less and 5 amps or less in Class 2 or Class 3 circuits in accordance with NEC Article 725
- For use as Instrumentation Tray Cable on circuits rated 150 V or less and 5 amps or less in accordance with NEC Article 727
- Recognized for use in Class I and III, Divisions 1 and 2; Class II, Division 2; or Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505

Applications: (cont'd.)
- Installed indoors or outdoors, in wet or dry locations, in a raceway, as aerial cable on a messenger, in cable trays, or for direct burial
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:
- CCW armor provides superior mechanical protection and an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Meets cold impact at -40°C

Specifications:

Design Adherence:
- UL 13 Power-Limited Circuit Cables
- UL 2250 Instrumentation Tray Cable
- UL 1569 Metal Clad Cables
- UL 1309/CSA C22.2 No. 245 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type PLTC, SUN RES, DIR BUR, -40°C, UL File # E36118
- UL Type ITC-HL, UL File # E177408
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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CCW® Armored Instrumentation, Pairs/Triads, Individual and Overall Shield

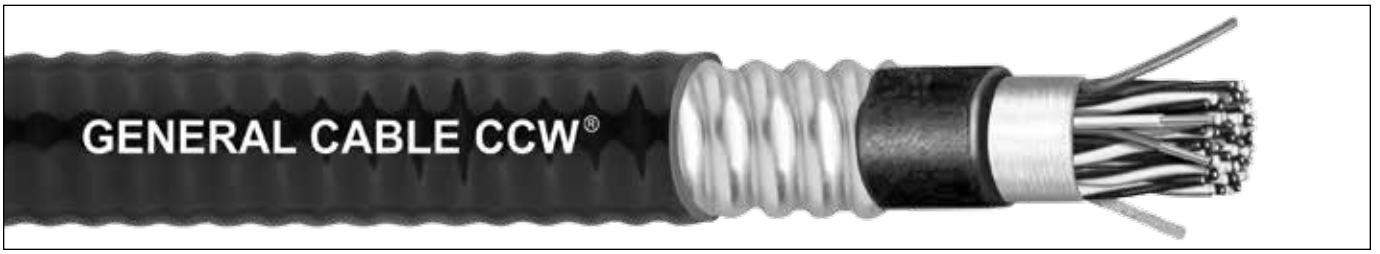
UL Type ITC-HL/PLTC, XLPE, 300 V, 90°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF PAIRS	INSULATION THICKNESS		COMMUNICATION WIRE			INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
					SIZE	INS. THICKNESS														
			mils	mm	AWG	mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
16 AWG 7W (1.31 mm²) INDIVIDUAL AND OVERALL SHIELDED PAIRS																				
9150.16010001*	16	1	30	0.76	—	—	—	62	1.57	0.38	9.7	0.56	14.2	50	1.27	0.67	17.0	0.36	207	308
9150.16021201	16	2	30	0.76	20	15	0.38	78	1.98	0.62	15.7	0.83	21.1	50	1.27	0.94	23.9	0.70	351	522
9150.16041201	16	4	30	0.76	20	15	0.38	93	2.36	0.75	19.1	0.99	25.1	50	1.27	1.10	27.9	0.96	509	757
9150.16081201	16	8	30	0.76	20	15	0.38	109	2.77	0.98	24.9	1.29	32.8	50	1.27	1.40	35.6	1.56	798	1,188
9150.16121201	16	12	30	0.76	20	15	0.38	109	2.77	1.17	29.7	1.52	38.6	60	1.52	1.65	41.9	2.17	1,075	1,600
9150.16161201	16	16	15	0.38	20	15	0.38	60	1.52	0.87	22.1	1.11	28.2	50	1.27	1.22	31.0	1.18	665	990
9150.16241201	16	24	30	0.76	20	15	0.38	124	3.15	1.62	41.1	1.92	48.8	60	1.52	2.05	52.1	3.34	1,790	2,664
9150.16361201	16	36	30	0.76	20	15	0.38	140	3.56	1.88	47.8	2.19	55.6	60	1.52	2.31	58.7	4.25	2,405	3,579
9150.16501201	16	50	30	0.76	20	15	0.38	171	4.34	2.26	57.4	2.62	66.5	75	1.91	2.78	70.6	6.15	3,366	5,009
16 AWG 7W (1.31 mm²) INDIVIDUAL AND OVERALL SHIELDED TRIADS																				
9150.16010002*	16	1	15	0.38	—	—	—	35	0.89	0.27	6.9	0.49	12.4	50	1.27	0.60	15.2	0.29	158	235
9150.16021202	16	2	30	0.76	20	15	0.38	93	2.36	0.72	18.3	0.96	24.4	50	1.27	1.07	27.2	0.91	461	686
9150.16041202	16	4	30	0.76	20	15	0.38	93	2.36	0.82	20.8	1.09	27.7	50	1.27	1.20	30.5	1.15	605	900
9150.16081202	16	8	30	0.76	20	15	0.38	109	2.77	1.08	27.4	1.43	36.3	50	1.27	1.54	39.1	1.89	992	1,476
9150.16121202	16	12	30	0.76	20	15	0.38	109	2.77	1.29	32.8	1.60	40.6	60	1.52	1.73	43.9	2.38	1,312	1,952
9150.16161202	16	16	15	0.38	20	15	0.38	70	1.78	0.95	24.1	1.24	31.5	50	1.27	1.35	34.3	1.45	965	1,436
9150.16241202	16	24	30	0.76	20	15	0.38	140	3.56	1.83	46.5	2.15	54.6	60	1.52	2.28	57.9	4.14	2,313	3,442
9150.16361202	16	36	30	0.76	20	15	0.38	140	3.56	2.08	52.8	2.45	62.2	60	1.52	2.58	65.5	5.30	3,140	4,673
9150.16501202	16	50	30	0.76	20	15	0.38	171	4.34	2.50	63.5	3.03	77.0	75	1.91	3.19	81.0	8.10	4,270	6,354

Dimensions and weights are nominal; subject to industry tolerances.
* Item rated ITC/PLTC.
[1] Cross-sectional area for cable tray fill is in accordance with NEC® Section 392.22.

CCW® Armored Instrumentation, Pairs/Triads, Overall Shield

UL Type ITC-HL/PLTC, PVC, 300 V, 105°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC



Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC), rated 105°C per UL Standards 13 and 2250
- Color-coded per ICEA Method 1: pairs – black and white; triads – black, white and red. Each conductor in each pair or triad is printed alphanumerically for easy identification

Cable Assembly:
- Individual pairs or triads and communication wire are cabled together with a left-hand lay
- Communication wire: 22 AWG solid bare copper, flame-retardant Polyvinyl Chloride (PVC), rated 105°C, orange
- Communication wire is not included on single pair or single triad cables

Overall Shield:
- Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, same size as insulated conductors

Inner Jacket:
- Flame-retardant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Nylon rip cord to facilitate jacket removal

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored Instrumentation cables with an overall shield provide superior protection and reliability against physical damage for use in instrumentation and process control applications requiring ITC-HL or PLTC wiring methods where shielding against external EMI is required
- For use as Power Limited Tray Cable on circuits rated 150 V or less and 5 amps or less in Class 2 or Class 3 circuits in accordance with NEC Article 725
- For use as Instrumentation Tray Cable on circuits rated 150 V or less and 5 amps or less in accordance with NEC Article 727
- Recognized for use in Class I and III, Divisions 1 and 2; Class II, Division 2; or Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed indoors or outdoors, in wet or dry locations, in a raceway, as aerial cable on a messenger, in cable trays, or for direct burial
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides superior mechanical protection and an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Meets cold impact at -40°

Specifications:

Design Adherence:
- UL 13 Power-Limited Circuit Cables
- UL 2250 Instrumentation Tray Cable
- UL 1569 Metal Clad Cables
- UL 1309/CSA C22.2 No. 245 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type PLTC, SUN RES, DIR BUR, -40°C, UL File # E36118
- UL Type ITC-HL, UL File # E177408
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
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UL Type ITC-HL/PLTC, PVC, 300 V, 105°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF PAIRS	INSULATION THICKNESS		COMMUNICATION WIRE			INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
					SIZE	INS. THICKNESS														
			mils	mm	AWG	mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
20 AWG 7W (0.52 mm²) OVERALL SHIELDED PAIRS																				
9225.20021221	20	2	20	0.51	22	12	0.30	62	1.57	0.40	10.2	0.59	15.0	50	1.27	0.70	17.8	0.39	213	317
9225.20041221	20	4	20	0.51	22	12	0.30	78	1.98	0.49	12.4	0.69	17.5	50	1.27	0.80	20.3	0.51	278	414
9225.20061221	20	6	20	0.51	22	12	0.30	78	1.98	0.56	14.2	0.76	19.3	50	1.27	0.87	22.1	0.60	322	479
9225.20081221	20	8	20	0.51	22	12	0.30	78	1.98	0.60	15.2	0.81	20.6	50	1.27	0.92	23.4	0.67	370	551
9225.20101221	20	10	20	0.51	22	12	0.30	93	2.36	0.73	18.5	0.97	24.6	50	1.27	1.08	27.4	0.93	487	725
9225.20121221	20	12	20	0.51	22	12	0.30	93	2.36	0.75	19.1	0.99	25.1	50	1.27	1.10	27.9	0.96	516	768
9225.20161221	20	16	20	0.51	22	12	0.30	93	2.36	0.82	20.8	1.09	25.3	50	1.27	1.20	30.5	1.15	609	906
9225.20201221	20	20	20	0.51	22	12	0.30	93	2.36	0.90	22.9	1.17	29.7	50	1.27	1.28	32.5	1.30	679	1,010
9225.20241221	20	24	20	0.51	22	12	0.30	109	2.77	0.99	25.1	1.30	33.0	50	1.27	1.41	35.8	1.58	834	1,241
9225.20361221	20	36	20	0.51	22	12	0.30	109	2.77	1.15	29.2	1.50	38.1	60	1.52	1.63	41.4	2.11	1,111	1,653
9225.20501221	20	50	20	0.51	22	12	0.30	124	3.15	1.37	34.8	1.64	41.7	60	1.52	1.77	45.0	2.49	1,418	2,110
18 AWG 7W (0.82 mm²) OVERALL SHIELDED PAIRS																				
9225.18021221	18	2	20	0.51	22	12	0.30	78	1.98	0.46	11.7	0.65	16.5	50	1.27	0.76	19.3	0.46	244	363
9225.18041221	18	4	20	0.51	22	12	0.30	78	1.98	0.52	13.2	0.72	18.3	50	1.27	0.83	21.1	0.55	304	452
9225.18061221	18	6	20	0.51	22	12	0.30	78	1.98	0.60	15.2	0.81	20.6	50	1.27	0.92	23.4	0.67	371	552
9225.18081221	18	8	20	0.51	22	12	0.30	78	1.98	0.65	16.5	0.86	21.8	50	1.27	0.97	24.6	0.75	415	618
9225.18101221	18	10	20	0.51	22	12	0.30	93	2.36	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	544	810
9225.18121221	18	12	20	0.51	22	12	0.30	93	2.36	0.80	20.3	1.07	27.2	50	1.27	1.18	30.0	1.11	607	903
9225.18161221	18	16	20	0.51	22	12	0.30	93	2.36	0.88	22.4	1.15	29.2	50	1.27	1.26	32.0	1.26	694	1,033
9225.18201221	18	20	20	0.51	22	12	0.30	109	2.77	1.00	25.4	1.31	33.3	50	1.27	1.42	36.1	1.60	864	1,286
9225.18241221	18	24	20	0.51	22	12	0.30	109	2.77	1.10	27.9	1.45	36.8	50	1.27	1.56	39.6	1.94	1,021	1,519
9225.18361221	18	36	20	0.51	22	12	0.30	109	2.77	1.24	31.5	1.59	40.4	60	1.52	1.72	43.7	2.35	1,292	1,923
9225.18501221	18	50	20	0.51	22	12	0.30	124	3.15	1.48	37.6	1.74	44.2	60	1.52	1.87	47.5	2.78	1,695	2,522
16 AWG 7W (1.31 mm²) OVERALL SHIELDED PAIRS																				
9225.16010001*	16	1	20	0.51	–	–	–	62	1.57	0.34	8.6	0.52	13.2	50	1.27	0.63	16.0	0.32	194	289
9225.16021221	16	2	20	0.51	22	12	0.30	78	1.98	0.50	12.7	0.70	17.8	50	1.27	0.81	20.6	0.52	282	420
9225.16041221	16	4	20	0.51	22	12	0.30	78	1.98	0.57	14.5	0.77	19.6	50	1.27	0.88	22.4	0.62	344	512
9225.16061221	16	6	20	0.51	22	12	0.30	93	2.36	0.70	17.8	0.94	23.9	50	1.27	1.05	26.7	0.88	497	740
9225.16081221	16	8	20	0.51	22	12	0.30	93	2.36	0.75	19.1	0.99	25.1	50	1.27	1.10	27.9	0.96	537	799
9225.16101221	16	10	20	0.51	22	12	0.30	93	2.36	0.86	21.8	1.13	28.7	50	1.27	1.24	31.5	1.22	659	981
9225.16121221	16	12	20	0.51	22	12	0.30	93	2.36	0.88	22.4	1.15	29.2	50	1.27	1.26	32.0	1.26	712	1,060
9225.16161221	16	16	20	0.51	22	12	0.30	109	2.77	1.00	25.4	1.31	33.3	50	1.27	1.42	36.1	1.60	909	1,353
9225.16201221	16	20	20	0.51	22	12	0.30	109	2.77	1.10	27.9	1.45	36.8	50	1.27	1.56	39.6	1.94	1,092	1,625
9225.16241221	16	24	20	0.51	22	12	0.30	109	2.77	1.22	31.0	1.57	39.9	60	1.52	1.70	43.2	2.30	1,250	1,860
9225.16361221	16	36	20	0.51	22	12	0.30	124	3.15	1.41	35.8	1.64	41.7	60	1.52	1.77	45.0	2.49	1,653	2,460
9225.16501221	16	50	20	0.51	22	12	0.30	124	3.15	1.64	41.7	1.96	49.8	60	1.52	2.09	53.1	3.48	2,189	3,258

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF TRIADS	INSULATION THICKNESS		COMMUNICATION WIRE			INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
					SIZE	INS. THICKNESS														
			mils	mm	AWG	mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
20 AWG 7W (0.52 mm²) OVERALL SHIELDED TRIADS																				
9225.20041222	20	4	20	0.51	22	12	0.30	78	1.98	0.56	14.2	0.76	19.3	50	1.27	0.87	22.1	0.60	315	469
9225.20081222	20	8	20	0.51	22	12	0.30	93	2.36	0.73	18.5	0.97	24.6	50	1.27	1.08	27.4	0.93	504	750
9225.20121222	20	12	20	0.51	22	12	0.30	93	2.36	0.87	22.1	1.14	29.0	50	1.27	1.25	31.8	1.24	634	943
9225.20161222	20	16	20	0.51	22	12	0.30	109	2.77	0.99	25.1	1.30	33.0	50	1.27	1.41	35.8	1.58	806	1,199
9225.20241222	20	24	20	0.51	22	12	0.30	109	2.77	1.20	30.5	1.55	39.4	60	1.52	1.63	41.4	2.11	1,100	1,637
9225.20361222	20	36	20	0.51	22	12	0.30	124	3.15	1.39	35.3	1.64	41.7	60	1.52	1.77	45.0	2.49	1,432	2,131
18 AWG 7W (0.82 mm²) OVERALL SHIELDED TRIADS																				
9225.18041222	18	4	20	0.51	22	12	0.30	78	1.98	0.60	15.2	0.81	20.6	50	1.27	0.92	23.4	0.67	371	552
9225.18081222	18	8	20	0.51	22	12	0.30	93	2.36	0.80	20.3	1.07	27.2	50	1.27	1.18	30.0	1.11	606	902
9225.18121222	18	12	20	0.51	22	12	0.30	109	2.77	0.98	24.9	1.29	32.8	50	1.27	1.40	35.6	1.56	825	1,228
9225.18161222	18	16	20	0.51	22	12	0.30	109	2.77	1.08	27.4	1.43	36.3	50	1.27	1.54	39.1	1.89	1,015	1,510
9225.18241222	18	24	20	0.51	22	12	0.30	109	2.77	1.31	33.3	1.60	40.6	60	1.52	1.73	43.9	2.38	1,354	2,015
9225.18361222	18	36	20	0.51	22	12	0.30	124	3.15	1.52	38.6	1.83	46.5	60	1.52	1.96	49.8	3.06	1,841	2,740
16 AWG 7W (1.31 mm²) OVERALL SHIELDED TRIADS																				
9225.16010002	16	1	20	0.51	-	-	-	62	1.57	0.36	9.1	0.54	13.7	50	1.27	0.65	16.5	0.34	208	310
9225.16041222	16	4	20	0.51	22	12	0.30	93	2.36	0.69	17.5	0.93	23.6	50	1.27	1.04	26.4	0.58	498	741
9225.16081222	16	8	20	0.51	22	12	0.30	93	2.36	0.88	22.4	1.15	29.2	50	1.27	1.26	32.0	1.26	710	1,057
9225.16121222	16	12	20	0.51	22	12	0.30	109	2.77	1.08	27.4	1.43	36.3	50	1.27	1.54	39.1	1.89	1,040	1,548
9225.16161222	16	16	20	0.51	22	12	0.30	109	2.77	1.19	30.2	1.54	39.1	60	1.52	1.67	42.4	2.22	1,243	1,850
9225.16241222	16	24	20	0.51	22	12	0.30	124	3.15	1.49	37.8	1.78	45.2	60	1.52	1.91	48.5	2.90	1,778	2,646
9225.16361222	16	36	20	0.51	22	12	0.30	124	3.15	1.69	42.9	1.96	49.8	60	1.52	2.09	53.1	3.48	2,292	3,411

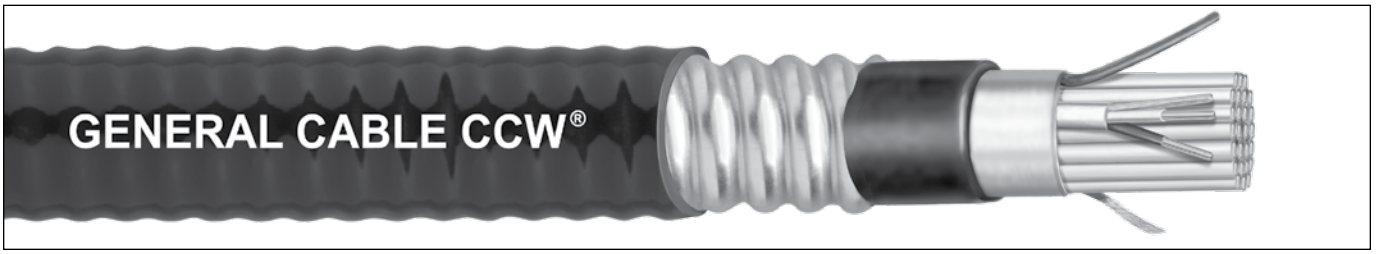
Dimensions and weights are nominal; subject to industry tolerances.
* Item rated ITC/PLTC.
[1] Cross-sectional area for cable tray fill is in accordance with NEC® Section 392.22.

UL LISTED
RoHS Compliant Directive 2011/65/EU
ABS

General Cable
Phone: 888-593-3355
www.generalcable.com

CCW® Armored Instrumentation, Pairs/Triads, Individual and Overall Shield

UL Type ITC-HL/PLTC, PVC, 300 V, 105°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC



Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC), rated 105°C per UL Standards 13 and 2250
- Color-coded per ICEA Method 1: pairs – black and white; triads – black, white and red. Each conductor in each pair or triad is printed alphanumerically for easy identification

Shielded Pairs/Triads:
- Isolated and individually twisted pairs or triads with a Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, two sizes smaller than insulated conductors

Cable Assembly:
- Individually shielded pairs or triads and communication wire are cabled together with a left hand lay
- Communication wire: 22 AWG solid bare copper, flame-retardant Polyvinyl Chloride (PVC), rated 105°C, orange

Overall Shield:
- Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, same size as insulated conductors

Inner Jacket:
- Flame-retardant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Nylon rip cord to facilitate jacket removal

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored Instrumentation cables with individually shielded pairs or triads and an overall shield provide superior protection and reliability against physical damage for use in instrumentation and process control applications requiring ITC-HL or PLTC wiring methods where shielding against both external EMI and EMI between groups is required
- For use as Power Limited Tray Cable on circuits rated 150 V or less and 5 amps or less in Class 2 or Class 3 circuits in accordance with NEC Article 725
- For use as Instrumentation Tray Cable on circuits rated 150 V or less and 5 amps or less in accordance with NEC Article 727
- Recognized for use in Class I and III, Divisions 1 and 2; Class II, Division 2; or Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505

Applications: (cont'd.)

- Installed indoors or outdoors, in wet or dry locations, in a raceway, as aerial cable on a messenger, in cable trays, or for direct burial
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides superior mechanical protection and an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Meets cold impact at -40°C

Specifications:

Design Adherence:
- UL 13 Power-Limited Circuit Cables
- UL 2250 Instrumentation Tray Cable
- UL 1569 Metal Clad Cables
- UL 1309/CSA C22.2 No. 245 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type PLTC, SUN RES, DIR BUR, -40°C, UL File # E36118
- UL Type ITC-HL, UL File # E177408
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

General Cable
Phone: 888-593-3355
www.generalcable.com

ABS
RoHS Compliant Directive 2011/65/EU
UL LISTED

CCW® Armored Instrumentation, Pairs/Triads, Individual and Overall Shield

UL Type ITC-HL/PLTC, PVC, 300 V, 105°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF PAIRS	INSULATION THICKNESS		COMMUNICATION WIRE			INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
					SIZE	INS. THICKNESS														
			mils	mm	AWG	mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
20 AWG 7W (0.52 mm²) INDIVIDUAL AND OVERALL SHIELDED PAIRS																				
9250.20021221	20	2	20	0.51	22	12	0.30	78	1.98	0.48	12.2	0.68	17.3	50	1.27	0.79	20.1	0.50	260	387
9250.20041221	20	4	20	0.51	22	12	0.30	78	1.98	0.54	13.7	0.74	18.8	50	1.27	0.85	21.6	0.57	308	458
9250.20061221	20	6	20	0.51	22	12	0.30	78	1.98	0.63	16.0	0.84	21.3	50	1.27	0.95	24.1	0.72	376	560
9250.20081221	20	8	20	0.51	22	12	0.30	93	2.36	0.72	18.3	0.96	24.4	50	1.27	1.07	27.2	0.91	490	729
9250.20101221	20	10	20	0.51	22	12	0.30	93	2.36	0.82	20.8	1.09	27.7	50	1.27	1.20	30.5	1.15	576	857
9250.20121221	20	12	20	0.51	22	12	0.30	93	2.36	0.85	21.6	1.12	28.4	50	1.27	1.23	31.2	1.20	615	915
9250.20161221	20	16	20	0.51	22	12	0.30	93	2.36	0.93	23.6	1.24	31.5	50	1.27	1.35	34.3	1.45	753	1,121
9250.20201221	20	20	20	0.51	22	12	0.30	109	2.77	1.05	26.7	1.36	34.5	50	1.27	1.47	37.3	1.72	873	1,299
9250.20241221	20	24	20	0.51	22	12	0.30	109	2.77	1.16	29.5	1.51	38.4	60	1.52	1.64	41.7	2.14	1,062	1,580
9250.20361221	20	36	20	0.51	22	12	0.30	109	2.77	1.31	33.3	1.60	40.6	60	1.52	1.73	43.9	2.38	1,340	1,994
9250.20501221	20	50	20	0.51	22	12	0.30	124	3.15	1.54	39.1	1.83	46.5	60	1.52	1.96	49.8	3.06	1,725	2,567
18 AWG 7W (0.82 mm²) INDIVIDUAL AND OVERALL SHIELDED PAIRS																				
9250.18021221	18	2	20	0.51	22	12	0.30	78	1.98	0.51	13.0	0.71	18.0	50	1.27	0.82	20.8	0.54	279	415
9250.18041221	18	4	20	0.51	22	12	0.30	78	1.98	0.57	14.5	0.78	19.8	50	1.27	0.89	22.6	0.63	351	522
9250.18061221	18	6	20	0.51	22	12	0.30	93	2.36	0.71	18.0	0.95	24.1	50	1.27	1.06	26.9	0.89	488	726
9250.18081221	18	8	20	0.51	22	12	0.30	93	2.36	0.76	19.3	1.00	25.4	50	1.27	1.11	28.2	0.98	545	811
9250.18101221	18	10	20	0.51	22	12	0.30	93	2.36	0.87	22.1	1.15	29.2	50	1.27	1.26	32.0	1.26	644	958
9250.18121221	18	12	20	0.51	22	12	0.30	93	2.36	0.90	22.9	1.17	29.7	50	1.27	1.28	32.5	1.30	693	1,031
9250.18161221	18	16	20	0.51	22	12	0.30	109	2.77	1.02	25.9	1.33	33.8	50	1.27	1.44	36.6	1.65	885	1,317
9250.18201221	18	20	20	0.51	22	12	0.30	109	2.77	1.12	28.4	1.47	37.3	50	1.27	1.58	40.1	1.99	1,062	1,580
9250.18241221	18	24	20	0.51	22	12	0.30	109	2.77	1.24	31.5	1.59	40.4	60	1.52	1.72	43.7	2.35	1,214	1,807
9250.18361221	18	36	20	0.51	22	12	0.30	124	3.15	1.44	36.6	1.64	41.7	60	1.52	1.77	45.0	2.49	1,592	2,369
9250.18501221	18	50	20	0.51	22	12	0.30	124	3.15	1.68	42.7	1.96	49.8	60	1.52	2.09	53.1	3.48	2,105	3,133
16 AWG 7W (1.31 mm²) INDIVIDUAL AND OVERALL SHIELDED PAIRS																				
9250.16021221	16	2	20	0.51	22	12	0.30	78	1.98	0.55	14.0	0.75	19.1	50	1.27	0.86	21.8	0.59	309	460
9250.16041221	16	4	20	0.51	22	12	0.30	78	1.98	0.63	16.0	0.84	21.3	50	1.27	0.95	24.1	0.72	403	600
9250.16061221	16	6	20	0.51	22	12	0.30	93	2.36	0.77	19.6	1.01	25.7	50	1.27	1.12	28.4	1.00	563	838
9250.16081221	16	8	20	0.51	22	12	0.30	93	2.36	0.83	21.1	1.10	27.9	50	1.27	1.21	30.7	1.17	665	990
9250.16101221	16	10	20	0.51	22	12	0.30	109	2.77	0.99	25.1	1.30	33.0	50	1.27	1.41	35.8	1.58	842	1,253
9250.16121221	16	12	20	0.51	22	12	0.30	109	2.77	1.02	25.9	1.33	33.8	50	1.27	1.44	36.6	1.65	912	1,357
9250.16161221	16	16	20	0.51	22	12	0.30	109	2.77	1.12	28.4	1.47	37.3	50	1.27	1.58	40.1	1.99	1,127	1,677
9250.16201221	16	20	20	0.51	22	12	0.30	109	2.77	1.24	31.5	1.59	40.4	60	1.52	1.72	43.7	2.35	1,315	1,957
9250.16241221	16	24	20	0.51	22	12	0.30	124	3.15	1.40	35.6	1.64	41.7	60	1.52	1.77	45.0	2.49	1,552	2,310
9250.16361221	16	36	20	0.51	22	12	0.30	124	3.15	1.59	40.4	1.92	48.8	60	1.52	2.05	52.1	3.34	2,086	3,104
9250.16501221	16	50	20	0.51	22	12	0.30	140	3.56	1.89	48.0	2.19	55.6	60	1.52	2.32	58.9	4.28	2,770	4,122

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF TRIADS	INSULATION THICKNESS		COMMUNICATION WIRE			INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
					SIZE	INS. THICKNESS														
			mils	mm	AWG	mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
20 AWG 7W (0.52 mm²) INDIVIDUAL AND OVERALL SHIELDED TRIADS																				
9250.20041222	20	4	20	0.51	22	12	0.30	78	1.98	0.59	15.0	0.80	20.3	50	1.27	0.91	23.1	0.66	358	533
9250.20081222	20	8	20	0.51	22	12	0.30	93	2.36	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	557	829
9250.20121222	20	12	20	0.51	22	12	0.30	93	2.36	0.93	23.6	1.24	31.5	50	1.27	1.35	34.3	1.45	761	1,132
9250.20161222	20	16	20	0.51	22	12	0.30	109	2.77	1.05	26.7	1.36	34.5	50	1.27	1.47	37.3	1.72	906	1,348
9250.20241222	20	24	20	0.51	22	12	0.30	109	2.77	1.28	32.5	1.60	40.6	60	1.52	1.73	43.9	2.38	1,287	1,915
9250.20361222	20	36	20	0.51	22	12	0.30	124	3.15	1.48	37.6	1.74	44.2	60	1.52	1.87	47.5	2.78	1,674	2,491
18 AWG 7W (0.82 mm²) INDIVIDUAL AND OVERALL SHIELDED TRIADS																				
9250.18041222	18	4	20	0.51	22	12	0.30	78	1.98	0.63	16.0	0.84	21.3	50	1.27	0.95	24.1	0.72	396	589
9250.18081222	18	8	20	0.51	22	12	0.30	93	2.36	0.83	21.1	1.10	27.9	50	1.27	1.21	30.7	1.17	658	979
9250.18121222	18	12	20	0.51	22	12	0.30	109	2.77	1.02	25.9	1.33	33.8	50	1.27	1.44	36.6	1.65	903	1,344
9250.18161222	18	16	20	0.51	22	12	0.30	109	2.77	1.12	28.4	1.47	37.3	50	1.27	1.58	40.1	1.99	1,115	1,659
9250.18241222	18	24	20	0.51	22	12	0.30	124	3.15	1.40	35.6	1.67	42.4	60	1.52	1.80	45.7	2.58	1,541	2,293
9250.18361222	18	36	20	0.51	22	12	0.30	124	3.15	1.59	40.4	1.92	48.8	60	1.52	2.05	52.1	3.34	2,062	3,069
16 AWG 7W (1.31 mm²) INDIVIDUAL AND OVERALL SHIELDED TRIADS																				
9250.16041222	16	4	20	0.51	22	12	0.30	93	2.36	0.72	18.3	0.96	24.4	50	1.27	1.07	27.2	0.58	530	789
9250.16081222	16	8	20	0.51	22	12	0.30	93	2.36	0.91	23.1	1.18	30.0	50	1.27	1.29	32.8	1.32	780	1,161
9250.16121222	16	12	20	0.51	22	12	0.30	109	2.77	1.12	28.4	1.47	37.3	50	1.27	1.58	40.1	1.99	1,144	1,702
9250.16161222	16	16	20	0.51	22	12	0.30	109	2.77	1.24	31.5	1.59	40.4	60	1.52	1.72	43.7	2.35	1,378	2,051
9250.16241222	16	24	20	0.51	22	12	0.30	124	3.15	1.55	39.4	1.83	46.5	60	1.52	1.96	49.8	3.06	1,973	2,936
9250.16361222	16	36	20	0.51	22	12	0.30	140	3.56	1.80	45.7	2.15	54.6	60	1.52	2.28	57.9	4.14	2,729	4,061

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC® Section 392.22.

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CCW® Armored Instrumentation, Pairs/Triads, Overall Shield

UL Type MC-HL, PVC/Nylon, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC) insulation and nylon covering, rated 90°C per UL Standard 83
- Color-coded per ICEA Method 1: pairs – black and white; triads – black, white and red. Each conductor in each pair or triad is printed alphanumerically for easy identification

Cable Assembly:
- Individual pairs or triads are cabled together with a left-hand lay

Overall Shield:
- Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, same size as insulated conductors

Inner Jacket:
- Flame-retardant Polyvinyl Chloride (PVC) per UL Standard 1569, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Nylon rip cord to facilitate jacket removal

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL Standards 1569 and 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL Standard 1569, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:
- CCW armored 600 volt instrumentation cables with an overall shield provide superior protection and reliability against physical damage for use in instrumentation and process control applications where shielding against external EMI is required
- For use in Class 1 remote-control and signal circuits in accordance with NEC Article 725
- Recognized for use in Class I, II and III, Divisions 1 and 2; or Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed indoors or outdoors, in wet or dry locations, in a raceway, as aerial cable on a messenger, in cable trays, or for direct burial
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:
- CCW armor provides superior mechanical protection and an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Meets cold impact at -40°C

Specifications:

Design Adherence:
- UL 83 Thermoplastic Insulated Wire and Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309/CSA C22.2 No. 245 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MC-HL, CT USE, SUN RES, DIR BUR, -40°C, UL File # E90496
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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CCW® Armored Instrumentation, Pairs/Triads, Overall Shield

UL Type MC-HL, PVC/Nylon, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF PAIRS	INSULATION THICKNESS		INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
			mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
18 AWG 7W (0.82 mm²) OVERALL SHIELDED PAIRS																	
9325.18020001	18	2	19	0.48	40	1.02	0.41	10.4	0.59	15.0	50	1.27	0.70	17.8	0.39	222	330
9325.18040001	18	4	19	0.48	40	1.02	0.48	12.2	0.65	16.5	50	1.27	0.75	19.1	0.45	268	399
9325.18080001	18	8	19	0.48	50	1.27	0.60	15.2	0.82	20.8	50	1.27	0.92	23.4	0.67	420	625
9325.18120001	18	12	19	0.48	50	1.27	0.78	19.8	1.00	25.4	50	1.27	1.10	27.9	0.96	560	833
9325.18160001	18	16	19	0.48	50	1.27	0.81	20.6	1.12	28.4	50	1.27	1.23	31.2	1.20	706	1,051
9325.18240001	18	24	19	0.48	50	1.27	1.08	27.4	1.39	35.3	50	1.27	1.49	37.8	1.77	969	1,442
16 AWG 7W (1.31 mm²) OVERALL SHIELDED PAIRS																	
9325.16010001	16	1	19	0.48	60	1.52	0.35	8.9	0.53	13.5	50	1.27	0.64	16.3	0.33	185	275
9325.16020001	16	2	19	0.48	40	1.02	0.38	9.7	0.58	14.7	50	1.27	0.69	17.5	0.38	246	366
9325.16040001	16	4	19	0.48	40	1.02	0.47	11.9	0.71	18.0	50	1.27	0.82	20.8	0.54	333	495
9325.16060001	16	6	19	0.48	50	1.27	0.58	14.7	0.80	20.3	50	1.27	0.91	23.1	0.66	405	603
9325.16080001	16	8	19	0.48	50	1.27	0.66	16.8	0.89	22.6	50	1.27	1.00	25.4	0.80	466	694
9325.16100001	16	10	19	0.48	50	1.27	0.76	19.3	1.02	25.9	50	1.27	1.13	28.7	1.02	556	827
9325.16120001	16	12	19	0.48	50	1.27	0.80	20.3	1.06	26.9	50	1.27	1.17	29.7	1.09	604	899
9325.16160001	16	16	19	0.48	50	1.27	0.87	22.1	1.15	29.2	50	1.27	1.26	32.0	1.26	799	1,189
9325.16200001	16	20	19	0.48	50	1.27	0.98	24.9	1.29	32.8	50	1.27	1.40	35.6	1.56	929	1,383
9325.16240001	16	24	19	0.48	50	1.27	1.08	27.4	1.37	34.8	50	1.27	1.48	37.6	1.74	1,040	1,548
9325.16360001	16	36	19	0.48	50	1.27	1.32	33.5	1.64	41.7	60	1.52	1.78	45.2	2.52	1,445	2,151
9325.16500001	16	50	19	0.48	50	1.27	1.48	37.6	1.83	46.5	60	1.52	1.96	49.8	3.06	1,897	2,823

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF TRIADS	INSULATION THICKNESS		INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		OVERALL JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
			mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
16 AWG 7W (1.31 mm²) OVERALL SHIELDED TRIADS																	
9325.16010002	16	1	19	0.48	50	1.27	0.35	8.9	0.53	13.5	50	1.27	0.64	16.3	0.33	195	290
9325.16040002	16	4	19	0.48	40	1.02	0.51	13.0	0.71	18.0	50	1.27	0.82	20.8	0.54	407	606
9325.16080002	16	8	19	0.48	50	1.27	0.71	18.0	0.93	23.6	50	1.27	1.04	26.4	0.86	617	918
9325.16120002	16	12	19	0.48	50	1.27	0.85	21.6	1.11	28.2	50	1.27	1.22	31.0	1.18	897	1,334
9325.16160002	16	16	19	0.48	50	1.27	0.93	23.6	1.19	30.2	50	1.27	1.30	33.0	1.34	1,161	1,727
9325.16240002	16	24	19	0.48	50	1.27	1.16	29.5	1.47	37.3	50	1.27	1.58	40.1	1.99	1,581	2,353
9325.16360002	16	36	19	0.48	50	1.27	1.42	36.1	1.74	44.2	60	1.52	1.87	47.5	2.78	2,142	3,188

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC® Section 392.22.

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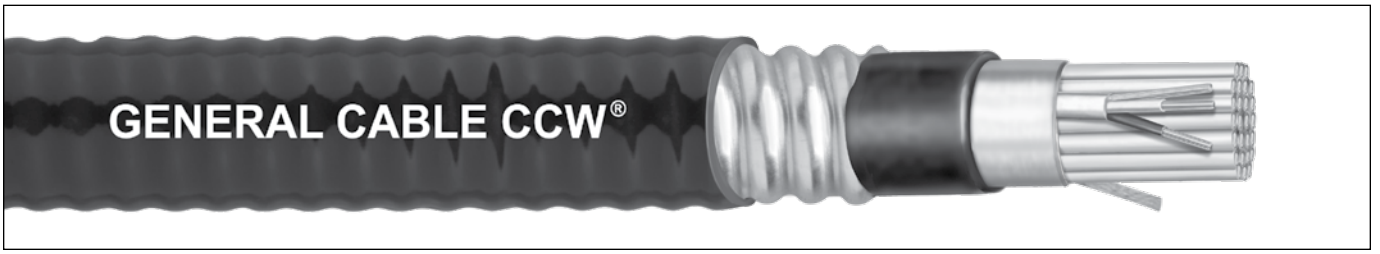
CCW® Armored Instrumentation, Pairs/Triads, Individual and Overall Shield

UL Type MC-HL, PVC/Nylon, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC



Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Flame-retardant Polyvinyl Chloride (PVC) insulation and nylon covering, rated 90°C per UL Standard 83
- Color-coded per ICEA Method 1: pairs – black and white; triads – black, white and red. Each conductor in each pair or triad is printed alphanumerically for easy identification

Shielded Pairs/Triads:
- Isolated and individually twisted pairs or triads with a Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, two sizes smaller than insulated conductors

Cable Assembly:
- Individually shielded pairs or triads are cabled together with a left-hand lay

Overall Shield:
- Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, same size as insulated conductors

Inner Jacket:
- Flame-retardant Polyvinyl Chloride (PVC) per UL Standard 1569, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Nylon rip cord to facilitate jacket removal

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL Standards 1569 and 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL Standard 1569, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored 600 volt instrumentation cables with individually shielded pairs or triads and an overall shield provide superior protection and reliability against physical damage for use in instrumentation and process control applications where shielding against both external EMI and EMI between groups is required
- For use in Class 1 remote-control and signal circuits in accordance with NEC Article 725
- Recognized for use in Class I, II and III, Divisions 1 and 2; or Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed indoors or outdoors, in wet or dry locations, in a raceway, as aerial cable on a messenger, in cable trays, or for direct burial
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides superior mechanical protection and an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Meets cold impact at -40°C

Specifications:

Design Adherence:
- UL 83 Thermoplastic Insulated Wire and Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309/CSA C22.2 No. 245 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MC-HL, CT USE, SUN RES, DIR BUR, -40°C, UL File # E90496
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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CCW® Armored Instrumentation, Pairs/Triads, Individual and Overall Shield

UL Type MC-HL, PVC/Nylon, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF PAIRS	INSULATION THICKNESS		INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		OVERALL JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
			mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
18 AWG 7W (0.82 mm²) INDIVIDUAL AND OVERALL SHIELDED PAIRS																	
9350.18020001	18	2	19	0.48	40	1.02	0.41	10.4	0.59	15.0	50	1.27	0.70	17.8	0.39	225	335
9350.18040001	18	4	19	0.48	40	1.02	0.48	12.2	0.65	16.5	50	1.27	0.75	19.1	0.45	300	446
9350.18080001	18	8	19	0.48	50	1.27	0.60	15.2	0.82	20.8	50	1.27	0.92	23.4	0.67	450	670
9350.18120001	18	12	19	0.48	50	1.27	0.78	19.8	1.00	25.4	50	1.27	1.10	27.9	0.96	580	863
9350.18160001	18	16	19	0.48	50	1.27	0.81	20.6	1.12	28.4	50	1.27	1.23	31.2	1.20	760	1,131
9350.18240001	18	24	19	0.48	50	1.27	1.08	27.4	1.39	35.3	50	1.27	1.49	37.8	1.77	1,050	1,563
16 AWG 7W (1.31 mm²) INDIVIDUAL AND OVERALL SHIELDED PAIRS																	
9350.16020001	16	2	19	0.48	40	1.02	0.45	11.4	0.67	17.0	50	1.27	0.78	19.8	0.48	239	355
9350.16040001	16	4	19	0.48	50	1.27	0.56	14.2	0.80	20.3	50	1.27	0.91	23.1	0.66	342	509
9350.16060001	16	6	19	0.48	50	1.27	0.66	16.8	0.89	22.6	50	1.27	1.00	25.4	0.80	429	639
9350.16080001	16	8	19	0.48	50	1.27	0.70	17.8	0.93	23.6	50	1.27	1.04	26.4	0.86	502	747
9350.16100001	16	10	19	0.48	50	1.27	0.79	20.1	1.06	26.9	50	1.27	1.17	29.7	1.09	613	912
9350.16120001	16	12	19	0.48	50	1.27	0.85	21.6	1.11	28.2	50	1.27	1.22	31.0	1.18	687	1,023
9350.16160001	16	16	19	0.48	50	1.27	0.98	24.9	1.29	32.8	50	1.27	1.40	35.6	1.56	859	1,278
9350.16200001	16	20	19	0.48	50	1.27	1.06	26.9	1.34	34.0	50	1.27	1.45	36.8	1.67	997	1,483
9350.16240001	16	24	19	0.48	50	1.27	1.12	28.4	1.42	36.1	50	1.27	1.53	38.9	1.86	1,140	1,697
9350.16360001	16	36	19	0.48	50	1.27	1.37	34.8	1.69	42.9	60	1.52	1.82	46.2	2.64	1,618	2,407
9350.16500001	16	50	19	0.48	50	1.27	1.57	39.9	1.92	48.8	60	1.52	2.05	52.1	3.34	2,166	3,224

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF TRIADS	INSULATION THICKNESS		INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		OVERALL JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
			mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
16 AWG 7W (1.31 mm²) INDIVIDUAL AND OVERALL SHIELDED TRIADS																	
9350.16040002	16	4	19	0.48	50	1.27	0.61	15.5	0.84	21.3	50	1.27	0.95	24.1	0.72	403	600
9350.16080002	16	8	19	0.48	50	1.27	0.82	20.8	1.06	26.9	50	1.27	1.17	29.7	1.09	650	967
9350.16120002	16	12	19	0.48	50	1.27	0.98	24.9	1.24	31.5	50	1.27	1.35	34.3	1.45	853	1,269
9350.16160002	16	16	19	0.48	50	1.27	1.10	27.9	1.37	34.8	50	1.27	1.48	37.6	1.74	1,079	1,606
9350.16240002	16	24	19	0.48	50	1.27	1.33	33.8	1.64	41.7	60	1.52	1.78	45.2	2.52	1,515	2,254
9350.16360002	16	36	19	0.48	50	1.27	1.58	40.1	1.96	49.8	60	1.52	2.09	53.1	3.48	2,184	3,250

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC® Section 392.22.

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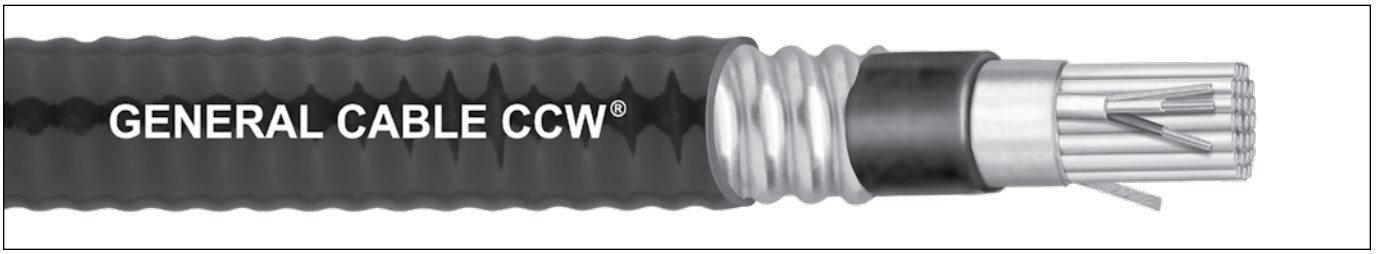
CCW® Armored Instrumentation, Pairs/Triads, Individual and Overall Shield

UL Type MC-HL, 600 V or UL Type ITC-HL, 300 V, XLPE, 90°C, Cable Tray Use
Sunlight-Resistant, Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade



Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Cross-linked Polyethylene (XLPE), rated 90°C per UL Standards 13 and 2250
- Color-coded per ICEA Method 1: pairs – black and white; triads – black, white and red. Each conductor in each pair or triad is printed alphanumerically for easy identification

Shielded Pair/Triad:
- Isolated and individually twisted pairs or triads with Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, two sizes smaller than insulated conductors

Cable Assembly:
- Individually shielded pairs or triads are cabled together with a left-hand lay

Overall Shield:
- Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, same size as insulated conductors

Inner Jacket:
- Flame retardant Polyvinyl Chloride (PVC) per UL Standard 1569, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -60°C
- Nylon rip cord to facilitate jacket removal

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL Standards 1569 and 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL Standard 1569, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -60°C

Applications:

- CCW armored 600 volt instrumentation cables with individually shielded pairs or triads and an overall shield provide superior protection and reliability against physical damage for use in instrumentation and process control applications where shielding against both external EMI and EMI between groups is required
- For use in Class 1 remote-control and signal circuits in accordance with NEC Article 725
- Recognized for use in Class I, II and III, Divisions 1 and 2; or Class 1, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed indoors or outdoors, in wet or dry locations, in a raceway, as aerial cable on a messenger, in cable trays, or for direct burial
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides superior mechanical protection and an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Meets cold bend at -55°C

Specifications:

Design Adherence:
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 2250 Instrumentation Tray Cable
- UL 1309/CSA C22.2 No. 245 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MC-HL, CT USE, SUN RES, DIR BUR, -60°C, UL File # E90496
- UL Type ITC-HL, UL File # E177408
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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CCW® Armored Instrumentation, Pairs/Triads, Individual and Overall Shield

UL Type MC-HL, 600 V or UL Type ITC-HL, 300 V, XLPE, 90°C, Cable Tray Use
Sunlight-Resistant, Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF PAIRS	INSULATION THICKNESS		COMMUNICATION WIRE			INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
					SIZE	INS. THICKNESS														
			mils	mm	AWG	mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	(SQ. IN.)	LBS/1000 FT.	kg/1000 m
18 AWG 7W (0.82 mm²) INDIVIDUAL AND OVERALL SHIELDED PAIRS																				
9400.18020001	18	2	30	0.76	22	12	0.30	78	1.98	0.58	14.6	0.79	19.9	50	1.27	0.89	22.6	0.62	307	457
9400.18040001	18	4	30	0.76	22	12	0.30	93	2.36	0.69	17.4	0.93	23.6	50	1.27	1.04	26.3	0.84	448	667
9400.18060001	18	6	30	0.76	22	12	0.30	93	2.36	0.81	20.4	1.08	27.4	50	1.27	1.19	30.1	1.10	551	820
9400.18080001	18	8	30	0.76	22	12	0.30	93	2.36	0.87	22.1	1.15	29.1	50	1.27	1.25	31.8	1.23	609	906
9400.18100001	18	10	30	0.76	22	12	0.30	109	2.77	1.04	26.4	1.36	34.4	50	1.27	1.46	37.1	1.67	774	1152
9400.18120001	18	12	30	0.76	22	12	0.30	109	2.77	1.07	27.2	1.42	36.1	50	1.27	1.53	38.7	1.83	893	1329
9400.18160001	18	16	30	0.76	22	12	0.30	109	2.77	1.19	30.1	1.54	39.0	60	1.52	1.66	42.2	2.16	1050	1562
9400.18200001	18	20	30	0.76	22	12	0.30	109	2.77	1.31	33.3	1.63	41.3	60	1.52	1.75	44.5	2.41	1234	1836
9400.18240001	18	24	30	0.76	22	12	0.30	124	3.15	1.48	37.6	1.73	43.8	60	1.52	1.85	47.0	2.69	1497	2228
9400.18360001	18	36	30	0.76	22	12	0.30	124	3.15	1.68	42.7	1.92	48.6	60	1.52	2.04	51.8	3.27	1882	2800
9400.18500001	18	50	30	0.76	22	12	0.30	140	3.56	2.00	50.8	2.48	63.0	75	1.91	2.64	67.1	5.47	2739	4076
16 AWG 7W (1.31 mm²) INDIVIDUAL AND OVERALL SHIELDED PAIRS																				
9400.16010001*	16	1	30	0.76	—	—	—	62	1.57	0.38	9.5	0.56	14.1	50	1.27	0.66	16.8	0.34	196	292
9400.16020001	16	2	30	0.76	22	12	0.30	78	1.98	0.62	15.6	0.83	21.0	50	1.27	0.93	23.6	0.68	337	501
9400.16040001	16	4	30	0.76	22	12	0.30	93	2.36	0.74	18.8	0.98	24.9	50	1.27	1.09	27.6	0.92	495	737
9400.16060001	16	6	30	0.76	22	12	0.30	93	2.36	0.87	22.1	1.15	29.1	50	1.27	1.25	31.8	1.23	627	933
9400.16080001	16	8	30	0.76	22	12	0.30	109	2.77	0.98	24.8	1.29	32.6	50	1.27	1.39	35.3	1.52	783	1165
9400.16100001	16	10	30	0.76	22	12	0.30	109	2.77	1.13	28.7	1.48	37.6	50	1.27	1.59	40.3	1.97	955	1421
9400.16120001	16	12	30	0.76	22	12	0.30	109	2.77	1.16	29.5	1.51	38.4	60	1.52	1.64	41.5	2.10	1061	1579
9400.16160001	16	16	30	0.76	22	12	0.30	109	2.77	1.29	32.6	1.60	40.6	60	1.52	1.73	43.8	2.34	1274	1896
9400.16200001	16	20	30	0.76	22	12	0.30	124	3.15	1.45	36.8	1.73	43.8	60	1.52	1.85	47.0	2.69	1576	2345
9400.16240001	16	24	30	0.76	22	12	0.30	124	3.15	1.61	40.8	1.92	48.6	60	1.52	2.04	51.8	3.27	1725	2567
9400.16360001	16	36	30	0.76	22	12	0.30	140	3.56	1.87	47.4	2.16	54.9	60	1.52	2.28	57.9	6.38	2436	3625
9400.16500001	16	50	30	0.76	22	12	0.30	171	4.34	2.25	57.0	2.62	66.5	75	1.91	2.78	70.6	6.07	3361	5001

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF TRIADS	INSULATION THICKNESS		COMMUNICATION WIRE			INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
					SIZE	INS. THICKNESS														
			mils	mm	AWG	mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	(SQ. IN.)	LBS/1000 FT.	kg/1000 m
18 AWG 7W (0.82 mm²) INDIVIDUAL AND OVERALL SHIELDED TRIADS																				
9400.18020002	18	2	30	0.76	22	12	0.30	78	1.98	0.63	15.9	0.84	21.2	50	1.27	0.94	23.9	0.69	337	501
9400.18040002	18	4	30	0.76	22	12	0.30	93	2.36	0.75	19.1	1.00	25.3	50	1.27	1.10	27.9	0.95	495	737
9400.18080002	18	8	30	0.76	22	12	0.30	109	2.77	0.99	25.1	1.30	33.0	50	1.27	1.41	35.7	1.55	785	1168
9400.18120002	18	12	30	0.76	22	12	0.30	109	2.77	1.18	30.0	1.53	38.9	60	1.52	1.67	42.3	2.18	1062	1580
9400.18160002	18	16	30	0.76	22	12	0.30	124	3.15	1.34	33.9	1.64	41.7	60	1.52	1.77	44.8	2.45	1322	1967
9400.18240002	18	24	30	0.76	22	12	0.30	124	3.15	1.64	41.5	1.92	48.6	60	1.52	2.04	51.8	3.27	1806	2687
9400.18360002	18	36	30	0.76	22	12	0.30	140	3.56	1.90	48.3	2.23	56.6	75	1.91	2.39	60.7	4.49	2525	3757
16 AWG 7W (1.31 mm²) INDIVIDUAL AND OVERALL SHIELDED TRIADS																				
9400.16010002	16	1	30	0.76	–	–	–	62	1.57	0.40	10.0	0.58	14.6	50	1.27	0.68	17.3	0.36	207	308
9400.16020002	16	2	30	0.76	22	12	0.30	93	2.36	0.71	17.9	0.95	24.1	50	1.27	1.06	26.8	0.87	429	638
9400.16040002	16	4	30	0.76	22	12	0.30	93	2.36	0.81	20.6	1.09	27.6	50	1.27	1.19	30.2	1.11	564	839
9400.16080002	16	8	30	0.76	22	12	0.30	109	2.77	1.07	27.2	1.42	36.1	50	1.27	1.53	38.7	1.83	928	1381
9400.16120002	16	12	30	0.76	22	12	0.30	109	2.77	1.29	32.6	1.60	40.6	60	1.52	1.73	43.8	2.34	1300	1934
9400.16160002	16	16	30	0.76	22	12	0.30	124	3.15	1.46	37.0	1.73	43.8	60	1.52	1.85	47.0	2.69	1654	2461
9400.16240002	16	24	30	0.76	22	12	0.30	140	3.56	1.82	46.2	2.16	54.9	60	1.52	2.29	58.0	4.10	2348	3494
9400.16360002	16	36	30	0.76	22	12	0.30	171	4.34	2.14	54.2	2.45	62.2	75	1.91	2.61	66.3	5.35	3319	4939

Dimensions and weights are nominal; subject to industry tolerances.
* Item rated ITC/PLTC.
[1] Cross-sectional area for cable tray fill is in accordance with NEC® Section 392.22.

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CCW® Armored Control With Grounding Conductor

UL Type MC-HL, CSA Type HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compressed Class B stranding per ASTM B8

Insulation:
- Cross-linked Polyethylene (XLPE) insulation per ICEA S-73-532 and UL 44, Listed XHHW-2
- Color-coded per ICEA Method 1, Table E2, full-colored insulation with stripes
- Color-coded per CSA C22.2 No. 123 where applicable

Grounding Conductor:
- Class B stranded bare annealed copper per ASTM B3 and B8
- Cross-linked Polyethylene (XLPE) insulation, green
- Sized in accordance with NEC Table 250.122

Cable Assembly:
- Insulated conductors and grounding wire are cabled together with non-hygroscopic fillers when required
- A binder tape, when required, is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569 and UL 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Meets CSA Low Acid Gas requirements

Applications:

- CCW armored control cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- For use as services, feeders and branch circuits for power, lighting, control, and signal circuits in accordance with NEC Articles 330 and 725
- Installed indoors or outdoors, wet or dry locations, directly buried, embedded in concrete, in a raceway, as aerial cable on a messenger, in cable trays, or as exposed runs secured to supports in accordance with NEC Article 330
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems
- Meets cold impact at -40°C
- 90˚C continuous operating temperature, wet or dry
- 130˚C emergency rating
- 250˚C short circuit rating

Specifications:

Design Adherence:
- ICEA S-73-532/WC57 Standard for Control, Thermocouple Extension and Instrumentation Cables
- UL 44 Rubber Insulated Wires and Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA C22.2 No. 123 Metal Sheathed Cables
- CSA C22.2 No. 174 Cables and Cable Glands for Use in Hazardous Locations

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MC-HL, XHHW-2, SUN RES, CT USE, DIR BUR, -40°C, UL File # E90496
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- CSA certified[1] Type RA90, XLPE, HL, SR, FT4, and -40°C, CSA File # 7319
- RoHS Compliant

[1] Standard cables are also marked CSA Type RA90, except four (4) conductor cables which require a different color code, which may be special-ordered.

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CCW® Armored Control With Grounding Conductor

UL Type MC-HL, CSA Type HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant
Direct Burial, UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF COND.	GREEN INSULATED GROUND (AWG)	INSULATION THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT		90°C AMPACITY @ 30°C AMBIENT[2]
				mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m	
14 AWG 7W (2.08 mm²) MULTI-CONDUCTOR CONTROL CABLE WITH GREEN INSULATED GROUNDING CONDUCTOR																	
9500.01402114	14	2	14	30	0.76	0.30	7.6	0.49	12.4	50	1.27	0.60	15.2	0.29	163	243	15
9500.01403114	14	3	14	30	0.76	0.33	8.4	0.53	13.5	50	1.27	0.64	16.3	0.33	192	286	15
9500.01404114	14	4	14	30	0.76	0.37	9.4	0.58	14.7	50	1.27	0.69	17.5	0.38	222	330	15
9500.01405114	14	5	14	30	0.76	0.39	9.9	0.60	15.2	50	1.27	0.71	18.0	0.40	245	365	15
9500.01406114	14	6	14	30	0.76	0.41	10.4	0.62	15.7	50	1.27	0.73	18.5	0.42	267	397	15
9500.01408114	14	8	14	30	0.76	0.49	12.4	0.71	18.0	50	1.27	0.82	20.8	0.54	321	478	15
9500.01411114	14	11	14	30	0.76	0.57	14.5	0.80	20.3	50	1.27	0.91	23.1	0.66	395	588	12
9500.01418114	14	18	14	30	0.76	0.69	17.5	0.93	23.6	50	1.27	1.04	26.4	0.86	554	824	12
9500.01436114	14	36	14	30	0.76	0.97	24.6	1.24	31.5	50	1.27	1.35	34.3	1.45	948	1,411	10
12 AWG 7W (3.31 mm²) MULTI-CONDUCTOR CONTROL CABLE WITH GREEN INSULATED GROUNDING CONDUCTOR																	
9500.01202112	12	2	12	30	0.76	0.34	8.6	0.53	13.5	50	1.27	0.64	16.3	0.33	200	298	20
9500.01203112	12	3	12	30	0.76	0.37	9.4	0.58	14.7	50	1.27	0.69	17.5	0.38	239	356	20
9500.01204112	12	4	12	30	0.76	0.45	11.4	0.67	17.0	50	1.27	0.78	19.8	0.48	310	461	20
9500.01205112	12	5	12	30	0.76	0.46	11.7	0.67	17.0	50	1.27	0.78	19.8	0.48	324	482	20
9500.01206112	12	6	12	30	0.76	0.47	11.9	0.67	17.0	50	1.27	0.78	19.8	0.48	338	503	20
9500.01208112	12	8	12	30	0.76	0.56	14.2	0.80	20.3	50	1.27	0.91	23.1	0.66	426	634	20
9500.01211112	12	11	12	30	0.76	0.65	16.5	0.89	22.6	50	1.27	1.00	25.4	0.80	519	772	15
9500.01218112	12	18	12	30	0.76	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	739	1,100	15
9500.01236112	12	36	12	30	0.76	1.10	27.9	1.37	34.8	50	1.27	1.48	37.6	1.74	1,302	1,938	12
10 AWG 7W (5.26 mm²) MULTI-CONDUCTOR CONTROL CABLE WITH GREEN INSULATED GROUNDING CONDUCTOR																	
9500.01002110	10	2	10	30	0.76	0.39	9.9	0.58	14.7	50	1.27	0.69	17.5	0.38	253	377	30
9500.01003110	10	3	10	30	0.76	0.41	10.4	0.62	15.7	50	1.27	0.73	18.5	0.42	303	451	30
9500.01004110	10	4	10	30	0.76	0.45	11.4	0.67	17.0	50	1.27	0.78	19.8	0.48	348	518	30
9500.01006110	10	6	10	30	0.76	0.54	13.7	0.75	19.1	50	1.27	0.86	21.8	0.59	451	671	28
9500.01008110	10	8	10	30	0.76	0.65	16.5	0.89	22.6	50	1.27	1.00	25.4	0.80	568	845	28
9500.01011110	10	11	10	30	0.76	0.75	19.1	0.97	24.6	50	1.27	1.08	27.4	0.93	704	1,048	20

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC Section 392.22.
[2] Ampacities in accordance with NEC Article 310 and Table 310.15(B)(16).
Note: Standard cables with up to and including six (6) conductors are also marked CSA Type RA90. All others are special order.

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CCW® Armored Control With Grounding Conductor

UL Type MC-HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant
Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compressed Class B stranding per ASTM B8

Insulation:
- Cross-linked Polyethylene (XLPE) insulation per ICEA S-73-532 and UL 44, Listed XHHW-2
- Color-coded per ICEA Method 1, Table E2, full-colored insulation with stripes
- Color-coded per CSA C22.2 No. 123 where applicable

Grounding Conductor:
- Class B stranded bare annealed copper per ASTM B3 and B8
- Cross-linked Polyethylene (XLPE) insulation, green
- Sized in accordance with NEC Table 250.122

Cable Assembly:
- Insulated conductors and grounding wire are cabled together with non-hydroscopic fillers when required
- A binder tape, when required, is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL Standards 1569 and 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -60°C

Applications:

- CCW armored control cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- For use as services, feeders and branch circuits for power, lighting, control, and signal circuits in accordance with NEC Articles 330 and 725
- Installed indoors or outdoors, wet or dry locations, directly buried, embedded in concrete, in a raceway, as aerial cable on a messenger, in cable trays, or as exposed runs secured to supports in accordance with NEC Article 330
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternate to cable in conduit wiring systems
- Meets cold bend at -55°C
- 90°C continuous operating temperature, wet or dry
- 130°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-73-532/WC57 Standard for Control, Thermocouple Extension and Instrumentation Cables
- UL 44 Rubber Insulated Wires and Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA C22.2 No. 123 Metal Sheathed Cables
- CSA C22.2 No. 174 Cables and Cable Glands for Use in Hazardous Locations

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MC-HL, XHHW-2, SUN RES, CT USE, DIR BUR, -40°C, UL File # E90496
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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CCW® Armored Control With Grounding Conductor

UL Type MC-HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF COND.	GREEN INSULATED GROUND (QTY/SIZE) (AWG)	INSULATION THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT		90°C AMPACITY @ 30°C AMBIENT[2]
				mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m	
14 AWG 7W (2.08 mm²) MULTI-CONDUCTOR CONTROL CABLE WITH GREEN INSULATED GROUNDING CONDUCTOR																	
9505.01402114	14	2	1-#14	30	0.76	0.30	7.6	0.49	12.4	50	1.27	0.60	15.2	0.29	163	243	15
9505.01403114	14	3	1-#14	30	0.76	0.33	8.4	0.53	13.5	50	1.27	0.64	16.3	0.33	192	286	15
9505.01403318	14	3	3-#18	30	0.76	0.37	9.4	0.55	14.0	50	1.27	0.66	16.8	0.34	218	324	15
9505.01404114	14	4	1-#14	30	0.76	0.37	9.4	0.58	14.7	50	1.27	0.69	17.5	0.38	222	330	15
9505.01404216	14	4	2-#16	30	0.76	0.38	9.7	0.56	14.2	50	1.27	0.67	17.0	0.35	230	343	15
9505.01405114	14	5	1-#14	30	0.76	0.39	9.9	0.60	15.2	50	1.27	0.71	18.0	0.40	245	365	15
9505.01406114	14	6	1-#14	30	0.76	0.41	10.4	0.62	15.7	50	1.27	0.73	18.5	0.42	267	397	15
9505.01408114	14	8	1-#14	30	0.76	0.49	12.4	0.71	18.0	50	1.27	0.82	20.8	0.54	321	478	15
9505.01411114	14	11	1-#14	30	0.76	0.57	14.5	0.80	20.3	50	1.27	0.91	23.1	0.66	395	588	12
9505.01418114	14	18	1-#14	30	0.76	0.69	17.5	0.93	23.6	50	1.27	1.04	26.4	0.86	554	824	12
9505.01436114	14	36	1-#14	30	0.76	0.97	24.6	1.24	31.5	50	1.27	1.35	34.3	1.45	948	1,411	10
12 AWG 7W (3.31 mm²) MULTI-CONDUCTOR CONTROL CABLE WITH GREEN INSULATED GROUNDING CONDUCTOR																	
9505.01202112	12	2	1-#12	30	0.76	0.34	8.6	0.53	13.5	50	1.27	0.64	16.3	0.33	200	298	20
9505.01203112	12	3	1-#12	30	0.76	0.37	9.4	0.58	14.7	50	1.27	0.69	17.5	0.38	239	356	20
9505.01203316	12	3	3-#16	30	0.76	0.41	10.4	0.60	15.2	50	1.27	0.71	18.0	0.40	270	402	20
9505.01204112	12	4	1-#12	30	0.76	0.45	11.4	0.67	17.0	50	1.27	0.78	19.8	0.48	310	461	20
9505.01204316	12	4	3-#16	30	0.76	0.43	10.9	0.62	15.7	50	1.27	0.73	18.5	0.42	293	436	20
9505.01205112	12	5	1-#12	30	0.76	0.46	11.7	0.67	17.0	50	1.27	0.78	19.8	0.48	324	482	20
9505.01206112	12	6	1-#12	30	0.76	0.47	11.9	0.67	17.0	50	1.27	0.78	19.8	0.48	338	503	20
9505.01208112	12	8	1-#12	30	0.76	0.56	14.2	0.80	20.3	50	1.27	0.91	23.1	0.66	426	634	20
9505.01211112	12	11	1-#12	30	0.76	0.65	16.5	0.89	22.6	50	1.27	1.00	25.4	0.80	519	772	15
9505.01218112	12	18	1-#12	30	0.76	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	739	1,100	15
9505.01236112	12	36	1-#12	30	0.76	1.10	27.9	1.37	34.8	50	1.27	1.48	37.6	1.74	1,302	1,938	12
10 AWG 7W (5.26 mm²) MULTI-CONDUCTOR CONTROL CABLE WITH GREEN INSULATED GROUNDING CONDUCTOR																	
9505.01002110	10	2	1-#10	30	0.76	0.39	9.9	0.58	14.7	50	1.27	0.69	17.5	0.38	253	377	30
9505.01003110	10	3	1-#10	30	0.76	0.41	10.4	0.62	15.7	50	1.27	0.73	18.5	0.42	303	451	30
9505.01003314	10	3	3-#14	30	0.76	0.47	11.9	0.66	16.8	50	1.27	0.77	19.6	0.47	335	499	30
9505.01004110	10	4	1-#10	30	0.76	0.45	11.4	0.67	17.0	50	1.27	0.78	19.8	0.48	348	518	30
9505.01004314	10	4	3-#14	30	0.76	0.49	12.4	0.69	17.5	50	1.27	0.80	20.2	0.50	384	573	30
9505.01006110	10	6	1-#10	30	0.76	0.54	13.7	0.75	19.1	50	1.27	0.86	21.8	0.59	451	671	28
9505.01008110	10	8	1-#10	30	0.76	0.65	16.5	0.89	22.6	50	1.27	1.00	25.4	0.80	568	845	28
9505.01011110	10	11	1-#10	30	0.76	0.75	19.1	0.97	24.6	50	1.27	1.08	27.4	0.93	704	1,048	20

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC Section 392.22.
[2] Ampacities in accordance with NEC Article 310 and Table 310.15(B)(16).

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CCW® Armored Control With Bare Grounding Conductor

UL Type MC-HL, CSA Type HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compressed Class B stranding per ASTM B8

Insulation:
- Cross-linked Polyethylene (XLPE) insulation per ICEA S-73-532 and UL 44, Listed XHHW-2
- Color-coded per ICEA Method 1, Table E2, full-colored insulation with stripes
- Color-coded per CSA C22.2 No. 123 where applicable

Grounding Conductor:
- Class B stranded bare annealed copper per ASTM B3 and B8
- Sized in accordance with NEC Table 250.122

Cable Assembly:
- Insulated conductors and grounding wire are cabled together with non-hygroscopic fillers when required
- A binder tape, when required, is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569 and UL 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Meets CSA Low Acid Gas requirements

Applications:

- CCW armored control cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- For use as services, feeders and branch circuits for power, lighting, control, and signal circuits in accordance with NEC Articles 330 and 725
- Installed indoors or outdoors, wet or dry locations, directly buried, embedded in concrete, in a raceway, as aerial cable on a messenger, in cable trays, or as exposed runs secured to supports in accordance with NEC Article 330
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems
- Meets cold impact at -40°C
- 90°C continuous operating temperature, wet or dry
- 130°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-73-532/WC57 Standard for Control, Thermocouple Extension and Instrumentation Cables
- UL 44 Rubber Insulated Wires and Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA C22.2 No. 123 Metal Sheathed Cables

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MC-HL, XHHW-2, SUN RES, CT USE, DIR BUR, -40°C, UL File # E90496
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- CSA certified[1] Type RA90, XLPE, HL, SR, FT4, and -40°C, CSA File # 7319
- RoHS Compliant

[1] Standard cables are also marked CSA Type RA90, except four (4) conductor cables which require a different color code, which may be special-ordered.

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CCW® Armored Control With Bare Grounding Conductor

UL Type MC-HL, CSA Type HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant
Direct Burial, UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF COND.	BARE INSULATED GROUND (AWG)	INSULATION THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT		90°C AMPACITY @ 30°C AMBIENT[2]
				mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m	
14 AWG 7W (2.08 mm²) MULTI-CONDUCTOR CONTROL CABLE WITH BARE GROUNDING CONDUCTOR																	
9510.01404114	14	4	14	30	0.76	0.35	8.8	0.52	13.3	50	1.27	0.63	16.0	0.62	203	302	20
9510.01405114	14	5	14	30	0.76	0.38	9.7	0.53	13.5	50	1.27	0.63	16.0	0.62	224	333	20
9510.01407114	14	7	14	30	0.76	0.43	10.9	0.60	15.2	50	1.27	0.71	18.0	0.79	287	427	17.5
9510.01409114	14	9	14	30	0.76	0.51	13.0	0.75	19.1	50	1.27	0.86	21.8	1.16	368	548	17.5
9510.01412114	14	12	14	30	0.76	0.56	14.2	0.79	20.1	50	1.27	0.89	22.6	1.24	425	632	12.5
9510.01419114	14	19	14	30	0.76	0.67	17.0	0.92	23.4	50	1.27	1.02	25.9	1.63	594	884	12.5
9510.01437114	14	37	14	30	0.76	0.94	23.9	1.22	31.0	50	1.27	1.32	33.5	2.74	1030	1533	10
12 AWG 7W (3.31 mm²) MULTI-CONDUCTOR CONTROL CABLE WITH BARE GROUNDING CONDUCTOR																	
9510.01204112	12	4	12	30	0.76	0.38	9.7	0.55	14.0	50	1.27	0.65	16.5	0.66	246	366	24
9510.01205112	12	5	12	30	0.76	0.43	10.9	0.61	15.5	50	1.27	0.71	18.0	0.79	302	449	24
9510.01207112	12	7	12	30	0.76	0.49	12.4	0.64	16.3	50	1.27	0.74	18.8	0.86	362	539	21
9510.01209112	12	9	12	30	0.76	0.58	14.7	0.79	20.1	50	1.27	0.90	22.9	1.21	458	682	21
9510.012121112	12	12	12	30	0.76	0.64	16.3	0.83	21.1	50	1.27	0.94	23.9	1.39	545	811	15
10 AWG 7W (5.26 mm²) MULTI-CONDUCTOR CONTROL CABLE WITH BARE GROUNDING CONDUCTOR																	
9510.01004110	10	4	10	30	0.76	0.46	11.7	0.63	16.0	50	1.27	0.73	18.5	0.84	343	510	32

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC Section 392.22.
[2] Ampacities in accordance with NEC Article 310 and Table 310.15(B)(16).

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CCW® Armored Control Without Grounding Conductor

UL Type MC, CSA Type HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant
Direct Burial, UL Marine Shipboard Cable, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Cross-Linked Polyethylene (XLPE) insulation per ICEA S-73-532 and UL 44, Listed XHHW-2
- Color-coded per ICEA Method 1, Table E2, full-colored insulation with stripes
- Color-coded per CSA C22.2 No. 123 where applicable

Cable Assembly:
- Insulated conductors are cabled together with non-hygroscopic fillers when required
- A binder tape, when required, is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Meets CSA Low Acid Gas requirements

Applications:

- CCW armored Control cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in Class I and II, Division 2; Class III, Divisions 1 and 2; and Class I, Zone 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- For use as services, feeders and branch circuits for power, lighting, control, and signal circuits in accordance with NEC Articles 330 and 725
- Installed indoors or outdoors, wet or dry locations, directly buried, embedded in concrete, in a raceway, as aerial cable on a messenger, in cable trays, or as exposed runs secured to supports in accordance with NEC Article 330
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems
- Meets cold impact at -40°C

Features: (cont'd.)

- 90˚C continuous operating temperature, wet or dry
- 130˚C emergency rating
- 250˚C short circuit rating

Specifications:

Design Adherence:
- ICEA S-73-532/WC-57 Standard for Control, Thermocouple Extension and Instrumentation Cables
- UL 44 Rubber Insulated Wires and Cables
- UL 1569 Metal Clad Cables
- UL 1309 Marine Shipboard Cable
- CSA C22.2 No. 123 Metal Sheathed Cables

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MC, XHHW-2, SUN RES, CT USE, DIR BUR, -40°C, UL File # E69797
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- CSA certified[1] Type RA90, XLPE, HL, SR, FT4, and -40°C, CSA File # 7319
- RoHS Compliant

[1] Standard cables are also marked CSA Type RA90, except four (4) conductor cables which require a different color code, which may be special-ordered.

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CCW® Armored Control Without Grounding Conductor

UL Type MC, CSA Type HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant
Direct Burial, UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF COND.	INSULATION THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT		90°C AMPACITY @ 30°C AMBIENT[2]
			mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	(SQ. IN.)	LBS/1000 FT	kg/1000 m	
14 AWG 7W (2.08 mm²) MULTI-CONDUCTOR CONTROL CABLE WITHOUT GROUNDING CONDUCTOR																
9525.01402000	14	2	30	0.76	0.28	7.1	0.49	12.4	50	1.27	0.60	15.2	0.29	144	214	15
9525.01403000	14	3	30	0.76	0.30	7.6	0.49	12.4	50	1.27	0.60	15.2	0.29	155	231	15
9525.01404000	14	4	30	0.76	0.33	8.4	0.53	13.5	50	1.27	0.64	16.3	0.33	183	273	15
9525.01405000	14	5	30	0.76	0.37	9.4	0.58	14.7	50	1.27	0.69	17.5	0.38	213	317	15
9525.01407000	14	7	30	0.76	0.41	10.4	0.62	15.7	50	1.27	0.73	18.5	0.42	257	383	15
9525.01409000	14	9	30	0.76	0.50	12.7	0.71	18.0	50	1.27	0.82	20.8	0.54	312	465	15
9525.01412000	14	12	30	0.76	0.57	14.5	0.80	20.3	50	1.27	0.91	23.1	0.66	386	575	12
9525.01419000	14	19	30	0.76	0.69	17.5	0.93	23.6	50	1.27	1.04	26.4	0.86	544	810	12
9525.01437000	14	37	30	0.76	0.96	24.4	1.24	31.5	50	1.27	1.35	34.3	1.45	959	1,427	10
12 AWG 7W (3.31 mm²) MULTI-CONDUCTOR CONTROL CABLE WITHOUT GROUNDING CONDUCTOR																
9525.01202000	12	2	30	0.76	0.31	7.9	0.53	13.5	50	1.27	0.64	16.3	0.33	166	247	20
9525.01203000	12	3	30	0.76	0.34	8.6	0.53	13.5	50	1.27	0.64	16.3	0.33	192	285	20
9525.01204000	12	4	30	0.76	0.38	9.7	0.58	14.7	50	1.27	0.69	17.5	0.38	229	341	20
9525.01205000	12	5	30	0.76	0.42	10.7	0.62	15.7	50	1.27	0.73	18.5	0.42	266	395	20
9525.01207000	12	7	30	0.76	0.47	11.9	0.67	17.0	50	1.27	0.78	19.8	0.48	328	489	20
9525.01209000	12	9	30	0.76	0.56	14.2	0.80	20.3	50	1.27	0.91	23.1	0.66	410	611	20
9525.01212000	12	12	30	0.76	0.65	16.5	0.89	22.6	50	1.27	0.99	25.1	0.78	510	759	15
9525.01219000	12	19	30	0.76	0.78	19.8	1.02	25.9	50	1.27	1.13	28.7	1.02	731	1,087	15
9525.01237000	12	37	30	0.76	1.08	27.4	1.37	34.8	50	1.27	1.48	37.6	1.74	1,318	1,962	12
10 AWG 7W (5.26 mm²) MULTI-CONDUCTOR CONTROL CABLE WITHOUT GROUNDING CONDUCTOR																
9525.01002000	10	2	30	0.76	0.36	9.1	0.58	14.7	50	1.27	0.69	17.5	0.38	205	305	30
9525.01003000	10	3	30	0.76	0.39	9.9	0.58	14.7	50	1.27	0.69	17.5	0.38	241	359	30
9525.01004000	10	4	30	0.76	0.44	11.2	0.67	17.0	50	1.27	0.78	19.8	0.48	301	448	30
9525.01005000	10	5	30	0.76	0.48	12.2	0.71	18.0	50	1.27	0.82	20.8	0.54	353	525	30
9525.01007000	10	7	30	0.76	0.54	13.7	0.75	19.1	50	1.27	0.86	21.8	0.59	442	658	28
9525.01009000	10	9	30	0.76	0.65	16.5	0.89	22.6	50	1.27	1.00	25.4	0.80	551	820	28
9525.01012000	10	12	30	0.76	0.74	18.8	0.97	24.6	50	1.27	1.08	27.4	0.93	693	1,032	20

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC® Section 392.22.
[2] Ampacities in accordance with NEC® Article 310 and Table 310.15(B)(16).
Note: Standard cables with up to and including six (6) conductors are also marked CSA Type RA90. All others are special order.

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CCW® Armored Power, 3/C VFD and 4/C

UL Type MC-HL, CSA Type HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC

Product Construction:

- Bare annealed copper per ASTM B3
- 10 AWG and smaller are Class B compressed stranding per ASTM B8
- 8 AWG and larger are compact stranding per ASTM B496

Insulation:

- Cross-linked Polyethylene (XLPE) insulation per ICEA S-95-658 and UL 44, Listed XHHW-2
- 6 AWG and smaller are color-coded per ICEA Method 1, Table E2
- 4 AWG and larger are black with printed numbers per ICEA Method 4
- Color-coded per CSA C22.2 No. 123 where applicable

Grounding Conductor(s):

- Class B stranded bare annealed copper per ASTM B3 and B8
- Where specified, single or three split grounding wires are sized in accordance with NEC Table 250.122

Cable Assembly:

- Insulated conductors and grounding wire(s) are cabled together with non-hygroscopic fillers when required
- A binder tape is applied over the cabled core

CCW Armor:

- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569 and UL 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:

- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Meets CSA Low Acid Gas requirements

Applications:

- Variable Frequency Drives: 3-conductor CCW armored cables with three (3) symmetrical grounding wires are the preferred wiring method for use with AC motors controlled by pulse-width modulated inverters in VFD applications
- CCW armored cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- For use as services, feeders and branch circuits for power, lighting, control, and signal circuits in accordance with NEC Articles 330 and 725
- Installed indoors or outdoors, wet or dry locations, directly buried, embedded in concrete, in a raceway, as aerial cable on a messenger, in cable trays, or as exposed runs secured to supports in accordance with NEC Article 330
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- 3-conductor CCW power cables with three grounding wires are recommended for use with pulse-width modulated AC drives
- CCW armor provides an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems

Features: (cont'd.)

- Meets cold impact at -40°C
- 90˚C continuous operating temperature, wet or dry
- 130˚C emergency rating
- 250˚C short circuit rating

Specifications:

Design Adherence:

- ICEA S-95-658/WC70 Standard for Non-Shielded Power Cable, 2 kV or Less
- UL 44 Rubber Insulated Wires and Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA C22.2 No. 123 Metal Sheathed Cables
- CSA C22.2 No. 174 Cables and Cable Glands for Use in Hazardous Locations

Flame Tests:

- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:

- UL Type MC-HL, XHHW-2, SUN RES, CT USE, DIR BUR, -40°C, UL File # E90496
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- CSA certified[1] Type RA90, XLPE, HL, SR, FT4, and -40°C, CSA File # 7319
- RoHS Compliant

[1] Standard cables are also marked CSA Type RA90, except four (4) conductor cables which require a different color code, which may be special-ordered.

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CCW® Armored Power, 3/C VFD and 4/C

UL Type MC-HL, CSA Type HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NO. OF COND.	INSULATION THICKNESS		BARE GROUND (AWG)	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT		90°C AMPACITY @ 30°C AMBIENT[2]
			mils	mm		INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m	
9600.01403318	14 (7/W) (2.08 mm²)	3	30	0.76	3 x #18	0.33	8.4	0.53	13.5	50	1.27	0.64	16.3	0.33	163	242	15
9600.01404318		4	30	0.76	3 x #18	0.37	9.4	0.58	14.7	50	1.27	0.69	17.5	0.38	226	336	15
9600.01203316	12 (7/W) (3.31 mm²)	3	30	0.76	3 x #16	0.37	9.4	0.58	14.7	50	1.27	0.69	17.5	0.38	243	362	20
9600.01204316		4	30	0.76	3 x #16	0.45	11.4	0.67	17.0	50	1.27	0.78	19.8	0.48	291	433	20
9600.01003314	10 (7/W) (5.26 mm²)	3	30	0.76	3 x #14	0.41	10.4	0.62	15.7	50	1.27	0.73	18.5	0.42	305	454	30
9600.01004314		4	30	0.76	3 x #14	0.45	11.4	0.67	17.0	50	1.27	0.78	19.8	0.48	354	527	30
9600.00803314	8 (7/W) (8.36 mm²)	3	45	1.14	3 x #14	0.50	12.7	0.71	18.0	50	1.27	0.81	20.6	0.52	392	583	55
9600.00804110		4	45	1.14	1 x #10	0.58	14.7	0.80	20.3	50	1.27	0.90	22.9	0.64	473	704	44
9600.00603312	6 (7/W) (13.3 mm²)	3	45	1.14	3 x #12	0.58	14.7	0.80	20.3	50	1.27	0.90	22.9	0.64	534	795	75
9600.00604108		4	45	1.14	1 x #8	0.66	16.8	0.89	22.6	50	1.27	0.99	25.1	0.78	641	954	60
9600.00403312	4 (7/W) (21.2 mm²)	3	45	1.14	3 x #12	0.68	17.3	0.89	22.6	50	1.27	0.99	25.1	0.78	716	1,066	95
9600.00404108		4	45	1.14	1 x #8	0.77	19.6	0.97	24.6	50	1.27	1.08	27.4	0.93	860	1,280	76
9600.00203310	2 (7/W) (33.6 mm²)	3	45	1.14	3 x #10	0.80	20.3	1.02	25.9	50	1.27	1.13	28.7	1.02	1,013	1,507	130
9600.00204106		4	45	1.14	1 x #6	0.92	23.4	1.15	29.2	50	1.27	1.26	32.0	1.26	1,267	1,885	104
9600.00103310	1 (19/W) (42.4 mm²)	3	55	1.40	3 x #10	0.92	23.4	1.15	29.2	50	1.27	1.26	32.0	1.26	1,119	1,666	150
9600.00104106		4	55	1.40	1 x #6	1.04	26.4	1.29	32.8	50	1.27	1.40	35.6	1.56	1,526	2,272	120
9600.11003310	1/0 (19/W) (53.5 mm²)	3	55	1.40	3 x #10	1.00	25.4	1.24	31.5	50	1.27	1.34	34.0	1.43	1,496	2,226	170
9600.11004106		4	55	1.40	1 x #6	1.12	28.4	1.37	34.8	50	1.27	1.48	37.6	1.74	1,862	2,771	136
9600.21003310	2/0 (19/W) (67.4 mm²)	3	55	1.40	3 x #10	1.09	27.7	1.34	34.0	50	1.27	1.44	36.6	1.65	1,801	2,681	195
9600.21004106		4	55	1.40	1 x #6	1.23	31.2	1.51	38.4	60	1.52	1.64	41.7	2.14	2,351	3,498	156
9600.31003308	3/0 (19/W) (85.0 mm²)	3	55	1.40	3 x #8	1.21	30.7	1.47	37.3	60	1.52	1.58	40.1	1.99	2,262	3,367	225
9600.31004104		4	55	1.40	1 x #4	1.36	34.5	1.65	41.9	60	1.52	1.78	45.2	2.52	2,921	4,346	180
9600.41003308	4/0 (19/W) (107 mm²)	3	55	1.40	3 x #8	1.33	33.8	1.60	40.6	60	1.52	1.73	43.9	2.38	2,722	4,051	260
9600.41004104		4	55	1.40	1 x #4	1.49	37.8	1.78	45.2	60	1.52	1.91	48.5	2.90	3,491	5,194	208
9600.25003308	250 (37/W) (127 mm²)	3	65	1.65	3 x #8	1.48	37.6	1.74	44.2	60	1.52	1.87	47.5	—	3,195	4,755	290
9600.25004104		4	65	1.65	1 x #4	1.64	41.7	1.96	49.8	60	1.52	2.09	53.1	—	4,142	6,164	232
9600.35003307	350 (37/W) (177 mm²)	3	65	1.65	3 x #7	1.66	42.2	1.96	49.8	60	1.52	2.09	53.1	—	4,284	6,376	350
9600.35004103		4	65	1.65	1 x #3	1.89	48.0	2.19	55.6	75	1.91	2.35	59.7	—	5,536	8,238	280
9600.50003306	500 (37/W) (253 mm²)	3	65	1.65	3 x #6	1.94	49.3	2.28	57.9	75	1.91	2.44	62.0	—	6,035	8,981	430
9600.50004102		4	65	1.65	1 x #2	2.14	54.4	2.49	63.2	75	1.91	2.65	67.3	—	7,704	11,464	344
9600.75003305	750 (61/W) (380 mm²)	3	80	2.03	3 x #5	2.37	60.2	2.75	69.9	75	1.91	2.92	74.2	—	8,854	13,176	535
9600.75004101		4	80	2.03	1 x #1	2.61	66.3	3.03	77.0	85	2.16	3.21	81.5	—	11,449	17,037	428
9600.100031110	1000 (61/W) (507 mm²)	3	80	2.03	1 x #1/0	2.67	67.8	3.11	79.0	85	2.16	3.30	83.8	—	11,611	17,280	615
9600.100041110		4	80	2.03	1 x #1/0	3.07	78.0	3.63	92.2	85	2.16	3.81	96.8	—	15,377	22,883	492

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC Section 392.22.
[2] Ampacities in accordance with NEC Article 310 and Table 310.15(B)(16).
Note: Three (3) conductors, 6 AWG and smaller are also marked CSA Type RA90. One (1) AWG and larger are also marked CSA Type RA90.

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CCW® Armored Power, 3/C VFD and 4/C

UL Type MC-HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant
Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- 10 AWG and smaller are Class B compressed stranding per ASTM B8
- 8 AWG and larger are compact stranding per ASTM B496

Insulation:
- Cross-linked Polyethylene (XLPE) insulation per ICEA S-95-658 and UL 44, Listed XHHW-2
- 6 AWG and smaller are color-coded per ICEA Method 1, Table E2
- 4 AWG and larger are black with printed numbers per ICEA Method 4
- Color-coded per CSA C22.2 No. 123 where applicable

Grounding Conductor:
- Class B stranded bare annealed copper per ASTM B3 and B8
- Where specified, single or three split grounding wires are sized in accordance with NEC Table 250.122

Cable Assembly:
- Insulated conductors and grounding wire are cabled together with non-hydroscopic fillers when required
- A binder tape, when required, is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL Standards 1569 and 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -60°C

Applications:

- Variable Frequency Drives: 3-conductor CCW armored cables with three (3) symmetrical grounding wires are the preferred wiring method for use with AC motors controlled by pulse-width modulated inverters in VFD applications
- CCW armored cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- For use as services, feeders and branch circuits for power, lighting, control, and signal circuits in accordance with NEC Articles 330 and 725
- Installed indoors or outdoors, wet or dry locations, directly buried, embedded in concrete, in a raceway, as aerial cable on a messenger, in cable trays, or as exposed runs secured to supports in accordance with NEC Article 330
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- 3-conductor CCW power cables with three grounding wires are recommended for use with pulse-width modulated AC drives
- CCW armor provides an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternate to cable in conduit wiring systems

Features: (cont'd.)

- Meets cold bend at -55°C
- 90°C continuous operating temperature, wet or dry
- 130°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-95-658/WC70 Standard for Non-Shielded Power Cable, 2 kV or Less
- UL 44 Rubber Insulated Wires and Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA C22.2 No. 123 Metal Sheathed Cables
- CSA C22.2 No. 174 Cables and Cable Glands for Use in Hazardous Locations

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MC-HL, XHHW-2, SUN RES, CT USE, DIR BUR, -40°C, UL File # E90496
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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CCW® Armored Power, 3/C VFD and 4/C

UL Type MC-HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NO. OF COND.	INSULATION THICKNESS		BARE GROUND (AWG)	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT		90°C AMPACITY @ 30°C AMBIENT[2]
			mils	mm		INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m	
9605.01403318	14 (7/W) (2.08 mm²)	3	30	0.76	3 x #18	0.33	8.4	0.53	13.5	50	1.27	0.64	16.3	0.33	163	242	15
9605.01404216		4	30	0.76	2 x #16	0.33	8.4	0.51	13.0	50	1.27	0.62	15.7	0.30	221	330	15
9605.01404318		4	30	0.76	3 x #18	0.37	9.4	0.58	14.7	50	1.27	0.69	17.5	0.38	226	336	15
9605.01203316	12 (7/W) (3.31 mm²)	3	30	0.76	3 x #16	0.37	9.4	0.58	14.7	50	1.27	0.69	17.5	0.38	243	362	20
9605.01204316		4	30	0.76	3 x #16	0.45	11.4	0.67	17.0	50	1.27	0.78	19.8	0.48	291	433	20
9605.01003314	10 (7/W) (5.26 mm²)	3	30	0.76	3 x #14	0.41	10.4	0.62	15.7	50	1.27	0.73	18.5	0.42	305	454	30
9605.01004314		4	30	0.76	3 x #14	0.45	11.4	0.67	17.0	50	1.27	0.78	19.8	0.48	354	527	30
9605.00803314	8 (7/W) (8.36 mm²)	3	45	1.14	3 x #14	0.50	12.7	0.71	18.0	50	1.27	0.81	20.6	0.52	392	583	55
9605.00804110		4	45	1.14	1 x #10	0.58	14.7	0.80	20.3	50	1.27	0.90	22.9	0.64	473	704	44
9605.00804212		4	45	1.14	2 x #12	0.57	14.5	0.77	19.6	50	1.27	0.88	22.4	0.61	491	731	44
9605.00603312	6 (7/W) (13.3 mm²)	3	45	1.14	3 x #12	0.58	14.7	0.80	20.3	50	1.27	0.90	22.9	0.64	534	795	75
9605.00604108		4	45	1.14	1 x #8	0.66	16.8	0.89	22.6	50	1.27	0.99	25.1	0.78	641	954	60
9605.00604210		4	45	1.14	2 x #10	0.66	16.8	0.88	22.4	50	1.27	0.99	25.1	0.78	679	1,012	60
9605.00403312	4 (7/W) (21.2 mm²)	3	45	1.14	3 x #12	0.68	17.3	0.89	22.6	50	1.27	0.99	25.1	0.78	716	1,066	95
9605.00404108		4	45	1.14	1 x #8	0.77	19.6	0.97	24.6	50	1.27	1.08	27.4	0.93	860	1,280	76
9605.00404210		4	45	1.14	2 x #10	0.76	19.3	1.00	25.4	50	1.27	1.11	28.2	0.97	950	1,415	76
9605.00203310	4 (7/W) (21.2 mm²)	3	45	1.14	3 x #10	0.80	20.3	1.02	25.9	50	1.27	1.13	28.7	1.02	1,013	1,507	130
9605.00204106		4	45	1.14	1 x #6	0.92	23.4	1.15	29.2	50	1.27	1.26	32.0	1.26	1,267	1,885	104
9605.00204208		4	45	1.14	2 x #8	0.89	22.6	1.16	29.5	50	1.27	1.27	32.3	1.27	1,371	2,043	104
9605.00103310	1 (19/W) (42.4 mm²)	3	55	1.40	3 x #10	0.92	23.4	1.15	29.2	50	1.27	1.26	32.0	1.26	1,119	1,666	150
9605.00104106		4	55	1.40	1 x #6	1.04	26.4	1.29	32.8	50	1.27	1.40	35.6	1.56	1,526	2,272	120
9605.11003310	1/0 (19/W) (53.5 mm²)	3	55	1.40	3 x #10	1.00	25.4	1.24	31.5	50	1.27	1.34	34.0	1.43	1,496	2,226	170
9605.11004106		4	55	1.40	1 x #6	1.12	28.4	1.37	34.8	50	1.27	1.48	37.6	1.74	1,862	2,771	136
9605.21003310	2/0 (19/W) (67.4 mm²)	3	55	1.40	3 x #10	1.09	27.7	1.34	34.0	50	1.27	1.44	36.6	1.65	1,801	2,681	195
9605.21004106		4	55	1.40	1 x #6	1.23	31.2	1.51	38.4	60	1.52	1.64	41.7	2.14	2,351	3,498	156
9605.31003308	3/0 (19/W) (85.0 mm²)	3	55	1.40	3 x #8	1.21	30.7	1.47	37.3	60	1.52	1.58	40.1	1.99	2,262	3,367	225
9605.31004104		4	55	1.40	1 x #4	1.36	34.5	1.65	41.9	60	1.52	1.78	45.2	2.52	2,921	4,346	180
9605.41003308	4/0 (19/W) (107 mm²)	3	55	1.40	3 x #8	1.33	33.8	1.60	40.6	60	1.52	1.73	43.9	2.38	2,722	4,051	260
9605.41004104		4	55	1.40	1 x #4	1.49	37.8	1.78	45.2	60	1.52	1.91	48.5	2.87	3,491	5,194	208
9605.25003308	250 (37/W) (127 mm²)	3	65	1.65	3 x #8	1.48	37.6	1.74	44.2	60	1.52	1.87	47.5	2.75	3,195	4,755	290
9605.25004104		4	65	1.65	1 x #4	1.64	41.7	1.96	49.8	60	1.52	2.09	53.1	3.43	4,142	6,164	232
9605.35003307	350 (37/W) (177 mm²)	3	65	1.65	3 x #7	1.66	42.2	1.96	49.8	60	1.52	2.09	53.1	3.43	4,284	6,376	350
9605.35003306		3	65	1.65	3 x #6	1.63	41.4	1.95	49.5	60	1.52	2.09	53.1	3.43	4,329	6,443	350
9605.35004103		4	65	1.65	1 x #3	1.89	48.0	2.19	55.6	75	1.91	2.35	59.7	4.34	5,536	8,238	280
9605.50003306	500 (37/W) (253 mm²)	3	65	1.65	3 x #6	1.94	49.3	2.28	57.9	75	1.91	2.44	62.0	4.68	6,035	8,981	430
9605.50004102		4	65	1.65	1 x #2	2.14	54.4	2.49	63.2	75	1.91	2.65	67.3	5.52	7,704	11,464	344
9605.75003305	750 (61/W) (380 mm²)	3	80	2.03	3 x #5	2.37	60.2	2.75	69.9	75	1.91	2.92	74.2	6.70	8,854	13,176	535
9605.75003304		3	80	2.03	3 x #4	2.32	58.9	2.71	68.8	75	1.91	2.86	72.6	6.42	8,926	13,293	535
9605.75004101		4	80	2.03	1 x #1	2.61	66.3	3.03	77.0	85	2.16	3.21	81.5	8.09	11,449	17,037	428
9605.100031110	1000 (61/W) (507 mm²)	3	80	2.03	1 x #1/0	2.67	67.8	3.11	79.0	85	2.16	3.30	83.8	8.55	11,611	17,280	615
9605.100041110		4	80	2.03	1 x #1/0	3.07	78.0	3.63	92.2	85	2.16	3.81	96.8	11.40	15,377	22,883	492

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC Section 392.22.
[2] Ampacities in accordance with NEC Article 310 and Table 310.15(B)(16).

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CCW® Armored Power, 3/C VFD

UL Type MC-HL, XLPE, 2000 V, 90°C, Cable Tray Use, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- 10 AWG and smaller are Class B compressed stranding per ASTM B8
- 8 AWG and larger are compact standing per ASTM B496

Insulation:
- Cross-linked Polyethylene (XLPE) insulation, 2000 V thicknesses per ICEA S-95-658
- Color-coded black with printed numbers per ICEA Method 4

Grounding Conductors:
- Class B stranded bare annealed copper per ASTM B3 and B8
- Three (3) split grounding wires per specification 9615 exceed the minimum required in NEC Table 250.122

Cable Assembly:
- Insulated conductors and grounding wires are cabled together with non-hygroscopic fillers when required
- A binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569 and UL 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) — Black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- Variable Frequency Drives: 3-conductor CCW armored cables with three (3) symmetrical grounding wires is the preferred wiring method for use with AC motors controlled by pulse-width modulated Inverters in VFD applications
- CCW armored cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502 and 503
- For use as services, feeders and branch circuits for power, lighting, control, and signal circuits in accordance with NEC Articles 330 and 725
- Installed indoors or outdoors, wet or dry locations, directly buried, embedded in concrete, in a raceway, as aerial cable on a messenger, in cable trays, or as exposed runs secured to supports in accordance with NEC Article 330
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- 90°C, 2000 V rated XLPE insulation with a dielectric constant less than 3.0 to withstand momentary voltage spikes common in certain VFD applications
- Three (3) oversized, symmetrical grounding wires recommended for use with pulse-width modulated AC drives
- CCW armor provides an impervious barrier to moisture, gas and liquids

Features: (cont'd.)

- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems
- Meets cold impact at -40°C
- 90°C continuous operating temperature, wet or dry
- 130°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-95-658/WC70 Standard for Non-Shielded Power Cable, 2 kV or Less
- UL 44 Rubber Insulated Wires and Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 332-3 Cat. A

Compliances:
- UL Type MC-HL, SUN RES, CT USE, DIR BUR, -40°C, UL File # E90496
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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CCW® Armored Power, 3/C VFD

UL Type MC-HL, XLPE, 2000 V, 90°C, Cable Tray Use, Sunlight-Resistant, Direct Burial UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NO. OF COND.	INSULATION THICKNESS		BARE GROUND (AWG)	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		APPROXIMATE NET WEIGHT		90°C AMPACITY @ 30°C AMBIENT[1]
			mils	mm		INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	LBS/1000 FT	kg/1000 m	
9615.01403318	14 (7/W) (2.08 mm²)	3	60	1.52	3 x #18	0.44	11.1	0.62	15.2	50	1.27	0.73	17.9	267	397	15
9615.01203316	12 (7/W) (3.31 mm²)	3	60	1.52	3 x #16	0.47	11.9	0.66	16.2	50	1.27	0.77	18.9	324	482	20
9615.01003314	10 (7/W) (5.26 mm²)	3	60	1.52	3 x #14	0.53	13.3	0.73	17.8	50	1.27	0.84	20.5	400	595	30
9615.00803314	8 (7/W) (8.36 mm²)	3	70	1.78	3 x #14	0.65	16.5	0.86	21.1	50	1.27	0.97	23.8	524	780	55
9615.00603312	6 (7/W) (13.3 mm²)	3	70	1.78	3 x #12	0.71	18.0	0.96	23.4	50	1.27	1.07	26.1	697	1,037	75
9615.00403312	4 (7/W) (21.2 mm²)	3	70	1.78	3 x #12	0.81	20.6	1.09	26.6	50	1.27	1.23	30.1	1,000	1,488	95
9615.00203310	2 (7/W) (33.6 mm²)	3	70	1.78	3 x #10	0.94	23.9	1.25	30.6	50	1.27	1.36	33.3	1,285	1,912	130
9615.00103310	1 (19/W) (42.4 mm²)	3	90	2.29	3 x #10	1.13	28.7	1.48	36.1	50	1.27	1.59	38.8	1,595	2,374	150
9615.11003310	1/0 (19/W) (53.5 mm²)	3	90	2.29	3 x #10	1.21	30.6	1.55	38.0	60	1.52	1.68	41.2	1,930	2,872	170
9615.21003306	2/0 (19/W) (67.4 mm²)	3	90	2.29	3 x #6	1.30	32.9	1.68	41.0	60	1.52	1.81	44.2	2,507	3,731	195
9615.41003304	4/0 (19/W) (107 mm²)	3	90	2.29	3 x #4	1.53	38.7	1.91	46.7	60	1.52	2.04	49.9	3,590	5,342	260
9615.25003304	250 (37/W) (127 mm²)	3	105	2.67	3 x #4	1.71	43.4	2.12	51.8	60	1.52	2.25	55.1	4,150	6,176	290
9615.35003302	350 (37/W) (177 mm²)	3	105	2.67	3 x #2	1.93	48.9	2.41	58.9	75	1.91	2.57	62.8	5,214	7,759	350
9615.50003301	500 (37/W) (253 mm²)	3	105	2.67	3 x #1	2.20	55.8	2.68	65.5	75	1.91	2.84	69.5	6,977	10,382	430

Dimensions and weights are nominal; subject to industry tolerances.
[1] Ampacities in accordance with NEC Article 310 and Table 310.15(B)(16).

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CCW® Armored Composite Power and Control

UL Type MC-HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- 10 AWG and smaller are Class B compressed stranding per ASTM B8
- 8 AWG and larger are compact stranding per ASTM B496

Insulation:
- Cross-linked Polyethylene (XLPE) insulation per ICEA S-95-658 and UL 44, Listed XHHW-2
- Power conductors 6 AWG and smaller are color-coded per ICEA Method 1, Table E2
- Power conductors 4 AWG and larger are black with printed numbers per ICEA Method 4
- Control conductors are color-coded black, red, blue and yellow

Grounding Conductor:
- Class B stranded bare annealed copper per ASTM B3 and B8
- Sized in accordance with NEC Table 250.122

Cable Assembly:
- Insulated conductors and grounding wire are cabled together with non-hygroscopic fillers when required
- A binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569 and UL 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored Composite Power and Control cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- For use as services, feeders and branch circuits for power, lighting, control, and signal circuits in accordance with NEC Articles 330 and 725
- Installed indoors or outdoors, wet or dry locations, directly buried, embedded in concrete, in a raceway, as aerial cable on a messenger, in cable trays, or as exposed runs secured to supports in accordance with NEC Article 330
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems
- Meets cold impact at -40°C
- 90˚C continuous operating temperature, wet or dry
- 130˚C emergency rating
- 250˚C short circuit rating

Specifications:

Design Adherence:
- ICEA S-95-658/WC70 Standard for Non-Shielded Power Cables, 2 kV or Less
- UL 44 Rubber Insulated Wires and Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MC-HL, XHHW-2, SUN RES, CT USE, DIR BUR, -40°C, UL File # E90496
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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CATALOG NUMBER	POWER COND. SIZE (AWG)	POWER INSULATION THICKNESS		CONTROL COND. SIZE (AWG)	CONTROL INSULATION THICKNESS		BARE GROUNDING (AWG)	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT		90°C AMPACITY @ 30°C AMBIENT[2]
		mils	mm		mils	mm		INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m	
9625.103124110	3x#10 (7/W) (5.26 mm²)	30	0.76	4 x #12 (7/W) (3.31 mm²)	30	0.76	10 (7/W) (5.2 mm²)	0.53	13.5	0.75	19.1	50	1.27	0.86	21.8	0.59	430	640	30
9625.083124110	3x#8 (7/W) (8.36 mm²)	45	1.14		30	0.76		0.65	16.5	0.89	22.6	50	1.27	0.99	25.1	0.78	535	796	55
9625.063124108	3x#6 (7/W) (13.3 mm²)	45	1.14		30	0.76	8 (7/W) (8.36 mm²)	0.69	17.5	0.93	23.6	50	1.27	1.03	26.2	0.84	660	982	75
9625.043124108	3x#4 (7/W) (21.2 mm²)	45	1.14		30	0.76		0.74	18.8	0.97	24.6	50	1.27	1.08	27.4	0.93	815	1,213	95

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC Section 392.22.
[2] Ampacities in accordance with NEC Article 310 and Table 310.15(B)(16).

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UL Marine Shipboard Cable, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Sizes 10 AWG and smaller are Class B compressed stranding per ASTM B8
- Sizes 8 AWG and larger are compact stranding per ASTM B496

Insulation:
- Cross-Linked Polyethylene (XLPE) insulation per ICEA S-95-658 and UL 44, Listed XHHW-2
- Power conductors sizes 6 AWG and smaller are color-coded per ICEA Method 1, Table E2
- Power conductors sizes 4 AWG and larger are black with printed numbers per ICEA Method 4
- Control conductors are color-coded black, red, blue and yellow

Cable Assembly:
- Insulated conductors are cabled together with non-hygroscopic fillers when required
- A binder tape, when required, is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:
- CCW armored Composite Power and Control cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in Class I and II, Division 2; Class III, Divisions 1 and 2; and Class I, Zone 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- For use as services, feeders and branch circuits for power, lighting, control, and signal circuits in accordance with NEC Articles 330 and 725
- Installed indoors or outdoors, wet or dry locations, directly buried, embedded in concrete, in a raceway, as aerial cable on a messenger, in cable trays, or as exposed runs secured to supports in accordance with NEC Article 330
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:
- CCW armor provides an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems

Features: (cont'd.)
- Meets cold impact at -40°C
- 90˚C continuous operating temperature, wet or dry
- 130˚C emergency rating
- 250˚C short circuit rating

Specifications:

Design Adherence:
- ICEA S-95-658/WC 70 Standard for Non-Shielded Power Cable, 2 kV or Less
- UL 44 Rubber Insulated Wires and Cables
- UL 1569 Metal Clad Cables
- UL 1309 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MC, XHHW-2, SUN RES, CT USE, DIR BUR, -40°C, UL File # E69797
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

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UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	POWER COND. SIZE (AWG)	POWER INSULATION THICKNESS		CONTROL COND. SIZE (AWG)	CONTROL INSULATION THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT		90°C AMPACITY @ 30°C AMBIENT[2]
		mils	mm		mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	(SQ. IN.)	LBS/1000 FT	kg/1000 m	
9650.123143000	3x#12 (7/W) (3.31 mm²)	30	0.76	3x#14 (7/W) (2.08 mm²)	30	0.76	0.49	12.4	0.71	18.0	50	1.27	0.82	20.8	0.54	307	457	20
9650.123144000	3x#12 (7/W) (3.31 mm²)	30	0.76	4x#14 (7/W) (2.08 mm²)	30	0.76	0.49	12.4	0.71	18.0	50	1.27	0.82	20.8	0.54	323	481	20
9650.124143000	4x#12 (7/W) (3.31 mm²)	30	0.76	3x#14 (7/W) (2.08 mm²)	30	0.76	0.49	12.4	0.71	18.0	50	1.27	0.82	20.8	0.54	365	543	20
9650.124144000	4x#12 (7/W) (3.31 mm²)	30	0.76	4x#14 (7/W) (2.08 mm²)	30	0.76	0.53	13.5	0.75	19.1	50	1.27	0.86	21.8	0.59	388	577	20
9650.103143000	3x#10 (7/W) (5.26 mm²)	30	0.76	3x#14 (7/W) (2.08 mm²)	30	0.76	0.53	13.5	0.75	19.1	50	1.27	0.86	21.8	0.59	384	571	30
9650.103144000	3x#10 (7/W) (5.26 mm²)	30	0.76	4x#14 (7/W) (2.08 mm²)	30	0.76	0.58	14.7	0.80	20.3	50	1.27	0.91	23.1	0.66	392	583	30
9650.103123000	3x#10 (7/W) (5.26 mm²)	30	0.76	3x#12 (7/W) (3.31 mm²)	30	0.76	0.53	13.5	0.75	19.1	50	1.27	0.86	21.8	0.59	410	610	30
9650.104143000	4x#10 (7/W) (5.26 mm²)	30	0.76	3x#14 (7/W) (2.08 mm²)	30	0.76	0.58	14.7	0.80	20.3	50	1.27	0.91	23.1	0.66	412	613	30
9650.104144000	4x#10 (7/W) (5.26 mm²)	30	0.76	4x#14 (7/W) (2.08 mm²)	30	0.76	0.58	14.7	0.80	20.3	50	1.27	0.91	23.1	0.66	428	637	30
9650.104123000	4x#10 (7/W) (5.26 mm²)	30	0.76	3x#12 (7/W) (3.31 mm²)	30	0.76	0.58	14.7	0.80	20.3	50	1.27	0.91	23.1	0.66	436	649	30
9650.104124000	4x#10 (7/W) (5.26 mm²)	30	0.76	4x#12 (7/W) (3.31 mm²)	30	0.76	0.58	14.7	0.80	20.3	50	1.27	0.91	23.1	0.66	460	685	30
9650.083143000	3x#8 (7/W) (8.36 mm²)	45	1.14	3x#14 (7/W) (2.08 mm²)	30	0.76	0.58	14.7	0.80	20.3	50	1.27	0.91	23.1	0.66	424	631	55
9650.083144000	3x#8 (7/W) (8.36 mm²)	45	1.14	4x#14 (7/W) (2.08 mm²)	30	0.76	0.62	15.7	0.84	21.3	50	1.27	0.91	23.1	0.66	455	677	55
9650.083123000	3x#8 (7/W) (8.36 mm²)	45	1.14	3x#12 (7/W) (3.31 mm²)	30	0.76	0.58	14.7	0.80	20.3	50	1.27	0.95	24.1	0.72	455	677	55
9650.083124000	3x#8 (7/W) (8.36 mm²)	45	1.14	4x#12 (7/W) (3.31 mm²)	30	0.76	0.62	15.7	0.84	21.3	50	1.27	0.91	23.1	0.66	495	737	55
9650.084143000	4x#8 (7/W) (8.36 mm²)	45	1.14	3x#14 (7/W) (2.08 mm²)	30	0.76	0.62	15.7	0.84	21.3	50	1.27	0.95	24.1	0.72	505	752	44
9650.084144000	4x#8 (7/W) (8.36 mm²)	45	1.14	4x#14 (7/W) (2.08 mm²)	30	0.76	0.67	17.0	0.89	22.6	50	1.27	1.00	25.4	0.80	530	789	44
9650.084123000	4x#8 (7/W) (8.36 mm²)	45	1.14	3x#12 (7/W) (3.31 mm²)	30	0.76	0.67	17.0	0.89	22.6	50	1.27	1.00	25.4	0.80	535	796	44
9650.084124000	4x#8 (7/W) (8.36 mm²)	45	1.14	4x#12 (7/W) (3.31 mm²)	30	0.76	0.71	18.0	0.93	23.6	50	1.27	1.04	26.4	0.86	576	857	44
9650.063143000	3x#6 (7/W) (13.3 mm²)	45	1.14	3x#14 (7/W) (2.08 mm²)	30	0.76	0.62	15.7	0.84	21.3	50	1.27	0.95	24.1	0.72	525	781	75
9650.063144000	3x#6 (7/W) (13.3 mm²)	45	1.14	4x#14 (7/W) (2.08 mm²)	30	0.76	0.62	15.7	0.84	21.3	50	1.27	0.95	24.1	0.72	545	811	75
9650.063123000	3x#6 (7/W) (13.3 mm²)	45	1.14	3x#12 (7/W) (3.31 mm²)	30	0.76	0.62	15.7	0.84	21.3	50	1.27	0.95	24.1	0.72	556	827	75
9650.063124000	3x#6 (7/W) (13.3 mm²)	45	1.14	4x#12 (7/W) (3.31 mm²)	30	0.76	0.71	18.0	0.93	23.6	50	1.27	1.03	26.2	0.84	606	902	75
9650.064143000	4x#6 (7/W) (13.3 mm²)	45	1.14	3x#14 (7/W) (2.08 mm²)	30	0.76	0.71	18.0	0.93	23.6	50	1.27	1.04	26.4	0.86	657	978	60
9650.064144000	4x#6 (7/W) (13.3 mm²)	45	1.14	4x#14 (7/W) (2.08 mm²)	30	0.76	0.71	18.0	0.93	23.6	50	1.27	1.04	26.4	0.86	667	993	60
9650.064123000	4x#6 (7/W) (13.3 mm²)	45	1.14	3x#12 (7/W) (3.31 mm²)	30	0.76	0.75	19.1	0.97	24.6	50	1.27	1.08	27.4	0.93	687	1,022	60
9650.064124000	4x#6 (7/W) (13.3 mm²)	45	1.14	4x#12 (7/W) (3.31 mm²)	30	0.76	0.75	19.1	0.97	24.6	50	1.27	1.08	27.4	0.93	717	1,067	60
9650.043143000	3x#4 (7/W) (21.2 mm²)	45	1.14	3x#14 (7/W) (2.08 mm²)	30	0.76	0.71	18.0	0.93	23.6	50	1.27	1.04	26.4	0.86	707	1,052	95
9650.043144000	3x#4 (7/W) (21.2 mm²)	45	1.14	4x#14 (7/W) (2.08 mm²)	30	0.76	0.71	18.0	0.93	23.6	50	1.27	1.04	26.4	0.86	727	1,082	95
9650.043123000	3x#4 (7/W) (21.2 mm²)	45	1.14	3x#12 (7/W) (3.31 mm²)	30	0.76	0.71	18.0	0.93	23.6	50	1.27	1.04	26.4	0.86	727	1,082	95
9650.043124000	3x#4 (7/W) (21.2 mm²)	45	1.14	4x#12 (7/W) (3.31 mm²)	30	0.76	0.75	19.1	0.97	24.6	50	1.27	1.08	27.4	0.93	768	1,143	95
9650.044143000	4x#4 (7/W) (21.2 mm²)	45	1.14	3x#14 (7/W) (2.08 mm²)	30	0.76	0.81	20.6	1.06	26.9	50	1.27	1.17	29.7	1.09	899	1,338	76
9650.044144000	4x#4 (7/W) (21.2 mm²)	45	1.14	4x#14 (7/W) (2.08 mm²)	30	0.76	0.81	20.6	1.06	26.9	50	1.27	1.17	29.7	1.09	929	1,383	76
9650.044123000	4x#4 (7/W) (21.2 mm²)	45	1.14	3x#12 (7/W) (3.31 mm²)	30	0.76	0.81	20.6	1.06	26.9	50	1.27	1.17	29.7	1.09	929	1,383	76
9650.044124000	4x#4 (7/W) (21.2 mm²)	45	1.14	4x#12 (7/W) (3.31 mm²)	30	0.76	0.81	20.6	1.06	26.9	50	1.27	1.17	29.7	1.09	960	1,429	76
9650.023143000	3x#2 (7/W) (33.6 mm²)	45	1.14	3x#14 (7/W) (2.08 mm²)	30	0.76	0.81	20.6	1.06	26.9	50	1.27	1.17	29.7	1.09	995	1,481	130
9650.023144000	3x#2 (7/W) (33.6 mm²)	45	1.14	4x#14 (7/W) (2.08 mm²)	30	0.76	0.81	20.6	1.06	26.9	50	1.27	1.17	29.7	1.09	1,010	1,503	130
9650.023123000	3x#2 (7/W) (33.6 mm²)	45	1.14	3x#12 (7/W) (3.31 mm²)	30	0.76	0.81	20.6	1.06	26.9	50	1.27	1.17	29.7	1.09	1,020	1,518	130
9650.023124000	3x#2 (7/W) (33.6 mm²)	45	1.14	4x#12 (7/W) (3.31 mm²)	30	0.76	0.81	20.6	1.06	26.9	50	1.27	1.17	29.7	1.09	1,050	1,563	130
9650.024143000	4x#2 (7/W) (33.6 mm²)	45	1.14	3x#14 (7/W) (2.08 mm²)	30	0.76	0.90	22.9	1.15	29.2	50	1.27	1.26	32.0	1.26	1,242	1,848	104
9650.024144000	4x#2 (7/W) (33.6 mm²)	45	1.14	4x#14 (7/W) (2.08 mm²)	30	0.76	0.90	22.9	1.15	29.2	50	1.27	1.26	32.0	1.26	1,263	1,880	104
9650.024123000	4x#2 (7/W) (33.6 mm²)	45	1.14	3x#12 (7/W) (3.31 mm²)	30	0.76	0.90	22.9	1.15	29.2	50	1.27	1.26	32.0	1.26	1,273	1,894	104
9650.024124000	4x#2 (7/W) (33.6 mm²)	45	1.14	4x#12 (7/W) (3.31 mm²)	30	0.76	0.90	22.9	1.15	29.2	50	1.27	1.26	32.0	1.26	1,293	1,924	104

Dimensions and weights are nominal; subject to industry tolerances.
[1] Cross-sectional area for cable tray fill is in accordance with NEC Section 392.22.
[2] Ampacities in accordance with NEC Article 310 and Table 310.15(B)(16).

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General Cable
Phone: 888-593-3355
www.generalcable.com

CCW® Armored Power, 1000 V, 3/C VFD

CSA Type RA90, XLPE, 1000 V, 90°C, Cable Tray Use, Sunlight-Resistant
Direct Burial, FT4, -40°C, AG14, HL

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Sizes 10 AWG and smaller are Class B compressed stranding per ASTM B8
- Sizes 8 AWG and larger are compact stranding per ASTM B496

Insulation:
- Cross-linked Polyethylene (XLPE) insulation rated 1000 Volts, RW90 per CSA C22.2 No. 38
- Sizes 2 AWG and smaller utilize a single color insulation: black, red and blue
- Sizes 1 AWG and larger utilize black insulation with printed number/color, 1-black, 2-red, 3-blue

Bonding/Grounding Conductors:
- Class B stranded bare annealed copper per ASTM B3 and B8
- Three (3) symmetrical grounding wires are sized in accordance with CEC Table 16

Cable Assembly:
- Three symmetrical grounding wires are cabled within the interstices of the phase conductors
- Non-hygroscopic fillers when required
- A binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per C22.2 No. 123

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Meets CSA Low Gas Emission requirements, AG14

Applications:

- Variable Frequency Drives: 3-conductor CCW armored cables with three (3) symmetrical grounding wires are the preferred wiring method for use with AC motors controlled by pulse-width modulated inverters in VFD applications
- CCW armored cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in industrial and commercial installations including hazardous locations in accordance with the CEC
- Can be installed in wet or dry locations, indoors or outdoors, in cable trays, in a raceway, or direct buried in accordance with the CEC

Features:

- 90°C, 1000 V wet or dry XLPE insulation and three (3) symmetrical grounding wires, recommended for use with pulse-width modulated AC drives
- XLPE insulation has a dielectric constant less than 3.0 to withstand momentary voltage spikes common with VFD applications

Features: (cont'd.)

- CCW armor provides an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems
- Meets cold impact at -40°C
- 90˚C continuous operating temperature, wet or dry
- 130˚C emergency rating
- 250˚C short circuit rating

Specifications:

Design Adherence:
- CSA C22.2 No. 38 Thermoset-Insulated Wires and Cables
- CSA C22.2 No. 123 Metal Sheathed Cables
- CSA C22.2 No. 174 Cables and Cable Glands for Use in Hazardous Locations

Flame Tests:
- CSA FT4
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- IEEE 1202 (70,000 BTU/hr)

Compliances:
- CSA Certified Type RA90, XLPE, HL, SR, FT4, AG14 and -40°C, CSA File # 7319
- RoHS Compliant

General Cable
Phone: 888-593-3355
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RoHS Compliant
Directive 2011/65/EU

Canadian Standard Association

CCW® Armored Power, 1000 V, 3/C VFD

CSA Type RA90, XLPE, 1000 V, 90°C, Cable Tray Use, Sunlight-Resistant
Direct Burial, FT4, -40°C, AG14, HL

CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NO. OF COND.	INSULATION THICKNESS		BARE GROUND COND. (AWG)	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		APPROXIMATE NET WEIGHT		MIN. BEND RADIUS [1]		90°C AMPACITY @ 30°C AMBIENT[2]
			mils	mm		INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	LBS/1000 FT	kg/1000 m	INCHES	mm	
9675.01203318	12 (7/W) (3.31 mm²)	3	45	1.14	3 x #18	0.40	10.2	0.60	15.3	50	1.27	0.70	17.8	249	370	7.0	178	30
9675.01003316	10 (7/W) (5.26 mm²)	3	45	1.14	3 x #16	0.45	11.5	0.63	16.1	50	1.27	0.73	18.6	299	445	7.3	185	40
9675.00803314	8 (7/W) (8.36 mm²)	3	45	1.14	3 x #14	0.50	12.7	0.76	19.2	50	1.27	0.86	21.9	417	620	8.6	218	55
9675.00603312	6 (7/W) (13.3 mm²)	3	60	1.52	3 x #12	0.64	16.3	0.91	23.2	50	1.27	1.02	26.0	601	895	12.2	311	75
9675.00403312	4 (7/W) (21.2 mm²)	3	60	1.52	3 x #12	0.74	18.7	0.98	24.8	50	1.27	1.08	27.4	763	1,135	12.9	329	95
9675.00203310	2 (7/W) (33.6 mm²)	3	60	1.52	3 x #10	0.86	21.8	1.18	29.9	50	1.27	1.28	32.5	1,122	1,670	15.4	390	130
9675.00103310	1 (19/W) (42.4 mm²)	3	80	2.03	3 x #10	1.01	25.7	1.36	34.6	50	1.27	1.46	37.1	1,404	2,090	17.5	445	145
9675.11003310	1/0 (19/W) (53.5 mm²)	3	80	2.03	3 x #10	1.09	27.8	1.42	36.0	50	1.27	1.52	38.6	1,623	2,415	18.2	462	170
9675.21003310	2/0 (19/W) (67.4 mm²)	3	80	2.03	3 x #10	1.18	30.0	1.56	39.6	50	1.27	1.66	42.2	2,043	3,040	20.0	506	195
9675.41003308	4/0 (19/W) (107 mm²)	3	80	2.03	3 x #8	1.40	35.5	1.75	44.4	50	1.27	1.85	47.0	2,950	4,390	22.2	564	260
9675.25003308	250 (37/W) (127 mm²)	3	90	2.29	3 x #8	1.49	37.8	1.90	48.2	50	1.27	2.01	51.1	3,380	5,030	24.1	612	290
9675.35003308	350 (37/W) (177 mm²)	3	90	2.29	3 x #8	1.74	44.3	2.22	56.4	50	1.27	2.33	59.2	4,465	6,645	27.9	710	350
9675.50003306	500 (37/W) (253 mm²)	3	90	2.29	3 x #6	2.00	50.9	2.48	63.0	50	1.27	2.59	65.8	6,152	9,155	31.0	789	430

Dimensions and weights are nominal; subject to industry tolerances.
[1] Minimum bend radius per Canadian Electrical Code, Part I, Section 12-712.
[2] Ampacity per Table #2, Canadian Electical Code.

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General Cable
Phone: 888-593-3355
www.generalcable.com

CCW® Armored Power, 2.4 kV, Nonshielded, 3/C VFD

UL Type MC-HL or MV-90, EPR, 105°C, Cable Tray Use, Sunlight-Resistant
Direct Burial, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over conductor per ICEA S-96-659 and UL 1072

Insulation:
- 90 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-96-659 and UL 1072
- Insulation is printed 1-black, 2-red and 3-blue for phase identification

Grounding Conductors:
- Three (3) split Class B stranded bare annealed copper grounding conductors
- Sized in accordance with UL 1072 and NEC Table 250.122

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hygroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1072 and UL 1569
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), yellow
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- Variable Frequency Drives: 3-conductor CCW armored cables with three (3) symmetrical grounding wires are the preferred wiring method for use with AC motors controlled by pulse-width modulated inverters in VFD applications
- CCW armored medium-voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits in industrial power distribution systems per NEC Articles 328 and 330
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids and meets the grounding requirements of UL 1072 and the NEC
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems

Features: (cont'd.)

- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress
- Cable meets cold impact at -40°C
- 90˚C continuous operating temperature, wet or dry
- 140˚C emergency rating
- 250˚C short circuit rating

Specifications:

Design Adherence:
- ICEA S-96-659/WC71 Standard for Nonshielded Cables Rated 2001 – 5000 Volts
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1072
- IEC 60332-3 Category A

Compliances:
- UL Type MV-90 or MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90501
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC

General Cable
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CCW® Armored Power, 2.4 kV, Nonshielded, 3/C VFD

UL Type MC-HL or MV-90, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

CATALOG NUMBER	COND. SIZE AWG (kcmil)	NO. OF COND.	INSULATION THICKNESS mils	INSULATION THICKNESS mm	NOMINAL O.D. OVER INSULATION INCHES	NOMINAL O.D. OVER INSULATION mm	BARE GROUND AWG	NOMINAL CORE O.D. INCHES	NOMINAL CORE O.D. mm	NOMINAL ARMOR O.D. INCHES	NOMINAL ARMOR O.D. mm	JACKET THICKNESS mils	JACKET THICKNESS mm	NOMINAL OVERALL O.D. INCHES	NOMINAL OVERALL O.D. mm	APPROXIMATE NET WEIGHT LBS/1000 FT	APPROXIMATE NET WEIGHT kg/1000 m	AMPACITY IN AIR[1]	AMPACITY DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-90, 90 MILS EPR, 2.4 kV, YELLOW JACKET																			
9700.00803312	8 (7/W) (8.36 mm²)	3	90	2.3	0.36	9.1	3 x #12	0.77	19.6	0.97	24.6	50	1.27	1.08	27.4	570	848	59	85
9700.00603310	6 (7/W) (13.3 mm²)	3	90	2.3	0.38	9.6	3 x #10	0.85	21.6	1.06	26.9	50	1.27	1.17	29.7	745	1,109	79	105
9700.00403310	4 (7/W) (21.2 mm²)	3	90	2.3	0.43	10.8	3 x #10	0.97	24.6	1.19	30.2	50	1.27	1.30	33.0	965	1,436	105	135
9700.00203310	2 (7/W) (33.6 mm²)	3	90	2.3	0.48	12.1	3 x #10	1.10	27.9	1.34	34.0	50	1.27	1.45	36.8	1,275	1,897	140	180
9700.00103308	1 (19/W) (42.4 mm²)	3	90	2.3	0.52	13.1	3 x #8	1.16	29.5	1.42	36.1	50	1.27	1.53	38.9	1,525	2,269	160	200
9700.11003308	1/0 (19/W) (53.5 mm²)	3	90	2.3	0.55	13.9	3 x #8	1.23	31.2	1.51	38.4	60	1.52	1.65	41.9	1,840	2,738	185	230
9700.21003308	2/0 (19/W) (67.4 mm²)	3	90	2.3	0.59	14.9	3 x #8	1.33	33.8	1.60	40.6	60	1.52	1.73	43.9	2,165	3,222	215	260
9700.41003307	4/0 (19/W) (107 mm²)	3	90	2.3	0.69	17.4	3 x #7	1.53	38.9	1.83	46.5	60	1.52	1.96	49.8	3,080	4,584	285	335
9700.25003307	250 (37/W) (127 mm²)	3	90	2.3	0.74	18.7	3 x #7	1.64	41.7	1.96	49.8	60	1.52	2.09	53.1	3,475	5,171	320	365
9700.35003306	350 (37/W) (177 mm²)	3	90	2.3	0.83	21.0	3 x #6	1.86	47.2	2.19	55.6	60	1.52	2.32	58.9	4,710	7,009	395	440
9700.50003305	500 (37/W) (253 mm²)	3	90	2.3	0.95	24.0	3 x #5	2.10	53.3	2.45	62.2	75	1.91	2.61	66.3	6,410	9,539	485	530
9700.75003304	750 (61/W) (380 mm²)	3	90	2.3	1.12	28.3	3 x #4	2.51	63.8	2.93	74.4	75	1.91	3.10	78.7	9,225	13,728	615	650
9700.10003304	1000 (61/W) (507 mm²)	3	90	2.3	1.27	32.2	3 x #4	2.90	73.7	3.41	86.6	80	2.03	3.59	91.2	12,080	17,977	705	730

Dimensions and weights are nominal, subject to industry tolerances.
[1] In-air ampacities are per NEC Table 310.60(C)(71) for three insulated copper conductors rated 90°C, cabled with an overall covering and isolated in air at 40°C ambient temperature.
[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors rated 90°C, cabled within an overall covering and directly buried in earth at 20°C ambient earth temperature.

CCW® Armored Power, 5 kV 133%/8 kV 100%, Shielded, 3/C VFD

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over the conductor per ICEA S-93-639 and UL 1072

Insulation:
- 115 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-93-639 and UL 1072

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer, free stripping from the insulation per ICEA S-93-639 and UL 1072

Shield:
- 5 mil annealed bare copper tape with 25% overlap

Phase Identification:
- Color-coded polymeric identification tape laid under the shield — black, red and blue

Grounding Conductors:
- Three (3) split Class B stranded bare annealed copper grounding conductors
- Sized in accordance with UL 1072 and NEC Article 250

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hygroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1072 and UL 1569
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), yellow
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- Variable Frequency Drives: 3-conductor CCW armored cables with three (3) symmetrical grounding wires are the preferred wiring method for use with AC motors controlled by pulse-width modulated inverters in VFD applications
- CCW armored medium-voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits in industrial power distribution systems per NEC Articles 328 and 330
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids and meets the grounding requirements of UL 1072 and the NEC

Features: (cont'd.)

- Triple Extrusion: The strand shield, EPR insulation and insulation shield are all extruded in one operation
- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress
- Cable meets cold impact at -40°C
- 105°C continuous operating temperature, wet or dry
- 140°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-93-639/WC74, 5-46 kV Shielded Power Cable
- AEIC CS8 Specification for Shielded Power Cable, 5-46 kV
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA 68.10

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1072
- IEC 60332-3 Category A

Compliances:
- UL Type MV-105 or MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90501
- UL Listed Marine Shipboard, UL File # E85994
- CSA Type HL, SR, FT4, -40°C, CSA File # 27161
- American Bureau of Shipping (ABS) Listed for CWCMC

General Cable
Phone: 888-593-3355
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CCW® Armored Power, 5 kV 133%/8 kV 100%, Shielded, 3/C VFD

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

CATALOG NUMBER	COND. SIZE AWG (kcmil)	NO. OF COND.	INSULATION THICKNESS mils	INSULATION THICKNESS mm	NOMINAL O.D. OVER INSULATION INCHES	NOMINAL O.D. OVER INSULATION mm	BARE GROUND AWG	NOMINAL CORE O.D. INCHES	NOMINAL CORE O.D. mm	NOMINAL ARMOR O.D. INCHES	NOMINAL ARMOR O.D. mm	JACKET THICKNESS mils	JACKET THICKNESS mm	NOMINAL OVERALL O.D. INCHES	NOMINAL OVERALL O.D. mm	APPROXIMATE NET WEIGHT LBS/1000 FT	APPROXIMATE NET WEIGHT kg/1000 m	5 kV[3] AMPACITY IN AIR[1]	5 kV[3] AMPACITY DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-105, 115 MILS EPR, 5 kV 133% AND 8 kV 100% INSULATION LEVEL																			
9800.00603310	6 (7/W) (13.3 mm²)	3	115	2.9	0.43	10.9	3 x #10	1.15	29.2	1.37	34.8	50	1.27	1.48	37.6	1,121	1,668	88	115
9800.00403310	4 (7/W) (21.2 mm²)	3	115	2.9	0.48	12.2	3 x #10	1.24	31.5	1.51	38.4	60	1.52	1.65	41.9	1,418	2,110	115	150
9800.00203310	2 (7/W) (33.6 mm²)	3	115	2.9	0.53	13.5	3 x #10	1.37	34.8	1.64	41.7	60	1.52	1.78	45.2	1,731	2,576	154	190
9800.00103308	1 (19/W) (42.4 mm²)	3	115	2.9	0.57	14.5	3 x #8	1.47	37.3	1.69	42.9	60	1.52	1.82	46.2	1,978	2,944	180	215
9800.11003308	1/0 (19/W) (53.5 mm²)	3	115	2.9	0.60	15.2	3 x #8	1.56	39.6	1.78	45.2	60	1.52	1.91	48.5	2,259	3,362	205	245
9800.21003308	2/0 (19/W) (67.4 mm²)	3	115	2.9	0.64	16.3	3 x #8	1.61	40.9	1.92	48.8	60	1.52	2.05	52.1	2,626	3,908	240	280
9800.41003307	4/0 (19/W) (107 mm²)	3	115	2.9	0.74	18.8	3 x #7	1.82	46.2	2.15	54.6	60	1.52	2.28	57.9	3,650	5,432	320	360
9800.25003306	250 (37/W) (127 mm²)	3	115	2.9	0.80	20.3	3 x #6	2.01	51.1	2.23	56.6	60	1.52	2.36	59.9	4,060	6,042	355	395
9800.35003306	350 (37/W) (177 mm²)	3	115	2.9	0.89	22.6	3 x #6	2.10	53.3	2.45	62.2	75	1.91	2.61	66.3	5,045	7,508	440	475
9800.50003305	500 (37/W) (253 mm²)	3	115	2.9	1.01	25.7	3 x #5	2.39	60.7	2.75	69.9	75	1.91	2.92	74.2	7,137	10,621	545	570
9800.75003304	750 (61/W) (380 mm²)	3	115	2.9	1.19	30.2	3 x #4	3.07	78.0	3.32	84.3	85	2.16	3.50	88.9	10,268	15,280	685	700
9800.10003304	1000 (61/W) (507 mm²)	3	115	2.9	1.34	34.0	3 x #4	3.43	87.1	3.76	95.5	85	2.16	3.94	100.1	13,051	19,422	790	785

Dimensions and weights are nominal; subject to industry tolerances.
[1] In-air ampacities are per NEC Table 310.60(C)(71) for three insulated copper conductors rated 105°C, cabled with an overall covering and isolated in air at 40°C ambient temperature.
[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors rated 105°C, cabled within an overall covering and directly buried in earth at 20°C ambient earth temperature.
[3] For 8 kV ampacities, refer to NEC Tables 310.60(C)(71) and 310.60(C)(83) for cables listed 5001-35,000 volts.

CCW® Armored Power, 5 kV 133%/8 kV 100%, Shielded, 3/C VFD

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use
Sunlight-Resistant, Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over the conductor per ICEA S-93-639 and UL 1072

Insulation:
- 115 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-93-639 and UL 1072

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer, free stripping from the insulation per ICEA S-93-639 and UL 1072

Shield:
- 5 mil annealed bare copper tape with 25% overlap

Phase Identification:
- Color-coded polymeric identification tape laid under the shield – black, red and blue

Grounding Conductors:
- Three (2) split Class B stranded bare annealed copper grounding conductors
- Sized in accordance with UL 1072 and NEC Article 250

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hydroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL Standards 1569 and 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -60°C

Applications:

- Variable Frequency Drives: 3-conductor CCW armored cables with three (3) symmetrical grounding wires are the preferred wiring method for use with AC motors controlled by pulse-width modulated inverters in VFD applications
- CCW armored medium-voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits for power distribution systems per NEC Articles 328 and 330
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids and meets grounding requirements of UL 1072 and the NEC

Features: (cont'd.)

- Triple Extrusion: The strand shield, EPR insulation and insulation shield are all extruded in one operation
- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress
- Meets cold bend at -55°C
- 105°C continuous operating temperature, wet or dry
- 140°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-93-639/WC74, 5-46 kV Shielded Power Cables
- AEIC CS8 Specification for Shielded Power Cable, 5 – 46 kV
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA C68.10

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MV-105 or UL Type MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90501
- UL Listed Marine Shipboard, UL File # E85994
- CSA Type HL, SR, FT4, -40°C, CSA File # 27161
- American Bureau of Shipping (ABS) Listed for CWCMC

General Cable
Phone: 888-593-3355
www.generalcable.com

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CCW® Armored Power, 5 kV 133%/8 kV 100%, Shielded, 3/C VFD

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use
Sunlight-Resistant, Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NO. OF COND.	INSULATION THICKNESS		NOMINAL O.D. OVER INSULATION		BARE GROUND (AWG)	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		APPROXIMATE NET WEIGHT		5 kV[3] AMPACITY	
			mils	mm	INCHES	mm		INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	LBS/1000 FT	kg/1000 m	IN AIR[1]	DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-105, 115 MILS EPR, 5 kV 133% AND 8 kV 100% INSULATION LEVEL																			
9805.00603310	6 (7/W) (13.3 mm²)	3	115	2.9	0.43	10.9	3 x #10	1.15	29.2	1.37	34.8	50	1.27	1.48	37.6	1,121	1,668	88	115
9805.00403310	4 (7/W) (21.2 mm²)	3	115	2.9	0.48	12.2	3 x #10	1.24	31.5	1.51	38.4	60	1.52	1.65	41.9	1,418	2,110	115	150
9805.00203310	2 (7/W) (33.6 mm²)	3	115	2.9	0.53	13.5	3 x #10	1.37	34.8	1.64	41.7	60	1.52	1.78	45.2	1,731	2,576	154	190
9805.00103308	1 (19/W) (42.4 mm²)	3	115	2.9	0.57	14.5	3 x #8	1.47	37.3	1.69	42.9	60	1.52	1.82	46.2	1,978	2,944	180	215
9805.11003308	1/0 (19/W) (53.5 mm²)	3	115	2.9	0.60	15.2	3 x #8	1.56	39.6	1.78	45.2	60	1.52	1.91	48.5	2,259	3,362	205	245
9805.21003308	2/0 (19/W) (67.4 mm²)	3	115	2.9	0.64	16.3	3 x #8	1.61	40.9	1.92	48.8	60	1.52	2.05	52.1	2,626	3,908	240	280
9805.41003307	4/0 (19/W) (107 mm²)	3	115	2.9	0.74	18.8	3 x #7	1.82	46.2	2.15	54.6	60	1.52	2.28	57.9	3,650	5,432	320	360
9805.25003306	250 (37/W) (127 mm²)	3	115	2.9	0.80	20.3	3 x #6	2.01	51.1	2.23	56.6	60	1.52	2.36	59.9	4,060	6,042	355	395
9805.35003306	350 (37/W) (177 mm²)	3	115	2.9	0.89	22.6	3 x #6	2.10	53.3	2.45	62.2	75	1.91	2.61	66.3	5,045	7,508	440	475
9805.50003305	500 (37/W) (253 mm²)	3	115	2.9	1.01	25.7	3 x #5	2.39	60.7	2.75	69.9	75	1.91	2.92	74.2	7,137	10,621	545	570
9805.75003304	750 (61/W) (380 mm²)	3	115	2.9	1.19	30.2	3 x #4	3.07	78.0	3.32	84.3	85	2.16	3.50	88.9	10,268	15,280	685	700
9805.10003304	1000 (61/W) (507 mm²)	3	115	2.9	1.34	34.0	3 x #4	3.43	87.1	3.76	95.5	85	2.16	3.94	100.1	13,051	19,422	790	785

Dimensions and weights are nominal; subject to industry tolerances.
[1] In-air ampacities are per NEC Table 310.60(C)(71) for three insulated copper conductors rated 105°C, cabled with an overall covering and isolated in air at 40°C ambient temperature.
[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors rated 105°C, cabled within an overall covering and directly buried in earth at 20°C ambient earth temperature.
[3] For 8 kV ampacities, refer to NEC Tables 310.60(C)(71) and 310.60(C)(83) for cables listed 5,001-35,000 volts.

General Cable
Phone: 888-593-3355
www.generalcable.com

CCW® Armored Power, 8 kV 133%, Shielded, 3/C VFD

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over the conductor per ICEA S-93-639 and UL 1072

Insulation:
- 140 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-93-639 and UL 1072

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer, free stripping from the insulation per ICEA S-93-639 and UL 1072

Shield:
- 5 mil annealed bare copper tape with 25% overlap

Phase Identification:
- Color-coded polymeric identification tape laid under the shield - black, red and blue

Grounding Conductors:
- Three (3) split Class B stranded bare annealed copper grounding conductors
- Sized in accordance with UL 1072 and NEC Article 250

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hygroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1072 and UL 1569
- CCW armor conductivity meets the grounding requirements of the NEC

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), yellow
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- Variable Frequency Drives: 3-conductor CCW armored cables with three (3) symmetrical grounding wires are the preferred wiring method for use with AC motors controlled by pulse-width modulated inverters in VFD applications
- CCW armored medium-voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits in industrial power distribution systems per NEC Articles 328 and 330
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids and meets the grounding requirements of UL 1072 and the NEC

Features: (cont'd.)

- Triple Extrusion: The strand shield, EPR insulation and insulation shield are all extruded in one operation
- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress
- Cable meets cold impact at -40°C
- 105°C continuous operating temperature, wet or dry
- 140°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-93-639/WC74, 5-46 kV Shielded Power Cable
- AEIC CS8 Specification for Shielded Power Cable, 5-46 kV
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA 68.10

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1072
- IEC 60332-3 Category A

Compliances:
- UL Type MV-105 or MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90501
- UL Listed Marine Shipboard, UL File # E85994
- CSA Type HL, SR, FT4, -40°C, CSA File # 27161
- American Bureau of Shipping (ABS) Listed for CWCMC

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CCW® Armored Power, 8 kV 133%, Shielded, 3/C VFD

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

CATALOG NUMBER	COND. SIZE AWG (kcmil)	NO. OF COND.	INSULATION THICKNESS mils	INSULATION THICKNESS mm	NOMINAL O.D. OVER INSULATION INCHES	NOMINAL O.D. OVER INSULATION mm	BARE GROUND AWG	NOMINAL CORE O.D. INCHES	NOMINAL CORE O.D. mm	NOMINAL ARMOR O.D. INCHES	NOMINAL ARMOR O.D. mm	JACKET THICKNESS mils	JACKET THICKNESS mm	NOMINAL OVERALL O.D. INCHES	NOMINAL OVERALL O.D. mm	APPROXIMATE NET WEIGHT LBS/1000 FT	APPROXIMATE NET WEIGHT kg/1000 m	AMPACITY IN AIR[1]	AMPACITY DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-105, 140 MILS EPR, 8 kV 133% INSULATION LEVEL																			
9815.00603310	6 (7/W) (13.3 mm²)	3	140	3.6	0.48	12.2	3 x #10	1.20	30.5	1.60	40.6	60	1.52	1.73	43.9	1,350	2,009	105	120
9815.00403310	4 (7/W) (21.2 mm²)	3	140	3.6	0.53	13.5	3 x #10	1.29	32.8	1.70	43.2	60	1.52	1.83	46.5	1,600	2,381	135	155
9815.00203310	2 (7/W) (33.6 mm²)	3	140	3.6	0.58	14.7	3 x #10	1.42	36.1	1.85	47.0	60	1.52	1.98	50.3	2,000	2,976	185	200
9815.00103308	1 (19/W) (42.4 mm²)	3	140	3.6	0.62	15.7	3 x #8	1.52	38.6	1.93	49.0	60	1.52	2.06	52.3	2,275	3,386	210	225
9815.11003308	1/0 (19/W) (53.5 mm²)	3	140	3.6	0.65	16.5	3 x #8	1.61	40.9	2.03	51.6	60	1.52	2.16	54.9	2,600	3,869	240	255
9815.21003308	2/0 (19/W) (67.4 mm²)	3	140	3.6	0.69	17.5	3 x #8	1.66	42.2	2.14	54.4	60	1.52	2.27	57.7	2,950	4,390	275	290
9815.41003307	4/0 (19/W) (107 mm²)	3	140	3.6	0.79	20.1	3 x #7	1.87	47.5	2.40	61.0	75	1.91	2.56	65.0	4,025	5,990	360	375
9815.25003306	250 (37/W) (127 mm²)	3	140	3.6	0.85	21.6	3 x #6	2.06	52.3	2.59	65.8	75	1.91	2.75	69.9	4,600	6,846	400	410
9815.35003306	350 (37/W) (177 mm²)	3	140	3.6	0.94	23.9	3 x #6	2.15	54.6	2.85	72.4	75	1.91	3.01	76.5	5,800	8,631	490	495
9815.50003305	500 (37/W) (253 mm²)	3	140	3.6	1.06	26.9	3 x #5	2.44	62.0	3.19	81.0	85	2.16	3.37	85.6	7,800	11,608	600	590
9815.75003304	750 (61/W) (380 mm²)	3	140	3.6	1.26	32.0	3 x #4	3.19	81.0	3.68	93.5	85	2.16	3.86	98.0	10,750	15,998	745	720
9815.10003304	1000 (61/W) (507 mm²)	3	140	3.6	1.42	36.1	3 x #4	3.48	88.4	3.98	101.1	85	2.16	4.16	105.7	13,550	20,165	860	810

Dimensions and weights are nominal; subject to industry tolerances.
[1] In-air ampacities are per NEC Table 310.60(C)(71) for three insulated copper conductors rated 105°C, cabled with an overall covering and isolated in air at 40°C ambient temperature.
[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors rated 105°C, cabled within an overall covering and directly buried in earth at 20°C ambient earth temperature.

CCW® Armored Power, 15 kV 100%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over the conductor per ICEA S-93-639 and UL 1072

Insulation:
- 175 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-93-639 and UL 1072

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer, free stripping from the insulation per ICEA S-93-639 and UL 1072

Shield:
- 5 mil annealed bare copper tape with 25% overlap

Phase Identification:
- Color-coded polymeric identification tape laid under the shield - black, red and blue

Grounding Conductor:
- Class B stranded bare annealed copper grounding conductor
- Sized in accordance with UL 1072 and NEC Article 250

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hygroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1072 and UL 1569
- CCW armor conductivity meets the grounding requirements of the NEC

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), red
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored medium-voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits in industrial power distribution systems per NEC Articles 328 and 330
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids and meets the grounding requirements of UL 1072 and the NEC
- Triple Extrusion: The strand shield, EPR insulation and insulation shield are all extruded in one operation

Features: (cont'd.)

- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress
- Cable meets cold impact at -40°C
- 105°C continuous operating temperature, wet or dry
- 140°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-93-639/WC74, 5-46 kV Shielded Power Cable
- AEIC CS8 Specification for Shielded Power Cable, 5-46 kV
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA 68.10

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1072
- IEC 60332-3 Category A

Compliances:
- UL Type MV-105 or MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90501
- UL Listed Marine Shipboard, UL File # E85994
- CSA Type HL, SR, FT4, -40°C, CSA File # 27161
- American Bureau of Shipping (ABS) Listed for CWCMC

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CCW® Armored Power, 15 kV 100%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

CATALOG NUMBER	COND. SIZE	NO. OF COND.	INSULATION THICKNESS		NOMINAL O.D. OVER INSULATION		BARE GROUND	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		APPROXIMATE NET WEIGHT		AMPACITY	
	AWG (kcmil)		mils	mm	INCHES	mm	AWG	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	LBS/1000 FT	kg/1000 m	IN AIR[1]	DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-105, 175 MILS EPR, 15 kV 100% INSULATION LEVEL																			
9825.00203106	2 (7/W) (33.6 mm²)	3	175	4.4	0.65	16.5	6	1.61	40.9	1.96	49.8	60	1.52	2.05	52.1	2,077	3,091	185	200
9825.00103104	1 (19/W) (42.4 mm²)	3	175	4.4	0.69	17.5	4	1.68	42.7	2.01	51.1	60	1.52	2.15	54.6	2,469	3,674	210	225
9825.11003104	1/0 (19/W) (53.5 mm²)	3	175	4.4	0.72	18.3	4	1.78	45.2	2.10	53.3	60	1.52	2.24	56.9	2,760	4,107	240	255
9825.21003104	2/0 (19/W) (67.4 mm²)	3	175	4.4	0.76	19.3	4	1.88	47.8	2.19	55.6	60	1.52	2.36	59.9	3,130	4,658	275	290
9825.41003103	4/0 (19/W) (107 mm²)	3	175	4.4	0.86	21.8	3	2.09	53.1	2.45	62.2	75	1.91	2.61	66.3	4,290	6,384	360	375
9825.25003102	250 (37/W) (127 mm²)	3	175	4.4	0.92	23.4	2	2.19	55.6	2.58	65.5	75	1.91	2.74	69.6	4,775	7,106	400	410
9825.35003102	350 (37/W) (177 mm²)	3	175	4.4	1.01	25.7	2	2.45	62.2	2.85	72.4	75	1.91	3.01	76.5	6,132	9,125	490	495
9825.50003101	500 (37/W) (253 mm²)	3	175	4.4	1.13	28.7	1	2.71	68.8	3.16	80.3	85	2.16	3.34	84.8	8,052	11,983	600	590
9825.750031110	750 (61/W) (380 mm²)	3	175	4.4	1.31	33.3	1/0	3.12	79.2	3.67	93.2	85	2.16	3.85	97.8	11,098	16,516	745	720

Dimensions and weights are nominal; subject to industry tolerances.
[1] Ampacities in air are per NEC Table 310.60(C)(71) for an insulated three-conductor copper cable isolated in air with 105°C rated conductors at a 40°C ambient temperature.
[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors cabled within an overall covering, directly buried in earth with 105°C rated conductors at 20°C ambient earth temperature.

CCW® Armored Power, 15 kV 133%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over the conductor per ICEA S-93-639 and UL 1072

Insulation:
- 220 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-93-639 and UL 1072

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer, free stripping from the insulation per ICEA S-93-639 and UL 1072

Shield:
- 5 mil annealed bare copper tape with 25% overlap

Phase Identification:
- Color-coded polymeric identification tape laid under the shield - black, red and blue

Grounding Conductor:
- Class B stranded bare annealed copper grounding conductor
- Sized in accordance with UL 1072 and NEC Article 250

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hygroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1072 and UL 1569
- CCW armor conductivity meets the grounding requirements of the NEC

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), red
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored medium-voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits in industrial power distribution systems per NEC Articles 328 and 330
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids and meets the grounding requirements of UL 1072 and the NEC
- Triple Extrusion: The strand shield, EPR insulation and insulation shield are all extruded in one operation

Features: (cont'd.)

- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress
- Cable meets cold impact at -40°C
- 105°C continuous operating temperature, wet or dry
- 140°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-93-639/WC74, 5-46 kV Shielded Power Cable
- AEIC CS8 Specification for Shielded Power Cable, 5-46 kV
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA 68.10

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1072
- IEC 60332-3 Category A

Compliances:
- UL Type MV-105 or MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90501
- UL Listed Marine Shipboard, UL File # E85994
- CSA Type HL, SR, FT4, -40°C, CSA File # 27161
- American Bureau of Shipping (ABS) Listed for CWCMC

General Cable
Phone: 888-593-3355
www.generalcable.com

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CCW® Armored Power, 15 kV 133%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

CATALOG NUMBER	COND. SIZE AWG (kcmil)	NO. OF COND.	INSULATION THICKNESS mils	INSULATION THICKNESS mm	NOMINAL O.D. OVER INSULATION INCHES	NOMINAL O.D. OVER INSULATION mm	BARE GROUND AWG	NOMINAL CORE O.D. INCHES	NOMINAL CORE O.D. mm	NOMINAL ARMOR O.D. INCHES	NOMINAL ARMOR O.D. mm	JACKET THICKNESS mils	JACKET THICKNESS mm	NOMINAL OVERALL O.D. INCHES	NOMINAL OVERALL O.D. mm	APPROXIMATE NET WEIGHT LBS/1000 FT	APPROXIMATE NET WEIGHT kg/1000 m	AMPACITY IN AIR[1]	AMPACITY DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-105, 220 MILS EPR, 15 kV 133% INSULATION LEVEL																			
9835.00203106	2 (7/W) (33.6 mm²)	3	220	5.6	0.76	19.3	6	1.82	46.2	2.15	54.6	60	1.52	2.28	57.9	2,473	3,680	185	200
9835.00103104	1 (19/W) (42.4 mm²)	3	220	5.6	0.79	20.1	4	1.88	47.8	2.23	56.6	60	1.52	2.36	59.9	2,811	4,183	210	225
9835.11003104	1/0 (19/W) (53.5 mm²)	3	220	5.6	0.83	21.1	4	1.96	49.8	2.32	58.9	75	1.91	2.48	63.0	3,190	4,747	240	255
9835.21003104	2/0 (19/W) (67.4 mm²)	3	220	5.6	0.87	22.1	4	2.06	52.3	2.40	61.0	75	1.91	2.56	65.0	3,630	5,402	275	290
9835.41003103	4/0 (19/W) (107 mm²)	3	220	5.6	0.97	24.6	3	2.26	57.4	2.62	66.5	75	1.91	2.79	70.9	4,435	6,600	360	345
9835.25003102	250 (37/W) (127 mm²)	3	220	5.6	1.03	26.2	2	2.36	59.9	2.75	69.9	75	1.91	2.92	74.2	5,086	7,569	400	410
9835.35003102	350 (37/W) (177 mm²)	3	220	5.6	1.12	28.4	2	2.61	66.3	3.03	77.0	85	2.16	3.21	81.5	6,445	9,591	490	495
9835.50003101	500 (37/W) (253 mm²)	3	220	5.6	1.24	31.5	1	2.86	72.6	3.32	84.3	85	2.16	3.50	88.9	8,376	12,465	600	590
9835.750031110	750 (61/W) (380 mm²)	3	220	5.6	1.41	35.8	1/0	3.25	82.6	3.80	96.5	85	2.16	3.98	101.1	11,431	17,011	745	720

Dimensions and weights are nominal; subject to industry tolerances.
[1] Ampacities in air are per NEC Table 310.60(C)(71) for an insulated three-conductor copper cable isolated in air with 105°C rated conductors at a 40°C ambient temperature.
[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors cabled within an overall covering, directly buried in earth with 105°C rated conductors at 20°C ambient earth temperature.

CCW® Armored Power, 15 kV 133%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use
Sunlight-Resistant, Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over the conductor per ICEA S-93-639 and UL 1072

Insulation:
- 220 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-93-639 and UL 1072

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer, free stripping from the insulation per ICEA S-93-639 and UL 1072

Shield:
- 5 mil annealed bare copper tape with 25% overlap

Phase Identification:
- Color-coded polymeric identification tape laid under the shield – black, red and blue

Grounding Conductors:
- Class B stranded bare annealed copper grounding conductor
- Sized in accordance with UL 1072 and NEC Article 250

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hydroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL Standards 1569 and 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -60°C

Applications:

- CCW armored medium-voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits for power distribution systems per NEC Articles 328 and 330
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids and meets grounding requirements of UL 1072 and the NEC
- Triple Extrusion: The strand shield, EPR insulation and insulation shield are all extruded in one operation
- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress

Features: (cont'd.)

- Meets cold bend at -55°C
- 105°C continuous operating temperature, wet or dry
- 140°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- CEA S-93-639/WC74, 5-46 kV Shielded Power Cables
- AEIC CS8 Specification for Shielded Power Cable, 5 – 46 kV
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MV-105 or UL Type MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90501
- UL Listed Marine Shipboard, UL File # E85994
- CSA Type HL, SR, FT4, -40°C, CSA File # 27161
- American Bureau of Shipping (ABS) Listed for CWCMC

General Cable
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CCW® Armored Power, 15 kV 133%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use
Sunlight-Resistant, Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NO. OF COND.	INSULATION THICKNESS		NOMINAL O.D. OVER INSULATION		BARE GROUND (AWG)	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		APPROXIMATE NET WEIGHT		AMPACITY	
			mils	mm	INCHES	mm		INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	LBS/1000 FT	kg/1000 m	IN AIR[1]	DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-105, 220 MILS EPR, 15 kV 133% INSULATION LEVEL																			
9840.00203106	2 (7/W) (33.6 mm²)	3	220	5.6	0.76	19.3	6	1.82	46.2	2.15	54.6	60	1.52	2.28	57.9	2,473	3,680	185	200
9840.00103104	1 (19/W) (42.4 mm²)	3	220	5.6	0.79	20.1	4	1.88	47.8	2.23	56.6	60	1.52	2.36	59.9	2,811	4,183	210	225
9840.11003104	1/0 (19/W) (53.5 mm²)	3	220	5.6	0.83	21.1	4	1.96	49.8	2.32	58.9	75	1.91	2.48	63.0	3,190	4,747	240	255
9840.21003104	2/0 (19/W) (67.4 mm²)	3	220	5.6	0.87	22.1	4	2.06	52.3	2.40	61.0	75	1.91	2.56	65.0	3,630	5,402	275	290
9840.41003103	4/0 (19/W) (107 mm²)	3	220	5.6	0.97	24.6	3	2.26	57.4	2.62	66.5	75	1.91	2.79	70.9	4,435	6,600	360	345
9840.25003102	250 (37/W) (127 mm²)	3	220	5.6	1.03	26.2	2	2.36	59.9	2.75	69.9	75	1.91	2.92	74.2	5,086	7,569	400	410
9840.35003102	350 (37/W) (177 mm²)	3	220	5.6	1.12	28.4	2	2.61	66.3	3.03	77.0	85	2.16	3.21	81.5	6,445	9,591	490	495
9840.50003101	500 (37/W) (253 mm²)	3	220	5.6	1.24	31.5	1	2.86	72.6	3.32	84.3	85	2.16	3.50	88.9	8,376	12,465	600	590
9840.750031110	750 (61/W) (380 mm²)	3	220	5.6	1.41	35.8	1/0	3.25	82.6	3.80	96.5	85	2.16	3.98	101.1	11,431	17,011	745	720

Dimensions and weights are nominal; subject to industry tolerances.
[1] Ampacities in air are per NEC Table 310.60(C)(71) for an insulated three-conductor copper cable isolated in air with 105°C rated conductors at a 40°C ambient temperature.
[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors cabled within an overall covering, directly buried in earth with 105°C rated conductors at 20°C ambient earth temperature.

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CCW® Armored Power, 25 kV 100%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over the conductor per ICEA S-93-639 and UL 1072

Insulation:
- 260 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-93-639 and UL 1072

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer, free stripping from the insulation per ICEA S-93-639 and UL 1072

Shield:
- 5 mil annealed bare copper tape with 25% overlap

Phase Identification:
- Color-coded polymeric identification tape laid under the shield - black, red and blue

Grounding Conductor:
- Class B stranded bare annealed copper grounding conductor
- Sized in accordance with UL 1072 and NEC Article 250

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hygroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1072 and UL 1569
- CCW armor conductivity meets the grounding requirements of the NEC

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL 1072, orange
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored medium-voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits in industrial power distribution systems per NEC Articles 328 and 330
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids and meets the grounding requirements of UL 1072 and the NEC
- Triple Extrusion: The strand shield, EPR insulation and insulation shield are all extruded in one operation

Features: (cont'd.)

- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress
- Cable meets cold impact at -40°C
- 105°C continuous operating temperature, wet or dry
- 140°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-93-639/WC74, 5-46 kV Shielded Power Cable
- AEIC CS8 Specification for Shielded Power Cable, 5-46 kV
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA 68.10

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1072
- IEC 60332-3 Category A

Compliances:
- UL Type MV-105 or MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90501
- UL Listed Marine Shipboard, UL File # E85994
- CSA Type HL, SR, FT4, -40°C, CSA File # 27161
- American Bureau of Shipping (ABS) Listed for CWCMC

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CCW® Armored Power, 25 kV 100%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

CATALOG NUMBER	COND. SIZE AWG (kcmil)	NO. OF COND.	INSULATION THICKNESS mils	INSULATION THICKNESS mm	NOMINAL O.D. OVER INSULATION INCHES	NOMINAL O.D. OVER INSULATION mm	BARE GROUND AWG	NOMINAL CORE O.D. INCHES	NOMINAL CORE O.D. mm	NOMINAL ARMOR O.D. INCHES	NOMINAL ARMOR O.D. mm	JACKET THICKNESS mils	JACKET THICKNESS mm	NOMINAL OVERALL O.D. INCHES	NOMINAL OVERALL O.D. mm	APPROXIMATE NET WEIGHT LBS/1000 FT	APPROXIMATE NET WEIGHT kg/1000 m	AMPACITY IN AIR[1]	AMPACITY DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-105, 260 MILS EPR, 25 kV 100% INSULATION LEVEL																			
9845.00103104	1 (19/W) (42.4 mm²)	3	260	6.6	0.87	22.1	4	2.07	52.6	2.45	62.2	75	1.91	2.61	66.3	3,189	4,746	210	225
9845.11003104	1/0 (19/W) (53.5 mm²)	3	260	6.6	0.90	22.9	4	2.15	54.6	2.53	64.3	75	1.91	2.69	68.3	3,536	5,262	240	255
9845.21003104	2/0 (19/W) (67.4 mm²)	3	260	6.6	0.94	23.9	4	2.24	56.9	2.62	66.5	75	1.91	2.79	70.9	3,939	5,862	275	290
9845.41003103	4/0 (19/W) (107 mm²)	3	260	6.6	1.04	26.4	3	2.51	63.8	2.93	74.4	75	1.91	3.10	78.7	5,122	7,622	360	345
9845.25003102	250 (37/W) (127 mm²)	3	260	6.6	1.10	27.9	2	2.61	66.3	3.07	78.0	85	2.16	3.25	82.6	5,819	8,660	400	410
9845.35003102	350 (37/W) (177 mm²)	3	260	6.6	1.19	30.2	2	2.82	71.6	3.32	84.3	85	2.16	3.50	88.9	7,115	10,588	490	495
9845.50003101	500 (37/W) (253 mm²)	3	260	6.6	1.31	33.3	1	3.08	78.2	3.62	91.9	85	2.16	3.81	96.8	9,125	13,579	600	590

Dimensions and weights are nominal; subject to industry tolerances.

[1] In-air ampacities are per NEC Table 310.60(C)(71) for three insulated copper conductors rated 105°C, cabled with an overall covering and isolated in air at 40°C ambient temperature.

[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors rated 105°C, cabled within an overall covering and directly buried in earth at 20°C ambient earth temperature.

CCW® Armored Power, 25 kV 133%/35 kV 100%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over the conductor per ICEA S-93-639 and UL 1072

Insulation:
- 345 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-93-639 and UL 1072

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer, free stripping from the insulation per ICEA S-93-639 and UL 1072

Shield:
- 5 mil annealed bare copper tape with 25% overlap

Phase Identification:
- Color-coded polymeric identification tape laid under the shield - black, red and blue

Grounding Conductor:
- Class B stranded bare annealed copper grounding conductor
- Sized in accordance with UL 1072 and NEC Article 250

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hygroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1072 and UL 1569
- CCW armor conductivity meets the grounding requirements of the NEC

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL 1072, orange
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored medium-voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits in industrial power distribution systems per NEC Articles 328 and 330
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids and meets the grounding requirements of UL 1072 and the NEC
- Triple Extrusion: The strand shield, EPR insulation and insulation shield are all extruded in one operation

Features: (cont'd.)

- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress
- Cable meets cold impact at -40°C
- 105°C continuous operating temperature, wet or dry
- 140°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-93-639/WC74, 5-46 kV Shielded Power Cable
- AEIC CS8 Specification for Shielded Power Cable, 5-46 kV
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA 68.10

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1072
- IEC 60332-3 Category A

Compliances:
- UL Type MV-105 or MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90501
- UL Listed Marine Shipboard, UL File # E85994
- CSA Type HL, SR, FT4, -40°C, CSA File # 27161
- American Bureau of Shipping (ABS) Listed for CWCMC

General Cable
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CCW® Armored Power, 25 kV 133%/35 kV 100%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

CATALOG NUMBER	COND. SIZE AWG (kcmil)	NO. OF COND.	INSULATION THICKNESS mils	INSULATION THICKNESS mm	NOMINAL O.D. OVER INSULATION INCHES	NOMINAL O.D. OVER INSULATION mm	BARE GROUND AWG	NOMINAL CORE O.D. INCHES	NOMINAL CORE O.D. mm	NOMINAL ARMOR O.D. INCHES	NOMINAL ARMOR O.D. mm	JACKET THICKNESS mils	JACKET THICKNESS mm	NOMINAL OVERALL O.D. INCHES	NOMINAL OVERALL O.D. mm	APPROXIMATE NET WEIGHT LBS/1000 FT	APPROXIMATE NET WEIGHT kg/1000 m	AMPACITY IN AIR[1]	AMPACITY DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-105, 345 MILS EPR, 25 kV 133% AND 35 kV 100% INSULATION LEVEL[3]																			
9855.00103104	1 (19/W) (42.4 mm²)	3	345	8.8	1.04	26.4	4	2.48	63.0	2.89	73.4	75	1.91	3.05	77.5	4,100	6,101	210	225
9855.11003104	1/0 (19/W) (53.5 mm²)	3	345	8.8	1.07	27.2	4	2.56	65.0	2.98	75.7	75	1.91	3.14	79.8	4,500	6,697	240	255
9855.21003104	2/0 (19/W) (67.4 mm²)	3	345	8.8	1.11	28.2	4	2.65	67.3	3.11	79.0	85	2.16	3.30	83.8	4,950	7,366	275	290
9855.41003103	4/0 (19/W) (107 mm²)	3	345	8.8	1.22	31.0	3	2.88	73.2	3.41	86.6	85	2.16	3.60	91.4	6,200	9,227	360	345
9855.25003103	250 (37/W) (127 mm²)	3	345	8.8	1.27	32.3	3	2.97	75.4	3.63	92.2	85	2.16	3.81	96.8	6,800	10,119	400	410
9855.35003102	350 (37/W) (177 mm²)	3	345	8.8	1.36	34.5	2	3.20	81.3	3.76	95.5	85	2.16	3.94	100.1	8,000	11,905	490	495
9855.50003101	500 (37/W) (253 mm²)	3	345	8.8	1.48	37.6	1	3.45	87.6	4.10	104.1	85	2.16	4.23	107.4	10,150	15,105	600	590

Dimensions and weights are nominal; subject to industry tolerances.

[1] In-air ampacities are per NEC Table 310.60(C)(71) for three insulated copper conductors rated 105°C, cabled with an overall covering and isolated in air at 40°C ambient temperature.

[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors rated 105°C, cabled within an overall covering and directly buried in earth at 20°C ambient earth temperature.

[3] Catalog number 9855.00103104, 1 AWG, 3 conductor is only listed 25 kV 133% insulation level in accordance with UL 1072.

CCW® Armored Power, 25 kV 133%/35 kV 100%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use
Sunlight-Resistant, Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over the conductor per ICEA S-93-639 and UL 1072

Insulation:
- 345 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-93-639 and UL 1072

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer, free stripping from the insulation per ICEA S-93-639 and UL 1072

Shield:
- 5 mil annealed bare copper tape with 25% overlap

Phase Identification:
- Color-coded polymeric identification tape laid under the shield – black, red and blue

Grounding Conductors:
- Class B stranded bare annealed copper grounding conductor
- Sized in accordance with UL 1072 and NEC Article 250

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hydroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL Standards 1569 and 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -60°C

Applications:

- CCW armored medium-voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits for power distribution systems per NEC Articles 328 and 330
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids and meets grounding requirements of UL 1072 and the NEC
- Triple Extrusion: The strand shield, EPR insulation and insulation shield are all extruded in one operation
- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress

Features: (cont'd.)

- Meets cold bend at -55°C
- 105°C continuous operating temperature, wet or dry
- 140°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-93-639/WC74, 5-46 kV Shielded Power Cables
- AEIC CS8 Specification for Shielded Power Cable, 5 – 46 kV
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MV-105 or UL Type MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90501
- UL Listed Marine Shipboard, UL File # E85994
- CSA Type HL, SR, FT4, -40°C, CSA File # 27161
- American Bureau of Shipping (ABS) Listed for CWCMC

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CCW® Armored Power, 25 kV 133%/35 kV 100%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use
Sunlight-Resistant, Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NO. OF COND.	INSULATION THICKNESS		NOMINAL O.D. OVER INSULATION		BARE GROUND (AWG)	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		APPROXIMATE NET WEIGHT		AMPACITY	
			mils	mm	INCHES	mm		INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	LBS/1000 FT	kg/1000 m	IN AIR[1]	DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-105, 345 MILS EPR, 25 kV 133% AND 35 kV 100% INSULATION LEVEL[3]																			
9860.00103104	1 (19/W) (42.4 mm²)	3	345	8.8	1.04	26.4	4	2.48	63.0	2.89	73.4	75	1.91	3.05	77.5	4,100	6,101	210	225
9860.11003104	1/0 (19/W) (53.5 mm²)	3	345	8.8	1.07	27.2	4	2.56	65.0	2.98	75.7	75	1.91	3.14	79.8	4,500	6,697	240	255
9860.21003104	2/0 (19/W) (67.4 mm²)	3	345	8.8	1.11	28.2	4	2.65	67.3	3.11	79.0	85	2.16	3.30	83.8	4,950	7,366	275	290
9860.41003103	4/0 (19/W) (107 mm²)	3	345	8.8	1.22	31.0	3	2.88	73.2	3.41	86.6	85	2.16	3.60	91.4	6,200	9,227	360	345
9860.25003102	250 (37/W) (127 mm²)	3	345	8.8	1.27	32.3	3	2.97	75.4	3.63	92.2	85	2.16	3.81	96.8	6,800	10,119	400	410
9860.35003102	350 (37/W) (177 mm²)	3	345	8.8	1.36	34.5	2	3.20	81.3	3.76	95.5	85	2.16	3.94	100.1	8,000	11,905	490	495
9860.50003101	500 (37/W) (253 mm²)	3	345	8.8	1.48	37.6	1	3.45	87.6	4.10	104.1	85	2.16	4.23	107.4	10,150	15,105	600	590

Dimensions and weights are nominal; subject to industry tolerances.
[1] In-air ampacities are per NEC Table 310.60(C)(71) for three insulated copper conductors rated 105°C, cabled with an overall covering and isolated in air at 40°C ambient temperature.
[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors rated 105°C, cabled within an overall covering and directly buried in earth at 20°C ambient earth temperature.
[3] Catalog number 9855.00103104, 1 AWG, 3 conductor is only listed 25 kV 133% insulation level in accordance with UL 1072.

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CCW® Armored Power, 35 kV 133%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over the conductor per ICEA S-93-639 and UL 1072

Insulation:
- 420 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-93-639 and UL 1072

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer, free stripping from the insulation per ICEA S-93-639 and UL 1072

Shield:
- 5 mil annealed bare copper tape with 25% overlap

Phase Identification:
- Color-coded polymeric identification tape laid under the shield - black, red and blue

Grounding Conductor:
- Class B stranded bare annealed copper grounding conductor
- Sized in accordance with UL 1072 and NEC Article 250

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hygroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1072 and UL 1569
- CCW armor conductivity meets the grounding requirements of the NEC

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL 1072, orange
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored medium-voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits in industrial power distribution systems per NEC Articles 328 and 330
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids and meets the grounding requirements of UL 1072 and the NEC
- Triple Extrusion: The strand shield, EPR insulation and insulation shield are all extruded in one operation

Features: (cont'd.)

- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress
- Cable meets cold impact at -40°C
- 105°C continuous operating temperature, wet or dry
- 140°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-93-639/WC74, 5-46 kV Shielded Power Cable
- AEIC CS8 Specification for Shielded Power Cable, 5-46 kV
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA 68.10

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1072
- IEC 60332-3 Category A

Compliances:
- UL Type MV-105 or MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90501
- UL Listed Marine Shipboard, UL File # E85994
- CSA Type HL, SR, FT4, -40°C, CSA File # 27161
- American Bureau of Shipping (ABS) Listed for CWCMC

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CCW® Armored Power, 35 kV 133%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use, Sunlight-Resistant Direct Burial, ABS CWCMC

CATALOG NUMBER	COND. SIZE	NO. OF COND.	INSULATION THICKNESS		NOMINAL O.D. OVER INSULATION		BARE GROUND	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		APPROXIMATE NET WEIGHT		AMPACITY	
	AWG (kcmil)		mils	mm	INCHES	mm	AWG	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	LBS/1000 FT	kg/1000 m	IN AIR[1]	DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-105, 420 MILS EPR, 35 kV 133% INSULATION LEVEL																			
9875.11003104	1/0 (19/W) (53.5 mm²)	3	420	10.7	1.24	31.5	4	2.91	73.9	3.41	86.6	85	2.16	3.59	91.2	5,300	7,887	240	255
9875.21003104	2/0 (19/W) (67.4 mm²)	3	420	10.7	1.27	32.3	4	3.02	76.7	3.63	92.2	85	2.16	3.81	96.8	6,000	8,929	275	290
9875.41003103	4/0 (19/W) (107 mm²)	3	420	10.7	1.38	35.1	3	3.23	82.0	3.80	96.5	85	2.16	3.98	101.1	7,100	10,566	360	345
9875.25003103	250 (37/W) (127 mm²)	3	420	10.7	1.43	36.3	3	3.40	86.4	3.98	101.1	85	2.16	4.16	105.7	8,100	12,054	400	410
9875.35003102	350 (37/W) (177 mm²)	3	420	10.7	1.52	38.6	2	3.51	89.2	4.10	104.1	85	2.16	4.29	109.0	9,000	13,393	490	495
9875.50003101	500 (37/W) (253 mm²)	3	420	10.7	1.64	41.7	1	3.81	96.8	4.45	113.0	85	2.16	4.63	117.6	11,100	16,519	600	590

Dimensions and weights are nominal; subject to industry tolerances.
[1] In-air ampacities are per NEC Table 310.60(C)(71) for three insulated copper conductors rated 105°C, cabled with an overall covering and isolated in air at 40°C ambient temperature.
[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors rated 105°C, cabled within an overall covering and directly buried in earth at 20°C ambient earth temperature.

CCW® Armored Power, 35 kV 133%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use
Sunlight-Resistant, Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Compact stranding per ASTM B496

Extruded Strand Shield (ESS):
- Extruded thermoset semi-conductor stress control layer over the conductor per ICEA S-93-639 and UL 1072

Insulation:
- 420 mils Ethylene Propylene Rubber (EPR) insulation per ICEA S-93-639 and UL 1072

Extruded Insulation Shield (EIS):
- Thermoset semi-conducting polymeric layer, free stripping from the insulation per ICEA S-93-639 and UL 1072

Shield:
- 5 mil annealed bare copper tape with 25% overlap

Phase Identification:
- Color-coded polymeric identification tape laid under the shield – black, red and blue

Grounding Conductors:
- Class B stranded bare annealed copper grounding conductor
- Sized in accordance with UL 1072 and NEC Article 250

Cable Assembly:
- Insulated and grounding conductors are cabled together with non-hydroscopic fillers when required
- Binder tape is applied over the cabled core

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL Standards 1569 and 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -60°C

Applications:

- CCW armored medium-voltage power cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use on feeders and branch circuits for power distribution systems per NEC Articles 328 and 330
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed on metal racks, troughs, in raceways, in cable trays or secured to supports spaced not more than six feet apart
- Installed in both exposed and concealed work, wet or dry locations, directly buried or embedded in concrete
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids and meets grounding requirements of UL 1072 and the NEC
- Triple Extrusion: The strand shield, EPR insulation and insulation shield are all extruded in one operation
- General Cable's EPR insulation system has outstanding corona resistance and high dielectric strength, and it provides electrical stability under stress

Features: (cont'd.)

- Meets cold bend at -55°C
- 105°C continuous operating temperature, wet or dry
- 140°C emergency rating
- 250°C short circuit rating

Specifications:

Design Adherence:
- ICEA S-93-639/WC74, 5-46 kV Shielded Power Cables
- AEIC CS8 Specification for Shielded Power Cable, 5 – 46 kV
- UL 1072 Medium-Voltage Power Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable

Flame Tests:
- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

Compliances:
- UL Type MV-105 or UL Type MC-HL, SUN RES, CT USE, DIR BUR, -40°C, FT4, UL File # E90501
- UL Listed Marine Shipboard, UL File # E85994
- CSA Type HL, SR, FT4, -40°C, CSA File # 27161
- American Bureau of Shipping (ABS) Listed for CWCMC

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CCW® Armored Power, 35 kV 133%, Shielded, 3/C

UL Type MC-HL or MV-105, CSA Type HL, EPR, 105°C, Cable Tray Use
Sunlight-Resistant, Direct Burial, UL Marine Shipboard Cable, ABS CWCMC, Arctic-Grade

CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NO. OF COND.	INSULATION THICKNESS		NOMINAL O.D. OVER INSULATION		BARE GROUND (AWG)	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		APPROXIMATE NET WEIGHT		AMPACITY	
			mils	mm	INCHES	mm		INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	LBS/1000 FT	kg/1000 m	IN AIR[1]	DIRECT BURIAL[2]
3/C WITH GROUND MC-HL OR MV-105, 420 MILS EPR, 35 kV 133% INSULATION LEVEL																			
9880.11003104	1/0 (19/W) (53.5 mm²)	3	420	10.7	1.24	31.5	4	2.91	73.9	3.41	86.6	85	2.16	3.59	91.2	5,300	7,887	240	255
9880.21003104	2/0 (19/W) (67.4 mm²)	3	420	10.7	1.27	32.3	4	3.02	76.7	3.63	92.2	85	2.16	3.81	96.8	6,000	8,929	275	290
9880.41003103	4/0 (19/W) (107 mm²)	3	420	10.7	1.38	35.1	3	3.23	82.0	3.80	96.5	85	2.16	3.98	101.1	7,100	10,566	360	345
9880.25003102	250 (37/W) (127 mm²)	3	420	10.7	1.43	36.3	3	3.40	86.4	3.98	101.1	85	2.16	4.16	105.7	8,100	12,054	400	410
9880.35003102	350 (37/W) (177 mm²)	3	420	10.7	1.52	38.6	2	3.51	89.2	4.10	104.1	85	2.16	4.29	109.0	9,000	13,393	490	495
9880.50003101	500 (37/W) (253 mm²)	3	420	10.7	1.64	41.7	1	3.81	96.8	4.45	113.0	85	2.16	4.63	117.6	11,100	16,519	600	590

Dimensions and weights are nominal; subject to industry tolerances.
[1] In-air ampacities are per NEC Table 310.60(C)(71) for three insulated copper conductors rated 105°C, cabled with an overall covering and isolated in air at 40°C ambient temperature.
[2] Direct burial ampacities are per NEC Table 310.60(C)(83) for three insulated copper conductors rated 105°C, cabled within an overall covering and directly buried in earth at 20°C ambient earth temperature.

CCW® Arctic Armor Fieldbus Cable

Multi-Paired, Individual and Overall Shielded, 18 AWG & 16 AWG
UL Type MC-HL, 600 V, 90°C, Sunlight-Resistant, Direct Burial, Arctic-Grade

Product Construction:

Conductor:
- 18 and 16 AWG fully annealed stranded tinned copper per ASTM B33
- Class B stranding per ASTM B8

Insulation:
- Cross-linked Polyethylene (XLPE)

Pairs:
- Two conductors twisted together with left-hand lay (LHL)
- Each pair has 1 blue and 1 orange conductor. One conductor in each pair is printed alphanumerically for easy identification

Individually Shielded Pairs:
- Aluminum/Polyester tape with 25% overlap, 100% coverage (aluminum side out)

Drain:
- Stranded tinned copper drain wire

Overall Shield:
- Aluminum/Polyester tape with 25% overlap, 100% coverage (aluminum side in)

Inner Sheath:
- Arctic-grade Polyvinyl Chloride (PVC), black

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569 and UL 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Outer Jacket:
- Flame-retardant, moisture- and sunlight-resistant arctic-grade Polyvinyl Chloride (PVC), black

Applications:
- Recognized for use in Class I, II, and III, Divisions 1 and 2; or Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- Installed indoors or outdoors, in wet or dry locations, in a raceway, as aerial cable on a messenger, in cable trays, or for direct burial

Features:
- 100 Ohm impedance (± 10 ohms)
- CCW armor provides an impervious barrier to moisture, gas and liquids
- Meets cold bend at -55°C
- Insulation passes ASTM D746-04 brittleness temperature impact test at -73°C

Features: (cont'd.)
- Insulation passes MIL-C-13777 cold bend test @ -65°C
- Arctic-grade PVC inner sheath and outer jacket passes ASTM D746-04 brittleness temperature impact test at -60°C

Specifications:

Fieldbus Standards:
- Registered with Fieldbus Foundation
- Meets Fieldbus Foundation FF-844 Specification, marked as Type A H1 Fieldbus cable
- Meets ISA 50.02 Part 2 Fieldbus standard for use in industrial control systems
- Meets IEC 61158-2 requirements for industrial Fieldbus cable

Compliances:
- UL Listed, NEC Type MC-HL, 600 V, SUN RES, DIR BUR, -40°C

Flame Tests:
- CSA FT4
- IEEE 1202

CATALOG NUMBER	NO. OF PAIRS	COND. SIZE (AWG)	SHIELDS	NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		NOMINAL OVERALL O.D.		APPROXIMATE NET WEIGHT
				INCHES	mm	INCHES	mm	INCHES	mm	LBS/1000 FT
18 AWG AND 16 AWG INDIVIDUAL AND OVERALL SHIELDED PAIRS										
9899.FB01801120	1	18	SP	0.27	6.73	0.53	13.46	0.64	16.13	178
9899.FB01802120	2	18	SP/OS	0.48	12.07	0.79	20.07	0.90	22.73	305
9899.FB01804120	4	18	SP/OS	0.57	14.48	0.89	22.48	0.99	25.02	349
9899.FB01601118	1	16	SP	0.29	7.37	0.56	14.10	0.66	16.76	191
9899.FB01602118	2	16	SP/OS	0.52	13.21	0.84	21.21	0.94	23.88	338
9899.FB01604118	4	16	SP/OS	0.62	15.75	0.97	24.64	1.08	27.31	440

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www.generalcable.com

UL LISTED

CCW® Arctic Armor PROFIBUS Cable

22 AWG Shielded Pair, UL Type ITC-HL, 300 V, 90°C, Cable Tray Use
Sunlight-Resistant, Direct Burial, Arctic-Grade

Product Construction:

Conductor:
- 22 AWG solid bare copper per ASTM B3: O.D.: 0.025”

Insulation:
- Fluoropolymer: O.D.: 0.106”

Pair:
- Two conductors twisted together with left-hand lay (LHL)
- Color Code: C1: Red C2: Green

Inner Shield:
- Aluminum/Polyester tape with 25% overlap, 100% coverage (aluminum side out)

Overall Shield:
- 34 AWG tinned copper braid, 65% min. coverage

Inner Jacket:
- Fluoropolymer, purple. O.D.: 0.270”

Inner Sheath:
- Arctic-grade Polyvinyl Chloride (PVC), black. O.D.: 0.610”

CCW Armor:
- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569 and UL 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

Outer Jacket:
- Flame-retardant, moisture- and sunlight-resistant arctic-grade Polyvinyl Chloride (PVC), purple. O.D.: 0.940”

Applications:

- High speed PROFIBUS DP communication for use in factory automation systems
- Recognized for use in Class I and III, Divisions 1 and 2; Class II, Division 2; or Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505

Features:

- 150 Ohm impedance (± 15 ohms)
- CCW armor provides an impervious barrier to moisture, gas and liquids
- Meets cold bend at -55°C

Features: (cont’d.)

- Insulation passes ASTM D746-04 brittleness temperature impact test at -73°C
- Arctic-grade PVC inner sheath and outer jacket passes ASTM D746-04 brittleness temperature impact test at -60°C

Specifications:

PROFIBUS Specifications:
- Electrical characteristics in accordance with PROFIBUS DP specifications

Compliances:
- UL Listed, NEC Type ITC-HL, 300 V, CT USE, SUN RES, DIR BUR, -40°C

Flame Tests:
- CSA FT4
- IEEE 1202

Catalog Number
- 9899.PB02201000

UL LISTED

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CCW® Armored Cable Tool Kit

For Removal of CCW Armor Sheath
Including Accessories

Tool Kit Contents:

- 1 ea. Kett-Tool Metal Clad Cable Saw
- 12 pcs. 2" / 44 teeth Cutting Blades
- Cable Saw Spindle and Allen Wrenches
- 1 ea. MC Cable Guide
- 1 ea. Tubing and Pipe Cutter
- 1 ea. 12" V-Jaw Channel-Lock Pliers
- 1 ea. 10" Hacksaw Frame
- 3 ea. 10" / 24 teeth/in. Hacksaw Blades
- 1 ea. 10 ft. Tape Measure
- 1 ea. Utility Knife with Blades
- 1 ea. 5/16" Screwdriver
- 1 ea. Tool Box

CATALOG NUMBER	QUANTITY	DESCRIPTION	APPROXIMATE WEIGHT
9900.KS226	1	CCW TOOL KIT WITH 120 V AC, 60Hz ELECTRIC CUTTING SAW	22.0 LBS
9900.PS526	1	CCW TOOL KIT WITH 90 PSI PNEUMATIC CUTTING SAW	20.0 LBS
9900.15744	1	2", 44T REPLACEMENT CUTTING BLADES (12 BLADES PER PACK)	1.0 LBS
9900.27901	1	MC CABLE GUIDE	0.5 LBS

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Notes

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Technical Information

A General Technical Information

SPECIFICATION NO.	DESCRIPTION	REVISION DATE
A001	Metal-Clad CCW® Type MC-HL Wiring System	Feb. 2011
A001	CCW® Installation Manual	Oct. 2014
A001	CCW® Sheath Removal Instructions	Feb. 2011
A010	CCW® Explosion-Proof Gland Cross-Reference	Apr. 2010
A015	CCW® Catalog Number Cross-Reference – Okonite C-L-X® to General Cable CCW®	Jan. 2013
A055	Checklist for CCW® Specifications	Apr. 2010
A005	Glossary	Jan. 2010
A025	Reference Standards	Jan. 2010
A050	Checklist for Specifications	Jan. 2010
A075	NEC and CSA Designations	Jan. 2010
A100	Common Color Sequence	May 2013
A150	Metric Conversion Factors	Sept. 2010
A185	AWG (American Wire Gauge) to mm^2 (Milimeters Squared) Conversion	May 2013
A200	Reel Capacity Chart	Jan. 2012

B Conductor Data

SPECIFICATION NO.	DESCRIPTION	REVISION DATE
B005	Conductor Reference	Jan. 2010
B025	Class B Conductors for General Wiring	Mar. 2012
B030	Class C Conductors for General Wiring	Feb. 2011
B035	Class H Conductors for General Wiring	Feb. 2011
B040	Class I Conductors for General Wiring	Mar. 2012
B045	Class K Conductors for General Wiring	Mar. 2012

C Material Properties

SPECIFICATION NO.	DESCRIPTION	REVISION DATE
C005	Thermoplastic Jacket and Insulation Material Properties	Sept. 2012
C010	Thermoset Jacket and Insulation Material Properties	Jan. 2010

Technical Information

D Handling and Storage Recommendations

SPECIFICATION NO.	DESCRIPTION	REVISION DATE
D005	Recommended Reel Handling Practices	May 2013
D025	Recommended Cable Handling Practices	Oct. 2011
D050	Recommended Cable Storage Practices	May 2013

E Cable Installation Guidelines

SPECIFICATION NO.	DESCRIPTION	REVISION DATE
E005	Pre-Installation Instructions	Apr. 2010
E025	Installation – Overview and Checklist	Jan. 2011
E050	Installation – Feed-In Setups	Apr. 2010
E075	Installation – Conductor Maximum Pulling Tensions	Oct. 2012
E100	Installation – Training and Bending Limitations	Apr. 2010
E125	Installation – Maximum Sidewall Pressure	Jun. 2016

F Cable Testing

SPECIFICATION NO.	DESCRIPTION	REVISION DATE
F005	DC “HI-POT” Pre-Test Guidelines for MV Cables	Apr. 2010
F025	DC “HI-POT” Testing Guidelines for MV Cables	Apr. 2010
F075	Field Electrical “HI-POT” Testing Guidelines	Apr. 2010
F100	Emergency Overload Current Guidelines	Jan. 2010
F125	Short Circuit Current Calculation Overview	Jan. 2010
F130	CCW® Sheath as a Grounding Conductor	Jun. 2016
F150	Short Circuit Current for Copper Shields	Jan. 2010
F175	AC Resistance & Inductive Reactance	Jun. 2013

Metal-Clad CCW® Type MC-HL Wiring System

The Most Versatile Wiring Method Available
Ideal for Hazardous (Classified) Locations
Provides Best Performance for PWM Circuits

CCW® is General Cable's trade name for the continuously corrugated, welded, aluminum-sheathed wiring system. CCW provides a unique cable system within a sealed metallic sheath that provides complete protection to the conductors from all external environments. CCW is offered in a complete line of power, control, signal, and instrumentation cables.

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CCW® Installation Manual

Introduction

CCW provides a unique wiring system that is unparalleled in versatility for practically every installation condition or requirement.

CCW Is A Self-Contained Wiring System

The CCW wiring system consists of conductors or a cable enclosed in a raceway consisting of a strong, pliable aluminum metallic sheath that is continuously welded to provide a completely enclosed gas/vapor-tight metallic sheath that is then corrugated. Corrugating the aluminum sheath provides greater crush and impact resistance for mechanical protection of the conductors and increases the pliability of the cable during installation. The standard corrugated aluminum sheath used on all CCW cables complies with the more severe crush and impact requirements of UL 2225 for HL cables permitted in hazardous locations. CCW Type MC Metal-Clad Cable has been installed in some of the most demanding applications for over 40 years and has become an industry standard for industrial and commercial applications.

CCW Has Almost-Universal Applications

CCW Type MC

CCW is available in low- and medium-voltage power, control, signal, and instrumentation cables. As CCW is rated MC-HL, it can be used in any Type MC application, as it complies with UL 1569, Metal-Clad Aluminum Cable.

CCW has been recognized by the National Electrical Code® (NEC®) for more than 40 years, and the permitted uses of CCW in the NEC have been significantly expanded over the years, as users have recognized the unique advantages of this factory-assembled wiring system and inspectors have observed and recognized the trouble-free performance of CCW in all the uses permitted.

NEC Article 330 is the primary article for CCW Metal-Clad Type MC Cable. In accordance with this Article, CCW rated from 600 V to 35 kV is permitted to be used in the applications shown below; the additional references included refer to the 2014 NEC.

- For services, feeders, and branch circuits
- For power, lighting, control, and signaling circuits
- As exposed runs “ER” (formerly open wiring) or concealed
- Indoors or outdoors
- In cable tray, where identified for such use – see 392.10, 392.20(A), (B) and (C)
- As aerial cable on Messenger-Supported Wiring or installed outside of buildings or structures – see 225.10, 396.10, and 396.12
- In any raceway
- In hazardous (classified) locations

  Class I, Division 1
  [511.7, 513.7, 515.7, and 516.7]

  Class I, Division 2
  [501.10(B)(1) and (5)]

  Class I, Zone 2
  [505.15(C)(1)(b)]

  Class II, Division 2
  [502.10(B)(3) and (6)]

  Class III, Divisions 1 and 2
  [503.10(A) and (B)]

  Intrinsically Safe Circuits
  [504.20]

  Zone 22
  [506.15(C)(3) and (6)]
  [Not included in UL 2225]
- Special Occupancies – see Articles 517 through 552
- As Service-Entrance Cable – see 230.43
- In wet and dry locations – since the metallic covering is impervious to moisture, the insulated conductors under the metallic sheath are listed for use in wet locations, and a corrosion-resistant protective nonmetallic jacket is provided over the metallic sheath
- To be direct buried or encased in concrete, since CCW has a corrosion-resistant protective nonmetallic jacket over the metallic sheath – see 300.5 or 300.50, as appropriate
- As single-conductors when all the phase conductors and, where used, the neutral conductor are grouped together to minimize induced voltage on the sheath – see 300.20

Unless otherwise stated, all references refer to the 2014 NEC®.

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CCW® Installation Manual

CCW Type MC-HL

CCW Type MC-HL contains separate equipment grounding conductor(s) sized in accordance with 250.122 in all constructions, in addition to the standard gas/vapor-tight continuously corrugated metallic sheath and overall jacket of suitable polymeric materials and complies with UL 2225, Standard for Cables and Cable Fittings For Use In Hazardous (Classified) Locations. UL 2225 also includes additional requirements that the cable comply with a -40°C low temperature impact test, more severe room temperature crush and impact tests, and a more severe vertical tray flame test.

When installed with termination fittings listed for the application, CCW MC-HL may be used in industrial establishments with restricted public access, where the conditions of maintenance and supervision ensure that only qualified persons service the installation. In addition to all the uses permitted for CCW Type MC, CCW Type MC-HL is also permitted to be installed in the following hazardous (classified) locations:

Class I, Division 1
[501.10(A)(1)(c)]

Class I, Zone 1
[505.15(B)(1)(b)]

Class II, Division 1
[502.10(A)(1) and (3)]

Zones 20 and 21
[506.15(A)(3) and (B)(1)]
[Not included in UL 2225]

CCW Type MV or MC

CCW Type MV or MC contains conductors rated 105°C and is available from 2400 V to 35 kV. The cable complies with both UL 1569, Metal-Clad Aluminum Cable, and UL 1072, Medium-Voltage Power Cables, and is listed and marked as Type MV or MC. The cable is permitted to be used in accordance with 328.10 and 330.10 and installed in the same applications as CCW Type MC.

CCW Remote-Control, Signaling, and Power-Limited Cables

CCW Type MC and CCW Type MC-HL are permitted to be used on 600 V Class 1 power-limited circuits, Class 1 remote-control and signaling circuits, and the supply side of Class 2 or Class 3 power sources in the applications and locations shown above for the applicable cable type, subject to any limitations specified in Part II of Article 725, also see 725.127.

Type MC cable is permitted to be installed in compliance with Parts II and III of Article 725 and 770.133 as applicable and in accordance with 330.10(B)(1) through (B)(4).

CCW Type ITC-HL

CCW Instrumentation Tray Cable Type ITC-HL is permitted to be installed in accordance with Article 501.10(A)(1)(d) in Class I, Zone 1 or Division 1 locations. All constructions are manufactured with the standard gas/vapor tight continuously corrugated metallic sheath and covered with a jacket of suitable polymeric material. CCW Type ITC-HL cable complies with UL 2225, Standard for Cables and Cable Fittings For Use In Hazardous (Classified) Locations. The CCW sheath provides equipment grounding through the sheath. UL 2225 also includes additional requirements that the cable comply with the -40°C low temperature impact test, more severe room temperature crush and impact tests, and a more severe vertical tray flame test.

In addition to all the applications permitted for CCW Type ITC, CCW Type ITC-HL is also permitted in the following additional hazardous (classified) locations:

Class I, Division 1
[501.10(A)(1)(d)]

Class I, Zone 1
[505.15(B)(1)(c)]

CCW Type ITC-HL/PLTC (Instrumentation Tray Cable/ Power-Limited Tray Cable)

CCW Type ITC-HL/PLTC is permitted in 727.4 to be used as ITC cable on instrumentation and control circuits operating at 150 volts or less and 5 amperes or less in industrial establishments where the conditions of maintenance and supervision ensure that only qualified persons service the installation:

- In cable trays
- In raceways
- In the following hazardous (classified) locations:

  Class I, Division 2
  [501.10(B)(1), (3) and (4)]

  Class I, Zone 2
  [505.15(C)(1)(c) and (d)]

  Class II, Division 2
  [502.10(B)(1), (4) and (5)]

  Intrinsically Safe Circuits
  [504.20]

  Zone 22
  [506.15(C)(4) and (5)]
  [Not included in UL 2225]

  Commercial garages
  [511.7]

- As aerial cable on a messenger
- Direct buried
- Under raised floors in rooms containing industrial process control equipment and rack rooms
- Under raised floors in information technology equipment rooms – see Table 645.5.

Refer to Article 727 for complete wiring methods, installation requirements, and listing requirements for CCW Type ITC-HL cables.

Unless otherwise stated, all references refer to the 2014 NEC®.

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CCW® Installation Manual

CCW Type ITC-HL/PLTC is permitted in 725.133 to be used as PLTC cable on Class 2 and Class 3 remote-control, signaling, and power-limited circuits:

- As exposed runs “ER”
- In cable trays
- In raceways
- In the following hazardous (classified) locations:

  Class I, Zone 2
  [505.15(C)(1)(d)]

  Class II, Division 2
  [502.10(B)(1) and (4)]

  Intrinsically Safe Circuits
  [504.20]

  Zone 22
  [506.15(C)(4)]
  [Not included in UL 2225]

  Commercial garages
  [511.7]
- As aerial cable on a messenger
- Direct buried
- Under raised floors in information technology equipment rooms – see Table 645.5

Refer to Parts III and IV of NEC 725 for complete wiring methods, installation requirements, and listing requirements for CCW Type PLTC cables.

CCW Is The Perfect Cable For PWM Variable Frequency Drive Cables

As a function of its construction, CCW has been recognized for its ability to reduce the amount of stray harmonic currents generated by Pulse Width Modulated (PWM) variable frequency drives. Through the use of split ground configurations and the overall shield with CCW’s corrugated, continuously welded aluminum sheath, this cable design is one of the preferred choices of the world’s manufacturers of drives and motors to reduce EMI, RFI, and destructive harmonic currents. CCW cables provide high attenuation shielding for control, signal, and instrumentation circuits and a symmetrical low impedance path to ground. The CCW sheath effectively reduces crosstalk, common mode currents, motor frame voltage, and injected ground currents. These are all important considerations for PWM ac drive applications.

CCW Offshore And Shipboard Cables Certified By ABS

CCW cables are certified by the American Bureau of Shipping (ABS) as cables listed as CWCMC. This listing means that CCW cables may be used in MODUs (Mobile Offshore Drilling Units), Fixed Production Platforms, Floating Production Platforms, and FPSOs (Floating Production, Storage and Offloading) requiring MC or MC-HL (Hazardous Locations). These cable constructions meet UL 1309, Standards For Marine Shipboard Cable and UL 2225, Standard For Cables and Cable Fittings For Use In Hazardous (Classified) Locations.

CCW Is An Economical Factory Assembled Wiring System

CCW is a factory-assembled wiring system that eliminates the cost of installing raceways and the possibility of damaging the insulated conductors during installation in raceways or cable trays. Since CCW is manufactured in long, continuous lengths and supplied on reels, scrap is significantly reduced.

Since CCW Type MC cables are approved for exposed runs, they offer a very economical wiring system. A cable tray or other supports can be used when there are multiple cables in the same run, and then individual cables can branch off as exposed runs from the tray or support to the termination, as required, without any change or splices in the cable.

CCW Is Easy To Install

CCW can be installed using normal installation equipment and established installation techniques. It is pliable and can be easily installed in long lengths in cable trays, on ladders or other supports. As with any wiring method, care should be taken not to exceed the maximum pulling tension, minimum bending radius, or maximum sidewall pressure. A complete cable installation manual for all cables and conductors is available from General Cable.

The minimum bending radius for a multiconductor cable is seven times (7x) the external diameter of the metallic sheath.

CCW cable is easily terminated, and sheath removal instructions are included in this catalog. Termination kits and splicing kits are available from numerous manufacturers.

CCW Provides Environmental Protection

The welded and corrugated metallic sheath on CCW is impervious to vapors, gases or liquids and provides a clean, dry environment for the conductors. This permits the conductors to be rated at 90°C up to 2400 V and 105°C for medium-voltage cables in both wet and dry installations. The standard jacket over the CCW sheath is low-temperature, sunlight-resistant Polyvinyl Chloride (PVC). Other jacketed or unjacketed cables are available for specific installation or environmental conditions. Consult your General Cable representative for further details.

Unless otherwise stated, all references refer to the 2014 NEC®.

CCW® Installation Manual

CCW Cables Provide Excellent Flame Resistance

CCW cables, with or without a PVC jacket, comply with all current flame test standards, including UL 1569, IEEE 1202, IEEE 383, CSA FT4, ICEA T-29-520 (210,000 BTU/hr) and IEC 60332.3 Cat A.

CCW Sheath Permitted As An Equipment Grounding Conductor

The sheath on CCW is actually a hollow aluminum tube that provides a cross-sectional area that meets or exceeds the equipment grounding conductor requirements specified in 250.122 in all constructions. Spec F125 provides the equivalent conductor size for each CCW aluminum sheath diameter.

Even though the metallic sheath provides an equipment grounding conductor that equals or exceeds the NEC requirements, an additional copper equipment grounding conductor is provided in all constructions listed MC-HL to comply with the user's preference not to rely completely on the metallic sheath for grounding power cables. The additional equipment grounding conductor provides an added benefit of being able to parallel two standard power cables and still comply with the grounding requirements of 250.122(F). In many cases, three standard power cables can be run in parallel, but you should check with the manufacturer for this type of installation.

CCW Sheath Recognized As A Voltage Separation Barrier

The CCW aluminum sheath is recognized as a solid fixed barrier when used on Type MV or MC cables installed in cable tray with cables rated 600 volts or less in accordance with 392.20(B).

Installation

Some specific guidelines for installing CCW cables are listed below.

- When pulling CCW cables into position, the pulling tension must be on the conductors rather than the aluminum sheath. The pulling eyes/bolts or basket grip should be attached to the conductors and the metallic sheath fastened to the insulated conductors or the pulling rope to prevent movement of the conductors within the CCW sheath. If movement of the conductors within the CCW sheath is noted at the start of a pull, one method to stop the movement is to drive three or four nails about 2 in. apart through the CCW sheath into each copper power conductor.
- The minimum bending radius of seven times (7x) the external diameter of the metallic sheath for nonshielded multiconductor cables must be maintained during pulling. Roller assemblies must provide a smooth, regular bending radius for the cable. Using smaller rollers can damage the aluminum sheath and the cable.
- Sidewall pressure should not exceed 500 lbs/ft of radius to avoid flattening the CCW sheath or damaging the conductors.
- Anti-short bushings are not required on CCW Type MC cables. The listed termination fittings are designed such that the throat of the fitting is constructed to permit the conductors to pass through but not permit the cut end of the sheath to contact the insulated conductors.
- Termination kits and splicing kits are available from numerous manufacturers.

Refer to the General Cable Installation Manual for Power and Control Cables for more detailed installation instructions. For special installations, such as long vertical risers, contact General Cable for engineering assistance.

CCW Installation Tips

While it is rarely done, CCW can be installed in a raceway. One application is when a run of CCW Type MC is installed in a non-hazardous or Class I, Division 2 hazardous location and one end of the cable is to be terminated in a Class I, Division 1 hazardous location. The CCW cable may be pulled into a raceway approved for use in Class I, Division 1 hazardous locations, provided the sealing requirements at the Division 1 and 2 boundaries are met. This provides a lower cost total cable run and eliminates splicing of the CCW at the Division boundary. Another instance would be to install the CCW in a raceway to provide additional mechanical protection to prevent physical damage to the cable.

On very long runs, the higher ampacity permitted for 90°C conductors may be utilized for the CCW cable and 10-foot lengths of a larger conductor that complies with the ampacity limitations required for the 60°C or 75°C termination rating, to be spliced onto the cable conductors at the termination. The 10 feet of the larger conductor will act as a heat sink and ensure that the rated temperature of the termination is not exceeded while permitting smaller 90°C rated conductors to be used for the majority of the run. The same installation technique can also be used for 105°C conductors in CCW Type MV or MC cable.

CCW cable terminated directly on busbars is permitted to use the 90°C or 105°C ampacity, as applicable.

In long vertical runs as exposed run or in cable tray, CCW cables containing conductors 4 AWG and larger can comply with Table 300.19(A) by having horizontal offsets at the required distances. For installation assistance on cables smaller than 4 AWG installed in long vertical runs, contact General Cable Engineering.

Unless otherwise stated, all references refer to the 2014 NEC®.

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CCW® Sheath Removal Instructions

The following procedures provide a simple, safe means of removing the non-metallic jacket and the corrugated, continuously welded (CCW) aluminum sheath from Type MC cable for terminating or splicing without damaging the insulated conductors. These procedures are not recommended for use on TECK 90, HVTECK or interlocked armor MC.

Tool Kit:

- Kett-Tool Metal-Clad Cable Saw
- 2"/44 teeth Cutting Blades
- Cable Saw Spindle and Allen Wrenches
- MC Cable Guide
- Tubing and Pipe Cutter
- 12" V-Jaw Channel-Lock Pliers
- 10" Hacksaw Frame
- 10"/24 teeth/in. Hacksaw Blades
- 10 ft. Tape Measure
- Utility Knife with Blades
- 5/16" Screwdriver
- Tool Box

Safe working practices should be observed, including safety glasses and adequate work gloves. Cable installers should be properly trained in cable termination procedures.

Installation Note 1:
Work Prior to Removing Sheath

Measure twice, cut once. Ensure that the pull of cable, in addition to the termination used, and the amount of cable required are adequate for the installation. Make sure that you have the correct size and style glands to properly marry the cable to the equipment.

Step 1:

Using the utility knife, remove the jacket to expose the required length of unarmored cable within the enclosure.

Step 2:

Refer to the instructions of the gland manufacturer for the length of aluminum sheath required to be exposed beyond the jacket for fitting the glands to the sheath. Mark the sheath at the nearest crown (high point). This is the **Cutting Point**.

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CCW® Sheath Removal Instructions

Installation Note 2:
Review Sheath Outside Diameters

For diameters less than or equal to 1.625", use Steps 3-9.

For diameters greater than 1.625", use Steps 10-15.

Installation Note 3:
Using the Kett Model KS-226 Cable Saw

When using the cable saw, it is important to read and understand the manufacturer's instructions and to be familiar with the Kett Cable Saw cutting equipment prior to operating.

For Small-Diameter CCW® Cable (diameter of sheath less than or equal to 1.625")

Step 3:

Using a hacksaw blade or tubing cutter, score the CCW aluminum sheath around the entire sheath at the **Cutting Point**. Gripping the cable with a hand on either side of the **Cutting Point**, flex the cable until the metal opens. Carefully remove the freed armored sheath from the end of the cable, being careful not to score or damage the cabled core.

Step 4:

For CCW cables with an inner jacket or tight-fitting sheath, it may be necessary to use the Kett-Tool Metal-Clad Cable Saw with the optional red cable guide. Attach the cable guide to the Kett Cable Saw and secure the cable.

Step 5:

Now that your cross-cut is complete, sheath removal via the Kett-Tool Metal-Clad Cable Saw must be done longitudinally down the cable sheath.

Step 6:

When setting up to cut CCW cable, the cable saw blade must be placed to cut perpendicular to the cable along the cable. See below:

CORRECT

NOT CORRECT

Depth of the saw blade and use of the guides are critical to the proper cutting operation. Do not cut through the entire sheath, as damage to the core is likely. It is suggested that the saw depth be adjusted so that 80-95% of the metal in the valley (low point) of the CCW® sheath is cut.

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CCW® Sheath Removal Instructions

Step 7:

With downward pressure being applied to the Kett Cable Saw, make a longitudinal cut down the length of the sheath to be stripped (from the cut end) to the end you hacksawed earlier. Do not attempt to use the cable saw to plunge cut, as this could result in injury.

Step 8:

Insert the wide flat-head screwdriver into the cut at the free end and twist. This will cause the remaining metal in the valleys to break. Repeat until the sheath completely separates from the core.

Step 9:

Remove the cable fillers and marker tape from the cabled core, separating the conductors and the equipment grounding conductor(s) for ease in termination. Install the appropriate gland suited to the application per the manufacturer's instructions. The cable is now ready to be terminated into the enclosure.

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CCW® Sheath Removal Instructions

For Large-Diameter CCW® Cable (diameter of sheath greater than 1.625")

Step 10:

Using a hacksaw with the appropriate blade for cutting metal, cut through the crown (high point) of the CCW sheath at your marked **Cutting Point** to connect the valley (low point) of the CCW sheath.

Once this cut is made, mark the sheath around the balance of the cable, making additional cuts for a completed circle. If you cannot complete the circle entirely through cutting, then flex the cable end until the metal separates as shown at the far right.

Step 11:

Now that your cross-cut is complete, sheath removal via the Kett-Tool Metal-Clad Cable Saw must be done longitudinally down the cable sheath.

Step 12:

When setting up to cut CCW cable, the cable saw blade must be placed to cut perpendicular to the cable along the cable. See below:

CORRECT

NOT CORRECT

Depth of the saw blade and use of the guides are critical to the proper cutting operation. Do not cut through the entire sheath, as damage to the core is likely. It is suggested that the saw depth be adjusted so that 80-95% of the metal in the valley (low point) of the CCW® sheath is cut.

Step 13:

With downward pressure being applied to the Kett Cable Saw, make a longitudinal cut down the length of the sheath to be stripped (from the cut end) to the end you hacksawed earlier. Do not attempt to use the cable saw to plunge cut, as this could result in injury.

At this point, you should have a completed cut with noticeable connections in the valleys of the sheath.

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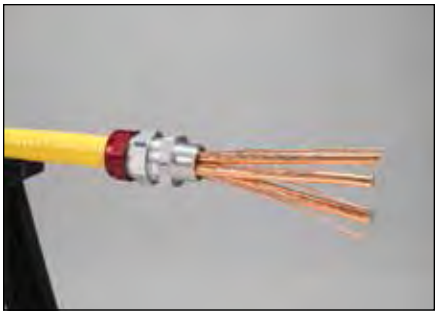
CCW® Sheath Removal Instructions

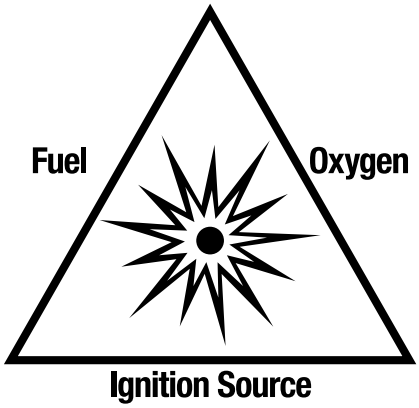
Step 14:

Insert the wide flat-head screwdriver into the cut at the free end and twist. This will cause the remaining metal in the valleys to break. Repeat until the sheath completely separates from the core.

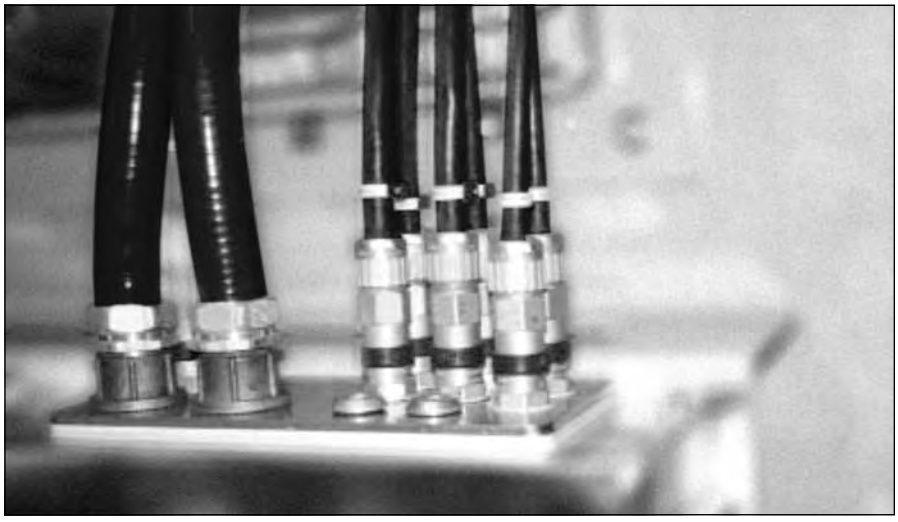
Step 15:

Remove the cable fillers and marker tape from the cabled core, separating the conductors and grounds/shields for ease in termination. Install the appropriate fitting/gland suited to the application per the manufacturer's instructions. The cable is now ready to be terminated into the enclosure.





Areas with a high propensity for ignitable environments, including presence of liquids, gases or dust.



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CCW® Explosion-Proof Gland Cross-Reference

Thermocouple Extension

CCW CATALOG NUMBER	PRODUCT DETAIL	NOMINAL ARMOR O.D.		NOMINAL OVERALL O.D.		CROUSE-HINDS	HAWKE	APPLETON (TMCX) *end stop removed			Thomas & Betts	Hubbell/Killark
		INCHES	mm	INCHES	mm	TMCX Series	711 Series	Aluminum	NP Brass	Stainless Steel	Spin-On X	CMCXA
CCW® ARMORED THERMOCOUPLE EXTENSION, SINGLE PAIR, OVERALL SHIELD												
9025.16010001	16 AWG TYPE EX	0.45	11.4	0.56	14.2	TMCX165	A	TMCX050SA*	TMCX050SNB*	TMCX050SSS*	4-075-010	CMCXAA050
9025.16010002	16 AWG TYPE JX	0.45	11.4	0.56	14.2	TMCX165	A	TMCX050SA*	TMCX050SNB*	TMCX050SSS*	4-075-010	CMCXAA050
9025.16010003	16 AWG TYPE KX	0.45	11.4	0.56	14.2	TMCX165	A	TMCX050SA*	TMCX050SNB*	TMCX050SSS*	4-075-010	CMCXAA050
9025.16010004	16 AWG TYPE TX	0.45	11.4	0.56	14.2	TMCX165	A	TMCX050SA*	TMCX050SNB*	TMCX050SSS*	4-075-010	CMCXAA050
CCW® ARMORED THERMOCOUPLE EXTENSION, PAIRS, OVERALL SHIELD												
9050.20041221	20 AWG TYPE EX 4 PAIRS	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9050.20041222	20 AWG TYPE JX 4 PAIRS	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9050.20041223	20 AWG TYPE KX 4 PAIRS	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9050.20041224	20 AWG TYPE TX 4 PAIRS	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9050.20081221	20 AWG TYPE EX 8 PAIRS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9050.20081222	20 AWG TYPE JX 8 PAIRS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9050.20081223	20 AWG TYPE KX 8 PAIRS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9050.20081224	20 AWG TYPE TX 8 PAIRS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9050.20101221	20 AWG TYPE EX 10 PAIRS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9050.20101222	20 AWG TYPE JX 10 PAIRS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9050.20101223	20 AWG TYPE KX 10 PAIRS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9050.20101224	20 AWG TYPE TX 10 PAIRS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9050.20121221	20 AWG TYPE EX 12 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9050.20121222	20 AWG TYPE JX 12 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9050.20121223	20 AWG TYPE KX 12 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9050.20121224	20 AWG TYPE TX 12 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9050.20161221	20 AWG TYPE EX 16 PAIRS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9050.20161222	20 AWG TYPE JX 16 PAIRS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9050.20161223	20 AWG TYPE KX 16 PAIRS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9050.20161224	20 AWG TYPE TX 16 PAIRS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9050.20201221	20 AWG TYPE EX 20 PAIRS	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9050.20201222	20 AWG TYPE JX 20 PAIRS	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9050.20201223	20 AWG TYPE KX 20 PAIRS	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9050.20201224	20 AWG TYPE TX 20 PAIRS	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9050.20241221	20 AWG TYPE EX 24 PAIRS	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9050.20241222	20 AWG TYPE JX 24 PAIRS	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9050.20241223	20 AWG TYPE KX 24 PAIRS	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9050.20241224	20 AWG TYPE TX 24 PAIRS	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9050.20361221	20 AWG TYPE EX 36 PAIRS	1.19	30.2	1.30	33.0	TMCX4140	C or C2	TMCX125A	TMCX125NB	TMCX125SS	4-125-110	CMCXAC100 or CMCXAC2125
9050.20361222	20 AWG TYPE JX 36 PAIRS	1.19	30.2	1.30	33.0	TMCX4140	C or C2	TMCX125A	TMCX125NB	TMCX125SS	4-125-110	CMCXAC100 or CMCXAC2125
9050.20361223	20 AWG TYPE KX 36 PAIRS	1.19	30.2	1.30	33.0	TMCX4140	C or C2	TMCX125A	TMCX125NB	TMCX125SS	4-125-110	CMCXAC100 or CMCXAC2125
9050.20361224	20 AWG TYPE TX 36 PAIRS	1.19	30.2	1.30	33.0	TMCX4140	C or C2	TMCX125A	TMCX125NB	TMCX125SS	4-125-110	CMCXAC100 or CMCXAC2125
9050.20501221	20 AWG TYPE EX 50 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9050.20501222	20 AWG TYPE JX 50 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9050.20501223	20 AWG TYPE KX 50 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9050.20501224	20 AWG TYPE TX 50 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125

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Thermocouple Extension

CCW CATALOG NUMBER	PRODUCT DETAIL	NOMINAL ARMOR O.D.		NOMINAL OVERALL O.D.		CROUSE-HINDS	HAWKE	APPLETON (TMCX) *end stop removed			Thomas & Betts	Hubbell/Killark
		INCHES	mm	INCHES	mm	TMCX Series	711 Series	Aluminum	NP Brass	Stainless Steel	Spin-On X	CMCXA
CCW® ARMORED THERMOCOUPLE EXTENSION, PAIRS, INDIVIDUAL AND OVERALL SHIELD												
9075.20041221	20 AWG TYPE EX 4 PAIRS	0.62	15.7	0.73	18.5	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9075.20041222	20 AWG TYPE JX 4 PAIRS	0.62	15.7	0.73	18.5	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9075.20041223	20 AWG TYPE KX 4 PAIRS	0.62	15.7	0.73	18.5	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9075.20041224	20 AWG TYPE TX 4 PAIRS	0.62	15.7	0.73	18.5	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9075.20081221	20 AWG TYPE EX 8 PAIRS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9075.20081222	20 AWG TYPE JX 8 PAIRS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9075.20081223	20 AWG TYPE KX 8 PAIRS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9075.20081224	20 AWG TYPE TX 8 PAIRS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9075.20101221	20 AWG TYPE EX 10 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9075.20101222	20 AWG TYPE JX 10 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9075.20101223	20 AWG TYPE KX 10 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9075.20121222	20 AWG TYPE JX 12 PAIRS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9075.20121223	20 AWG TYPE KX 12 PAIRS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9075.20121224	20 AWG TYPE TX 12 PAIRS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9075.20161221	20 AWG TYPE EX 16 PAIRS	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9075.20161222	20 AWG TYPE JX 16 PAIRS	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9075.20161223	20 AWG TYPE KX 16 PAIRS	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9075.20161224	20 AWG TYPE TX 16 PAIRS	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9075.20201221	20 AWG TYPE EX 20 PAIRS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9075.20201222	20 AWG TYPE JX 20 PAIRS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9075.20201223	20 AWG TYPE KX 20 PAIRS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9075.20201224	20 AWG TYPE TX 20 PAIRS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9075.20241221	20 AWG TYPE EX 24 PAIRS	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9075.20241222	20 AWG TYPE JX 24 PAIRS	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9075.20241223	20 AWG TYPE KX 24 PAIRS	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9075.20241224	20 AWG TYPE TX 24 PAIRS	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9075.20361221	20 AWG TYPE EX 36 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9075.20361222	20 AWG TYPE JX 36 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9075.20361223	20 AWG TYPE KX 36 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9075.20361224	20 AWG TYPE TX 36 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9075.20501221	20 AWG TYPE EX 50 PAIRS	1.47	37.3	1.58	40.1	TMCX5161	C2 or D	TMCX150A*	TMCX150NB*	TMCX150SS*	4-150-140	CMCXAC2125 or CMCXAD200
9075.20501222	20 AWG TYPE JX 50 PAIRS	1.47	37.3	1.58	40.1	TMCX5161	C2 or D	TMCX150A*	TMCX150NB*	TMCX150SS*	4-150-140	CMCXAC2125 or CMCXAD200
9075.20501223	20 AWG TYPE KX 50 PAIRS	1.47	37.3	1.58	40.1	TMCX5161	C2 or D	TMCX150A*	TMCX150NB*	TMCX150SS*	4-150-140	CMCXAC2125 or CMCXAD200
9075.20501224	20 AWG TYPE TX 50 PAIRS	1.47	37.3	1.58	40.1	TMCX5161	C2 or D	TMCX150A*	TMCX150NB*	TMCX150SS*	4-150-140	CMCXAC2125 or CMCXAD200

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CCW® Explosion-Proof Gland Cross-Reference

Instrumentation - 300 V

CCW CATALOG NUMBER	PRODUCT DETAIL	NOMINAL ARMOR O.D.		NOMINAL OVERALL O.D.		CROUSE-HINDS	HAWKE	APPLETON (TMCX) *end stop removed			Thomas & Betts	Hubbell/Killark
		INCHES	mm	INCHES	mm	TMCX Series	711 Series	Aluminum	NP Brass	Stainless Steel	Spin-On X	CMCXA
CCW® ARMORED INSTRUMENTATION, PAIRS/TRIADS, OVERALL SHIELD												
9125.16010001	16 AWG 7W (1.31 mm²) 1 PAIR	0.43	10.9	0.54	13.7	-	A	TMCX050SA*	TMCX050SNB*	TMCX050SSS*	4-075-008	CMCXAA050
9125.16010002	16 AWG 7W (1.31 mm²) 1 TRIAD	0.49	12.4	0.60	15.2	TMCX165	A or B	TMCX050SA*	TMCX050SNB*	TMCX050SSS*	4-075-010	CMCXAA050 or CMCXAB075
9125.16021201	16 AWG 7W (1.31 mm²) 2 PAIRS	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9125.16021202	16 AWG 7W (1.31 mm²) 2 TRIADS	0.62	15.7	0.73	18.5	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9125.16041201	16 AWG 7W (1.31 mm²) 4 PAIRS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9125.16041202	16 AWG 7W (1.31 mm²) 4 TRIADS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9125.16081201	16 AWG 7W (1.31 mm²) 8 PAIRS	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9125.16081202	16 AWG 7W (1.31 mm²) 8 TRIADS	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9125.16121201	16 AWG 7W (1.31 mm²) 12 PAIRS	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9125.16121202	16 AWG 7W (1.31 mm²) 12 TRIADS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9125.16161201	16 AWG 7W (1.31 mm²) 16 PAIRS	1.11	28.2	1.22	31.0	TMCX3112 or TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9125.16161202	16 AWG 7W (1.31 mm²) 16 TRIADS	1.24	31.5	1.35	34.3	TMCX4140	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-110	CMCXAC2125
9125.16241201	16 AWG 7W (1.31 mm²) 24 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9125.16241202	16 AWG 7W (1.31 mm²) 24 TRIADS	1.42	36.1	1.53	38.9	TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-140	CMCXAC2125 or CMCXAD200
9125.16361201	16 AWG 7W (1.31 mm²) 36 PAIRS	1.56	39.6	1.69	42.9	TMCX5161	C2 or D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-150-150	CMCXAC2125 or CMCXAD200
9125.16361202	16 AWG 7W (1.31 mm²) 36 TRIADS	1.64	41.7	1.78	45.2	TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9125.16501201	16 AWG 7W (1.31 mm²) 50 PAIRS	1.83	46.5	1.96	49.8	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-180	CMCXAD200 or CMCXAE250
9125.16501202	16 AWG 7W (1.31 mm²) 50 TRIADS	1.92	48.8	2.05	52.1	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-190	CMCXAD200 or CMCXAE250
CCW® ARMORED INSTRUMENTATION, PAIRS/TRIADS, INDIVIDUAL AND OVERALL SHIELD												
9150.16021201	16 AWG 7W (1.31 mm²) 2 PAIRS	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9150.16021202	16 AWG 7W (1.31 mm²) 2 TRIADS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9150.16041201	16 AWG 7W (1.31 mm²) 4 PAIRS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9150.16041202	16 AWG 7W (1.31 mm²) 4 TRIADS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9150.16081201	16 AWG 7W (1.31 mm²) 8 PAIRS	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9150.16081202	16 AWG 7W (1.31 mm²) 8 TRIADS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9150.16121201	16 AWG 7W (1.31 mm²) 12 PAIRS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9150.16121202	16 AWG 7W (1.31 mm²) 12 TRIADS	1.24	31.5	1.35	34.3	TMCX4140	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-110	CMCXAC2125
9150.16241201	16 AWG 7W (1.31 mm²) 24 PAIRS	1.42	36.1	1.53	38.9	TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-140	CMCXAC2125 or CMCXAD200
9150.16241202	16 AWG 7W (1.31 mm²) 24 TRIADS	1.60	40.6	1.73	43.9	TMCX5161 or TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9150.16361201	16 AWG 7W (1.31 mm²) 36 PAIRS	1.64	41.7	1.78	45.2	TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9150.16361202	16 AWG 7W (1.31 mm²) 36 TRIADS	1.87	47.5	2.00	50.8	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-190	CMCXAD200 or CMCXAE250
9150.16501201	16 AWG 7W (1.31 mm²) 50 PAIRS	1.96	49.8	2.09	53.1	TMCX6206 or TMCX7247	D or E	TMCX200A*	TMCX200NB*	TMCX200SS*	4-250-200	CMCXAD200 or CMCXAE250
9150.16501202	16 AWG 7W (1.31 mm²) 50 TRIADS	2.19	55.6	2.32	58.9	TMCX7247	E	TMCX250SA*	TMCX250SNB*	TMCX250SSS*	4-250-220	CMCXAE250
CCW® ARMORED INSTRUMENTATION, PAIRS/TRIADS, OVERALL SHIELD												
9225.16010001	16 AWG 7W (1.31 mm²) 1 PAIR	0.43	10.9	0.54	13.7	-	A	TMCX050SA*	TMCX050SNB*	TMCX050SSS*	4-075-008	CMCXAA050
9225.16010002	16 AWG 7W (1.31 mm²) 1 TRIAD	0.43	10.9	0.54	13.7	-	A	TMCX050SA*	TMCX050SNB*	TMCX050SSS*	4-075-008	CMCXAA050
9225.16021221	16 AWG 7W (1.31 mm²) 2 PAIRS	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9225.16041221	16 AWG 7W (1.31 mm²) 4 PAIRS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9225.16041222	16 AWG 7W (1.31 mm²) 4 TRIADS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9225.16061221	16 AWG 7W (1.31 mm²) 6 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9225.16081221	16 AWG 7W (1.31 mm²) 8 PAIRS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9225.16081222	16 AWG 7W (1.31 mm²) 8 TRIADS	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9225.16101221	16 AWG 7W (1.31 mm²) 10 PAIRS	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9225.16121221	16 AWG 7W (1.31 mm²) 12 PAIRS	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9225.16121222	16 AWG 7W (1.31 mm²) 12 TRIADS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9225.16161221	16 AWG 7W (1.31 mm²) 16 PAIRS	1.11	28.2	1.22	31.0	TMCX3112 or TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9225.16161222	16 AWG 7W (1.31 mm²) 16 TRIADS	1.19	30.2	1.30	33.0	TMCX4140	C or C2	TMCX125A	TMCX125NB	TMCX125SS	4-125-110	CMCXAC100 or CMCXAC2125

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CCW® Explosion-Proof Gland Cross-Reference

Instrumentation - 300 V

CCW CATALOG NUMBER	PRODUCT DETAIL	NOMINAL ARMOR O.D.		NOMINAL OVERALL O.D.		CROUSE-HINDS	HAWKE	APPLETON (TMCX) *end stop removed			Thomas & Betts	Hubbell/Killark
		INCHES	mm	INCHES	mm	TMCX Series	711 Series	Aluminum	NP Brass	Stainless Steel	Spin-On X	CMCXA
CCW® ARMORED INSTRUMENTATION, PAIRS/TRIADS, OVERALL SHIELD (cont'd)												
9225.16201221	16 AWG 7W (1.31 mm²) 20 PAIRS	1.24	31.5	1.35	34.3	TMCX4140	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-110	CMCXAC2125
9225.16241221	16 AWG 7W (1.31 mm²) 24 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9225.16241222	16 AWG 7W (1.31 mm²) 24 TRIADS	1.42	36.1	1.53	38.9	TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-140	CMCXAC2125 or CMCXAD200
9225.16361221	16 AWG 7W (1.31 mm²) 36 PAIRS	1.51	38.4	1.65	41.9	TMCX5161	C2 or D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-150-150	CMCXAC2125 or CMCXAD200
9225.16361222	16 AWG 7W (1.31 mm²) 36 TRIADS	1.60	40.6	1.73	43.9	TMCX5161 or TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9225.16501221	16 AWG 7W (1.31 mm²) 50 PAIRS	1.64	41.7	1.78	45.2	TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9225.18021221	18 AWG 7W (0.82 mm²) 2 PAIRS	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9225.18041221	18 AWG 7W (0.82 mm²) 2 PAIRS	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9225.18041222	18 AWG 7W (0.82 mm²) 2 TRIADS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9225.18061221	18 AWG 7W (0.82 mm²) 6 PAIRS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9225.18081221	18 AWG 7W (0.82 mm²) 8 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9225.18081222	18 AWG 7W (0.82 mm²) 8 TRIADS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9225.18101221	18 AWG 7W (0.82 mm²) 10 PAIRS	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9225.18121221	18 AWG 7W (0.82 mm²) 12 PAIRS	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9225.18121222	18 AWG 7W (0.82 mm²) 12 TRAIDS	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9225.18161221	18 AWG 7W (0.82 mm²) 16 PAIRS	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9225.18161222	18 AWG 7W (0.82 mm²) 16 TRIADS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9225.18201221	18 AWG 7W (0.82 mm²) 20 PAIRS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9225.18241221	18 AWG 7W (0.82 mm²) 24 PAIRS	1.11	28.2	1.22	31.0	TMCX3112 or TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9225.18241222	18 AWG 7W (0.82 mm²) 24 TRIADS	1.24	31.5	1.35	34.3	TMCX4140	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-110	CMCXAC2125
9225.18361221	18 AWG 7W (0.82 mm²) 36 PAIRS	1.29	32.8	1.40	35.6	TMCX4140 or TMCX5161	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-120	CMCXAC2125
9225.18361222	18 AWG 7W (0.82 mm²) 36 TRIADS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9225.18501221	18 AWG 7W (0.82 mm²) 50 PAIRS	1.47	37.3	1.58	40.1	TMCX5161	C2 or D	TMCX150A*	TMCX150NB*	TMCX150SS*	4-150-140	CMCXAC2125 or CMCXAD200
9225.20021221	20 AWG 7W (0.52 mm²) 2 PAIRS	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9225.20041221	20 AWG 7W (0.52 mm²) 4 PAIRS	0.62	15.7	0.73	18.5	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9225.20041222	20 AWG 7W (0.52 mm²) 4 TRIADS	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9225.20061221	20 AWG 7W (0.52 mm²) 6 PAIRS	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9225.20081221	20 AWG 7W (0.52 mm²) 8 PAIRS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9225.20081222	20 AWG 7W (0.52 mm²) 8 TRIADS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9225.20101221	20 AWG 7W (0.52 mm²) 10 PAIRS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9225.20121221	20 AWG 7W (0.52 mm²) 12 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9225.20121222	20 AWG 7W (0.52 mm²) 12 TRIADS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9225.20161221	20 AWG 7W (0.52 mm²) 16 PAIRS	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9225.20161222	20 AWG 7W (0.52 mm²) 16 TRIADS	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9225.20201221	20 AWG 7W (0.52 mm²) 20 PAIRS	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9225.20241221	20 AWG 7W (0.52 mm²) 24 PAIRS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9225.20241222	20 AWG 7W (0.52 mm²) 24 TRIADS	1.11	28.2	1.22	31.0	TMCX3112 or TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9225.20361221	20 AWG 7W (0.52 mm²) 36 PAIRS	1.24	31.5	1.35	34.3	TMCX4140	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-110	CMCXAC2125
9225.20361222	20 AWG 7W (0.52 mm²) 36 TRIADS	1.29	32.8	1.40	35.6	TMCX4140 or TMCX5161	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-120	CMCXAC2125
9225.20501221	20 AWG 7W (0.52 mm²) 50 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
CCW® ARMORED INSTRUMENTATION, PAIRS/TRIADS, INDIVIDUAL AND OVERALL SHIELD												
9250.16021221	16 AWG 7W (1.31 mm²) 2 PAIRS	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9250.16041221	16 AWG 7W (1.31 mm²) 4 PAIRS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9250.16041222	16 AWG 7W (1.31 mm²) 4 TRIADS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9250.16061221	16 AWG 7W (1.31 mm²) 6 PAIRS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9250.16081221	16 AWG 7W (1.31 mm²) 8 PAIRS	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9250.16081222	16 AWG 7W (1.31 mm²) 8 TRIADS	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100

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CCW® Explosion-Proof Gland Cross-Reference

Instrumentation - 300 V

CCW CATALOG NUMBER	PRODUCT DETAIL	NOMINAL ARMOR O.D.		NOMINAL OVERALL O.D.		CROUSE-HINDS	HAWKE	APPLETON (TMCX) *end stop removed			Thomas & Betts	Hubbell/Killark
		INCHES	mm	INCHES	mm	TMCX Series	711 Series	Aluminum	NP Brass	Stainless Steel	Spin-On X	CMCXA
CCW® ARMORED INSTRUMENTATION, PAIRS/TRIADS, INDIVIDUAL AND OVERALL SHIELD (cont'd)												
9250.16101221	16 AWG 7W (1.31 mm²) 10 PAIRS	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9250.16121221	16 AWG 7W (1.31 mm²) 12 PAIRS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9250.16121222	16 AWG 7W (1.31 mm²) 12 TRIADS	1.19	30.2	1.30	33.0	TMCX4140	C or C2	TMCX125A	TMCX125NB	TMCX125SS	4-125-110	CMCXAC100 or CMCXAC2125
9250.16161221	16 AWG 7W (1.31 mm²) 16 PAIRS	1.24	31.5	1.35	34.3	TMCX4140	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-110	CMCXAC2125
9250.16161222	16 AWG 7W (1.31 mm²) 16 TRIADS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9250.16201221	16 AWG 7W (1.31 mm²) 20 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9250.16241221	16 AWG 7W (1.31 mm²) 24 PAIRS	1.37	34.8	1.48	37.6	TMCX4140 or TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125 or CMCXAD200
9250.16241222	16 AWG 7W (1.31 mm²) 24 TRIADS	1.60	40.6	1.73	43.9	TMCX5161 or TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9250.16361221	16 AWG 7W (1.31 mm²) 36 PAIRS	1.60	40.6	1.73	43.9	TMCX5161 or TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9250.16361222	16 AWG 7W (1.31 mm²) 36 TRIADS	1.83	46.5	1.96	49.8	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-180	CMCXAD200 or CMCXAE250
9250.16501221	16 AWG 7W (1.31 mm²) 50 PAIRS	1.87	47.5	2.00	50.8	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-190	CMCXAD200 or CMCXAE250
9250.18021221	18 AWG 7W (0.82 mm²) 2 PAIRS	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9250.18041221	18 AWG 7W (0.82 mm²) 4 PAIRS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9250.18041222	18 AWG 7W (0.82 mm²) 4 TRIADS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9250.18061221	18 AWG 7W (0.82 mm²) 6 PAIRS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9250.18081221	18 AWG 7W (0.82 mm²) 8 PAIRS	0.80	20.3	0.92	23.4	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9250.18081222	18 AWG 7W (0.82 mm²) 8 TRIADS	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9250.18101221	18 AWG 7W (0.82 mm²) 10 PAIRS	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9250.18121221	18 AWG 7W (0.82 mm²) 12 PAIRS	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9250.18121222	18 AWG 7W (0.82 mm²) 12 TRIADS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9250.18161221	18 AWG 7W (0.82 mm²) 16 PAIRS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9250.18161222	18 AWG 7W (0.82 mm²) 16 TRIADS	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9250.18201221	18 AWG 7W (0.82 mm²) 20 PAIRS	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9250.18241221	18 AWG 7W (0.82 mm²) 24 PAIRS	1.24	31.5	1.35	34.3	TMCX4140	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-110	CMCXAC2125
9250.18241222	18 AWG 7W (0.82 mm²) 24 TRIADS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9250.18361221	18 AWG 7W (0.82 mm²) 36 PAIRS	1.47	37.3	1.58	40.1	TMCX5161	C2 or D	TMCX150A*	TMCX150NB*	TMCX150SS*	4-150-140	CMCXAC2125 or CMCXAD200
9250.18361222	18 AWG 7W (0.82 mm²) 36 TRIADS	1.60	40.6	1.73	43.9	TMCX5161 or TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9250.18501221	18 AWG 7W (0.82 mm²) 50 PAIRS	1.69	42.9	1.82	46.2	TMCX6206	D	TMCX200SA*	TMCX200SNB*	TMCX200SSS*	4-200-170	CMCXAD200
9250.20021221	20 AWG 7W (0.52 mm²) 2 PAIRS	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9250.20041221	20 AWG 7W (0.52 mm²) 4 PAIRS	0.62	15.7	0.73	18.5	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9250.20041222	20 AWG 7W (0.52 mm²) 4 TRIADS	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9250.20061221	20 AWG 7W (0.52 mm²) 6 PAIRS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9250.20081221	20 AWG 7W (0.52 mm²) 8 PAIRS	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9250.20081222	20 AWG 7W (0.52 mm²) 8 TRIADS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9250.20101221	20 AWG 7W (0.52 mm²) 10 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9250.20121221	20 AWG 7W (0.52 mm²) 12 PAIRS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9250.20121222	20 AWG 7W (0.52 mm²) 12 TRIADS	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9250.20161221	20 AWG 7W (0.52 mm²) 16 PAIRS	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9250.20161222	20 AWG 7W (0.52 mm²) 16 TRIADS	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9250.20201221	20 AWG 7W (0.52 mm²) 20 PAIRS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9250.20241221	20 AWG 7W (0.52 mm²) 24 PAIRS	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9250.20241222	20 AWG 7W (0.52 mm²) 24 TRIADS	1.24	31.5	1.35	34.3	TMCX4140	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-110	CMCXAC2125
9250.20361221	20 AWG 7W (0.52 mm²) 36 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9250.20361222	20 AWG 7W (0.52 mm²) 36 TRIADS	1.42	36.1	1.53	38.9	TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-140	CMCXAC2125 or CMCXAD200
9250.20501221	20 AWG 7W (0.52 mm²) 50 PAIRS	1.51	38.4	1.65	41.9	TMCX5161	C2 or D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-150-150	CMCXAC2125 or CMCXAD200

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CCW® Explosion-Proof Gland Cross-Reference

Instrumentation - 600 V

CCW CATALOG NUMBER	PRODUCT DETAIL	NOMINAL ARMOR O.D.		NOMINAL OVERALL O.D.		CROUSE-HINDS	HAWKE	APPLETON (TMCX) *end stop removed			Thomas & Betts	Hubbell/Killark
		INCHES	mm	INCHES	mm	TMCX Series	711 Series	Aluminum	NP Brass	Stainless Steel	Spin-On X	CMCXA
CCW® ARMORED INSTRUMENTATION, PAIRS/TRIADS, OVERALL SHIELD												
9325.16010001	16 AWG 7W (1.31 mm²) 1 PAIR	0.53	13.5	0.64	16.3	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9325.16010002	16 AWG 7W (1.31 mm²) 1 TRIAD	0.53	13.5	0.64	16.3	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9325.16020001	16 AWG 7W (1.31 mm²) 2 PAIRS	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9325.16040001	16 AWG 7W (1.31 mm²) 4 PAIRS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9325.16040002	16 AWG 7W (1.31 mm²) 4 TRIADS	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9325.16060001	16 AWG 7W (1.31 mm²) 6 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9325.16080001	16 AWG 7W (1.31 mm²) 8 PAIRS	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9325.16080002	16 AWG 7W (1.31 mm²) 8 TRIADS	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9325.16100001	16 AWG 7W (1.31 mm²) 10 PAIRS	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9325.16120001	16 AWG 7W (1.31 mm²) 12 PAIRS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9325.16120002	16 AWG 7W (1.31 mm²) 12 TRIADS	1.11	28.2	1.22	31.0	TMCX3112 or TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9325.16160001	16 AWG 7W (1.31 mm²) 16 PAIRS	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9325.16160002	16 AWG 7W (1.31 mm²) 16 TRIADS	1.19	30.2	1.30	33.0	TMCX4140	C or C2	TMCX125A	TMCX125NB	TMCX125SS	4-125-110	CMCXAC100 or CMCXAC2125
9325.16200001	16 AWG 7W (1.31 mm²) 20 PAIRS	1.29	32.8	1.40	35.6	TMCX4140 or TMCX5161	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-120	CMCXAC2125
9325.16240001	16 AWG 7W (1.31 mm²) 24 PAIRS	1.37	34.8	1.48	37.6	TMCX4140 or TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125 or CMCXAD200
9325.16240002	16 AWG 7W (1.31 mm²) 24 TRIADS	1.47	37.3	1.58	40.1	TMCX5161	C2 or D	TMCX150A*	TMCX150NB*	TMCX150SS*	4-150-140	CMCXAC2125 or CMCXAD200
9325.16360001	16 AWG 7W (1.31 mm²) 36 PAIRS	1.64	41.7	1.78	45.2	TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9325.16360002	16 AWG 7W (1.31 mm²) 36 TRIADS	1.74	44.2	1.87	47.5	TMCX6206	D	TMCX200SA*	TMCX200SNB*	TMCX200SSS*	4-200-170	CMCXAD200
9325.16500001	16 AWG 7W (1.31 mm²) 50 PAIRS	1.83	46.5	1.96	49.8	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-180	CMCXAD200 or CMCXAE250
9325.18020001	18 AWG 7W (0.82 mm²) 2 PAIRS	0.59	15.0	0.70	17.8	TMCX165	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9325.18040001	18 AWG 7W (0.82 mm²) 4 PAIRS	0.65	16.5	0.75	19.1	TMCX165 or TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAB075
9325.18080001	18 AWG 7W (0.82 mm²) 8 PAIRS	0.82	20.8	0.92	23.4	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9325.18120001	18 AWG 7W (0.82 mm²) 12 PAIRS	1.00	25.4	1.10	27.9	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9325.18160001	18 AWG 7W (0.82 mm²) 16 PAIRS	1.12	28.4	1.23	31.2	TMCX3112 or TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9325.18240001	18 AWG 7W (0.82 mm²) 24 PAIRS	1.39	35.3	1.49	37.8	TMCX4140 or TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125 or CMCXAD200
CCW® ARMORED INSTRUMENTATION, PAIRS/TRIADS, INDIVIDUAL AND OVERALL SHIELD												
9350.16020001	16 AWG 7W (1.31 mm²) 2 PAIRS	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9350.16040001	16 AWG 7W (1.31 mm²) 4 PAIRS	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9350.16040002	16 AWG 7W (1.31 mm²) 4 TRIADS	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9350.16060001	16 AWG 7W (1.31 mm²) 6 PAIRS	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9350.16080001	16 AWG 7W (1.31 mm²) 8 PAIRS	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9350.16080002	16 AWG 7W (1.31 mm²) 8 TRIADS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9350.16100001	16 AWG 7W (1.31 mm²) 10 PAIRS	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9350.16120001	16 AWG 7W (1.31 mm²) 12 PAIRS	1.11	28.2	1.22	31.0	TMCX3112 or TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9350.16120002	16 AWG 7W (1.31 mm²) 12 TRIADS	1.24	31.5	1.35	34.3	TMCX4140	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-110	CMCXAC2125
9350.16160001	16 AWG 7W (1.31 mm²) 16 PAIRS	1.29	32.8	1.40	35.6	TMCX4140 or TMCX5161	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-120	CMCXAC2125
9350.16160002	16 AWG 7W (1.31 mm²) 16 TRIADS	1.37	34.8	1.48	37.6	TMCX4140 or TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125 or CMCXAD200
9350.16200001	16 AWG 7W (1.31 mm²) 20 PAIRS	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9350.16240001	16 AWG 7W (1.31 mm²) 24 PAIRS	1.42	36.1	1.53	38.9	TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-140	CMCXAC2125 or CMCXAD200
9350.16240002	16 AWG 7W (1.31 mm²) 24 TRIADS	1.64	41.7	1.78	45.2	TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9350.16360001	16 AWG 7W (1.31 mm²) 36 PAIRS	1.69	42.9	1.82	46.2	TMCX6206	D	TMCX200SA*	TMCX200SNB*	TMCX200SSS*	4-200-170	CMCXAD200
9350.16360002	16 AWG 7W (1.31 mm²) 36 TRIADS	1.96	49.8	2.09	53.1	TMCX6206 or TMCX7247	D or E	TMCX200A*	TMCX200NB*	TMCX200SS*	4-250-200	CMCXAD200 or CMCXAE250
9350.16500001	16 AWG 7W (1.31 mm²) 50 PAIRS	1.92	48.8	2.05	52.1	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-190	CMCXAD200 or CMCXAE250
9350.18020001	18 AWG 7W (0.82 mm²) 2 PAIRS	0.59	15.0	0.70	17.8	TMCX165	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9350.18040001	18 AWG 7W (0.82 mm²) 4 PAIRS	0.65	16.5	0.75	19.1	TMCX165 or TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAB075
9350.18080001	18 AWG 7W (0.82 mm²) 8 PAIRS	0.82	20.8	0.92	23.4	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9350.18120001	18 AWG 7W (0.82 mm²) 12 PAIRS	1.00	25.4	1.10	27.9	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9350.18160001	18 AWG 7W (0.82 mm²) 16 PAIRS	1.12	28.4	1.23	31.2	TMCX3112 or TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9350.18240001	18 AWG 7W (0.82 mm²) 24 PAIRS	1.39	35.3	1.49	37.8	TMCX4140 or TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125 or CMCXAD200

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CCW® Explosion-Proof Gland Cross-Reference

CCW CATALOG NUMBER	PRODUCT DETAIL	NOMINAL ARMOR O.D.		NOMINAL OVERALL O.D.		CROUSE-HINDS	HAWKE	APPLETON (TMCX) *end stop removed			Thomas & Betts	Hubbell/Killark
		INCHES	mm	INCHES	mm	TMCX Series	711 Series	Aluminum	NP Brass	Stainless Steel	Spin-On X	CMCXA
Control - 600 V												
						CCW® ARMORED CONTROL WITH GREEN INSULATED GROUNDING CONDUCTOR						
9500.01002110	10 AWG 7W (5.26 mm²) 2/C W/10 AWG GROUND	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9500.01003110	10 AWG 7W (5.26 mm²) 3/C W/10 AWG GROUND	0.62	15.7	0.73	18.5	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9500.01004110	10 AWG 7W (5.26 mm²) 4/C W/10 AWG GROUND	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9500.01006110	10 AWG 7W (5.26 mm²) 6/C W/10 AWG GROUND	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9500.01008110	10 AWG 7W (5.26 mm²) 8/C W/10 AWG GROUND	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9500.01011110	10 AWG 7W (5.26 mm²) 11/C W/10 AWG GROUND	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9500.01202112	12 AWG 7W (3.31 mm²) 2/C W/12 AWG GROUND	0.53	13.5	0.64	16.3	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9500.01203112	12 AWG 7W (3.31 mm²) 3/C W/12 AWG GROUND	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9500.01204112	12 AWG 7W (3.31 mm²) 4/C W/12 AWG GROUND	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9500.01205112	12 AWG 7W (3.31 mm²) 5/C W/12 AWG GROUND	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9500.01206112	12 AWG 7W (3.31 mm²) 6/C W/12 AWG GROUND	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9500.01208112	12 AWG 7W (3.31 mm²) 8/C W/12 AWG GROUND	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9500.01211112	12 AWG 7W (3.31 mm²) 11/C W/12 AWG GROUND	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9500.01218112	12 AWG 7W (3.31 mm²) 18/C W/12 AWG GROUND	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9500.01236112	12 AWG 7W (3.31 mm²) 36/C W/12 AWG GROUND	1.37	34.8	1.48	37.6	TMCX4140 or TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125 or CMCXAD200
9500.01402114	14 AWG 7W (2.08 mm²) 2/C W/14 AWG GROUND	0.49	12.4	0.60	15.2	TMCX165	A or B	TMCX050SA*	TMCX050SNB*	TMCX050SSS*	4-075-010	CMCXAA050 or CMCXAB075
9500.01403114	14 AWG 7W (2.08 mm²) 3/C W/14 AWG GROUND	0.53	13.5	0.64	16.3	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9500.01404114	14 AWG 7W (2.08 mm²) 4/C W/14 AWG GROUND	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9500.01405114	14 AWG 7W (2.08 mm²) 5/C W/14 AWG GROUND	0.60	15.2	0.71	18.0	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9500.01406114	14 AWG 7W (2.08 mm²) 6/C W/14 AWG GROUND	0.62	15.7	0.73	18.5	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9500.01408114	14 AWG 7W (2.08 mm²) 8/C W/14 AWG GROUND	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9500.01411114	14 AWG 7W (2.08 mm²) 11/C W/14 AWG GROUND	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9500.01418114	14 AWG 7W (2.08 mm²) 18/C W/14 AWG GROUND	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9500.01436114	14 AWG 7W (2.08 mm²) 36/C W/14 AWG GROUND	1.24	31.5	1.35	34.3	TMCX4140	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-110	CMCXAC2125
Control (Non-HL) - 600 V												
						CCW® ARMORED CONTROL WITHOUT GROUNDING CONDUCTOR						
9525.01002000	10 AWG 7W (5.26 mm²) 2/C	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9525.01003000	10 AWG 7W (5.26 mm²) 3/C	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9525.01004000	10 AWG 7W (5.26 mm²) 4/C	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9525.01005000	10 AWG 7W (5.26 mm²) 5/C	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9525.01007000	10 AWG 7W (5.26 mm²) 7/C	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9525.01009000	10 AWG 7W (5.26 mm²) 9/C	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9525.01012000	10 AWG 7W (5.26 mm²) 12/C	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9525.01202000	12 AWG 7W (3.31 mm²) 2/C	0.53	13.5	0.64	16.3	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9525.01203000	12 AWG 7W (3.31 mm²) 3/C	0.53	13.5	0.64	16.3	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9525.01204000	12 AWG 7W (3.31 mm²) 4/C	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9525.01205000	12 AWG 7W (3.31 mm²) 5/C	0.62	15.7	0.73	18.5	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9525.01207000	12 AWG 7W (3.31 mm²) 7/C	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9525.01209000	12 AWG 7W (3.31 mm²) 9/C	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9525.01212000	12 AWG 7W (3.31 mm²) 12/C	0.89	22.6	0.99	25.1	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9525.01219000	12 AWG 7W (3.31 mm²) 19/C	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9525.01237000	12 AWG 7W (3.31 mm²) 37/C	1.37	34.8	1.48	37.6	TMCX4140 or TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125 or CMCXAD200
9525.01402000	14 AWG 7W (2.08 mm²) 2/C	0.49	12.4	0.60	15.2	TMCX165	A or B	TMCX050SA*	TMCX050SNB*	TMCX050SSS*	4-075-010	CMCXAA050 or CMCXAB075
9525.01403000	14 AWG 7W (2.08 mm²) 3/C	0.49	12.4	0.60	15.2	TMCX165	A or B	TMCX050SA*	TMCX050SNB*	TMCX050SSS*	4-075-010	CMCXAA050 or CMCXAB075
9525.01404000	14 AWG 7W (2.08 mm²) 4/C	0.53	13.5	0.64	16.3	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9525.01405000	14 AWG 7W (2.08 mm²) 5/C	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9525.01407000	14 AWG 7W (2.08 mm²) 7/C	0.62	15.7	0.73	18.5	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9525.01409000	14 AWG 7W (2.08 mm²) 9/C	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9525.01412000	14 AWG 7W (2.08 mm²) 12/C	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9525.01419000	14 AWG 7W (2.08 mm²) 19/C	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9525.01437000	14 AWG 7W (2.08 mm²) 37/C	1.24	31.5	1.35	34.3	TMCX4140	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-110	CMCXAC2125

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CCW® Explosion-Proof Gland Cross-Reference

CCW CATALOG NUMBER	PRODUCT DETAIL	NOMINAL ARMOR O.D.		NOMINAL OVERALL O.D.		CROUSE-HINDS	HAWKE	APPLETON (TMCX) *end stop removed			Thomas & Betts	Hubbell/Killark
		INCHES	mm	INCHES	mm	TMCX Series	711 Series	Aluminum	NP Brass	Stainless Steel	Spin-On X	CMCXA
Composite Power & Control - 600 V												
CCW® ARMORED COMPOSITE POWER AND CONTROL WITH BARE GROUND												
9625.043124108	4 AWG 7W (21.2 mm²) 3/C W/12 AWG 4/C CONTROL & 8 AWG GROUND	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9625.063124108	6 AWG 7W (13.3 mm²) 3/C W/12 AWG 4/C CONTROL & 8 AWG GROUND	0.93	23.6	1.03	26.2	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9625.083124110	8 AWG 7W (8.36 mm²) 3/C W/12 AWG 4/C CONTROL & 10 AWG GROUND	0.89	22.6	0.99	25.1	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9625.103124110	10 AWG 7W (5.26 mm²) 3/C W/12 AWG 4/C CONTROL & 10 AWG GROUND	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
Composite Power & Control (Non-HL) - 600 V												
CCW® ARMORED COMPOSITE POWER AND CONTROL WITHOUT GROUND												
9650.023123000	2 AWG 7W (33.6 mm²) 3/C W/12 AWG 3/C CONTROL	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9650.023124000	2 AWG 7W (33.6 mm²) 3/C W/12 AWG 4/C CONTROL	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9650.023143000	2 AWG 7W (33.6 mm²) 3/C W/14 AWG 3/C CONTROL	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9650.023144000	2 AWG 7W (33.6 mm²) 3/C W/14 AWG 4/C CONTROL	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9650.024123000	2 AWG 7W (33.6 mm²) 4/C W/12 AWG 3/C CONTROL	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9650.024124000	2 AWG 7W (33.6 mm²) 4/C W/12 AWG 4/C CONTROL	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9650.024143000	2 AWG 7W (33.6 mm²) 4/C W/14 AWG 3/C CONTROL	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9650.024144000	2 AWG 7W (33.6 mm²) 4/C W/14 AWG 4/C CONTROL	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9650.043123000	4 AWG 7W (21.2 mm²) 3/C W/12 AWG 3/C CONTROL	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9650.043124000	4 AWG 7W (21.2 mm²) 3/C W/12 AWG 4/C CONTROL	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9650.043143000	4 AWG 7W (21.2 mm²) 3/C W/14 AWG 3/C CONTROL	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9650.043144000	4 AWG 7W (21.2 mm²) 3/C W/14 AWG 4/C CONTROL	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9650.044123000	4 AWG 7W (21.2 mm²) 4/C W/12 AWG 3/C CONTROL	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9650.044124000	4 AWG 7W (21.2 mm²) 4/C W/12 AWG 4/C CONTROL	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9650.044143000	4 AWG 7W (21.2 mm²) 4/C W/14 AWG 3/C CONTROL	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9650.044144000	4 AWG 7W (21.2 mm²) 4/C W/14 AWG 4/C CONTROL	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9650.063123000	6 AWG 7W (13.3 mm²) 3/C W/12 AWG 3/C CONTROL	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9650.063124000	6 AWG 7W (13.3 mm²) 3/C W/12 AWG 4/C CONTROL	0.93	23.6	1.03	26.2	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9650.063143000	6 AWG 7W (13.3 mm²) 3/C W/14 AWG 3/C CONTROL	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9650.063144000	6 AWG 7W (13.3 mm²) 3/C W/14 AWG 4/C CONTROL	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9650.064123000	6 AWG 7W (13.3 mm²) 4/C W/12 AWG 3/C CONTROL	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9650.064124000	6 AWG 7W (13.3 mm²) 4/C W/12 AWG 4/C CONTROL	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9650.064143000	6 AWG 7W (13.3 mm²) 4/C W/14 AWG 3/C CONTROL	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9650.064144000	6 AWG 7W (13.3 mm²) 4/C W/14 AWG 4/C CONTROL	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9650.083123000	8 AWG 7W (8.36 mm²) 3/C W/12 AWG 3/C CONTROL	0.80	20.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9650.083124000	8 AWG 7W (8.36 mm²) 3/C W/12 AWG 4/C CONTROL	0.84	21.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9650.083143000	8 AWG 7W (8.36 mm²) 3/C W/14 AWG 3/C CONTROL	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9650.083144000	8 AWG 7W (8.36 mm²) 3/C W/14 AWG 4/C CONTROL	0.84	21.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9650.084123000	8 AWG 7W (8.36 mm²) 4/C W/12 AWG 3/C CONTROL	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9650.084124000	8 AWG 7W (8.36 mm²) 4/C W/12 AWG 4/C CONTROL	0.93	23.6	1.04	26.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9650.084143000	8 AWG 7W (8.36 mm²) 4/C W/14 AWG 3/C CONTROL	0.84	21.3	0.95	24.1	TMCX285 or TMCX3112	B	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075
9650.084144000	8 AWG 7W (8.36 mm²) 4/C W/14 AWG 4/C CONTROL	0.89	22.6	1.00	25.4	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9650.103123000	10 AWG 7W (5.26 mm²) 3/C W/12 AWG 3/C CONTROL	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9650.103143000	10 AWG 7W (5.26 mm²) 3/C W/14 AWG 3/C CONTROL	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075
9650.103144000	10 AWG 7W (5.26 mm²) 3/C W/14 AWG 4/C CONTROL	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9650.104123000	10 AWG 7W (5.26 mm²) 4/C W/12 AWG 3/C CONTROL	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9650.104124000	10 AWG 7W (5.26 mm²) 4/C W/12 AWG 4/C CONTROL	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9650.104143000	10 AWG 7W (5.26 mm²) 4/C W/14 AWG 3/C CONTROL	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9650.104144000	10 AWG 7W (5.26 mm²) 4/C W/14 AWG 4/C CONTROL	0.80	20.3	0.91	23.1	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9650.123143000	12 AWG 7W (3.31 mm²) 3/C W/14 AWG 3/C CONTROL	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9650.123144000	12 AWG 7W (3.31 mm²) 3/C W/14 AWG 4/C CONTROL	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9650.124143000	12 AWG 7W (3.31 mm²) 4/C W/14 AWG 3/C CONTROL	0.71	18.0	0.82	20.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9650.124144000	12 AWG 7W (3.31 mm²) 4/C W/14 AWG 4/C CONTROL	0.75	19.1	0.86	21.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-100-050	CMCXAB075

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CCW® Explosion-Proof Gland Cross-Reference

CCW CATALOG NUMBER	PRODUCT DETAIL	NOMINAL ARMOR O.D.		NOMINAL OVERALL O.D.		CROUSE-HINDS	HAWKE	APPLETON (TMCX) *end stop removed			Thomas & Betts	Hubbell/Killark
		INCHES	mm	INCHES	mm	TMCX Series	711 Series	Aluminum	NP Brass	Stainless Steel	Spin-On X	CMCXA
Power - 600 V												
						CCW® ARMORED POWER, 3/C VFD AND 4/C WITH BARE GROUND						
9600.00103310	1 AWG 19W (42.4 mm²) 3/C VFD W/10 AWG 3/C GROUND	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9600.00104106	1 AWG 19W (42.4 mm²) 4/C W/6 AWG 1/C GROUND	1.29	32.8	1.40	35.6	TMCX4140 or TMCX5161	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-120	CMCXAC2125
9600.00203310	2 AWG 7W (33.6 mm²) 3/C VFD W/10 AWG 3/C GROUND	1.02	25.9	1.13	28.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9600.00204106	2 AWG 7W (33.6 mm²) 4/C W/6 AWG 1/C GROUND	1.15	29.2	1.26	32.0	TMCX4140	C	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100
9600.00403312	4 AWG 7W (21.2 mm²) 3/C VFD W/12 AWG 3/C GROUND	0.89	22.6	0.99	25.1	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9600.00404108	4 AWG 7W (21.2 mm²) 4/C W/8 AWG 1/C GROUND	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9600.00603312	6 AWG 7W (13.3 mm²) 3/C VFD W/12 AWG 3/C GROUND	0.80	20.3	0.90	22.9	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9600.00604108	6 AWG 7W (13.3 mm²) 4/C W/8 AWG 1/C GROUND	0.89	22.6	0.99	25.1	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9600.00803314	8 AWG 7W (8.36 mm²) 3/C VFD W/14 AWG 3/C GROUND	0.71	18.0	0.81	20.6	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9600.00804110	8 AWG 7W (8.36 mm²) 4/C W/10 AWG 1/C GROUND	0.80	20.3	0.90	22.9	TMCX285 or TMCX3112	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9600.01003314	10 AWG 7W (5.26 mm²) 3/C VFD W/14 AWG 3/C GROUND	0.62	15.7	0.73	18.5	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9600.01004314	10 AWG 7W (5.26 mm²) 4/C W/14 AWG 3/C GROUND	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9600.01203316	12 AWG 7W (3.31 mm²) 3/C VFD W/16 AWG 3/C GROUND	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9600.01204316	12 AWG 7W (3.31 mm²) 4/C W/16 AWG 3/C GROUND	0.67	17.0	0.78	19.8	TMCX285	B	TMCX075A	TMCX075NB	TMCX075SS	4-075-040	CMCXAB075
9600.01403318	14 AWG 7W (2.08 mm²) 3/C VFD W/18 AWG 3/C GROUND	0.53	13.5	0.64	16.3	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9600.01404318	14 AWG 7W (2.08 mm²) 4/C W/18 AWG 3/C GROUND	0.58	14.7	0.69	17.5	TMCX165	A or B	TMCX050A*	TMCX050NB*	TMCX050SS*	4-075-020	CMCXAA050 or CMCXAB075
9600.11003310	1/0 AWG 19W (53.5 mm²) 3/C VFD W/10 AWG 3/C GROUND	1.34	34.0	1.44	36.6	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9600.11004106	1/0 AWG 19W (53.5 mm²) 4/C W/6 AWG 1/C GROUND	1.51	38.4	1.64	41.7	TMCX5161	C2 or D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-150-150	CMCXAC2125 or CMCXAD200
9600.21003310	2/0 AWG 19W (67.4 mm²) 3/C VFD W/10 AWG 3/C GROUND	1.74	44.2	1.87	47.5	TMCX6206	D	TMCX200SA*	TMCX200SNB*	TMCX200SSS*	4-200-170	CMCXAD200
9600.21004106	2/0 AWG 19W (67.4 mm²) 4/C W/6 AWG 1/C GROUND	1.96	49.8	2.09	53.1	TMCX6206 or TMCX7247	D or E	TMCX200A*	TMCX200NB*	TMCX200SS*	4-250-200	CMCXAD200 or CMCXAE250
9600.25003308	250 KCMIL 37W (127 mm²) 3/C VFD W/8 AWG 3/C GROUND	1.47	37.3	1.59	40.4	TMCX5161	C2 or D	TMCX150A*	TMCX150NB*	TMCX150SS*	4-150-140	CMCXAC2125 or CMCXAD200
9600.25004104	250KCMIL 37W (127 mm²) 4/C W/4 AWG 1/C GROUND	1.65	41.9	1.78	45.2	TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9600.31003308	3/0 AWG 19W (85 mm²) 3/C VFD W/8 AWG 3/C GROUND	1.96	49.8	2.09	53.1	TMCX6206 or TMCX7247	D or E	TMCX200A*	TMCX200NB*	TMCX200SS*	4-250-200	CMCXAD200 or CMCXAE250
9600.31004104	3/0 AWG 19W (85 mm²) 4/C W/4 AWG 1/C GROUND	2.19	55.6	2.35	59.7	TMCX7247	E	TMCX250SA*	TMCX250SNB*	TMCX250SSS*	4-250-220	CMCXAE250
9600.35003307	350 KCMIL 37W (177 mm²) 3/C VFD W/7 AWG 3/C GROUND	1.60	40.6	1.73	43.9	TMCX5161 or TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9600.35004103	350 KCMIL 37W (177 mm²) 4/C W/3 AWG 1/C GROUND	1.78	45.2	1.91	48.5	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-180	CMCXAD200 or CMCXAE250
9600.41003308	4/0 AWG 19W (107 mm²) 3/C VFD W/8 AWG 3/C GROUND	2.28	57.9	2.44	62.0	TMCX7247	E	TMCX250A	TMCX250NB	TMCX250SS	4-250-230	CMCXAE250
9600.41004104	4/0 AWG 19W (107 mm²) 4/C W/4 AWG 1/C GROUND	2.49	63.2	2.65	67.3	TMCX8302	E or F	TMCX250A*	TMCX250NB*	TMCX250SS*	4-300-240	CMCXAE250 or CMCXAF300
9600.50003306	500 KCMIL 37W (253 mm²) 3/C VFD W/6 AWG 3/C GROUND	2.75	69.9	2.92	74.2	TMCX8302	F	TMCX300A	TMCX300NB	TMCX300SS	4-300-260	CMCXAF300
9600.50004102	500 KCMIL 37W (253 mm²) 4C W/2 AWG 1/C GROUND	3.03	77.0	3.21	81.5	TMCX9352	H	TMCX350A	TMCX350NB	TMCX350SS	—	CMCXAH350
9600.75003305	750 KCMIL 61W (380 mm²) 3/C VFD W/5 AWG 3/C GROUND	3.11	79.0	3.30	83.8	TMCX9352	H	TMCX350A	TMCX350NB	TMCX350SS	4-350-290	CMCXAH350
9600.75004101	750 KCMIL 61W (380 mm²) 4/C W/1 AWG 1/C GROUND	3.63	92.2	3.81	96.8	TMCX10402	—	TMCX402400*	—	—	4-400-330	—
9600.100031110	1000 KCMIL 61W (507 mm²) 3/C VFD W/1/0 AWG 1/C GROUND	1.24	31.5	1.34	34.0	TMCX4140	C2	TMCX125A*	TMCX125NB*	TMCX125SS*	4-125-110	CMCXAC2125
9600.100041110	1000 KCMIL 61W (507 mm²) 4/C W/1/0 AWG 1/C GROUND	1.37	34.8	1.48	37.6	TMCX4140 or TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125 or CMCXAD200
Power - 1000 V												
						CCW® ARMORED POWER, 1000 V, 3/C VFD WITH BARE GROUND						
9675.00103310	1 AWG 19W (42.4 mm²) 3/C VFD W/10 AWG 3/C GROUND	1.36	34.6	1.46	37.1	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9675.00203310	2 AWG 7W (33.6 mm²) 3/C VFD W/10 AWG 3/C GROUND	1.18	29.9	1.28	32.5	TMCX4140	C or C2	TMCX125A	TMCX125NB	TMCX125SS	4-125-100	CMCXAC100 or CMCXAC2125
9675.00403312	4 AWG 7W (21.2 mm²) 3/C VFD W/12 AWG 3/C GROUND	0.98	24.8	1.08	27.4	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-100-080	CMCXAC100
9675.00603312	6 AWG 7W (13.3 mm²) 3/C VFD W/12 AWG 3/C GROUND	0.91	23.2	1.02	26.0	TMCX3112	B or C	TMCX100A	TMCX100NB	TMCX100SS	4-100-070	CMCXAB075 or CMCXAC100
9675.00803314	8 AWG 7W (8.36 mm²) 3/C VFD W/14 AWG 3/C GROUND	0.76	19.2	0.86	21.9	TMCX285	B	TMCX075A*	TMCX075NB*	TMCX075SS*	4-100-050	CMCXAB075
9675.01003316	10 AWG 7W (5.26 mm²) 3/C VFD W/16 AWG 3/C GROUND	0.63	16.1	0.73	18.6	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9675.01203318	12 AWG 7W (3.31 mm²) 3/C VFD W/18 AWG 3/C GROUND	0.60	15.3	0.70	17.8	TMCX165 or TMCX285	A or B	TMCX075A	TMCX075NB	TMCX075SS	4-075-030	CMCXAA050 or CMCXAB075
9675.11003310	1/0 AWG 19W (53.5 mm²) 3/C VFD W/10 AWG 3/C GROUND	1.42	36.0	1.52	38.6	TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-140	CMCXAC2125 or CMCXAD200
9675.21003310	2/0 AWG 19W (67.4 mm²) 3/C VFD W/10 AWG 3/C GROUND	1.56	39.6	1.66	42.2	TMCX5161	C2 or D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-150-150	CMCXAC2125 or CMCXAD200
9675.25003308	250 KCMIL 37W (127 mm²) 3/C VFD W/8 AWG 3/C GROUND	1.90	48.2	2.01	51.1	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-190	CMCXAD200 or CMCXAE250
9675.41003308	4/0 AWG 19W (107 mm²) 3/C VFD W/8 AWG 3/C GROUND	1.75	44.4	1.85	47.0	TMCX6206	D	TMCX200SA*	TMCX200SNB*	TMCX200SSS*	4-200-170	CMCXAD200
9675.50003306	500 KCMIL 37W (253 mm²) 3/C VFD W/6 AWG 3/C GROUND	2.48	63.0	2.59	65.8	TMCX7247 or TMCX8302	E or F	TMCX250A*	TMCX250NB*	TMCX250SS*	4-300-240	CMCXAE250 or CMCXAF300

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CCW® Explosion-Proof Gland Cross-Reference

CCW CATALOG NUMBER	PRODUCT DETAIL	NOMINAL ARMOR O.D.		NOMINAL OVERALL O.D.		CROUSE-HINDS	HAWKE	APPLETON (TMCX) *end stop removed			Thomas & Betts	Hubbell/Killark
		INCHES	mm	INCHES	mm	TMCX Series	711 Series	Aluminum	NP Brass	Stainless Steel	Spin-On X	CMCXA
Power - 2.4 kV												
CCW® ARMORED POWER, 2.4 kV, NONSHIELDED, 3/C VFD WITH BARE GROUND OR MV-90 W/90 MILS INSULATION												
9700.00103308	1 AWG 19W (42.4 mm²) 3/C MC-HL W/8 AWG 3/C GROUND	1.42	36.1	1.53	38.9	TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-140	CMCXAC2125 or CMCXAD200
9700.00203310	2 AWG 7W (33.6 mm²) 3/C MC-HL W/10 AWG 3/C GROUND	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9700.00403310	4 AWG 7W (21.2 mm²) 3/C MC-HL W/10 AWG 3/C GROUND	1.19	30.2	1.30	33.0	TMCX4140	C or C2	TMCX125A	TMCX125NB	TMCX125SS	4-125-110	CMCXAC100 or CMCXAC2125
9700.00603310	6 AWG 7W (13.3 mm²) 3/C MC-HL W/10 AWG 3/C GROUND	1.06	26.9	1.17	29.7	TMCX3112	C	TMCX100A*	TMCX100NB*	TMCX100SS*	4-125-090	CMCXAC100
9700.00803312	8 AWG 7W (8.36 mm²) 3/C MC-HL W/12 AWG 3/C GROUND	0.97	24.6	1.08	27.4	TMCX3112	C	TMCX100A	TMCX100NB	TMCX100SS	4-100-080	CMCXAB075 or CMCXAC100
9700.11003308	1/0 AWG 19W (53.5 mm²) 3/C MC-HL W/8 AWG 3/C GROUND	1.51	38.4	1.65	41.9	TMCX5161	C2 or D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-150-150	CMCXAC2125 or CMCXAD200
9700.21003308	2/0 AWG 19W (67.4 mm²) 3/C MC-HL W/8 AWG 3/C GROUND	1.60	40.6	1.73	43.9	TMCX5161 or TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9700.25003307	250 KCMIL 37W (127 mm²) 3/C MC-HL W/7 AWG 3/C GROUND	1.96	49.8	2.09	53.1	TMCX6206 or TMCX7247	D or E	TMCX200A*	TMCX200NB*	TMCX200SS*	4-250-200	CMCXAD200 or CMCXAE250
9700.35003306	350 KCMIL 37W (177 mm²) 3/C MC-HL W/6 AWG 3/C GROUND	2.19	55.6	2.32	58.9	TMCX7247	E	TMCX250SA*	TMCX250SNB*	TMCX250SSS*	4-250-220	CMCXAE250
9700.41003307	4/0 AWG 19W (107 mm²) 3/C MC-HL W/7 AWG 3/C GROUND	1.83	46.5	1.96	49.8	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-180	CMCXAD200 or CMCXAE250
9700.50003305	500 KCMIL 37W (253 mm²) 3/C MC-HL W/5 AWG 3/C GROUND	2.45	62.2	2.61	66.3	TMCX7247 or TMCX8302	E or F	TMCX250A*	TMCX250NB*	TMCX250SS*	4-300-240	CMCXAE250 or CMCXAF300
9700.75003304	750 KCMIL 37W (380 mm²) 3/C MC-HL W/4 AWG 3/C GROUND	2.93	74.4	3.10	78.7	TMCX8302	F or H	TMCX350A	TMCX350NB	TMCX350SS	—	CMCXAF300 or CMCXAH350
9700.10003304	1000 KCMIL 61W (507 mm²) 3/C MC-HL W/4 AWG 3/C GROUND	3.41	86.6	3.59	91.2	TMCX9352	H	TMCX350A*	TMCX350NB*	TMCX350SS*	4-350-310	CMCXAH350
Power 5 kV (133%) / 8 kV (100%)												
CCW® ARMORED POWER, 5 kV 133%/8 kV 100%, SHIELDED, 3/C VFD WITH BARE GROUND OR MV-105 W/115 MILS INSULATION												
9800.00103308	1 AWG 19W (42.4 mm²) 3/C MC-HL W/8 AWG 3/C GROUND	1.69	42.9	1.82	46.2	TMCX6206	D	TMCX200SA*	TMCX200SNB*	TMCX200SSS*	4-200-170	CMCXAD200
9800.00203310	2 AWG 7W (33.6 mm²) 3/C MC-HL W/10 AWG 3/C GROUND	1.64	41.7	1.78	45.2	TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9800.00403310	4 AWG 7W (21.2 mm²) 3/C MC-HL W/10 AWG 3/C GROUND	1.51	38.4	1.65	41.9	TMCX5161	C2 or D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-150-150	CMCXAC2125 or CMCXAD200
9800.00603310	6 AWG 7W (13.3 mm²) 3/C MC-HL W/10 AWG 3/C GROUND	1.37	34.8	1.48	37.6	TMCX4140 or TMCX5161	C2 or D	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125 or CMCXAD200
9800.00803312	8 AWG 7W (8.36 mm²) 3/C MC-HL W/12 AWG 3/C GROUND	1.34	34.0	1.45	36.8	TMCX4140 or TMCX5161	C2	TMCX150A	TMCX150NB	TMCX150SS	4-150-130	CMCXAC2125
9800.11003308	1/0 AWG 19W (53.5 mm²) 3/C MC-HL W/8 AWG 3/C GROUND	1.78	45.2	1.91	48.5	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-180	CMCXAD200 or CMCXAE250
9800.21003308	2/0 AWG 19W (67.4 mm²) 3/C MC-HL W/8 AWG 3/C GROUND	1.92	48.8	2.05	52.1	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-190	CMCXAD200 or CMCXAE250
9800.25003307	250 KCMIL 37W (127 mm²) 3/C MC-HL W/7 AWG 3/C GROUND	2.23	56.6	2.36	59.9	TMCX7247	E	TMCX250SA*	TMCX250SNB*	TMCX250SSS*	4-250-220	CMCXAE250
9800.35003306	350 KCMIL 37W (177 mm²) 3/C MC-HL W/6 AWG 3/C GROUND	2.45	62.2	2.61	66.3	TMCX7247 or TMCX8302	E or F	TMCX250A*	TMCX250NB*	TMCX250SS*	4-300-240	CMCXAE250 or CMCXAF300
9800.41003307	4/0 AWG 19W (107 mm²) 3/C MC-HL W/7 AWG 3/C GROUND	2.15	54.6	2.28	57.9	TMCX7247	E	TMCX250SA	TMCX250SNB	TMCX250SSS	4-250-210	CMCXAE250
9800.50003305	500 KCMIL 37W (253 mm²) 3/C MC-HL W/5 AWG 3/C GROUND	2.75	69.9	2.92	74.2	TMCX8302	F	TMCX300A	TMCX300NB	TMCX300SS	4-300-260	CMCXAF300
9800.75003304	750 KCMIL 61W (380 mm²) 3/C MC-HL W/4 AWG 3/C GROUND	3.32	84.3	3.50	88.9	TMCX9352	H	TMCX350A*	TMCX350NB*	TMCX350SS*	—	CMCXAH350
9800.10003304	1000 KCMIL 61W (507 mm²) 3/C MC-HL W/4 AWG 3/C GROUND	3.76	95.5	3.94	100.1	TMCX10402	—	TMCX402400*	—	—	4-400-330	—
Power - 8 kV (133%)												
CCW® ARMORED POWER, 8 kV 133%, SHIELDED, 3/C VFD WITH BARE GROUND OR MV-105 W/140 MILS INSULATION												
9815.00103308	1 AWG 19W (42.4 mm²) 3/C MC-HL W/8 AWG 3/C GROUND	1.93	49.0	2.06	52.3	TMCX6206 or TMCX7247	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-190	CMCXAD200 or CMCXAE250
9815.00203310	2 AWG 7W (33.6 mm²) 3/C MC-HL W/10 AWG 3/C GROUND	1.85	47.0	1.98	50.3	TMCX6206	D or E	TMCX200A	TMCX200NB	TMCX200SS	4-200-190	CMCXAD200 or CMCXAE250
9815.00403310	4 AWG 7W (21.2 mm²) 3/C MC-HL W/10 AWG 3/C GROUND	1.70	43.2	1.83	46.5	TMCX6206	D	TMCX200SA*	TMCX200SNB*	TMCX200SSS*	4-200-170	CMCXAD200
9815.00603310	6 AWG 7W (13.3 mm²) 3/C MC-HL W/10 AWG 3/C GROUND	1.60	40.6	1.73	43.9	TMCX5161 or TMCX6206	D	TMCX200SA	TMCX200SNB	TMCX200SSS	4-200-160	CMCXAD200
9815.11003308	1/0 AWG 19W (53.5 mm²) 3/C MC-HL W/8 AWG 3/C GROUND	2.03	51.6	2.16	54.9	TMCX6206 or TMCX7247	E	TMCX200A*	TMCX200NB*	TMCX200SS*	4-250-200	CMCXAE250
9815.21003308	2/0 AWG 19W (67.4 mm²) 3/C MC-HL W/8 AWG 3/C GROUND	2.14	54.4	2.27	57.7	TMCX7247	E	TMCX250SA	TMCX250SNB	TMCX250SSS	4-250-210	CMCXAE250
9815.25003307	250 KCMIL 37W (127 mm²) 3/C MC-HL W/7 AWG 3/C GROUND	2.59	65.8	2.75	69.9	TMCX8302	F	TMCX300A	TMCX300NB	TMCX300SS	4-300-250	CMCXAF300
9815.35003306	350 KCMIL 37W (177 mm²) 3/C MC-HL W/6 AWG 3/C GROUND	2.85	72.4	3.01	76.5	TMCX8302	F	TMCX300A*	TMCX300NB*	TMCX300SS*	—	CMCXAF300
9815.41003307	4/0 AWG 19W (107 mm²) 3/C MC-HL W/7 AWG 3/C GROUND	2.40	61.0	2.56	65.0	TMCX7247	E or F	TMCX250A	TMCX250NB	TMCX250SS	4-300-240	CMCXAE250 or CMCXAF300
9815.50003305	500 KCMIL 37W (253 mm²) 3/C MC-HL W/5 AWG 3/C GROUND	3.19	81.0	3.37	85.6	TMCX9352	H	TMCX350A	TMCX350NB	TMCX350SS	4-350-300	CMCXAH350
9815.75003304	750 KCMIL 61W (380 mm²) 3/C MC-HL W/4 AWG 3/C GROUND	3.68	93.5	3.86	98.0	TMCX10402	—	TMCX402400*	—	—	4-400-330	—
9815.10003304	1000 KCMIL 61W (507 mm²) 3/C MC-HL W/4 AWG 3/C GROUND	3.98	101.1	4.16	105.7	TMCX10402	—	TMCX402400*	—	—	4-400-350	—

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CCW® Explosion-Proof Gland Cross-Reference

CCW CATALOG NUMBER	PRODUCT DETAIL	NOMINAL ARMOR O.D.		NOMINAL OVERALL O.D.		CROUSE-HINDS	HAWKE	APPLETON (TMCX) *end stop removed			Thomas & Betts	Hubbell/Killark
		INCHES	mm	INCHES	mm	TMCX Series	711 Series	Aluminum	NP Brass	Stainless Steel	Spin-On X	CMCXA
Power - 15 kV (100%)												
CCW® ARMORED POWER, 15 kV 100%, SHIELDED, 3/C WITH BARE GROUND OR MV-105 175 MILS INSULATION												
9825.00103104	1 AWG 19W (42.4 mm²) 3/C MC-HL W/4 AWG GROUND	2.01	51.1	2.15	54.6	TMCX6206 or TMCX7247	E	TMCX200A*	TMCX200NB*	TMCX200SS*	4-250-200	CMCXAE250
9825.00203106	2 AWG 7W (33.6 mm²) 3/C MC-HL W/6 AWG GROUND	1.96	49.8	2.05	52.1	TMCX6206 or TMCX7247	D or E	TMCX200A*	TMCX200NB*	TMCX200SS*	4-250-200	CMCXAD200 or CMCXAE250
9825.11003104	1/0 AWG 19W (53.5 mm²) 3/C MC-HL W/4 AWG GROUND	2.10	53.3	2.24	56.9	TMCX7247	E	TMCX250SA	TMCX250SNB	TMCX250SSS	4-250-210	CMCXAE250
9825.21003104	2/0 AWG 19W (67.4 mm²) 3/C MC-HL W/4 AWG GROUND	2.19	55.6	2.36	59.9	TMCX7247	E	TMCX250SA*	TMCX250SNB*	TMCX250SSS*	4-250-220	CMCXAE250
9825.25003103	250 KCMIL 37W (127 mm²) 3/C MC-HL W/3 AWG GROUND	2.58	65.5	2.74	69.6	TMCX8302	F	TMCX300A	TMCX300NB	TMCX300SS	4-300-250	CMCXAF300
9825.35003102	350 KCMIL 37W (177 mm²) 3/C MC-HL W/2 AWG GROUND	2.85	72.4	3.01	76.5	TMCX8302	F	TMCX300A*	TMCX300NB*	TMCX300SS*	—	CMCXAF300
9825.41003103	4/0 AWG 19W (107 mm²) 3/C MC-HL W/3 AWG GROUND	2.45	62.2	2.61	66.3	TMCX7247 or TMCX8302	E or F	TMCX250A*	TMCX250NB*	TMCX250SS*	4-300-240	CMCXAE250 or CMCXAF300
9825.50003101	500 KCMIL 37W (253 mm²) 3/C MC-HL W/1 AWG GROUND	3.16	80.3	3.34	84.8	TMCX9352	H	TMCX350A	TMCX350NB	TMCX350SS	4-350-290	CMCXAH350
Power - 15 kV (133%)												
CCW® ARMORED POWER, 15 kV 133%, SHIELDED, 3/C WITH BARE GROUND OR MV-105 220 MILS INSULATION												
9835.00103104	1 AWG 19W (42.4 mm²) 3/C MC-HL W/4 AWG GROUND	2.23	56.6	2.36	59.9	TMCX7247	E	TMCX250SA*	TMCX250SNB*	TMCX250SSS*	4-250-220	CMCXAE250
9835.00203106	2 AWG 7W (33.6 mm²) 3/C MC-HL W/6 AWG GROUND	2.15	54.6	2.28	57.9	TMCX7247	E	TMCX250SA	TMCX250SNB	TMCX250SSS	4-250-210	CMCXAE250
9835.11003104	1/0 AWG 19W (53.5 mm²) 3/C MC-HL W/4 AWG GROUND	2.32	58.9	2.48	63.0	TMCX7247	E or F	TMCX250A	TMCX250NB	TMCX250SS	4-250-230	CMCXAE250 or CMCXAF300
9835.21003104	2/0 AWG 19W (67.4 mm²) 3/C MC-HL W/4 AWG GROUND	2.40	61.0	2.56	65.0	TMCX7247	E or F	TMCX250A	TMCX250NB	TMCX250SS	4-300-240	CMCXAE250 or CMCXAF300
9835.25003103	250 KCMIL 37W (127 mm²) 3/C MC-HL W/3 AWG GROUND	2.75	69.9	2.92	74.2	TMCX8302	F	TMCX300A	TMCX300NB	TMCX300SS	4-300-260	CMCXAF300
9835.35003102	350 KCMIL 37W (177 mm²) 3/C MC-HL W/2 AWG GROUND	3.03	77.0	3.21	81.5	TMCX9352	H	TMCX350A	TMCX350NB	TMCX350SS	—	CMCXAH350
9835.41003103	4/0 AWG 19W (107 mm²) 3/C MC-HL W/3 AWG GROUND	2.62	66.5	2.79	70.9	TMCX8302	F	TMCX300A	TMCX300NB	TMCX300SS	4-300-250	CMCXAF300
9835.50003101	500 KCMIL 37W (253 mm²) 3/C MC-HL W/1 AWG GROUND	3.32	84.3	3.50	88.9	TMCX9352	H	TMCX350A*	TMCX350NB*	TMCX350SS*	—	CMCXAH350
9835.750031110	750 KCMIL 61W (380 mm²) 3/C MC-HL W/1/0 AWG GROUND	3.80	96.5	3.98	101.1	TMCX10402	—	TMCX402400*	—	—	—	—
Power - 25 kV (100%)												
CCW® ARMORED POWER, 25 kV 100%, SHIELDED, 3/C WITH BARE GROUND OR MV-105 260 MILS INSULATION												
9845.00103104	1 AWG 19W (42.4 mm²) 3/C MC-HL W/4 AWG GROUND	2.45	62.2	2.61	66.3	TMCX7247 or TMCX8302	E or F	TMCX250A*	TMCX250NB*	TMCX250SS*	4-300-240	CMCXAE250 or CMCXAF300
9845.11003104	1/0 AWG 19W (53.5 mm²) 3/C MC-HL W/4 AWG GROUND	2.53	64.3	2.69	68.3	TMCX8302	E or F	TMCX250A*	TMCX250NB*	TMCX250SS*	4-300-250	CMCXAE250 or CMCXAF300
9845.21003104	2/0 AWG 19W (67.4 mm²) 3/C MC-HL W/4 AWG GROUND	2.62	66.5	2.79	70.9	TMCX8302	F	TMCX300A	TMCX300NB	TMCX300SS	4-300-250	CMCXAF300
9845.25003103	250 KCMIL 37W (127 mm²) 3/C MC-HL W/3 AWG GROUND	3.07	78.0	3.25	82.6	TMCX9352	H	TMCX350A	TMCX350NB	TMCX350SS	4-350-290	CMCXAH350
9845.35003102	350 KCMIL 37W (177 mm²) 3/C MC-HL W/2 AWG GROUND	3.32	84.3	3.50	88.9	TMCX9352	H	TMCX350A*	TMCX350NB*	TMCX350SS*	—	CMCXAH350
9845.41003103	4/0 AWG 19W (107 mm²) 3/C MC-HL W/3 AWG GROUND	2.93	74.4	3.10	78.7	TMCX8302	F or H	TMCX350A	TMCX350NB	TMCX350SS	—	CMCXAF300 or CMCXAH350
9845.50003101	500 KCMIL 37W (253 mm²) 3/C MC-HL W/1 AWG GROUND	3.62	91.9	3.81	96.8	TMCX10402	—	TMCX402400*	—	—	4-400-330	—
Power 25 kV (133%)/35 kV (100%)												
CCW® ARMORED POWER, 25 kV 133%/35 kV 100%, SHIELDED, 3/C WITH BARE GROUND OR MV-105 345 MILS INSULATION												
9855.00103104	1 AWG 19W (42.4 mm²) 3/C MC-HL W/4 AWG GROUND	2.89	73.4	3.05	77.5	TMCX8302	F	TMCX300A*	TMCX300NB*	TMCX300SS*	—	CMCXAF300
9855.11003104	1/0 AWG 19W (53.5 mm²) 3/C MC-HL W/4 AWG GROUND	2.98	75.7	3.14	79.8	TMCX8302 or TMCX9352	F or H	TMCX350A	TMCX350NB	TMCX350SS	—	CMCXAF300 or CMCXAH350
9855.21003104	2/0 AWG 19W (67.4 mm²) 3/C MC-HL W/4 AWG GROUND	3.11	79.0	3.30	83.8	TMCX9352	H	TMCX350A	TMCX350NB	TMCX350SS	4-350-290	CMCXAH350
9855.25003103	250 KCMIL 37W (127 mm²) 3/C MC-HL W/3 AWG GROUND	3.63	92.2	3.81	96.8	TMCX10402	—	TMCX402400*	—	—	4-400-330	—
9855.35003102	350 KCMIL 37W (177 mm²) 3/C MC-HL W/2 AWG GROUND	3.76	95.5	3.94	100.1	TMCX10402	—	TMCX402400*	—	—	4-400-330	—
9855.41003103	4/0 AWG 19W (107 mm²) 3/C MC-HL W/3 AWG GROUND	3.41	86.6	3.60	91.4	TMCX9352	H	TMCX350A*	TMCX350NB*	TMCX350SS*	4-350-310	CMCXAH350
9855.50003101	500 KCMIL 37W (253 mm²) 3/C MC-HL W/1 AWG GROUND	4.10	104.1	4.23	107.4	—	—	—	—	—	—	—
Power 35 kV (133%)												
CCW® ARMORED POWER, 35 kV 133%, SHIELDED, 3/C WITH BARE GROUND OR MV-105 420 MILS INSULATION												
9875.11003104	1/0 AWG 19W (53.5 mm²) 3/C MC-HL W/4 AWG GROUND	3.41	86.6	3.59	91.2	TMCX9352	H	TMCX350A*	TMCX350NB*	TMCX350SS*	4-350-310	CMCXAH350
9875.21003104	2/0 AWG 19W (67.4 mm²) 3/C MC-HL W/4 AWG GROUND	3.63	92.2	3.81	96.8	TMCX10402	—	TMCX402400*	—	—	4-400-330	—
9875.25003103	250 KCMIL 37W (127 mm²) 3/C MC-HL W/3 AWG GROUND	3.98	101.1	4.16	105.7	TMCX10402	—	TMCX402400*	—	—	4-400-350	—
9875.35003102	350 KCMIL 37W (177 mm²) 3/C MC-HL W/2 AWG GROUND	4.10	104.1	4.29	109.0	—	—	—	—	—	—	—
9875.41003103	4/0 AWG 19W (107 mm²) 3/C MC-HL W/3 AWG GROUND	3.80	96.5	3.98	101.1	TMCX10402	—	TMCX402400*	—	—	—	—
9875.50003101	500 KCMIL 37W (253 mm²) 3/C MC-HL W/1 AWG GROUND	4.45	113.0	4.63	117.6	—	—	—	—	—	—	—

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CCW® Catalog Number Cross-Reference – Okonite C-L-X® to General Cable CCW®

Okonite C-L-X® Catalog Number	General Cable CCW® Catalog Number	Okonite C-L-X® Catalog Number	General Cable CCW® Catalog Number	Okonite C-L-X® Catalog Number	General Cable CCW® Catalog Number
546-31-3002	9525.01402000	546-31-3927	9650.123144000	561-15-3304	9250.18041222
546-31-3003	9525.01403000	546-31-3950	9650.124143000	561-15-3308	9250.18081222
546-31-3004	9525.01404000	546-31-3956	9650.104143000	561-15-3312	9250.18121222
546-31-3005	9525.01405000	546-31-3958	9650.104124000	561-15-3316	9250.18161222
546-31-3007	9525.01407000	546-31-3983	9650.123143000	561-15-3324	9250.18241222
546-31-3009	9525.01409000	546-31-3984	9625.103124110	561-15-3336	9250.18361222
546-31-3012	9525.01412000	546-31-3987	9650.104144000	561-15-3404	9250.16041222
546-31-3019	9525.01419000	546-31-3988	9650.104123000	561-15-3408	9250.16081222
546-31-3037	9525.01437000	546-31-3990	9650.103123000	561-15-3412	9250.16121222
546-31-3082	9525.01202000	546-31-3992	9650.103144000	561-15-3416	9250.16161222
546-31-3083	9525.01203000	561-10-3202	9250.20021221	561-15-3424	9250.16241222
546-31-3084	9525.01204000	561-10-3204	9250.20041221	561-15-3436	9250.16361222
546-31-3085	9525.01205000	561-10-3206	9250.20061221	561-60-3402	9350.16020001
546-31-3087	9525.01207000	561-10-3208	9250.20081221	561-60-3404	9350.16040001
546-31-3089	9525.01209000	561-10-3210	9250.20101221	561-60-3406	9350.16060001
546-31-3092	9525.01212000	561-10-3212	9250.20121221	561-60-3408	9350.16080001
546-31-3099	9525.01219000	561-10-3216	9250.20161221	561-60-3410	9350.16100001
546-31-3117	9525.01237000	561-10-3220	9250.20201221	561-60-3412	9350.16120001
546-31-3162	9525.01002000	561-10-3224	9250.20241221	561-60-3416	9350.16160001
546-31-3163	9525.01003000	561-10-3236	9250.20361221	561-60-3420	9350.16200001
546-31-3164	9525.01004000	561-10-3250	9250.20501221	561-60-3424	9350.16240001
546-31-3165	9525.01005000	561-10-3302	9250.18021221	561-60-3436	9350.16360001
546-31-3167	9525.01007000	561-10-3304	9250.18041221	561-60-3450	9350.16500001
546-31-3169	9525.01009000	561-10-3306	9250.18061221	561-65-3404	9350.16040002
546-31-3172	9525.01012000	561-10-3308	9250.18081221	561-65-3408	9350.16080002
546-31-3402	9500.01402114	561-10-3310	9250.18101221	561-65-3412	9350.16120002
546-31-3403	9600.01403318	561-10-3312	9250.18121221	561-65-3416	9350.16160002
546-31-3404	9600.01404318	561-10-3316	9250.18161221	561-65-3424	9350.16240002
546-31-3406	9500.01406114	561-10-3320	9250.18201221	561-65-3436	9350.16360002
546-31-3408	9500.01408114	561-10-3324	9250.18241221	564-10-3202	9225.20021221
546-31-3411	9500.01411114	561-10-3336	9250.18361221	564-10-3204	9225.20041221
546-31-3418	9500.01418114	561-10-3350	9250.18501221	564-10-3206	9225.20061221
546-31-3436	9500.01436114	561-10-3402	9250.16021221	564-10-3208	9225.20081221
546-31-3452	9500.01202112	561-10-3404	9250.16041221	564-10-3210	9225.20101221
546-31-3453	9600.01203316	561-10-3406	9250.16061221	564-10-3212	9225.20121221
546-31-3454	9600.01204316	561-10-3408	9250.16081221	564-10-3216	9225.20161221
546-31-3456	9500.01206112	561-10-3410	9250.16101221	564-10-3220	9225.20201221
546-31-3458	9500.01208112	561-10-3412	9250.16121221	564-10-3224	9225.20241221
546-31-3461	9500.01211112	561-10-3416	9250.16161221	564-10-3236	9225.20361221
546-31-3468	9500.01218112	561-10-3420	9250.16201221	564-10-3250	9225.20501221
546-31-3486	9500.01236112	561-10-3424	9250.16241221	564-10-3302	9225.18021221
546-31-3502	9500.01002110	561-10-3436	9250.16361221	564-10-3304	9225.18041221
546-31-3503	9600.01003314	561-10-3450	9250.16501221	564-10-3306	9225.18061221
546-31-3504	9600.01004314	561-15-3204	9250.20041222	564-10-3308	9225.18081221
546-31-3506	9500.01006110	561-15-3208	9250.20081222	564-10-3310	9225.18101221
546-31-3508	9500.01008110	561-15-3212	9250.20121222	564-10-3312	9225.18121221
546-31-3511	9500.01011110	561-15-3216	9250.20161222	564-10-3316	9225.18161221
546-31-3758	9650.103143000	561-15-3224	9250.20241222	564-10-3320	9225.18201221
546-31-3925	9650.124144000	561-15-3236	9250.20361222	564-10-3324	9225.18241221

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CCW® Catalog Number Cross-Reference – Okonite C-L-X® to General Cable CCW®

Okonite C-L-X® Catalog Number	General Cable CCW® Catalog Number	Okonite C-L-X® Catalog Number	General Cable CCW® Catalog Number	Okonite C-L-X® Catalog Number	General Cable CCW® Catalog Number
564-10-3336	9225.18361221	564-65-3408	9325.16080002	571-21-3244	9700.50003305
564-10-3350	9225.18501221	564-65-3412	9325.16120002	571-21-3248	9700.75003304
564-10-3401	9225.16010001	564-65-3416	9325.16160002	571-21-3252	9700.10003304
564-10-3402	9225.16021221	564-65-3424	9325.16240002	571-22-3696	9800.00603310
564-10-3404	9225.16041221	564-65-3436	9325.16360002	571-22-3698	9800.00403310
564-10-3406	9225.16061221	567-86-3402	9150.16021201	571-22-3706	9800.00203310
564-10-3408	9225.16081221	567-86-3404	9150.16041201	571-22-3708	9800.00103308
564-10-3410	9225.16101221	567-86-3408	9150.16081201	571-22-3710	9800.11003308
564-10-3412	9225.16121221	567-86-3412	9150.16121201	571-22-3717	9800.21003308
564-10-3416	9225.16161221	567-86-3424	9150.16241201	571-22-3725	9800.41003307
564-10-3420	9225.16201221	567-86-3436	9150.16361201	571-22-3727	9800.25003307
564-10-3424	9225.16241221	567-86-3450	9150.16501201	571-22-3748	9800.75003304
564-10-3436	9225.16361221	567-87-3402	9150.16021202	571-22-3751	9800.10003304
564-10-3450	9225.16501221	567-87-3404	9150.16041202	571-22-3838	9800.35003306
564-15-3204	9225.20041222	567-87-3408	9150.16081202	571-22-3846	9800.50003305
564-15-3208	9225.20081222	567-87-3412	9150.16121202	571-23-3204	9825.00203106
564-15-3212	9225.20121222	567-87-3424	9150.16241202	571-23-3208	9825.00103104
564-15-3216	9225.20161222	567-87-3436	9150.16361202	571-23-3212	9825.11003104
564-15-3224	9225.20241222	567-87-3450	9150.16501202	571-23-3216	9825.21003104
564-15-3236	9225.20361222	567-93-3801	9125.16010001	571-23-3224	9825.41003103
564-15-3304	9225.18041222	567-93-3802	9125.16021201	571-23-3228	9825.25003103
564-15-3308	9225.18081222	567-93-3804	9125.16041201	571-23-3236	9825.35003102
564-15-3312	9225.18121222	567-93-3808	9125.16081201	571-23-3244	9825.50003101
564-15-3316	9225.18161222	567-93-3812	9125.16121201	571-23-3504	9835.00203106
564-15-3324	9225.18241222	567-93-3816	9125.16161201	571-23-3508	9835.00103104
564-15-3336	9225.18361222	567-93-3824	9125.16241201	571-23-3512	9835.11003104
564-15-3401	9225.16010002	567-93-3836	9125.16361201	571-23-3516	9835.21003104
564-15-3404	9225.16041222	567-93-3850	9125.16501201	571-23-3524	9835.41003103
564-15-3408	9225.16081222	567-94-3801	9125.16010002	571-23-3528	9835.25003103
564-15-3412	9225.16121222	567-94-3802	9125.16021202	571-23-3536	9835.35003102
564-15-3416	9225.16161222	567-94-3804	9125.16041202	571-23-3544	9835.50003101
564-15-3424	9225.16241222	567-94-3808	9125.16081202	571-23-3548	9835.750031110
564-15-3436	9225.16361222	567-94-3812	9125.16121202	571-23-3758	9845.00103104
564-60-3401	9325.16010001	567-94-3816	9125.16161202	571-23-3762	9845.11003104
564-60-3402	9325.16020001	567-94-3824	9125.16241202	571-23-3766	9845.21003104
564-60-3404	9325.16040001	567-94-3836	9125.16361202	571-23-3774	9845.41003103
564-60-3406	9325.16060001	567-94-3850	9125.16501202	571-23-3778	9845.25003103
564-60-3408	9325.16080001	571-21-3193	9700.00803312	571-23-3786	9845.35003102
564-60-3410	9325.16100001	571-21-3196	9700.00603310	571-23-3794	9845.50003101
564-60-3412	9325.16120001	571-21-3200	9700.00403310	571-23-3808	9855.00103104
564-60-3416	9325.16160001	571-21-3204	9700.00203310	571-23-3812	9855.11003104
564-60-3420	9325.16200001	571-21-3208	9700.00103308	571-23-3816	9855.21003104
564-60-3424	9325.16240001	571-21-3212	9700.11003308	571-23-3824	9855.41003103
564-60-3436	9325.16360001	571-21-3217	9700.21003308	571-23-3826	9855.25003103
564-60-3450	9325.16500001	571-21-3224	9700.41003307	571-23-3836	9855.35003102
564-65-3401	9325.16010002	571-21-3228	9700.25003307	571-23-3844	9855.50003101
564-65-3404	9325.16040002	571-21-3236	9700.35003306	571-23-3852	9875.11003104

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CCW® Catalog Number Cross-Reference – Okonite C-L-X® to General Cable CCW®

Okonite C-L-X® Catalog Number	General Cable CCW® Catalog Number	Okonite C-L-X® Catalog Number	General Cable CCW® Catalog Number	Okonite C-L-X® Catalog Number	General Cable CCW® Catalog Number
571-23-3856	9875.21003104	571-31-3670	9650.044123000	584-10-4216	9075.20161224
571-23-3864	9875.41003103	571-31-3671	9650.043123000	584-10-4220	9075.20201224
571-23-3876	9875.35003102	571-31-3672	9650.044124000	584-10-4224	9075.20241224
571-23-3884	9875.50003101	571-31-3673	9650.063123000	584-10-4236	9075.20361224
571-31-3190	9600.00803314	571-31-3674	9650.023144000	584-10-4250	9075.20501224
571-31-3191	9600.00603312	571-31-3675	9650.023123000	584-20-1204	9050.20041221
571-31-3192	9650.083143000	571-31-3677	9625.043124108	584-20-1208	9050.20081221
571-31-3195	9650.063143000	571-31-3680	9650.084124000	584-20-1210	9050.20101221
571-31-3200	9600.00403312	571-31-3682	9650.084143000	584-20-1212	9050.20121221
571-31-3203	9650.023143000	571-31-3683	9650.084123000	584-20-1216	9050.20161221
571-31-3204	9600.00203310	571-31-3684	9650.064144000	584-20-1220	9050.20201221
571-31-3208	9600.00103310	571-31-3685	9650.064123000	584-20-1224	9050.20241221
571-31-3213	9600.11003310	571-31-3688	9650.044143000	584-20-1236	9050.20361221
571-31-3216	9600.21003310	571-31-3960	9650.084144000	584-20-1250	9050.20501221
571-31-3224	9600.41003308	571-31-3965	9650.064124000	584-20-1401	9025.16010001
571-31-3228	9600.25003308	571-31-3968	9650.064143000	584-20-2204	9050.20041222
571-31-3236	9600.35003307	571-31-3970	9650.043144000	584-20-2208	9050.20081222
571-31-3244	9600.50003306	571-31-3974	9650.043124000	584-20-2210	9050.20101222
571-31-3248	9600.75003305	584-10-1204	9075.20041221	584-20-2212	9050.20121222
571-31-3252	9600.100031110	584-10-1208	9075.20081221	584-20-2216	9050.20161222
571-31-3263	9600.00804110	584-10-1210	9075.20101221	584-20-2220	9050.20201222
571-31-3270	9600.00604108	584-10-1216	9075.20161221	584-20-2224	9050.20241222
571-31-3272	9600.00404108	584-10-1220	9075.20201221	584-20-2236	9050.20361222
571-31-3276	9600.00204106	584-10-1224	9075.20241221	584-20-2250	9050.20501222
571-31-3280	9600.00104106	584-10-1236	9075.20361221	584-20-2401	9025.16010002
571-31-3285	9600.11004106	584-10-1250	9075.20501221	584-20-3204	9050.20041223
571-31-3289	9600.21004106	584-10-2204	9075.20041222	584-20-3208	9050.20081223
571-31-3296	9600.41004104	584-10-2208	9075.20081222	584-20-3210	9050.20101223
571-31-3300	9600.25004104	584-10-2210	9075.20101222	584-20-3212	9050.20121223
571-31-3308	9600.35004103	584-10-2212	9075.20121222	584-20-3216	9050.20161223
571-31-3316	9600.50004102	584-10-2216	9075.20161222	584-20-3220	9050.20201223
571-31-3320	9600.75004101	584-10-2220	9075.20201222	584-20-3224	9050.20241223
571-31-3324	9600.100041110	584-10-2224	9075.20241222	584-20-3236	9050.20361223
571-31-3505	9650.023124000	584-10-2236	9075.20361222	584-20-3250	9050.20501223
571-31-3506	9650.024143000	584-10-2250	9075.20501222	584-20-3401	9025.16010003
571-31-3507	9650.024144000	584-10-3204	9075.20041223	584-20-4204	9050.20041224
571-31-3508	9650.024123000	584-10-3208	9075.20081223	584-20-4208	9050.20081224
571-31-3509	9650.024124000	584-10-3210	9075.20101223	584-20-4210	9050.20101224
571-31-3655	9650.043143000	584-10-3212	9075.20121223	584-20-4212	9050.20121224
571-31-3657	9625.083124110	584-10-3216	9075.20161223	584-20-4216	9050.20161224
571-31-3661	9650.083144000	584-10-3220	9075.20201223	584-20-4220	9050.20201224
571-31-3664	9650.083123000	584-10-3224	9075.20241223	584-20-4224	9050.20241224
571-31-3665	9650.083124000	584-10-3236	9075.20361223	584-20-4236	9050.20361224
571-31-3666	9650.063144000	584-10-3250	9075.20501223	584-20-4250	9050.20501224
571-31-3667	9625.063124108	584-10-4204	9075.20041224	584-20-4401	9025.16010004
571-31-3668	9650.063124000	584-10-4208	9075.20081224		
571-31-3669	9650.044144000	584-10-4212	9075.20121224		

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Checklist for CCW® Specifications

Guideline for Specifying MC-HL Constructions for Class I – Divisions 1, 2 for Zones 1, 2 Installations

Instrumentation & Control Cable

Voltage Rating
___ 300 V
___ 600 V
___ **Number of Conductor**

Conductor Type-Copper
___ AWG
___ Bare
___ Tinned
___ Thermocouple
  ___ EX
  ___ JX
  ___ KX
  ___ TX
___ Solid
___ Stranded
  ___ Class B, concentric
  ___ Flexible

Insulation
___ PVC
___ XLPE

Identification Method
___ Color code
___ Numbering

Grounding Conductor
___ Size
___ Bare
___ Tinned
___ Insulated

Aluminum Mylar Shields
___ Individual (IS)
___ Overall (OS)
___ Individual/Overall (IOS)

CCW® Armor
___ PLTC-HL
___ ITC-HL
___ MC
___ MC-HL

Jacket
___ PVC
___ Other

Power Cable

Voltage rating
___ 600 V
___ 2400 V (2.4 kV)
___ 5 kV
___ 8 kV
___ 15 kV
___ 25 kV
___ 35 kV

Cable Assembly
___ Cabled VFD (split grounds)
___ Multi-conductor (one ground)
___ Other (special)

Conductor Size
___ AWG
___ kcmil

Conductor Type
___ Copper
  ___ Bare
  ___ Tinned
___ Aluminum

Stranding
___ Class B, compact
___ Class B, concentric
___ Other

Extruded Conductor Shielding
(Medium Voltage only)

Insulation
___ EPR
___ XLPE

Insulation Level
(Medium Voltage only)
___ 100%
___ 133%

Extruded Insulation Shielding
(Medium Voltage only)

Metallic Shield
___ Helically applied copper tape
___ Other

Grounding Conductors
___ Bare
___ Insulated
___ **Quantity**
___ **Size**

Sheath
___ Continuously Corrugated Welded armor (MC-HL)
___ Interlocked armor
  ___ MC
  ___ TECK
___ Lead
___ Non-metallic
___ Other

Jacket
___ CPE
___ LSZH/XLPO
___ PVC
___ Other

Jacket Color
___ Other than standard

Temperature rating
___ 90°C
___ 105°C

General Checklist

Standards
___ AEIC
___ ABS
___ CSA
___ ICEA
___ IEEE
___ UL
___ Other

Testing Procedures
___ AEIC
___ ABS
___ CSA
___ ICEA
___ IEEE
___ UL
___ Other

Special Requirements
___ Cold bend/Cold impact
___ Direct burial
___ Flame-retardant
___ Oil-resistant
___ Sunlight-resistant
___ Other

Documentation
___ Certificates of Compliance (CofC)
___ Certified Test Reports (CTR)
___ Drawings
___ Warranties
___ Other

Shipping Details
___ Cut lengths
___ Lagging
___ Returnable reels
___ Other

Identification Requirements
___ Cable
___ Circuit
___ Reel

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Note: This checklist must be accompanied by exact system details about the environment and electrical characteristics.

Glossary

Abrasion Resistance: Ability of a wire, cable or material to resist surface wear.

Accelerated Aging: A test in which voltage, temperature, etc. are increased above normal operating values to obtain observable deterioration in a relatively short period of time. The plotted results give expected service life under normal conditions.

ACM: Aluminum conductor material.

Accelerator: A chemical additive that hastens a chemical reaction under specific conditions.

Admittance: The measure of the ease with which an alternating current flows in a circuit. The reciprocal of impedance.

AEIC: Association of Edison Illuminating Companies

Aerial Cable: A cable suspended in the air on poles or another overhead structure.

Aging: The change in properties of a material with time under specific conditions.

AIA: Aluminum Interlocked Armor.

Alloy: A metal formed by combining two or more different metals to obtain desirable properties.

Alternating Current: Electric current that continually reverses its direction. It is expressed in cycles per second (hertz or Hz).

Ambient Temperature: The temperature of the medium surrounding an object. Generally a lower temperature than the temperature at which the cable is operating.

American Wire Gauge (AWG): A standard North American system for designating wire diameter.

Ampacity: See Current Carrying Capacity.

Ampere: The unit of current. One ampere is the current flowing through one ohm of resistance at one volt potential.

Analog: A data format using continuous physical variables such as voltage amplitude or frequency variations.

Anneal (Soften): Relief of mechanical stress through heat and gradual cooling. Annealing copper renders it less brittle.

Armor: A protective metal covering commonly in the form of flexible interlocking aluminum or steel tape, steel wires or aluminum sheath.

ASTM: American Society for Testing and Materials.

Attenuation: The general term used to denote the decrease of power from one point to another. In fiber optics, the optical power loss per unit length is expressed logarithmically in decibels per kilometer (dB/km) at a specific wavelength.

Audio Frequency: The range of frequencies audible to the human ear. Usually 20-20,000 Hz.

AWM: Designation for appliance wiring material.

Balanced Circuit: One utilizing cables having two or more identical conductors with the same electromagnetic characteristics in relation to each other and to ground.

Band Marking: A continuous circumferential band applied to a conductor at regular intervals for identification.

Bandwidth: (1) The difference between the upper and lower limits of a given band of frequencies. Expressed in Hertz. (2) A measure of the maximum frequency range over which light intensity exiting a waveguide one kilometer in length can be varied before the attenuation varies 3 dB from the mean. The greater the bandwidth, the greater the information-carrying capacity. Bandwidth is expressed in Megahertz (MHz)–Kilometer (km).

Bending Radius: Radius of curvature that a cable can be safely bent without any adverse effects.

Binder: A spirally served tape used for holding assembled cable components in place awaiting subsequent manufacturing operations.

Bonding Conductor: An insulated or uninsulated conductor forming part of the cable assembly which is used for the purpose of connecting non-current carrying parts of electrical equipment to a system grounding conductor.

Braid: A fibrous or metallic group of filaments interwoven in cylindrical shape to form a covering over one or more wires.

Braid Angle: The smaller of the two angles formed by the shielding strand and the axis of the cable being shielded.

Braid Carrier: A spool or bobbin on a braider that holds one group of strands or filaments consisting of a specific number of ends. The carrier revolves during braiding operations.

Braid Ends: The number of strands used to make up one carrier. The strands are wound side-by-side on the carrier bobbin and lie parallel in the finished braid.

Breakdown Voltage: The voltage at which the insulation between two conductors breaks down.

B & S Gauge: The same as American Wire Gauge (AWG).

Buffer: A protective coating over an optical fiber.

Building Wire: A general term used for light and power wiring products, 1000 volts or less.

Bunch Stranding: A group of wires of the same diameter twisted together without a predetermined pattern. Used in flexible cords and cables.

Buried Cable: A cable installed directly in the earth without use of underground conduit. Also called “direct burial cable.”

Butyl Rubber: A synthetic rubber with good insulating properties (i.e. low voltage cords).

Glossary

Cable: An insulated conductor, or group of individually insulated conductors in one assembly.

Cabling: The twisting together of two or more insulated conductors to form a cable.

Capacitance: The ratio of the electrostatic charge on a conductor to the potential difference between the conductors required to maintain that charge. Units expressed in Farads.

Capacitive Coupling: Electrical interaction between two conductors caused by the capacitance between them.

Capacitive Reactance (Xc): The opposition to alternating current due to the capacitance of the cable or circuit. Measured in ohms.

CE Code, CEC: Canadian Electrical Code

Certified Test Report (CTR): A report providing actual test data on a cable. Tests are normally conducted by the Quality Control Department to confirm that the product being shipped conforms to specifications.

Characteristic Impedance: The impedance that, when connected to the output terminals of a transmission line of any length, makes the line appear infinitely long. The ratio of voltage to current at every point along a transmission line on which there are no standing waves.

Circular Mil (cmil): The area of a circle one mil (.001") in diameter (7.854 x 10-7 sq in). Used in expressing wire cross-sectional area.

Circuit Sizes: A popular term for building wire sizes 14 through 10 AWG.

Cladding: (1) A method of applying a layer of metal over another metal whereby the junction of the two metals is continuously welded. (2) A low refractive index material that surrounds the core of an optical fiber causing the transmitted light to travel down the core and protects against surface contaminant scattering.

Coaxial Cable: A cable consisting of two cylindrical conductors with a common axis, separated by a dielectric.

Cold Flow: Permanent deformation of the insulation or jacket due to mechanical force or pressure (not due to heat softening).

Color Code: A system for circuit identification through use of solid colors and contrasting tracers.

Composite Cable: One containing more than one type or gauge size of conductors (e.g. power and control conductors in one assembly).

Compound: An insulating or jacketing material made by mixing two or more polymeric ingredients.

Concentric Stranded Conductors: Manufactured to ASTM, ICEA and CSA standards. The most common fixed installation type conductors are: 1) Round—no diameter reduction; 2) Compressed—approximately 3% diameter reduction; 3) Compact—approximately 10% diameter reduction.

Concentric Stranding: A central wire surrounded by one or more layers of helically wound strands in a fixed round geometric arrangement.

Concentricity: The measurement of the location of the center of the conductor with respect to the geometric center of the surrounding insulation.

Conductivity: The capacity of a material to carry electrical current—usually expressed as a percentage of copper conductivity (copper being 100%).

Conductor: An uninsulated wire suitable for carrying electrical current.

Conductor Shield: An extrusion of black semi-conducting thermoses material over the conductor to provide a smooth interface with the insulation for even distribution of electrical stress.

Conduit (Electrical Raceway): A tube or pipe in which insulated wires and cables are run.

Connector: A device used to physically and electrically connect two or more conductors. Also used to physically connect cable to equipment.

Continuity Check: A test to determine whether electrical current flows continuously throughout the length of a single wire or individual wires in a cable.

Continuous Vulcanization: Simultaneous extrusion and vulcanization of rubber-like (thermoset) coating materials. Often referred to as CV.

Control Cable: A multi-conductor cable made for operation in control of signal circuits.

Copolymer: A compound resulting from the polymerization of two different monomers.

Copperweld®: The trade name of Flexo Wire Division (Copperweld Steel Corp.) for its copper-clad steel conductors.

Cord: A small, flexible, insulated wire or cable.

Core: In cables, a component or assembly of components over which additional components (shield, sheath, etc.) are applied.

Corona: A discharge due to ionization of air around a conductor due to a potential gradient exceeding a certain critical value.

Coverage: The percent of completeness with which a metal serving covers the underlying surface.

CPE: Chlorinated polyethylene can be used as either a thermoplastic or thermoset. It is a tough chemical- and oil-resistant material and makes an excellent jacket for industrial control cable. As a thermoset, it can be used as an oil-resistant cord jacket. Typical temperature ratings range from -35˚C to 90˚C. Other outstanding properties include low water absorption and super crush resistance, which are important attributes in industrial control applications.

Creep: The dimensional change with time of a material under a mechanical load.

Glossary

Cross-linked: Inter-molecular bonds between long-chain thermoplastic polymers by chemical or electron bombardment means. The properties of the resulting thermosetting material are usually improved (e.g. XLPE).

Crosstalk: Signal interference between nearby conductors caused by pickup of stray energy.

CSA: Canadian Standards Association

Current Carrying Capacity (Ampacity): The maximum current an insulated conductor can safely carry without exceeding its insulation and jacket temperature limitations.

Cut-Through Resistance: The ability of a material to withstand cutting from a sharp edge or small radius under pressure.

Decibel (dB): A unit to express differences of power level. Used to express power gain in amplifiers or power loss in passive circuits or cables. The units in which the ratio of two power levels, P_1 and P_2, are expressed. The ratio in dB is given as - 10 $\log_{10}$ (P_1/P_2).
$\mathbf{P_2} \rightarrow \square \rightarrow \mathbf{P_1}$

Delay Line: A cable made to provide very low velocity of propagation with long electrical delay for transmitted signals.

Derating Factor: A factor used to reduce the current carrying capacity of a wire when used in environments other than that for which the value was established.

Dielectric: Any insulating material between two conductors that permits electrostatic attraction and repulsion to take place across it.

Dielectric Constant (K): The ratio of the capacitance of a condenser with dielectric between the electrodes to the capacitance when air is between the electrodes. Also called Permittivity and Specific Inductive Capacity (SIC).

Dielectric Strength: The voltage which an insulation can withstand before breakdown occurs. Usually expressed as a voltage gradient (such as volts per mil).

Dielectric Test: A test in which a voltage higher than the rated voltage is applied for a specified time to determine the adequacy of the insulation under normal conditions. Sometimes called a "Hi-Pot" test (high potential).

Digital: A data format that uses discrete or separate physical levels to contain information.

Direct Burial Cable: A cable installed directly in the earth.

Direct Current: An electric current that flows in only one direction.

Direction of Lay: The lateral direction in which the strands of a conductor run over the top of the cable conductor as they recede from an observer looking along the axis of the conductor or cable. Also applies to twisted cable.

Dissipation Factor: The tangent of the loss angle of the insulating material. (Also referred to as loss tangent, tan d and approximate power factor.)

Drain Wire: The uninsulated wire in contact with an electrostatic shield throughout its length, in an instrumentation or control cable, used to discharge unwanted signals. Also provides a means of terminating laminated shields. Sometimes used to describe the metallic shielding wires of a power cable insulation shield.

Drawing: In wire manufacturing, pulling the metal through a die or series of dies to reduce diameter to a specified size.

Earth: British terminology for zero-reference "ground."

Eccentricity: Like concentricity, a measure of the center of a conductor's location with respect to the circular cross section of the insulation. Expressed as a percentage of displacement of one circle within the other.

EEMAC: Electrical and Electronic Manufacturers Association of Canada (U.S. counterpart is NEMA).

Elastomer: A rubber-like substance. Any material that will return to its original dimensions after being stretched or distorted.

Electrostatic Shield: A copper or laminated aluminum/Mylar® tape wrap around a signal or instrumentation circuit (pair, triad, etc.) to protect from the electric field radiated by a voltage source. The grounded shield intercepts static interference and carries it off to ground.

Elongation: The fractional increase in length of material stressed in tension.

EMI: Abbreviation for electromagnetic interference.

EMRC: Energy Mines and Resources Canada

EPDM: Ethylene-propylene-diene monomer rubber. A material with good electrical insulating properties.

EPR: Ethylene-propylene copolymer rubber. A material with good electrical insulating properties.

Equal Load Sharing: An even distribution of current between the parallel cables in a power circuit.

Equilay: See Unilay: More than one layer of helically laid wires with the length of the lay the same for each layer.

Farad: A unit of electrical capacity.

Fatigue Resistance: Resistance to metal crystallization which leads to conductors or wires breaking from flexing.

Ferrous: Composed of and/or containing iron. A ferrous metal exhibits magnetic characteristics (e.g. steel armor).

FEP: Fluorinated ethylene propylene insulated wire (see Teflon®).

Fiber: A single, separate optical transmission element characterized by core and cladding.

Fiber Optics: Light transmission through optical fibers for communication and signaling.

Glossary

Filled Cable: Cable construction in which the cable core is filled with a material that will prevent moisture or gasses from entering or passing through the cable.

Filler: 1) A material used in multi-conductor cables to occupy large interstices formed by the assembled conductors; 2) An inert substance added to a compound to improve properties.

Flat Cable: A cable with two essentially flat surfaces (e.g., NMD90).

Flat Conductor: A wire having a rectangular cross section as opposed to round or square conductors.

Flame Resistance: The ability of a material not to propagate flame once the heat source is removed (see FT1).

Flammability: The measure of the material's ability to support combustion.

Flex Life: The measurement of the ability of a conductor or cable to withstand repeated bending before breaking.

Flexibility: The ease with which a cable may be bent without sustaining damage.

FT1: One of several CSA flame test designations for wires and cables which pass the C22.2 No. 0.3 test requirements. (Other designations include FT2, FT4, etc.).

Fusion Splice: A splice accomplished by the application of localized heat sufficient to fuse or melt the ends of two lengths of optical fiber, forming a continuous single fiber.

Gauge: A term used to denote the physical size of a wire.

GND: Abbreviation for ground.

Graded-Index: A type of optical fiber in which the refractive index of the core is in the form of a parabolic curve, decreasing toward the cladding. This type of fiber provides high bandwidth capabilities.

Ground (GND): 1) A conducting connection between an electrical circuit and the earth, or other large conducting body, to serve as an earth thus making a complete electrical circuit; 2) Term used for non-current carrying conductor in a cable (see Bonding Conductor).

Halogen: A term used to identify any of the four elements chlorine, fluorine, bromine and iodine, grouped together because their chemical properties are similar.

Hard Drawn Copper Wire: Copper wire that has not been annealed after drawing.

Heat Shock: A test to determine stability of a material by sudden exposure to a high temperature for a short period of time.

Henry: The unit of inductance.

Hertz (Hz): A term replacing cycles-per-second as an indication of frequency.

Hi-Pot (High Potential): A test designated to determine the highest voltage that can be applied to a conductor without breaking down the insulation (see Dielectric Test).

High Voltage (HV): Generally, a wire or cable with an operating voltage of over 600 volts.

Hook-Up Wire: A wire used for low current, low voltage (under 1000 volts) applications within enclosed electronic equipment.

Hygroscopic: A material capable of absorbing moisture from the air.

Hypalon®: DuPont's trade name for their chlorosulfonated polyethylene, an ozone-resistant synthetic rubber.

ICEA (formerly IPCEA): Insulated Cable Engineers Association.

IEEE: Institute of Electrical and Electronics Engineers.

Impact Strength: A test for determining the mechanical punishment a cable can withstand without physical or electrical breakdown by impacting with a given weight, dropped a given distance, in a controlled environment.

Impedance: The total opposition that a circuit offers to the flow of alternating current or any other varying current at a particular frequency. It is a combination of resistance R and reactance X, measured in ohms.

Inductance: The property of a circuit or circuit element that opposes a change in current flow, thus causing current changes to lag behind voltage changes. It is measured in henrys.

Insulation: A material having good dielectric properties permitting close assembly of conductors in cable and equipment.

Insulation Level: A designation used to identify the insulation thickness required to protect a high voltage cable under ground fault conditions. Expressed as a percentage (e.g. 100% level, 133% level).

Insulation Shield (HV Cable): A two-part shield consisting of a non-metallic component and a metallic component. The first component is an extrusion of black semi-conducting thermoset material over the insulation, which provides uniform radial stress distribution across the insulation. The second component is a metallic shield which is typically copper tape or wire that functions as a bonding (grounding) conductor and/or a neutral conductor. The metallic shield also serves to conduct ground fault current in the event of insulation failure. See also Drain Wire.

Insulation Stress: High voltage stress which causes molecular separation in the insulation at sharp projections in the conductor. Controlled by conductor and insulation shielding, called a stress relief shield. Measured in volts per mil.

Interaxial Spacing: Center-to-center conductor spacing.

Interstices: Voids or valleys between individual strands in a conductor or between insulated conductors in a multi-conductor cable (intersticial spaces).

Glossary

Irradiation: In insulations, the exposure of the material to high energy emissions for the purpose of favorably altering the molecular structure by crosslinking.

Jacket: An outer covering, usually non-metallic, mainly used for protection against the environment.

kcmil: One thousand circular mils (MCM).

kilo: A prefix denoting 1000 (10^3).

kV: Kilovolt (1000 volts).

Laminated Tape: A tape consisting of two or more layers of different materials bonded together (e.g. aluminum/Mylar®).

Lay: The length measured along the axis of a wire or cable required for a single strand (in stranded wire) or conductor (in cable) to make one complete turn about the axis of the conductor or cable.

Lay Direction: The twist in the cable as indicated by the top strands while looking along the axis of the cable away from the observer. Described as "right hand" or "left hand."

Leakage Current: The undesirable flow of current through or over the surface of an insulation.

Line Drop (Voltage Drop): A voltage loss occurring between any two points in a power circuit. Such loss, or drop, is due to the resistance, reactance or leakage of the circuit, type of cable and configuration.

Line Voltage: The value of the potential existing on a supply or power line. Rated voltage of cables.

LOCA: Abbreviation for loss of coolant accident, a system malfunction associated with nuclear generating stations.

Longitudinal Shield: A tape shield, flat or corrugated, applied longitudinally with the axis of the core being shielded.

Loss Factor: The product of the dissipation and dielectric constant of an insulating material.

µA. Microampere: One-millionth of an ampere (10^{-6}).

mA. Milliampere: One-thousandth of an ampere (10^{-3}).

Magnetic Noise: Caused by current frequency. An AC powerline creates a magnetic field around that cable, this magnetic field causes the magnetic noise in neighboring control or instrumentation circuits.

MCM: One thousand circular mils (kcmil).

meg or mega: A prefix denoting 1,000,000 (10^6).

Megarad: A unit for measuring radiation dosage.

Messenger: The linear supporting member, usually a high-strength steel wire, used as the supporting element of a suspended aerial cable. The messenger may be an integral part of the cable, or exterior to it.

Mho: The unit of conductivity. The reciprocal of an ohm.

micro: A prefix denoting one-millionth (10^{-6}).

micron: (m) Millionth of a meter = 10^{-6} meter.

Mil: A unit of length equal to one-thousandth of an inch (.001"). Common unit for insulation thickness.

Milli: A prefix denoting one-thousandth (10^{-6}).

Modulus of Elasticity: The ratio of stress to strain in an elastic material.

Moisture Absorption: The amount of moisture, in percentage, that a material will absorb under specified conditions.

Moisture Resistance: The ability of a material to resist absorbing moisture from the air or when immersed in water.

Multi-Conductor Cable: A cable consisting of two or more conductors, either cabled or laid in a flat parallel construction, with or without a common overall covering.

Multi-Plexed Conductors: Three or more completed cables together without fillers or common overall jacket. (Triplexed, 3-1|C; Quadruplet, 4-1|C)

Mutual Capacitance: Capacitance between two conductors when all other conductors, including ground, are connected together.

Mylar®: DuPont trade name for a polyester material.

Nano: A numerical prefix denoting one-billionth (10^{-9}).

National Electrical Code (NEC): A U.S. consensus standard published by the National Fire Protection Association (NFPA) and incorporated in OSHA regulations. (Canadian Counterpart is the CE Code).

NEMA: National Electrical Manufacturers Association. (Canadian counterpart is EEMAC).

Neoprene: A synthetic rubber with good resistance to oil, chemicals and flame. Also called polychloroprene.

Nomex®: DuPont trademark for a temperature-resistant, flame-retardant nylon.

Non Hygroscopic: A material incapable of taking up or absorbing moisture from the air.

Nylon®: An abrasion-resistant thermoplastic with good chemical resistance. A DuPont registered trademark.

OHM: The electrical unit of resistance.

OSHA: Abbreviation for the U.S. Occupational Safety and Health Act.

Overlap: The amount the trailing edge laps over the leading edge of a spiral tape wrap.

Oxygen Index: Percentage of oxygen necessary to support combustion in a gas mixture. Flame-retardant materials have a higher oxygen index.

Pair: Two insulated wires of a single circuit twisted together or laid parallel.

Parallel Cable: Two or more cables used to share the current in heavily loaded power circuits which permits the use of smaller conductors.

Glossary

Percentage Conductivity: Conductivity of a material expressed as a percentage of that of copper. Also used to indicate ratio of conductance between the phase conductor and the neutral in power cables.

Pick: Distance between two adjacent crossover points of braid filaments. The measurement in picks per inch indicates the degree of coverage.

pico: A prefix denoting one-millionth of one-millionth (10^{-12}).

Pitch: In flat cable, the nominal distance between the index edges of two adjacent conductors.

Pitch Diameter: Diameter of a circle passing through the center of the conductors in any layer of a multi-conductor cable.

Plastic Deformation: Change in dimensions under load that is not recovered when the load is removed.

Plasticizer: A chemical agent added to plastics to make them softer and more pliable.

Plenum Cable: Cable approved for installation in plenums (e.g., suspended ceiling) without the need for conduit.

Polyester: Polyethylene terephthalate which is used extensively in the production of a high-strength, moisture-resistant film used as a cable core wrap (see Mylar®).

Polyethylene (PE): A thermoplastic material having excellent electrical and physical properties.

Polymer: A material of high molecular weight formed by the chemical union of monomers.

Polyolefin: A family of thermoplastics based upon the unsaturated hydrocarbons know as olefins. When combined with butylene or styrene polymers, they form compounds such as polyethylene and polypropylene.

Polypropylene (PPE): A thermoplastic similar to polyethylene but stiffer and having a higher softening point (temperature).

Polyurethane/PUR: This thermoplastic material is used primarily as a cable jacket material. It has excellent oxidation, oil and ozone resistance. Some formulations also have good flame resistance. It is a hard material with excellent abrasion resistance. It has outstanding "memory" properties, making it an ideal jacket material for retractile cords.

Polyvinyl Chloride (PVC): A general-purpose thermoplastic used for low voltage wire and cable insulation, and for jackets.

Power Factor: The ratio of resistance to impedance. The ratio of the actual power of an alternating current to apparent power. Mathematically, the cosine of the angle between the voltage applied and the current resulting.

Primary Insulation: The first layer of non-conductive material applied over a conductor, whose prime function is to act as electrical insulation.

Pulling Eye: A device fastened to a cable to which a hook may be attached in order to pull the cable.

Quad: Four insulated wires of a single circuit.

REA: Rural Electrification Administration. A branch of the U.S. Department of Agriculture.

Reactance: The opposition offered to the flow of alternating current by inductance or capacitance of a component or circuit.

Reel Drum Diameter: Diameter of the drum (or hub) of the reel.

Reel Flange Diameter (Reel Height): Diameter of the reel flanges.

Reel Traverse: Width of space between reel flanges.

Reel Width: Overall width of reel.

Ridge Marker: One or more ridges running laterally along the outer surface of a insulated wire or cable for purposes of identification.

Root Mean Square (RMS): The effective value of an alternating current or voltage.

Rope Lay Conductor: A conductor composed of a central core surrounded by one or more layers of helically laid groups of wires used in portable cables.

Rubber: A general term used to describe wire insulation and jackets made of thermosetting elastomers, such as natural or synthetic rubbers, EPR, neoprene, Hypalon, butyl rubber and others.

SBR: A copolymer of styrene and butadiene. Also GR-S or Buna-S. Most commonly used type of synthetic rubber.

Self-Extinguishing: The characteristic of a material whose flame is extinguished after the igniting flame is removed.

Semi-Conductor: In wire industry terminology, a material possessing electrical conductivity that falls somewhere between that of conductors and insulators. Usually made by adding carbon particles to an insulator (e.g. conductor shield and insulation shield). Not the same as semi-conductor materials such as silicon, germanium, etc. used for making transistors and diodes.

Separator: Pertaining to wire and cable, a layer of insulating material such as textile paper, Mylar®, etc. which is placed between a conductor and its dielectric, between a cable jacket and the components it covers or between various components of a multi- conductor cable. It can be utilized to improve stripping qualities, flexibility or can offer additional mechanical or electrical protection to the components it separates.

Served Wire Armor (SWA): Spiral wrap of galvanized steel wires applied around a cable to afford mechanical protection and increase the cable pulling tension characteristics (mineshaft, submarine cable, etc.). Also used to denote steel wire armor.

Sheath: The outer covering or jacket of a multi-conductor cable. Usually non-metallic.

Glossary

Shield (Electrostatic): In cables, a metallic layer placed around a conductor or group of conductors to prevent electrostatic interference between the enclosed wires and external fields. Also see Insulation Shield.

Shrink Tubing: Tubing which has been extruded, crosslinked and mechanically expanded which, when reheated, will return to its original diameter.

SIA: Steel Interlocked Armor.

Side Wall Bearing Pressure (SWBP): A term used in reference to the pressure on a cable which is being pulled around a curved surface under tension. If excessive, SWBP can damage cable components and reduce the life of the cable.

Signal Cable: A cable designed to carry current of usually less than one ampere per conductor to operate signal circuit devices.

Silicone: A material made from silicone and oxygen. Can be in thermosetting elastomer or liquid form. The thermosetting elastomer form is noted for high heat resistance.

Skin Effect: The tendency of alternating current to concentrate and to travel only on the surface of a conductor. Tendency increases with increase in frequency.

Sleeving: An extruded tube.

Spark Test: A test designed to locate imperfections (usually pin-holes) in the insulation of a wire or cable by application of voltage for a very short period of time while the wire is being drawn through the electrode field.

Specific Gravity: The ratio of the density (mass per unit volume) of a material to that of water.

Specific Inductive Capacity (SIC): Same as dielectric constant. See Dielectric Constant.

Tank Test: A voltage insulation test in which the insulated wire or cable is submerged in water and voltage is applied between the conductor and water serving as ground. Shielded cables are generally not tank tested due to the possibility of introducing contaminants on the outer surface of the insulation.

Teflon®: DuPont Company trademark for fluorocarbon resins. See FEP and TFE.

Temperature Rating: The maximum temperature at which an insulating material may be used in continuous operation without loss of its basic properties (i.e. operating, overload, short circuit). The minimum temperature for safe handling.

Tensile Strength: The pull stress required to break a given specimen. Measured in pounds per square inch. Also referred to as Ultimate Tensile Strength.

TFE: Tetrafluoroethylene. A thermoplastic material with good electrical insulating properties and chemical and heat resistance.

Thermoplastic: A material that can be softened repeatedly by heating and hardened by cooling through a temperature range characteristic of the plastic, and that in the softened state can be shaped by molding or extrusion.

Thermoset: A material that has been vulcanized by heat or other means and is substantially infusible and insoluble.

Three-Conductor Cable: Three insulated conductors assembled with other necessary cable components (shield, filler, etc.) to form a core, protected by an overall jacket.

Tinned Copper: Tin coating added to copper to aid in soldering and inhibit corrosion.

Tray: A cable tray system is a unit or assembly of units or sections, and associated fittings, made of non-combustible materials forming a rigid structural system used to support cables. Cable tray systems (previously termed Continuous Rigid Cable Supports) include ladders, troughs, channels, solid bottom trays and similar structures.

Tray Cable: A factory-assembled multi-conductor or multi-pair control, signal or power cable specifically approved under the Canadian Electrical Code for installation in trays.

Triad: Three insulated wires of a single circuit forming a unit. (Two or more units are cabled to form a multi-triad cable.)

Triplexed Cable: Three individual cables twisted together without fillers or a common overall jacket.

UL: Underwriters Laboratories. A non-profit independent organization, which operates a listing service for electrical and electronic materials and equipment. (Canadian counter-part is CSA).

UHF: Abbreviation for ultra high frequency, 300 to 3,000 MHz.

Unilay: A conductor with more than one layer of helically laid wires with the direction of lay and length of lay the same for all layers.

Velocity of Propagation: The speed of an electrical signal down a length of cable compared to speed in free space expressed as a percent. It is the reciprocal of the square root of the dielectric constant of the cable insulation.

VHF: Abbreviation for very high frequency, 30 to 300 MHz.

Voltage: The term most often used in place of electromotive force, potential, potential difference or voltage drop to designate the electric pressure that exists between two points and is capable of producing a current when a closed circuit is connected between two points.

Glossary

Voltage Rating: 1) The highest voltage that can be continuously applied to a wire in conformance with the standard or specification; 2) The "system" voltage printed on the wire or cable.

Volume Resistivity: The electrical resistance between opposite faces of a one cm. cube of insulating material, commonly expressed in ohms-meter.

Vulcanization: An irreversible process during which a compound, through a change in its chemical structure (e.g. cross-linking), becomes less plastic and more resistant to swelling by organic liquids and elastic properties are conferred, improved or extended over a greater range of temperatures.

VW-1: A flammability rating established by Underwriters Laboratories for wires and cables that pass a specially designed vertical flame test, formerly designated FR-1. Similar to CSA designation FT1.

Watt: A unit of electric power.

Wicking: The longitudinal flow of a liquid in a wire or cable due to capillary action.

Wire: A conductor; bare or insulated.

Yield Strength: The minimum stress at which a material will start to physically deform without further increase in load.

Reference Standards

AAR S-501: Specification for Wire and Cables

AAR 581.3: Specification for Single Conductor, Clean Stripping Rubber Insulated, 0–600 Volts, Neoprene Jacketed Cable for Locomotive and Car Equipment

AAR 589: Specification for Single Conductor Chlorosulfonated Polyethylene Integral Insulated-Jacketed, 0-300 V, 0-600 V Cable for Locomotive and Car Equipment

AEIC CS 1: Specifications for Solid-Type Impregnated-Paper-Insulated Metallic Sheathed Cable

AEIC CS2: Specifications for Impregnated-Paper and Laminated Paper-Polypropylene Insulated Cable, High-Pressure Pipe-Type

AEIC CS3: Specifications for Impregnated-Paper-Insulated, Metallic Sheathed Cable, Low Pressure Gas-Filled Type

AEIC CS4: Specifications for Impregnated-Paper-Insulated Low and Medium Pressure Self Contained Liquid Filled Cable

***AEIC CS5:** Specifications for Thermoplastic and Crosslinked Polyethylene Insulated Shielded Power Cables Rated 5 Through 69 kV

***AEIC CS6:** Specifications for Ethylene Propylene Rubber Insulated Shielded Power Cables Rated 5 Through 69 kV

AEIC CS7: Specifications for Crosslinked Polyethylene Insulated Shielded Power Cables Rated 46 Through 138 kV

AEIC CS8: Specification for Extended Dielectric, Shielded Power Cables Rated 5 through 46 kV

ANSI C2: National Electrical Safety Code

ANSI MC96.1: Thermocouple Extension Wire Calibration

ANSI N45.2: Packaging, Shipping, Receiving, Storage and Handling of Items for Nuclear Power Plants

ASTM B 1: Standard Specification for Hard-Drawn Copper Wire

ASTM B 2: Standard Specification for Medium-Hard-Drawn Copper Wire

ASTM B 3: Standard Specification for Soft or Annealed Copper Wire

ASTM B 8: Standard Specification for Concentric-Lay Stranded Copper Conductors, Hard, Medium-Hard or Soft

ASTM B 33: Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes

ASTM B 105: Standard Specification for Hard-Drawn Copper Alloy Wires for Electrical Conductors

ASTM B 170: Standard Specification for Oxygen-Free Electrolytic Copper

ASTM B 172: Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Members, for Electrical Conductors

ASTM B 173: Standard Specification for Rope-Lay-Stranded Copper Conductors Having Concentric-Stranded Members, for Electrical Conductors

ASTM B 174: Standard Specification for Bunch-Stranded Copper Conductors for Electrical Conductors

ASTM B 189: Standard Specification for Lead-Coated and Lead-Alloy-Coated Soft Copper Wire for Electrical Purposes

ASTM B 193: Standard Test Method for Resistivity of Electrical Conductor Materials

ASTM B 226: Standard Specification for Cored, Annular, Concentric-Lay-Stranded Copper Conductors

ASTM B 227: Standard Specification for Hard-Drawn Copper-Clad Steel Wire

ASTM B 228: Standard Specification for Concentric-Lay-Stranded Copper-Clad Steel Conductors

ASTM B 229: Standard Specification for Concentric-Lay-Stranded Copper and Copper-Clad Steel Composite Conductors

ASTM B 230: Standard Specification for Aluminum 1350-H19 Wire for Electrical Purposes

ASTM B 230M: Standard Specification for Aluminum 1350-H19 Wire for Electrical Purposes [Metric]

ASTM B 231: Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors

ASTM B 231 M: Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors [Metric]

ASTM B 232: Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated Steel-Reinforced (ACACARSR)

ASTM B 232M: Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated Steel-Reinforced (ACSR) [Metric]

ASTM B 233: Standard Specification for Aluminum 1350 Drawing Stock for Electrical Purposes

ASTM B 246: Standard Specification for Tinned Hard-Drawn and Medium-Hard-Drawn Copper Wire for Electrical Purposes

ASTM B 258: Standard Specification for Standard Nominal Diameters and Cross-Sectional Areas of AWG Sizes of Solid Round Wires Used as Electrical Conductors

ASTM B 263: Standard Test Method for Determination of Cross-Sectional Area of Stranded Conductors

ASTM B 286: Standard Specification for Copper Conductors for Use in Hookup Wire for Electronic Equipment

ASTM B 298: Standard Specification for Silver-Coated Soft or Annealed Copper Wire

ASTM B 324: Standard Specification for Nickel-Coated Soft or Annealed Copper Wire

ASTM B 341: Standard Specification for Aluminum-Coated (Aluminized) Steel Core Wire for Aluminum Conductors, Steel-Reinforced (ACSR/AZ)

ASTM B 341M: Standard Specification for Aluminum-Coated (Aluminized) Steel Core Wire for Aluminum Conductors, Steel-Reinforced (ACSR/AZ) [Metric]

ASTM B 355: Standard Specification for Nickel-Coated Soft or Annealed Copper Wire

ASTM B 397: Standard Specification for Concentric-Lay-Stranded Aluminum-Alloy 5005-H19 Conductors

* These standards or specifications have been rescinded by their organizations.

General Cable
Phone: 888-593-3355
www.generalcable.com

Reference Standards

ASTM B 398: Standard Specification for Aluminum-Alloy 6201-T81 Wire for Electrical Purposes

ASTM B 398M: Standard Specification for Aluminum-Alloy 6201-T81 Wire for Electrical Purposes [Metric]

ASTM B 399: Standard Specification for Concentric-Lay-Stranded Aluminum-Alloy 6201-T81 Conductors

ASTM B 399M: Standard Specification for Concentric-Lay-Stranded Aluminum-Alloy 6201-T81 Conductors [Metric]

ASTM B 400: Standard Specification for Compact Round Concentric-Lay-Stranded Aluminum 1350 Conductors

ASTM B 401: Standard Specification for Compact Round Concentric-Lay-Stranded Aluminum Conductors, Steel-Reinforced (ACSR/COMP)

ASTM B 416: Standard Specification for Concentric-Lay-Stranded Aluminum-Clad Steel Conductors

ASTM B 452: Standard Specification for Copper-Clad Steel Wire for Electronic Application

ASTM B 470: Standard Specification for Bonded Copper Conductors for Use in Hookup Wires for Electronic Equipment

ASTM B 496: Standard Specification for Compact Round Concentric-Lay-Stranded Copper Conductors

ASTM B 498: Standard Specification for Zinc-Coated (Galvanized) Steel Core Wire for Aluminum Conductors, Steel-Reinforced (ACSR)

ASTM B 498M: Standard Specification for Zinc-Coated (Galvanized) Steel Core Wire for Aluminum Conductors, Steel-Reinforced (ACSR) [Metric]

ASTM B 500: Standard Specification for Zinc-Coated (Galvanized), Zinc-5% Aluminum Mischmetal Alloy-Coated, and Aluminum-Coated (Aluminized) Stranded Steel Core for Aluminum Conductors, Steel-Reinforced (ACSR)

ASTM B 501: Standard Specification for Silver-Coated, Copper-Clad Steel Wire for Electronic Application

ASTM B 502: Standard Specification for Aluminum-Clad Steel Core Wire for Aluminum Conductors, Aluminum-Clad Steel Reinforced

ASTM B 520: Standard Specification for Tin-Coated, Copper-Clad Steel Wire for Electronic Application

ASTM B 524: Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Aluminum-Alloy Reinforced (ACAR, 1350/6201)

ASTM B 524M: Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Aluminum-Alloy Reinforced (ACAR, 1350/6201) [Metric]

ASTM B 549: Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Aluminum-Clad Steel Reinforced (ACSR/AW)

ASTM B 559: Standard Specification for Nickel-Coated, Copper-Clad Steel Wire for Electronic Application

ASTM B 606: Standard Specification for High-Strength Zinc-Coated (Galvanized) Steel Core Wire for Aluminum and Aluminum Alloy Conductors, Steel Reinforced

ASTM B 609: Standard Specification for Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes

ASTM B 609M: Standard Specification for Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes [Metric]

ASTM B 624: Standard Specification for High-Strength, High-Conductivity Copper-Alloy Wire for Electronic Application

ASTM B 682: Standard Specification for Standard Metric Sizes of Electrical Conductors

ASTM B 701: Standard Specification for Concentric-Lay-Stranded Self-Damping Aluminum Conductors, Steel-Reinforced (ACSR/SD)

ASTM B 711: Standard Specification for Concentric-Lay-Stranded Aluminum-Alloy Conductors, Steel Reinforced (AACSR) (6201)

ASTM B 738: Standard Specification for Fine-Wire Bunch-Stranded and Rope-Lay Bunch Stranded Copper Conductors for Use as Electrical Conductors

ASTM B 778: Standard Specification for Shaped Wire Compact Concentric-Lay-Stranded Aluminum Conductors (AAC/TW)

ASTM B 779: Standard Specification for Shaped Wire Compact Concentric-Lay-Stranded Aluminum Conductors, Steel Reinforced (ACSR/TW)

ASTM B 784: Standard Specification for Modified Concentric-Lay-Stranded Copper Conductors for Use in Insulated Electrical Cables

ASTM B 785: Standard Specification for Compact Round Modified Concentric-Lay-Stranded Copper Conductors for Use in Insulated Electrical Cables

ASTM B 786: Standard Specification for 19 Wire Combination Unilay-Stranded Aluminum 1350 Conductors for Subsequent Insulation

ASTM B 787: Standard Specification for 19 Wire Combination Unilay-Stranded Copper Conductors for Subsequent Insulation

ASTM B 801: Standard Specification for Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy for Subsequent Covering or Insulation

ASTM B 802: Standard Specification for Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR)

ASTM B 803: Standard Specification for High-Strength Zinc-5 % Aluminum-Mischmetal Alloy Coated Steel Core Wire for Aluminum and Aluminum-Alloy Conductors, Steel Reinforced

ASTM D 149: Standard Test Method for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies

ASTM D 470: Method of Testing Crosslinked Insulations and Jackets for Wire and Cable

ASTM D 866: Specification for Styrene-Butadiene (SBR) Synthetic Rubber Jacket for Wire and Cable

General Cable
Phone: 888-593-3355
www.generalcable.com

Reference Standards

ASTM D 1047: Specification for Polyvinyl Chloride (PVC) Jacket for Wire and Cable

ASTM D 1351: Specification for Polyethylene Insulation for Wire and Cable

ASTM D 1352: Specification for Ozone-Resisting Butyl Rubber Insulation for Wire and Cable

ASTM D 1523: Method for Synthetic Rubber Insulation for Wire and Cable, 90° Operation

ASTM D 1679: Specification for Synthetic Rubber Heat and Moisture-Resisting Insulation for Wire and Cable, 75°C Operation

ASTM D 2219: Specification for Polyvinyl Chloride (PVC) Insulation for Wire and Cable, 60° Operation

ASTM D 2220: Specification for Polyvinyl Chloride (PVC) Insulation for Wire and Cable, 75° Operation

ASTM D 2308: Specification for Polyethylene Jacket for Electrical Insulated Wire and Cable

ASTM D 2526: Specification for Ozone-Resisting Silicone Rubber Insulation for Wire and Cable

ASTM D 2655: Specification for Crosslinked Polyethylene Insulation for Wire and Cable Rated 0 to 2000 V

ASTM D 2656: Specification for Crosslinked Polyethylene Insulation for Wire and Cable Rated 2001 to 35000 V

ASTM D 2768: Specification for General-Purpose Ethylene-Propylene Rubber Jacket for Wire and Cable

ASTM D 2770: Specification for Ozone-Resisting Ethylene-Propylene Rubber Integral Insulation and Jacket for Wire and Cable

ASTM D 2802: Specification for Ozone-Resistant Ethylene-Propylene Rubber Insulation for Wire and Cable

ASTM D 3004: Specification for Extruded Thermosetting and Thermoplastic Semi-Conducting Conductor and Insulation Shields

ASTM D 3485: Specification for Smooth-Wall Coilable Polyethylene (PE) Conduit (Duct) for Preassembled Wire and Cable

ASTM D 3554: Specification for Track-Resistant Black Thermoplastic High Density Polyethylene Insulation for Wire and Cable

ASTM D 3555: Specification for Track-Resistant Black Crosslinked Thermosetting Polyethylene Insulation for Wire and Cable

ASTM D 4244: Specification for General-Purpose, Heavy-Duty and Extra-Heavy Duty Acrylonitrile-Butadiene/ Polyvinyl Chloride (NBR/PVC) Jackets for Wire and Cable

ASTM D 4245: Specification for Ozone-Resistant Thermoplastic Elastomer Insulation for Wire and Cable, 90°C Dry - 75°C Wet Operation

ASTM D 4246: Specification for Ozone-Resistant Thermoplastic Elastomer Insulation for Wire and Cable, 90°C Operation

ASTM D 4247: Specification for General-Purpose Black Heavy-Duty and Black Extra-Heavy Duty Polychloroprene Jackets for Wire and Cable

ASTM D 4313: Specification for General Purpose Heavy-Duty and Extra-Heavy-Duty Crosslinked Chlorinated Polyethylene Jackets for Wire and Cable

ASTM D 4314: Specification for General Purpose Heavy-Duty and Extra-Heavy-Duty Crosslinked Chlorosulfonated Polyethylene Jackets for Wire and Cable

ASTM D 4363: Specification for Thermoplastic Chlorinated Polyethylene Jacket for Wire and Cable

ASTM D 4496: Test Method of DC Resistance or Conductance of Moderately Conductive Materials

ASTM D 4568: Test Methods for Evaluating Compatibility Between Cable Filling and Flooding Compounds and Polyolefin Cable Materials

ASTM D 4967: Guide for Selecting Materials to Be Used for Insulation, Jacketing, and Strength Components in Fiber Optic Cables

CAN3-Z299.0: Guide for Selecting and Implementing the CAN3-Z299 Quality Assurance Program Standards

CAN3-Z299.1: Standard for Quality Assurance Program - Category 1

CAN3-Z299.2: Standard for Quality Assurance Program - Category 2

CAN3-Z299.3: Standard for Quality Assurance Program - Category 3

CAN3-Z299.4: Standard for Quality Assurance Program - Category 4

CAN/CSA C22.2 No. 211: Standard for Cord Sets and Power-Supply Cords

CAN/CSA C22.2 No. 48: Standard for Nonmetallic Sheathed Cable

CAN/CSA C22.2 No. 49: Standard for Flexible Cords and Cables

CAN/CSA C22.2 No. 51: Standard for Armored Cable

CAN/CSA C22.2 No. 96: Standard for Portable Power Cables

CAN/CSA C22.2 No. 130.1: Standard for Heat-Tracing Cable Systems for Use in Industrial Locations

CAN/CSA C22.2 No. 131: Standard for Type TECK 90 Cable

CAN/CSA C22.2 No. 203: Standard for Modular Wiring Systems for Office Furniture

CAN/CSA C22.2 No. 210.2: Standard for Appliance Wiring Material Products

CAN/CSA C22.2 No. 214: Standard for Communications Cables

CAN/CSA C22.2 No. 233: Standard for Cords and Cord Sets for Communication Systems

CAN/CSA C22.2 No. 239: Standard for Control and Instrumentation Cables

CAN/CSA C22.2 No. 241: IEEE Standard for Cable Joints for Use with Extruded Dielectric Cable Rated 5,000V Through 46,000V, and Cable Joints for Use with Laminated Dielectric Cable Rated 2,500 V Through 500,000 V (Adopted IEEE 404-1986)

CAN/CSA C22.3 No. 1: Standard for Overhead Systems

CAN/CSA C22.3 No. 8: Standard for Railway Electrification Guidelines

CAN/CSA C49.1: Standard for Round Wire, Concentric Lay, Overhead Electrical Conductors

Reference Standards

CAN/CSA C68.3: Standard for Shielded and Concentric Neutral Power Cables Rated 5-46 kV

CAN/CSA T529: Standard Design Guide for Telecommunications Wiring Systems in Commercial Buildings

CSA C22.1: Canadian Electrical Code, Part 1, Safety Standard for Electrical Installations

CSA C22.2 No. 0.3: Standard for Test Methods for Electrical Wires and Cables

CSA C22.2 No. 16: Standard for Insulated Conductors for Power-Operated Electronic Devices

CSA C22.2 No. 35: Standard for Extra-Low-Voltage Control Circuit Cables, Low-Energy Control Cable, and Extra-Low-Voltage Control Cable

CSA C22.2 No. 38: Standard for Thermoset Insulated Wires and Cables

CSA C22.2 No. 52: Standard for Service-Entrance Cables

CSA C22.2 No. 75: Standard for Thermoplastic-Insulated Wires and Cables

CSA C22.2 No. 116: Standard for Coil-Lead Wires

CSA C22.2 No. 123: Standard for Aluminum Sheathed Cables

CSA C22.2 No. 124: Standard for Mineral-Insulated Cable

CSA C22.2 No. 127: Standard for Equipment Wires

CSA C22.2 No. 129: Standard for Neutral Supported Cable

CSA C22.2 No. 130: Standard for Heating Cables and Heating Cable Sets

CSA C22.2 No. 138: Standard for Heat Tracing Cable and Cable Sets for Use in Hazardous Locations

CSA C22.2 No. 174: Standard for Cables and Cable Glands for Use in Hazardous Locations

CSA C22.2 No. 179: Standard for Airport Series Lighting Cables

CSA C22.2 No. 188: Standard for Splicing Wire and Cable Connectors

CSA C22.2 No. 198.2: Standard for Underground Cable Splicing Kits

CSA C22.2 No. 208: Standard for Fire Alarm and Signal Cable

CSA C22.2 No. 222: Standard for Type FCC Under-Carpet Wiring System

CSA C22.2 No. 230: Standard for Tray Cable

CSA C22.2 No. 232: Standard for Optical Fiber Cables

CSA/CAN3 C22.3 No. 7: Standard for Underground Systems

CSA C49.2: Standard for Compact Aluminum Conductors Steel Reinforced (ACSR)

CSA C49.3: Standard for Aluminum Alloy 1350 Round Wire, All Tempers, for Electrical Purposes

CSA C49.4: Standard for Concentric-Lay Aluminum Stranded Conductors (ASC)

CSA C49.5: Standard for Compact Round Concentric-Lay Aluminum Stranded Conductors (Compact ASC)

CSA CAN3-C49.6: Standard for Zinc-Coated Steel Wires for Use in Overhead Electrical Conductors

CSA CAN3-C49.7: Standard for Aluminum Round Wires for Use in Overhead Electrical Conductors

CSA C68.1: Standard Specifications for Impregnated Paper-Insulated, Metallic-Sheathed Cable, Solid-Type

CSA C170.2: Standard for Polyethylene Protective Covering on Paper-Insulated Metallic Sheathed Power Cable

CSA C170.3: Standard for Polyvinyl-Chloride (PVC) Protective Covering on Paper-Insulated Metallic-Sheathed Power Cable

CSA M421: Standard for Use of Electricity in Mines

EIA/TIA-568: Commercial Building Telecommunications Wiring Standard

EIA/TIA-569: Commercial Building Standard for Telecommunications Pathways and Spaces

EIA/TIA-606: Administration Standard for the Telecommunications Infrastructure of Commercial Buildings

EIA/TIA TSB-36: Additional Cable Specifications for Unshielded Twisted Pair Cables (Technical Systems Bulletin 36)

EIA/TIA TSB-40: Additional Transmission Specifications for Unshielded Twisted Pair Connecting Hardware (Technical Systems Bulletin 40)

FP-4: TM-4 CSA CBC and UL CMR (Riser) Cable

FP-16: TD-16 Plastic Insulated, Two Parallel Conductor, Telephone Drop Wire

FP-28: Air Core, Solid PIC, ALPETH-DCAS Cable and PAP-DCAS Cable

FP-67: PHD Plastic Insulated and Jacketed, Four Conductor, Telephone Drop Wire

FP-68: TM-68 CSA PCC FT4, Shielded Inside Wiring Cable

FP-71: TM-28 CSA PCC FT4, Inside Wiring Cable

FP-75: PHILPLAST CSA PCC FT4, PVC Insulated and Jacketed, Switchboard Cable

FP-81: TM-81 CSA ZSW FT1, Telephone Station Wire

FP-90: CONCEL Cellular Polyethylene Insulated, Air Core, ALPETH-DCAS Sheathed, Telephone Cable

FP-93: TM-91, TM-92, TM-93 and TM-97, Filled, Buried Wire

FP-95: Quasi-Solid Polyethylene Insulated, Filled, Regular and Twin Core, ALPETH-DCAS Sheathed Cable

FP-98: CELSEAL Cellular Polyethylene Insulated, Filled, ALPETH-DCAS Sheathed Cable

FP-99: DUCTCEL Cellular Polyethylene Insulated, Air Core, ALPETH-DCAS Sheathed Telephone Cable

FP-8859: PHILSYM UL 444 CMR and CSA PCC FT4 Switchboard Cable

HP: See NEMA listing

ICEA P-32-382: ICEA Standards Publication for Short Circuit Characteristics of Insulated Cable

Reference Standards

ICEA P-45-482: ICEA Standards Publication for Short-Circuit Performance of Metallic Shields and Sheaths of Insulated Cable

ICEA P-53-426: ICEA/NEMA Standards Publication for Ampacities, Including Effect of Shield Losses for Single-Conductor Solid-Dielectric Power Cable 15 kV through 69 kV (NEMA WC50)

ICEA P-54-440: ICEA/NEMA Standards Publication for Ampacities of Cables in Open-Top Cable Trays (NEMA WC51)

ICEA P-79-561: ICEA Guide for Selecting Aerial Cable Messengers and Lashing Wires

ICEA S-56-434: ICEA/ANSI Standards Publication for Polyolefin Insulated Communications Cables for Outdoor Use

ICEA S-67-401: ICEA/NEMA Standards Publication for Steel Armor and Associated Coverings for Impregnated-Paper-Insulated Cables (NEMA WC2)

ANSI/ICEA S-70-547: ICEA/ANSI Standards Publication for Weather-Resistant Polyolefin-Covered Wire and Cable

ICEA S-73-532: ICEA/NEMA/ANSI Standards Publication for Control Cables (NEMA WC57)

ICEA S-75-381: ICEA/NEMA/ANSI Standards Publication for Portable and Power Feeder Cables for Use in Mines and Similar Applications (NEMA WC58)

ANSI/ICEA S-76-474: ICEA/ANSI Standards Publication for Neutral-Supported Power Cable Assemblies with Weather-Resistant Extruded Insulation, 600 Volts

ICEA S-77-528: ICEA/ANSI Standards Publication for Outside Plant Communications Cables, Specifying Metric Wire Sizes

ICEA S-80-576: ICEA/ANSI Standards Publication for Communications Wire and Cable for Wiring of Premises

ANSI/ICEA S-81-570: Standard for 600 volt rated cables of Ruggedized Design For Direct Burial installations of single conductors or assemblies of single conductors.

ICEA S-82-552: ICEA/NEMA Standards Publication for Instrumentation Cables and Thermocouple Wire (NEMA WC55)

ICEA S-83-596: ICEA/ANSI Standards Publication for Fiber Optic Premises Distribution Cable

ICEA S-84-608: ICEA/ANSI Standards Publication for Telecommunications Cable, Filled Polyolefin Insulated, Copper Conductor

ICEA S-85-625: ICEA/ANSI Standards Publication for Aircore, Polyolefin Insulated, Copper Conductor Telecommunications Cable

ICEA S-86-634: ICEA/ANSI Standards Publication for Buried Distribution and Service Wire, Filled Polyolefin Insulated, Copper Conductor

ICEA S-87-640: ICEA/ANSI Standards Publication for Fiber Optic Outside Plant Communication Cable

ICEA-S-93-639: ICEA/NEMA Standard for Shielded Power Cables Rated 5-46 kV for the Distribution of Electrical Energy (NEMA WC74)

ANSI/ICEA-S-94-649: Standard for Concentric Neutral Cables Rated 5-46 kV

ICEA S-95-658: ICEA/NEMA Standard for Non-shielded Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy (NEMA WC70)

ICEA S-96-659: ICEA/NEMA Standard for Non-shielded Cables Rated 2001-5000 Volts for use in the Distribution of Electrical Energy (NEMA WC71)

ANSI/ICEA S-97-682: Standard for Utility Shielded Power Cable Rated 5-46 kV

ANSI/ICEA S-105-692: Standard for 600 Volt Single Layer Thermoset Insulated Utility Underground Distribution Cable

ICEA T-22-294: ICEA Standard Test Procedures for Extended Time-Testing of Wire and Cable Insulations for Service in Wet Locations

ICEA T-25-425: ICEA Guide for Establishing Stability of Volume Resistivity for Conducting Polymeric Components of Power Cables

ICEA T-26-465: ICEA/NEMA Guide for Frequency of Sampling Extruded Dielectric Power, Control, Instrumentation and Portable Cables for Test (NEMA WC54)

ICEA T-27-581: ICEA/NEMA Standard Test Methods for Extruded Dielectric Power, Control, Instrumentation and Portable Cables (NEMA WC53)

ANSI/ICEA T-28-562: ICEA Standard Test Method for Measurement of Hot Creep of Polymeric Insulations

ICEA T-29-520: ICEA Standard for Vertical Tray Flame Tests at 210,000 Btu

ICEA T-30-520: ICEA Standard for Vertical Tray Flame Tests at 70,000 Btu

ICEA T-31-610: ICEA Standard for Water Penetration Resistance Test, Sealed Conductor

ICEA T-32-645: ICEA Standards Publication for Compatibility of Sealed Conductor Filer Compounds

IEC 92-3: International Electrotechnical Commission Electrical Installation in Ships - Part 3 Cables (Constructions, Testing and Installations)

IEEE 45: IEEE Recommended Practice for Electric Installations on Shipboard

IEEE 48: IEEE Standard Test Procedures and Requirements for High-Voltage Alternating Current Cable Terminations

IEEE 100: IEEE Standard Dictionary of Electrical and Electronics Terms

IEEE 141: IEEE Recommended Practice for Electric Power Distribution for Industrial Plants (“IEEE Red Book”)

IEEE 142: IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems (“IEEE Green Book”)

IEEE 241: IEEE Recommended Practice for Electric Power Systems in Commercial Buildings (“IEEE Gray Book”)

IEEE 242: IEEE Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems (“IEEE Buff Book”)

IEEE 323: IEEE Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations

IEEE 383: IEEE Standard for Type Test of Class 1E Electric Cables, Field Splices and Connections for Nuclear Power Generating Stations

Reference Standards

IEEE 400: IEEE Guide for Making High-Direct-Voltage Tests on Power Cable Systems in the Field

IEEE 404: IEEE Standard for Cable Joints for Use with Extruded Dielectric Cable Rated 5,000 V Through 46,000 V, and Cable Joints for Use with Laminated Dielectric Cable Rated 2,500 V Through 500,000 V (Adopted as a National Standard of Canada, CAN/CSA-C22.2 No. 241)

IEEE 446: IEEE Recommended Practice for Emergency and Standby Power Systems for Industrial and Commercial Applications ("IEEE Orange Book")

IEEE 493: IEEE Recommended Practice for the Design of Reliable Industrial and Commercial Power Systems ("IEEE Gold Book")

IEEE 515: IEEE Recommended Practice for the Testing, Design, Installation, and Maintenance of Electrical Resistance Heat Tracing for Industrial Applications

IEEE 524: IEEE Guide to the Installation of Overhead Transmission Line Conductors

IEEE 525: IEEE Guide for the Design and Installation of Cable Systems in Substations

IEEE 575: IEEE Guide for the Application of Sheath-Bonding Methods for Single-Conductor Cables and the Calculation of Induced Voltages and Currents in Cable Sheaths

IEEE 576: IEEE Recommended Practice for Installation, Termination, and Testing of Insulated Power Cable as Used in the Petroleum and Chemical Industry

IEEE 590: IEEE Cable Plowing Guide

IEEE 602: IEEE Recommended Practice for Electric Systems in Health Care Facilities ("IEEE White Book")

IEEE 635: IEEE Guide for Selection and Design of Aluminum Sheaths for Power Cables

IEEE 644: IEEE Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields from AC Power Lines

IEEE 738: IEEE Standard for Calculation of Bare Overhead Conductor Temperature and Ampacity Under Steady-State Conditions

IEEE 789: IEEE Standard Performance Requirements for Communications and Control Cables for Application in High Voltage Environments

IEEE 802.3: IEEE Standard for Information Processing Systems - Local and Metropolitan Area Networks - Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications (ISO/IEC) (ANSI/IEEE Std 802.3)

IEEE 802.5: IEEE Standard for Information Technology - Local and Metropolitan Area Networks - Part 5: Token Ring Access Method and Physical Layer Specifications (ISO/IEC) (ANSI/IEEE Std 802.5)

IEEE 816: IEEE Guide for Determining the Smoke Generation of Solid Materials Used for Insulations and Coverings of Electric Wire and Cable

IEEE 844: IEEE Recommended Practice for Electrical Impedance, Induction, and Skin Effect Heating of Pipelines and Vessels

IEEE 1017: IEEE Recommended Practice for Field Testing Electric Submersible Pump Cable

IEEE 1018: IEEE Recommended Practice for Specifying Electric Submersible Pump Cable – Ethylene-Propylene Rubber Insulation

IEEE 1019: IEEE Recommended Practice for Specifying Electric Submersible Pump Cable – Polypropylene Insulation

IEEE 1120: IEEE Guide to the Factors to Be Considered in the Planning, Design, and Installation of Submarine Power and Communications Cables

IEEE 1202: IEEE Standard for Flame Testing of Cables for Use in Cable Tray in Industrial and Commercial Occupancies

IEEE/ICEA S-135: Power Cable Ampacities

Mil-C-17: General Specifications for Flexible and Semirigid Radio Frequency Cables

Mil-C-915F: General Specification for Electrical Cable and Conductors for Shipboard Use

Mil-C-13777: General Specification for Special Purpose Electrical Cable

Mil-C-24640: General Specification for Lightweight Electrical Cable for Shipboard Use

Mil-C-24643: General Specification for Low Smoke Electrical Cable and Conductors for Shipboard Use

Mil-C-27500: General Specification for Shielded and Unshielded Electrical Power Cable and Special Purpose Cable

Mil-C-85045: General Specification for Fiber Optic Cables [Metric]

Mil-W-16878: General Specification for Insulated Electrical Wire

Mil-W-22759: General Specification for Copper or Copper Alloy Fluoropolymer-Insulated Electrical Wire

Mil-W-81044: General Specification for Copper or Copper Alloy, Crosslinked Polyalkene, Crosslinked Alkane-Imide Polymer or Polyalkene Insulated Electrical Wire

Mil-W-81381: General Specification for Replacement Wire

Mil-W-85485: General Specification for Radio Frequency Absorptive Filter Line Electrical Cable

NAVSEA 6710782: Fiber Optic and Multimode Cable

NEMA HP 3: Electrical and Electronic PTFE (Polytetrafluoro-ethylene) Insulated High Temperature Hook-Up Wire; Types (600 Volt), EE (1000 Volt), and ET (250 Volt)

NEMA HP 4: Electrical and Electronic FEP Insulated High Temperature Hook-Up Wire; Types K, KK, and KT

NEMA HP 100: High Temperature Instrumentation and Control Cables

NEMA HP 100.1: High Temperature Instrumentation and Control Cables Insulated and Jacketed with FEP Fluorocarbons

NEMA HP 100.2: High Temperature Instrumentation and Control Cables Insulated and Jacketed with ETFE Fluoropolymers

NEMA HP 100.3: High Temperature Instrumentation and Control Cables Insulated and Jacketed with Cross-Linked (Thermoset) Polyolefin (XLPO)

Reference Standards

NEMA HP 100.4: High Temperature Instrumentation and Control Cables Insulated and Jacketed with ECTFE Fluoropolymers

NEMA WC2: Steel Armor and Associated Coverings for Impregnated-Paper-Insulated Cables (ICEA S-67-401)

NEMA WC3: Rubber-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy (ICEA S-19-81)

NEMA WC5: Thermoplastic-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy (ICEA S-61-402)

NEMA WC7: Cross-Linked-Thermosetting-Polyethylene-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy (ICEA S-66-524)

NEMA WC8: Ethylene-Propylene-Rubber-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy (ICEA S-68-516)

NEMA WC26: Wire and Cable Packaging

NEMA WC50: Ampacities, Including Effect of Shield Losses for Single-Conductor Solid Dielectric Power Cable 15 kV through 69 kV (ICEA P-53-426)

NEMA WC51: Ampacities of Cables in Open-Top Cable Trays (ICEA P-54-440)

NEMA WC52: High Temperature and Electronic Insulated Wire-Impulse Dielectric Testing

NEMA WC53: Standard Test Methods for Extruded Dielectric Power, Control, Instrumentation, and Portable Cables (ICEA T-27-581)

NEMA WC54: Guide for Frequency of Sampling Extruded Dielectric Power, Control, Instrumentation, and Portable Cables for Test (ICEA T26-465)

NEMA WC55: Instrumentation Cables and Thermocouple Wire (ICEA S-82-552)

NEMA WC56: 3.0 kHz Insulation Continuity Proof Testing of Hook-Up Wire

NEMA WC57: Standard for Control Cables (ICEA S-73-532)

NEMA WC58: Standard for Portable and Power Feeder Cables for Use in Mines and Similar Applications (ICEA-S-75-381)

NEMA WC61: Transfer Impedance Testing

NEMA WC62: Repeated Spark/Impulse Dielectric Testing

NEMA WC70: Standard for Non-shielded Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy (ICEA S-95-658)

NEMA WC71: Standard for Non-shielded Cables Rated 2001-5000 Volts for Use in the Distribution of Electrical Energy (ICEA S-96-659)

NEMA WC74: Standard for Shielded Power Cables Rated 5-46 kV for the Distribution of Electrical Energy (ICEA S-93-639)

NFPA 70: National Electrical Code

NFPA 70HB: National Electrical Code Handbook

NFPA 262: Test for Fire and Smoke Characteristics of Wires and Cables

ONT M-302-84: Cable, Secondary, for Direct Burial

ONT M-355-82: Cable, Primary Submarine

ONT M-538-84: Cable, For Use in Generating Stations (5 kV and Above)

ONT M-570-84: Cable, For Use in Generating Stations (600 V)

ONT M-695-88: Cable, Primary and Subtransmission Submarine, Concentric Neutral

SAE 1560: Low Tension, Thin Wall Primary Cable

SAE J1127: Battery Cable

SAE J1128: Low Tension Primary Cable

TIA: See EIA/TIA

UL 4: Standard for Armored Cable

UL 13: Standard for Power-Limited Circuit Cables

UL 44: Standard for Rubber-Insulated Wires and Cables

UL 62: Standard for Flexible Cord and Fixture Wire

UL 83: Standard for Thermoplastic-Insulated Wires and Cables

UL 183: Standard for Manufactured Wiring Systems

UL 444: Standard for Communications Cables

UL 486A: Standard for Wire Connectors and Soldering Lugs for Use With Copper Conductors

UL 486B: Standard for Wire Connectors and Soldering Lugs for Use With Aluminum Conductors

UL 486C: Standard for Splicing Wire Connectors

UL 486D: Standard for Insulated Wire Connectors for Use With Underground Conductors

UL 486E: Standard for Equipment Wiring Terminals for Use With Aluminum and/or Copper Conductors

UL 493: Standard for Thermoplastic-Insulated Underground Feeder and Branch-Circuit Cables

UL 498: Standard for Attachment Plugs and Receptacles

UL 514B: Standard for Fittings for Conduit and Outlet Boxes

UL 719: Standard for Nonmetallic-Sheathed Cables

UL 758: Standard for Appliance Wiring Material - Component

UL 814: Standard for Gas-Tube-Sign and Ignition Cable

UL 817: Standard for Cord Sets and Power-Supply Cords

UL 854: Standard for Service-Entrance Cables

UL 910: Standard for Test for Flame-Propagation and Smoke-Density Values for Electrical and Optical-Fiber Cables Used in Spaces Transporting Environmental Air

UL 1023: Standard for Household Burglar-Alarm System Units

UL 1063: Standard for Machine-Tool Wires and Cables

UL 1072: Standard for Medium-Voltage Power Cables

UL 1084: Standard for Hoistway Cables

UL 1263: Standard for Irrigation Cables

Reference Standards

UL 1277: Standard for Electrical Power and Control Tray Cables With Optional Optical Fiber Members

UL 1309: Standard for Marine Shipboard Cable

UL 1424: Standard for Cables for Power-Limited Fire-Protective-Signaling Circuits

UL 1426: Standard for Cables for Boats

UL 1446: Standard for Systems of Insulating Materials—General

UL 1462: Standard for Mobile Home Pipe Heating Cable

UL 1569: Standard for Metal-Clad Cables

UL 1581: Reference Standard for Electrical Wires, Cables and Flexible Cords

UL 1588: Standard for Roof and Gutter De-Icing Cable Units

UL 1666: Standard Test for Flame Propagation Height of Electrical and Optical-Fiber Cables Installed Vertically in Shafts

UL 1673: Standard for Electric Space Heating Cables

UL 1685: Standard for Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables

UL 1690: Standard for Data Processing (DP) Cables

UL 1712: Standard Tests for Ampacity of Insulated Electrical Conductors Installed in the Fire Protective System

UL 1807: Standard for Fire Resistant Cable Coating Materials

UL 2023: Standard Test Method for Flame and Smoke Characteristics of Nonmetallic Wiring Systems (Raceway and Conductors) for Environmental Air-Handling Spaces

UL 2029: Standard for Gas/Vapor-Blocked Cable Classified for Use in Class 1 Hazardous (Classified) Locations

UL 2049: Standard for Residential Pipe Heating Cable

UL 2556: Wire and Cable Test Methods

WC: See NEMA listing

Checklist for Specifications

Control Cable

- ❑ Conductor Tape
- ❑ AWG
- ❑ Solid
  - ___ Class B, concentric
  - ___ Flexible
- ❑ Bare/Coated
- ❑ Insulation
- ❑ Jacket
- ❑ Temperature rating
- ❑ Voltage rating
- ❑ Individual Conductor Listings
- ❑ Number of Conductors
- ❑ Identification Method
  - ___ Color code
  - ___ Numbering
  - ___ Tags
- ❑ Grounding
  - ___ Bare/Coated
  - ___ Size
  - ___ Insulated

Power Cable

- ❑ Size, AWG or kcmil
- ❑ Conductor Type (metal)
- ❑ Stranding
  - ___ Class B, compact
  - ___ Class B, concentric
  - ___ Class C
  - ___ Other
- ❑ Bare/Coated
- ❑ Conductor Shielding
  - ___ Extruded
  - ___ Tape
- ❑ Insulation
  - ___ EPR
  - ___ EVA
  - ___ FEP
  - ___ FR-EP
  - ___ LSZH
  - ___ Polyethylene/PVC
  - ___ PVC/Nylon
  - ___ Silicone
  - ___ XLPE
  - ___ Other
- ❑ Insulation Level
  - ___ 100%
  - ___ 133%
- ❑ Insulation Shielding
  - ___ Extruded
  - ___ Tape
- ❑ Metallic Shielding
  - ___ Bare/Coated
  - ___ Helical copper tapes
  - ___ Helical wires
  - ___ Longitudinal drain wires
  - ___ Other
- ❑ Jacket
  - ___ CPE
  - ___ CSPE
  - ___ LSZH/XLPO
  - ___ Neoprene
  - ___ Polyurethane
  - ___ PVC
  - ___ XLPE
  - ___ XL-CPE
  - ___ XL-LSZH
  - ___ Other
- ❑ Cable Assembly
  - ___ Cabled
  - ___ Multiconductor
  - ___ Other
- ❑ Grounding Conductors
  - ___ Bare/Coated
  - ___ Insulated/Uninsulated
  - ___ Quantity
  - ___ Size
- ❑ Neutral Conductors
  - ___ Bare/Coated
  - ___ Fillers
  - ___ Flame-retardant
  - ___ Fiber
  - ___ Quantity
  - ___ Insulated
  - ___ Paper
  - ___ Other
  - ___ Size
- ❑ Covering
  - ___ Corrugated continuous welded armor
  - ___ Interlocked armor
  - ___ Lead
  - ___ Nonmetallic
  - ___ Other
- ❑ Color
- ❑ Voltage rating
- ❑ Temperature rating
- ❑ Approvals

General Checklist

- ❑ Standards
  - ___ AEIC
  - ___ CANENA
  - ___ CSA
  - ___ ICEA
  - ___ IEC
  - ___ IEEE
  - ___ UL
  - ___ Other
- ❑ Testing Procedures
  - ___ AEIC
  - ___ CAN ENA
  - ___ CSA
  - ___ ICEA
  - ___ IEC
  - ___ IEEE
  - ___ UL
  - ___ Other
- ❑ Special Requirements
  - ___ Cold bend
  - ___ Direct burial
  - ___ Flame-retardant
  - ___ Oil-resistant
  - ___ Sunlight-resistant
  - ___ Other
- ❑ Documentation
  - ___ Certificates of Compliance
  - ___ Certified Test Reports
  - ___ Drawings
  - ___ Warranties
  - ___ Other
- ❑ System Characteristics
- ❑ Shipping Details
  - ___ Cut lengths
  - ___ Installation recommendation
  - ___ Lagging
  - ___ Returnable reels
  - ___ Other
- ❑ Identification
  - ___ Cable
  - ___ Circuit
  - ___ Reel

Note: This checklist must be accompanied by exact system details about the environment and electrical characteristics.

General Cable
Phone: 888-593-3355
www.generalcable.com

NEC and CSA Designations

NEC WIRE TYPE	DESCRIPTION
AWM	Appliance Wiring Material, Thermoplastic Insulation (PVC), With or Without Nylon, 105°C, Dry Locations
MC-HL	Suffix "-HL" Indicates Acceptable for Hazardous Locations
ITC	Instrumentation Tray Cable, Several Combinations for Insulations and Jacket Compounds, CCW
MV-LS	Suffix "-LS" Indicates Acceptable for Limited Smoke Applications
MC	Metal-Clad Cable, THHN or XHHW Individual Conductors, Aluminum or Steel Interlocked Armor, CCW
MTW	Machine Tool Wire, Thermoplastic Insulation (PVC), With or Without Nylon, 90°C, Dry Locations
MV-90	Medium-Voltage Cable Rated at 90°C
MV-105	Medium-Voltage Cable Rated at 105°C
PLTC	Power-Limited Tray Cable, Several Combinations of Insulations and Jacket Compounds, CCW
RHH	Rubber Equivalent Insulation (XLPE), High Heat-Resistant, 90°C Rating, Dry or Damp Locations
RHW-2	Rubber Equivalent Insulation (XLPE), Heat-Resistant, 90°C Rating, Wet Locations
SF-2	Silicone Insulated Fixture Wire, Solid or 2-Strand
SFF-2	Silicone Insulated Fixture Wire, Flexible Strand
SIS	Flame-Retardant Thermoset Switchboard Wire
TC - ER	Tray Cable, Several Combinations of Insulation and Jacket Compounds, Cable Tray Use, Exposed Run
TFFN	Thermoplastic Insulation (PVC), Flexible Fixture Wire, 90°C Rating, Dry Locations, Nylon Jacket
TFN	Thermoplastic Insulation (PVC), Fixture Wire, 90°C Rating, Dry Locations, Nylon Jacket
THHN	Thermoplastic Insulation (PVC), High Heat-Resistant, 90°C Rating, Dry or Damp Locations, Nylon Jacket
THWN	Thermoplastic Insulation (PVC), Heat-Resistant, 75°C Rating, Wet Locations, Nylon Jacket
USE-2	Underground Service Entrance, Cross-Linked Polyethylene Insulation (XLPE), Direct Burial, 90°C Rating
XHHW-2	Cross-Linked Polyethylene Insulation (XLPE), High Heat-Resistant, 90°C Rating, Wet and Dry Locations

CSA WIRE TYPE	DESCRIPTION
AC-90	600 Volt XLPE Insulation, Aluminum or Steel Interlocked Armored Cable
ACIC	300 or 600 Volt Armored Instrument and Control Cable. A CSA-type designation used to describe Armored Instrumentation and Control Cable. Available in either 300 Volt or 600 Volt with thermoset or thermoplastic insulation, this cable can be supplied with an overall shield, shielded pairs, shielded triads or unshielded in multi-conductor constructions from 2 to 72 conductors. The overall interlocked armor and PVC jacket provide a (-40°C), HL, FT4 product (CSA Standard C22.2 No. 239).
ACWU90 (-40°C)	600 Volt XLPE Insulation, Aluminum or Steel Interlocked Armored Cable with PVC Jacket
HL (Hazardous Locations)	Designation for Hazardous Locations (CSA Standard C22.2 No. 174)
NMD90	300 Volt Non-Metallic Sheath Cable with XLPE or PVC/Nylon Insulation
NMWU	300 Volt Non-Metallic Sheath Cable with PVC Insulation
RA90 (-40°C)	600 and 5000 Volt Single and Multiple Conductor with Seamless Corrugated Aluminum Armor. A CSA-type designation for single-conductor or multi-conductor constructions similar to AC90 and ACWU90, except no bonding (grounding) conductor is required in the cable assembly. Also, the armor is a corrugated aluminum sheath, which serves as a bonding (grounding) conductor. The overall PVC covering on RA90 is required for wet or direct burial applications (CSA Standard C22.2 No. 123).
RW90 XLPE (-40°C)	600 and 5000 Volt Thermoset Insulation, 90°C Rating, Wet or Dry Locations
RWU90 XLPE (-40°C)	600 and 1000 Volt Thermoset Insulation, 90°C Rating, Direct Burial
SEW-2	600 Volt Silicone Rubber Insulated Equipment Wire, Solid or 7-Strand
SEWF-2	600 Volt Silicone Rubber Insulated Equipment Wire with Flexible Strand
TECK90 (-40°C)	600 and 5000 Volt Single and Multiple Conductor Cable with Inner Jacket, Aluminum or Steel Interlocked Armor with PVC Jacket
TC	Tray Cable Certified for Use in Class 1, Division 2 Areas
TW75	600 Volt Thermoplastic (PVC) Insulated Cable Suitable for Wet Locations
TWU (-40°C)	600 Volt Thermoplastic (PVC) Insulated Cable Suitable for Direct Burial

General Cable
Phone: 888-593-3355
www.generalcable.com

Common Color Sequence

Method 1 - Table E1 Color Sequence

COND. NO.	BACKGROUND OR BASE COLOR	FIRST TRACER COLOR	SECOND TRACER COLOR	COND. NO.	BACKGROUND OR BASE COLOR	FIRST TRACER COLOR	SECOND TRACER COLOR
1	Black	-	-	20	Red	Green	-
2	White	-	-	21	Orange	Green	-
3	Red	-	-	22	Black	White	Red
4	Green	-	-	23	White	Black	Red
5	Orange	-	-	24	Red	Black	White
6	Blue	-	-	25	Green	Black	White
7	White	Black	-	26	Orange	Black	White
8	Red	Black	-	27	Blue	Black	White
9	Green	Black	-	28	Black	Red	Green
10	Orange	Black	-	29	White	Red	Green
11	Blue	Black	-	30	Red	Black	Green
12	Black	White	-	31	Green	Black	Orange
13	Red	White	-	32	Orange	Black	Green
14	Green	White	-	33	Blue	White	Orange
15	Blue	White	-	34	Black	White	Orange
16	Black	Red	-	35	White	Red	Orange
17	White	Red	-	36	Orange	White	Blue
18	Orange	Red	-	37	White	Red	Blue
19	Blue	Red	-				

Pair cables are Black, White and numbered. Triad cables are Black, White, Red and numbered.

Method 4 - All Conductors Black

COND.	CONDUCTOR PRINTING
1st	“1-One”
2nd	“2-Two”
3rd	“3-Three”
4th	“4-Four”
5th	“5-Five”

Method 1 - Table E2 Color Sequence

COND. NO.	BACKGROUND OR BASE COLOR	TRACER COLOR	COND. NO.	BACKGROUND OR BASE COLOR	TRACER COLOR
1	Black	-	19	Orange	Blue
2	Red	-	20	Yellow	Blue
3	Blue	-	21	Brown	Blue
4	Orange	-	22	Black	Orange
5	Yellow	-	23	Red	Orange
6	Brown	-	24	Blue	Orange
7	Red	Black	25	Yellow	Orange
8	Blue	Black	26	Brown	Orange
9	Orange	Black	27	Black	Yellow
10	Yellow	Black	28	Red	Yellow
11	Brown	Black	29	Blue	Yellow
12	Black	Red	30	Orange	Yellow
13	Blue	Red	31	Brown	Yellow
14	Orange	Red	32	Black	Brown
15	Yellow	Red	33	Red	Brown
16	Brown	Red	34	Blue	Brown
17	Black	Blue	35	Orange	Brown
18	Red	Blue	36	Yellow	Brown

Pair cables are Black, Red and numbered. Triad cables are Black, Red, Blue and numbered. Colors repeat after 36 conductors. There are no Green or White conductors or stripes.

ANSI MC 96.1 Conductor Alloy and Color Code

COND. TYPE	POSITIVE WIRE		NEGATIVE WIRE		OUTER JACKET
	ALLOY	COLOR	ALLOY	COLOR	
EX	Chromel	Purple	Constantan	Red	Purple
JX	Iron	White	Constantan	Red	Black
KX	Chromel	Yellow	Alumel	Red	Yellow
TX	Copper	Blue	Constantan	Red	Blue

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Metric Conversion Factors

	To Convert From	To	Multiply By
Length	Inches	Millimeters	25.4
	Millimeters	Inches	0.03937
	Inches	Centimeters	2.54
	Centimeters	Inches	0.3937
	Feet	Meters	0.3048
	Meters	Feet	3.2808
	Kilofeet (1000 feet)	Kilometers	0.3048
	Kilometers	Kilofeet (1000 feet)	3.2808
Area	Square Inches	Square Millimeters	645.16
	Square Millimeters	Square Inches	0.00155
	Square Inches	Square Centimeters	6.4516
	Square Centimeters	Square Inches	0.155
	Square Inches	Circular Mils	1,273,240
	Circular Mils	Square Inches	7.854×10^{-7}
	Circular Mils	Square Millimeters	5.066×10^{4}
	Square Millimeters	Circular Mils	1973.51
	Square Feet	Square Meters	0.0929
	Square Meters	Square Feet	10.764
Weight	Pounds	Kilograms	0.4536
	Kilograms	Pounds	2.2046
	Pound/Kilofeet	Kilograms/Kilometer	1.4882
	Kilograms/Kilometer	Pounds/Kilofeet	0.6720
Electrical	Ohms/Kilofeet	Ohms/Kilometer	3.2808
	Ohms/Kilometer	Ohms/Kilofeet	0.3048
	Microfarads/Kilofeet	Microfarads/Kilometer	3.2808
	Microfarads/Kilometer	Microfarads/Kilofeet	0.3048
	Insulation Resistance:		
	Megohms—Kilofeet	Megohms—Kilometer	0.3048
	Megohms—Kilometer	Megohms—Kilofeet	3.2808
Mechanical	Pounds/Square Inch	Kilo Pascal*	6.895
	Kilo Pascal*	Pounds/Square Inch	0.1432
	Pounds (force)	Newtons	4.448

* 1 Pascal = 1 Newton/square meters

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AWG (American Wire Gauge) to mm² (Millimeters Squared) Conversion

AWG to mm² CONVERSION TABLE	
AWG/kcmil	[mm²]*
20	0.52
18	0.82
16	1.31
14	2.08
12	3.31
10	5.26
8	8.36
6	13.3
4	21.2
2	33.6
1	42.4
1/0	53.5
2/0	67.4
3/0	85.0
4/0	107
250	127
300	152
350	177
400	203
450	228
500	253
600	304
750	380
800	405
1000	507

* Equivalent mm² cross-sectional area

mm² to AWG CONVERSION TABLE		
mm²	[mm²] *	AWG/kcmil
0.5	0.52	20
0.75	0.82	18
1.5	1.31	16
2.5	2.08	14
2.5	3.31	12
4	3.31	12
6	5.26	10
10	8.36	8
16	13.3	6
25	21.2	4
35	33.6	2
35	42.4	1
50	53.5	1/0
70	67.4	2/0
95	85.0	3/0
95	107	4/0
120	107	4/0
120	127	250
150	152	300
185	177	350
185	203	400
240	228	450
240	253	500
300	304	600
400	380	750
400	405	800
500	507	1000

Multiple AWG choices — consult responsible engineer for required ampacity

* Equivalent mm² cross-sectional area

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Reel Capacity Chart

General Cable
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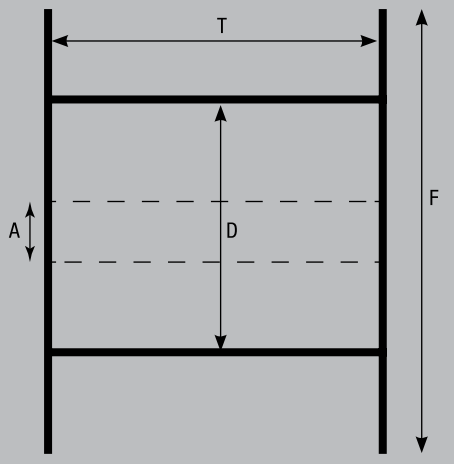
WOOD REELS

Reel (FxTxD)	30x18x12	36x24x17	40x24x17	45x28x21	50x32x24	58x32x28	72x36x36	84x36x48	90x36x48
RM Code	61-1215	61-1659	61-1808	61-2056	61-2253	61-2764	61-3655	61-4265	61-4366
Arbor Hole	2.75	3.06	3.06	3.06	3.06	3.06	3.06	3.5	3.5
Drive Hole	1	1	1	1.5	1.5	1.5	1.5	1.5	1.5
Drive Hole Radius	4.5	6	6	8.5	10	10	10	10	10
Clearance	1.5	2	2	2	2	2	2	2	3
Factor	509.3	1155.4	1582.8	2274.2	3227.7	4468.6	7847.4	9658.4	11205.2
Max Weight	750	1500	2000	3000	4800	6500	8000	9000	10,000
Net Weight	47	91	110	142	208	271	513	744	821
Cable OD									
.241 - .250	11040								
.251 - .260	10200								
.261 - .270	9460								
.271 - .280	8800								
.281 - .290	8200								
.291 - .300	7660								
.301 - .310	7180								
.311 - .320	6740	10790							
.321 - .330	6330	10110							
.331 - .340	5970	9610							
.341 - .350	5630	9030							
.351 - .360	6320	8490							
.361 - .370	5040	8100							
.371 - .380	4780	7620	10520						
.381 - .390	4530	7300	9940						
.391 - .400	4310	6880	9540						
.401 - .410	4100	6600	9030						
.411 - .420	3910	6230	8550	12580					
.421 - .430	3730	6000	8220	11940					
.431 - .440	3560	5660	7790	11330					
.441 - .450	3410	5450	7510	10910					
.451 - .460	3260	5250	7120	10370	15010				
.461 - .470	3120	4970	6880	10000	14290				
.471 - .480	2990	4700	6530	9510	13790				
.481 - .490	2870	4630	6310	9180	13150				
.491 - .500	2760	4390	6110	8880	12700				
.501 - .525	2500	4040	5530	8050	11540				
.526 - .550	2280	3650	5030	7330	10510				
.551 - .575	2090	3310	4580	6680	9610				
.576 - .600	1920	3080	4180	6110	8800				
.601 - .625	1770	2810	3910	5590	8050				
.626 - .650	1630	2630	3580	5240	7430	10420			
.651 - .675	1510	2400	3280	4820	6970	9630			
.676 - .700	1410	2260	3090	4530	6430	8900			
.701 - .725	1310	2070	2840	4180	5940	8260			
.726 - .750	1230	1950	2690	3950	5610	7800			
.751 - .775	1150	1840	2480	3650	5190	7250			
.776 - .800	1080	1690	2350	3460	4920	6870			
.801 - .825	1010	1610	2230	3200	4670	6400	11530		
.826 - .850	950	1530	2060	3040	4340	6090	10860		
.851 - .875	900	1450	1970	2900	4130	5680	10250		
.876 - .900	850	1340	1880	2690	3850	5420	9690		
.901 - .925	810	1280	1735	2570	3670	5060	9170	11290	
.926 - .950	760	1220	1660	2460	3510	4840	8700	10700	
.951 - .975	730	1170	1590	2280	3270	4630	8250	10160	
.976 - 1.000	690	1075	1525	2190	3130	4340	7850	9660	11210
1.001 - 1.050	630	990	1360	2010	2880	3990	7120	8760	10160
1.051 - 1.100	570	910	1260	1800	2590	3600	6490	7980	9260
1.101 - 1.150	520	810	1120	1670	2400	3250	5930	7300	8470
1.151 - 1.200	480	750	1040	1500	2160	3030	5450	6710	7780
1.201 - 1.250	440	700	980	1400	2020	2740	5020	6180	7170
1.251 - 1.300	410	650	870	1310	1820	2570	4640	5720	6630
1.301 - 1.350	380	580	820	1180	1710	2410	4320	5300	6150
1.351 - 1.400	350	550	770	1110	1610	2190	4000	4930	5720
1.401 - 1.450	330	520	690	1040	1460	2070	3730	4590	5330
1.451 - 1.500	310	490	650	990	1370	1950	3490	4290	4980
1.501 - 1.600	270	410	590	840	1230	1690	3070	3770	4380
1.601 - 1.700	240	370	500	760	1060	1520	2720	3340	3880
1.701 - 1.800		330	450	650	960	1325	2420	2980	3460
1.801 - 1.900			420	600	880	1210	2170	2680	3100
1.091 - 2.000				540	760	1060	1960	2410	2800
2.001 - 2.100				500	700	970	1740	2190	2540
2.101 - 2.200					650	900	1620	2000	2320
2.201 - 2.300					600	790	1480	1830	2120
2.301 - 2.400					520	740	1360	1680	1950
2.401 - 2.500					490	690	1260	1550	1790
2.501 - 2.600					460	640	1160	1430	1660
2.601 - 2.700					430	600	1080	1320	1540
2.701 - 2.800						530	1000	1230	1430
2.801 - 2.900						500	930	1150	1330
2.901 - 3.000						470	870	1070	1250
3.001 - 3.100						440	820	1010	1170
3.101 - 3.200						420	770	940	1090
3.201 - 3.300						400	720	890	1030
3.301 - 3.400						380	680	840	970
3.401 - 3.500							640	790	910



F = Flange Diameter
T = Traverse Width
D = Drum Diameter
A = Arbor Hole

Conductor Reference

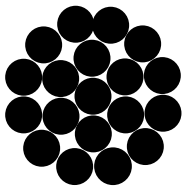
TABLE 1 – Conductor Reference Table – Stranded Bare Copper Conductor and Aluminum (ACM) Conductor

Stranded Bare Copper Conductor Standards

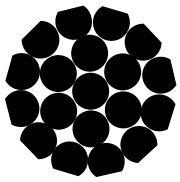
Conforms to:	ASTM B3	Soft or annealed copper wire
	ASTM B8	Concentric lay stranded copper conductors Class B, C and D
	ASTM B33	Tinned soft or annealed copper wire
	ASTM B172	Rope lay stranded copper conductors having bunch stranded members Classes I, K and M
	ASTM B173	Rope lay stranded copper conductors having concentric stranded members Classes G and H
	ASTM B174	Bunch stranded copper conductors
	ASTM B496	Compact round concentric lay stranded copper conductors

Concentric Stranding

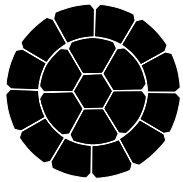
Round
100%



Compressed
97%



Compact
90%



Class B Conductors for General Wiring

Copper Conductor

ASTM CLASS B

COND. SIZE	STRANDING	NOMINAL AREA		NOMINAL WEIGHT		CONCENTRIC NOMINAL O.D.		COMPRESSED NOMINAL O.D.		COMPACT NOMINAL O.D.	
AWG/kcmil	INCHES	CIRCULAR MILS	mm²	LBS/1000 FT[1]	kg/km	INCHES	mm	INCHES	mm	INCHES	mm
22	7/.0096	640	0.32	1.99	2.96	0.029	0.74	—	—	—	—
20	7/.0121	1,020	0.52	3.15	4.69	0.036	0.91	—	—	—	—
18	7/.0152	1,620	0.82	5.10	7.59	0.046	1.17	—	—	—	—
16	7/.0192	2,580	1.31	7.74	11.52	0.058	1.47	—	—	—	—
14	7/.0242	4,110	2.08	12.70	18.90	0.073	1.84	0.071	1.80	—	—
12	7/.0305	6,530	3.31	20.20	30.10	0.092	2.32	0.089	2.26	—	—
10	7/.0385	10,380	5.26	32.10	47.80	0.116	2.95	0.113	2.87	—	—
8	7/.0486	16,510	8.36	51	75.90	0.146	3.71	0.142	3.60	0.134	3.40
6	7/.0612	26,240	13.30	81.10	120.70	0.184	4.67	0.178	4.53	0.169	4.29
4	7/.0772	41,740	21.20	129	192	0.232	5.89	0.225	5.72	0.213	5.41
2	7/.0974	66,360	33.60	205	305.10	0.292	7.42	0.283	7.19	0.268	6.81
1	19/.0664	83,690	42.40	258	383.90	0.332	8.43	0.322	8.18	0.299	7.59
1/0	19/.0745	105,600	53.50	326	485.10	0.373	9.47	0.362	9.19	0.336	8.53
2/0	19/.0837	133,100	67.40	411	611.60	0.419	10.64	0.406	10.32	0.376	9.55
3/0	19/.0940	167,800	85	518	770.90	0.470	11.94	0.456	11.58	0.423	10.74
4/0	19/.1055	211,600	107	653	971.80	0.528	13.41	0.512	13.01	0.475	12.07
250	37/.0822	250,000	127	772	1148.90	0.575	14.61	0.558	14.17	0.520	13.21
300	37/.0900	300,000	152	926	1378	0.630	16.00	0.611	15.52	0.570	14.48
350	37/.0973	350,000	177	1,081	1609	0.681	17.30	0.661	16.78	0.616	15.65
400	37/.1040	400,000	203	1,235	1838	0.728	18.49	0.706	17.94	0.659	16.74
500	37/.1162	500,000	253	1,544	2298	0.813	20.65	0.789	20.03	0.736	18.69
600	61/.0992	600,000	304	1,883	2802	0.893	22.68	0.866	22.00	0.813	20.65
750	61/.1109	750,000	380	2,316	3447	0.998	25.35	0.968	24.59	0.908	23.06
1000	61/.1280	1,000,000	507	3,088	4595	1.152	29.26	1.117	28.38	1.060	26.92

Dimensions and weights are nominal; subject to industry tolerances.
[1] Nominal conductor weights are applicable for Concentric Class B and Compressed Stranding per ASTM B8.

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Class C Conductors for General Wiring

Copper Conductor

ASTM CLASS C

SIZE	STRANDING	NOMINAL AREA		NOMINAL DIAMETER		NOMINAL WEIGHT	
AWG/kcmil	INCHES	CIRCULAR MILS	mm^2	INCHES	mm	LBS/KFT	kg/km
22	19/.0063	640	0.32	0.031	0.79	2.34	3.48
20	19/.0080	1,020	0.52	0.038	0.97	3.71	5.52
18	19/.0092	1,620	0.82	0.044	1.12	5.00	7.40
16	19/.0117	2,580	1.31	0.056	1.42	7.97	11.86
14	19/.0147	4,110	2.08	0.070	1.80	12.70	18.90
12	19/.0185	6,530	3.31	0.089	2.24	20.20	30.10
10	19/.0234	10,380	5.26	0.112	2.85	32.05	47.80
9	19/.0262	13,090	6.63	0.126	3.20	40.40	60.10
8	19/.0295	16,510	8.37	0.143	3.63	51.00	74.40
7	19/.0331	20,820	10.50	0.162	4.11	64.30	95.70
6	19/.0372	26,240	13.30	0.184	4.67	81.00	121
5	19/.0417	33,090	16.80	0.203	5.16	102	152
4	19/.0469	41,740	21.20	0.235	5.97	129	192
3	19/.0526	52,620	26.70	0.263	6.68	163	243
2	19/.0591	66,360	33.60	0.296	7.52	205	305
1	37/.0476	83,690	42.40	0.323	8.20	258	384
1/0	37/.0534	105,600	53.50	0.362	9.20	326	485
2/0	37/.0600	133,100	67.40	0.407	10.33	411	612
3/0	37/.0673	167,800	85	0.457	11.60	518	771
4/0	37/.0756	211,600	107	0.513	13.03	653	972
250	31/.0640	250,000	127	0.558	14.17	774	1150
262.6	—	—	—	—	—	—	—
300	61/.0701	300,000	152	0.612	15.54	927	1380
313.1	—	—	—	—	—	—	—
350	61/.0757	350,000	177	0.661	16.79	1082	1610
373.7	—	—	—	—	—	—	—
400	61/.0810	400,000	203	0.711	18.10	1235	1838
444.4	—	—	—	—	—	—	—
500	61/.0905	500,000	253	0.791	20.10	1545	2299
535.3	—	—	—	—	—	—	—
592	—	—	—	—	—	—	—
600	91/.0812	600,000	304	0.893	22.70	1853	2757
646.4	—	—	—	—	—	—	—
750	91/.0908	750,000	380	0.999	25.40	2316	3446
777.7	—	—	—	—	—	—	—
1000	91/.1048	1,000,000	507	1.153	29.30	3088	4595
1111	—	—	—	—	—	—	—

Dimensions and weights are nominal; subject to industry tolerances.

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Class H Conductors for General Wiring

Copper Conductor

ASTM CLASS H

SIZE	STRANDING	NOMINAL AREA		NOMINAL DIAMETER		NOMINAL WEIGHT	
AWG/kcmil	INCHES	CIRCULAR MILS	mm²	INCHES	mm	LBS/KFT	kg/km
9	—	—	—	—	—	—	—
8	133/.0111	16,510	8.37	0.164	4.17	52	77
7	133/.0126	20,820	10.50	0.190	4.83	67	100
6	133/.0140	26,240	13.30	0.204	5.18	82	122
5	133/.0158	33,090	16.80	0.231	5.87	105	156
4	133/.0177	41,740	21.20	0.260	6.60	132	196
3	133/.0199	52,620	26.70	0.292	7.42	167	248
2	133/.0223	66,360	33.60	0.327	8.31	208	310
1	259/.0180	83,690	42.40	0.363	9.22	266	396
1/0	259/.0202	105,600	53.50	0.407	10.30	334	497
2/0	259/.0227	133,100	67.40	0.458	11.60	422	628
3/0	259/.0255	167,800	85	0.515	13.10	533	793
4/0	259/.0286	211,600	107	0.579	14.70	670	997
250	427/.0242	250,000	127	0.627	15.90	795	1183
262.6	—	—	—	—	—	—	—
300	427/.0265	300,000	152	0.702	17.80	953	1418
313.1	—	—	—	—	—	—	—
350	427/.0286	350,000	177	0.740	18.80	1110	1652
373.7	—	—	—	—	—	—	—
400	427/.0306	400,000	203	0.809	20.50	1270	1890
444.4	—	—	—	—	—	—	—
500	427/.0342	500,000	253	0.900	22.90	1590	2366
535.3	—	—	—	—	—	—	—
592	—	—	—	—	—	—	—
600	703/.0292	600,000	304	1.022	26.00	1920	2857
646.4	—	—	—	—	—	—	—
750	703/.0327	750,000	380	1.122	28.50	2410	3586
777.7	—	—	—	—	—	—	—
1000	703/.0377	1,000,000	507	1.294	32.90	3205	4769
1111	—	—	—	—	—	—	—

Dimensions and weights are nominal; subject to industry tolerances.

General Cable
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Class I Conductors for General Wiring

Copper Conductor

ASTM CLASS I

SIZE	STRANDING	NOMINAL AREA		NOMINAL DIAMETER		NOMINAL WEIGHT	
AWG/kcmil	INCHES	CIRCULAR MILS	mm^2	INCHES	mm	LBS/KFT	kg/km
10	27/.0201	10,910	5.53	0.117	2.97	33.70	50
9	—	—	—	—	—	—	—
8	37/.0201	14,950	7.57	0.135	3.43	46	68
7	—	—	—	—	—	—	—
6	61/.0201	24,640	12.50	0.174	4.42	77	114
5	91/.0201	36,760	19	0.242	6.15	116	173
4	105/.0201	42,420	21	0.262	6.60	137	204
3	126/.0201	50,500	25	0.285	7.24	167	249
2	147/.0201	60,600	31	0.307	7.80	190	283
1	224/.0201	90,900	46	0.380	9.65	287	427
1/0	273/.0201	111,100	56	0.410	10.41	351	522
2/0	323/.0201	131,300	66	0.470	11.90	407	606
3/0	456/.0201	184,200	92	0.549	13.94	594	884
4/0	551/.0201	222,600	112	0.593	14.70	696	1035
250	—	—	—	—	—	—	—
262.6	646/.0201	261,000	133	0.630	16	820	1220
300	—	—	—	—	—	—	—
313.1	777/.0201	313,900	159	0.685	17.40	987	1469
350	—	—	—	—	—	—	—
373.7	925/.0201	373,700	189	0.750	19	1176	1750
400	—	—	—	—	—	—	—
444.4	1110/.0201	448,400	225	0.820	20.80	1413	2103
500	—	—	—	—	—	—	—
535.3	1332/.0201	538,100	271	0.895	22.70	1697	2525
592	1480/.0201	597,900	303	0.972	24.70	1858	2765
600	—	—	—	—	—	—	—
646.4	1591/.0201	642,800	327	0.980	24.90	2020	3006
750	—	—	—	—	—	—	—
777.7	1924/.0201	777,700	394	1.075	27.30	2435	3624
1000	—	—	—	—	—	—	—
1111	2745/.0201	1,111,000	563	1.328	33.70	3400	5059

Dimensions and weights are nominal; subject to industry tolerances.

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Class K Conductors for General Wiring

Copper Conductor

ASTM CLASS K

SIZE	STRANDING	NOMINAL AREA		NOMINAL DIAMETER		NOMINAL WEIGHT	
AWG/kcmil	INCHES	CIRCULAR MILS	mm^2	INCHES	mm	LBS/KFT	kg/km
22	—	—	—	—	—	—	—
20	10/.010	1,020	0.52	0.036	0.91	3.2	4.8
18	16/.010	1,620	0.82	0.046	1.20	5	7.4
16	26/.010	2,580	1.31	0.057	1.40	7.97	12
14	41/.010	4,110	2.08	0.071	1.80	12.8	19
12	65/.010	6,530	3.31	0.088	2.20	20.3	30.2
10	105/.010	10,380	5.26	0.112	2.80	33.3	49.6
9	133/.010	13,090	6.63	0.150	3.80	42.4	63.1
8	168/.010	16,510	8.37	0.164	4	53.2	80.8
7	210/.010	20,820	10.50	0.175	4.40	66.8	99.4
6	266/.010	26,240	13.30	0.198	5.00	84.2	125
5	336/.010	33,090	16.80	0.261	6.60	106	158
4	420/.010	41,740	21.20	0.249	6.30	132	196
3	532/.010	52,620	26.70	0.298	7.60	169	251
2	665/.010	66,360	33.60	0.317	8.10	211	314
1	836/.010	83,690	42.40	0.356	9	266	396
1/0	1064/.010	105,600	53.50	0.401	10	338	503
2/0	1323/.010	133,100	67.40	0.501	13	425	632
3/0	1666/.010	167,800	85	0.562	14	535	796
4/0	2107/.010	211,600	107	0.627	15.93	676	1006
250	2499/.010	250,000	127	0.688	17	802	1193
262.6	2220/.010	222,000	112	0.680	17	824	1226
300	2989/.010	300,000	152	0.753	19	960	1428
313.1	3136/.010	313,600	159	0.750	19	969	1442
350	3458/.010	350,000	177	0.818	21	1120	1667
373.7	3737/.010	373,700	189	0.790	20	1210	1800
400	3990/.010	400,000	203	0.878	22	1290	1920
444.4	—	—	—	—	—	—	—
500	5054/.010	500,000	253	0.990	25	1635	2433
535.3	5320/.010	532,000	270	0.950	24	1641	2442
592	—	—	—	—	—	—	—
600	5985/.010	600,000	340	1.125	29	1950	2902
646.4	6466/.010	646,600	328	1.040	26	1987	2957
750	7448/.010	750,000	380	1.276	32	2427	3611
777.7	—	—	—	—	—	—	—
1000	9975/.010	1,000,000	507	1.498	38	3250	4769
1111	—	—	—	—	—	—	—

Dimensions and weights are nominal; subject to industry tolerances.

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Jacket and Insulation Material Properties

Thermoplastic Properties

INSULATION OR JACKET MATERIAL	CHLORINATED POLYETHYLENE (CPE)	POLYVINYL CHLORIDE (PVC)	LOW-DENSITY POLYETHYLENE	CELLULAR POLYETHYLENE	HIGH-DENSITY POLYETHYLENE	POLY-URETHANE	POLY-PROPYLENE	NYLON	TEFLON®	TPE
Oxidation Resistance	E	E	E	E	E	E	E	E	O	E
Heat Resistance	G-E	G-E	G	G-E	E	E	G	E	O	G
Oil Resistance	E	E	G-E	G-E	G-E	E	E	E	O	P
Low Temp. Flexibility	G	P-G	G-E	E	E	E	G	G	O	E
Weather, Sun Resistance	E	G-E	E	E	E	E	F-G	E	O	–
Ozone Resistance	E	E	E	E	E	E	E	E	E	E
Abrasion Resistance	E	F-G	F-G	G	E	F-G	O	E	G-E	F
Electrical Properties	G	F-G	E	E	E	E	P-F	F	E	G
Flame Resistance	E	G	P	P	P	P	P	P	O	F
Nuclear Radiation Resistance	G-E	P-F	G	G	G	F	G	F-G	P-F	F
Water Resistance	E	G-E	E	E	E	E	P	P-F	E	E
Acid Resistance	G-E	G-E	G-E	G-E	G-E	E	F	P-F	E	G
Alkali Resistance	G-E	G-E	G-E	G-E	G-E	E	F	E	E	G
Gasoline, Kerosene, Etc. (Alaphatic Hydrocarbons) Resistance	G	G	P-F	P-F	P-F	P-F	F	G	E	P
Benzol, Toluol, Etc. (Aromatic Hydrocarbons) Resistance	G	P-F	P	P	P	P-F	P	G	E	P
Degreaser Solvents (Halogenated Hydrocarbons) Resistance	F	P-F	P	P	P	P	P	G	E	P
Alcohol Resistance	G	G-E	E	E	E	E	P	P	E	E

P = Poor
F = Fair
G = Good
E = Excellent
O = Outstanding

Any given property can usually be improved by the use of selective compounding.
Dimensions and weights are nominal; subject to industry tolerance.

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Jacket and Insulation Material Properties

Thermoset Properties

INSULATION OR JACKET MATERIAL	STYRENE BUTADIENE RUBBER (SBR)	NATURAL RUBBER	SYNTHETIC RUBBER	POLY-BUTADIENE	NEOPRENE	HYPALON® CHLORO-SULFONATED POLYETHYLENE (CSPE)	NITRILE OR RUBBER BUTADINE NITRILE (NBR)	NITRILE/ POLY-CHLORIDE (NBR/PVC)	ETHYLENE PROPYLENE RUBBER (EPR)	CROSS-LINKED POLYETHYLENE (XLPE)	CHLORINATED POLYETHYLENE (CPE)	SILICONE RUBBER
Oxidation Resistance	F	F	G	G	G	E	F	E	G	E	E	E
Heat Resistance	F-G	F	F	F	G	E	G	G	E	G	E	G
Oil Resistance	P	P	P	P	G	G	G-E	G	F	G	G-E	F-G
Low Temp. Flexibility	F-G	G	E	E	F-G	F	F	F	G-E	O	F	O
Weather, Sun Resistance	F	F	F	F	G	E	F-G	G	E	G	E	O
Ozone Resistance	P	P	P	P	G	E	P	G	E	E	G-E	O
Abrasion Resistance	G-E	E	E	E	G-E	G	G-E	E	G	F-G	G-E	F
Electrical Properties	E	E	E	E	F	G	P	F	E	E	F-G	O
Flame Resistance	P	P	P	P	G	G	P	G	P	F-G	G	F-G
Nuclear Radiation Resistance	F-G	F-G	F-G	P	F-G	G	F-G	P	G	E	G	E
Water Resistance	G-E	G-E	E	E	G	G-E	G-E	E	G-E	G-E	G-E	G-E
Acid Resistance	F-G	F-G	F-G	F-G	G	E	G	G	G-E	G-E	E	F-G
Alkali Resistance	F-G	F-G	F-G	F-G	G	E	F-G	G	G-E	G-E	E	F-G
Gasoline, Kerosene, Etc. (Alaphatic Hydrocarbons) Resistance	P	P	P	P	G	F	E	G-E	P	F	F	P-F
Benzol, Toluol, Etc. (Aromatic Hydrocarbons) Resistance	P	P	P	P	P-F	F	G	G	F	F	F	P
Degreaser Solvents (Halogenated Hydrocarbons) Resistance	P	P	P	P	P	P-F	P	G	P	F	P	P-G
Alcohol Resistance	F	G	G	F-G	F	G	E	G	P	E	G-E	G

P = Poor
F = Fair
G = Good
E = Excellent
O = Outstanding

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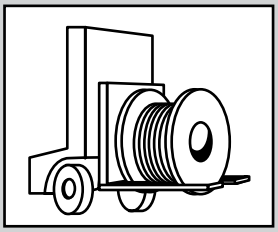
Any given property can usually be improved by the use of selective compounding.
Dimensions and weights are nominal; subject to industry tolerance.

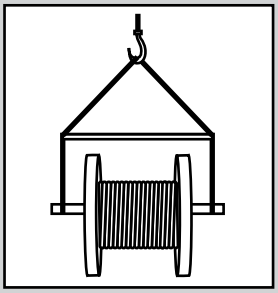
Recommended Reel Handling Practices

How to Handle Cable Reels

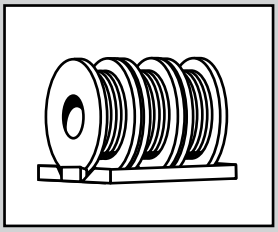
YES



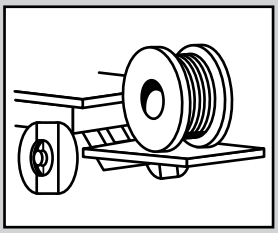
Cradle both reel flanges between forks.



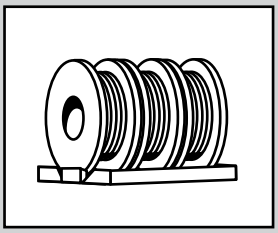
Reels can be hoisted with a shaft extended through both flanges.



Always load with flanges on edge and chock and block securely.

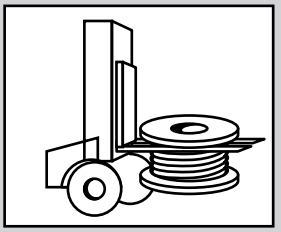


Lower reels from truck using hydraulic gate, hoist or fork lift. LOWER CAREFULLY.

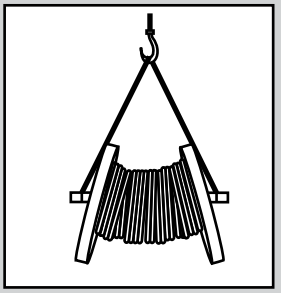


Always load with flanges on edge and chock and block securely.

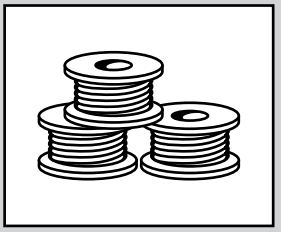
NO



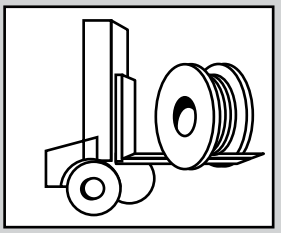
Do not lift by top flange. Cable or reel will be damaged.



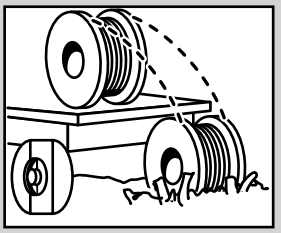
Use a spreader bar to prevent bending the reel flanges and mashing the cable.



Upended heavy reels will often arrive damaged. Refuse or receive subject to inspection for hidden damage.



Never allow forks to touch cable surface or reel wrap.



Never drop reels.

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Recommended Cable Handling Practices

Unloading and Moving of Reels:

Cable reels are never shipped upended (flat side down). Cable reels that arrive in this manner should be rejected or received only after a thorough inspection for damage.

See “Recommended Reel Handling Practices” page.

Upon receipt, a cable’s protective covering and/or lagging should be inspected for evidence of damage during shipment. If evidence of damage is found, a report should immediately be made to the carrier.

Under no circumstances should reels be dropped from the delivering vehicle to the ground.

Unloading and reel handling should be accomplished so that the equipment used does not contact the cable surface, and in the case of protective wrap, that the equipment does not contact the protective wrap.

If unloading and reel handling is accomplished by crane, either a cradle supporting the reel flanges or a shaft through the arbor hole should be used. If a fork lift is utilized, the forks must lift the reel at 90˚ to the flanges and the forks must be long enough to make complete lifting contact with both flanges. Under no circumstances should the forks come into contact with the cable surface or the protective wraps.

When a reel of cable is rolled from one point to another, care must be taken to see that there are no objects on the surface area which could contact or damage the cable surface or protective wrap.

If an inclined ramp is used for unloading, the ramp must be wide enough to contact both flanges completely. The stopping of the reels at the bottom shall be accomplished by using the reel flanges and not the surface of the cable.

Minimum Drum Diameters for Packaging Cables

Type of Cable	Minimum Drum Diameter as a Multiple of Outside Diameter of Cable
1. Single and multiple conductor cable - unshielded 0-2000 V	10
2. Single and multiple conductor cable - unshielded 2400 V	12
3. Single and multiple conductor cable - wire shield (UniShield®) 5-35 kV	12
4. Single and multiple conductor cable - helically applied tape shield (Uniblend®) 5-35 kV	14
5. Single and multiple conductor cable - longitudinally applied flat tape shield (Type TC)	20
6. Single and multiple conductor cable - Interlocked Armor (Duralox®) 600 V-35 kV	14
7. Triplexed single conductors cabled together. The circumscribing overall diameter* shall be multiplied by the factor in 1 - 6 and then by the reduction factor.	.75

*Single conductor times 2.155 times

NEMA WC26 EEMAC201-2007 Binational Wire and Cable Packaging Standard

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Recommended Cable Storage Practices

Storage and Storage Maintenance:

Finished cables have no established shelf-life. Moisture and atmospheric conditions can cause exposed conductors to oxidize and discolor. Uncovered/unsheltered cable will degrade due to exposure to direct sunlight and/or the elements. If the cables are protected, there should be no degradation of the insulation.

In general, any cable for use indoors should be stored indoors. Any cable suitable for installation outdoors is suitable for storage outdoors. Cables stored outdoors should have the ends sealed to prevent moisture ingress into the cable and should be used within two years or less.

Cables should be stored in a sheltered area. The cable conductor should not be exposed to water.

Cables with a cold temperature marking, e.g. –10˚C, –25˚C, or –40˚C, may be stored outdoors. Cables without a cold temperature marking must be stored indoors.

Cable reels must remain in the upright position. Cable reels must not be stored on their sides. Reels must not be stacked.

Cable reels should be stored with the protective covering or lagging in place. If a length of cable has been cut from the reel, the cable end should be immediately resealed to prevent the entrance of moisture. If a part length is returned to storage, the reel's protective covering should be restored.

Wooden reels should be stored off the ground to prevent rotting. Reels should be stored on a flat, hard surface so that flanges do not sink into the earth. The weight of the reel and cable must be carried at all times by the reel flanges.

Cable reels and lagging must not be stored for an extended time period sitting in direct contact with water or dampness. Timbers or metal supports must be placed under the reel flanges to provide elevated storage of the reels away from the direct contact with water or damp soil.

Reels should be stored in an area where construction equipment, falling or flying objects or other materials will not contact the cable.

Cable should be stored in an area where chemicals or petroleum products will not be spilled or sprayed on the cable.

Cable should be stored in an area away from open fires or sources of high heat.

If the reels are relocated, they should be handled as suggested in the "Recommended Reel Handling Practices" section, and inspection made on each reel during the relocation.

If the cables are stored in a secure area and not exposed to the effects of the weather, an annual inspection should be satisfactory.

Where the reels are exposed to the weather, a bimonthly inspection should be performed to observe any sign of deterioration.

If the reels are exposed in a non-secure area, policing of the area at frequent intervals may be required depending on circumstances.

Records of delivery date, manufacturer, installation date, any extenuating circumstances, along with all test reports, should be kept on file.

Pre-Installation Instructions

Pre-Installation

Overview

To ensure safety during cable installation and reliability once the cable is installed, you should confirm the following prior to installation:

- The cable selected is proper for your application
- The cable has not been damaged in transit or storage

Review all applicable state and national codes to verify that the cable chosen is appropriate for the job. Also, consult your local building authority.

Next, you must identify any existing cable damage and prevent any further damage from occurring. This is done through proper cable inspection, handling and storage.

Cable Inspection

Inspect every cable reel for damage before accepting the shipment. Be particularly alert for cable damage if:

- A reel is laying flat on its side
- Several reels are stacked
- Other freight is stacked on a reel
- Nails have been driven into reel flanges to secure shipping blocks
- A reel flange is damaged
- A cable covering is removed, stained or damaged
- A cable end seal is removed or damaged
- A reel has been dropped (hidden damage likely)

Cabling Handling

Remove all nails and staples from the reel flanges before moving a reel, and avoid all objects that could crush, gouge or impact the cable when moving. NEVER use the cable as a means to move a reel.

When unreeling, observe recommended bending radii, use swivels to prevent twisting and avoid overruns.

Installation – Overview and Checklist

Installation

Overview

Most cables are subjected to more mechanical stress during installation than they ever experience in actual operation. Needless to say, handling and pulling your cable according to manufacturer's recommendations is extremely important.

There are six main considerations in any cable installation:

- Ambient temperature
- Equipment
- Conduit fill
- Mechanical fit in raceway
- Physical limitations
- Knowledgeable installers

For more information, reference IEEE 1185 Recommended Practices for Cable Installations in Generating Stations and Industrial Facilities.

Installation Temperature

Low temperatures are a cause for concern when installing cable. Cable should not be installed when temperatures are less than the cold bend temperature rating of the cable product plus 15°C (i.e., minimum installation temperature = cold bend temperature rating + 15°C). The cold bend temperature rating is indicated on the catalog Spec sheet.

Prior to performing a low temperature (less than 10°F or -12˚C) cable installation, cable should be stored for a minimum of 24 hours at a temperature of 55°F (13˚C) or higher.

Cable should be pulled more slowly and trained in place the same day it is removed from storage. Do not impact, drop, kink or bend cable sharply in low temperatures.

Equipment

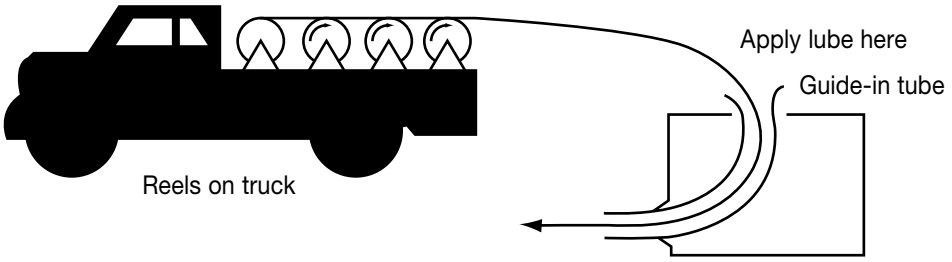
The proper use of appropriate equipment is crucial to a successful cable installation. The equipment needed for most installations is detailed in the following checklist:

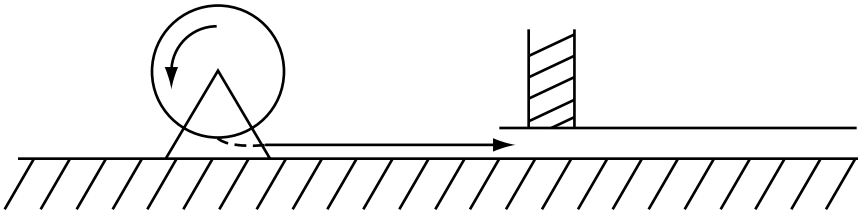
- ❑ 0-1/5/10 kip dynamometer
- ❑ basket grip pullers
- ❑ cable cutter
- ❑ cable end seals
- ❑ cable pulling lubricant
- ❑ cable tray bend sheaves
- ❑ cable tray rollers
- ❑ capstan-type puller
- ❑ diameter tape
- ❑ duct cleaning mandrels
- ❑ electric safety blankets and clamps
- ❑ extension cords and GFCI protection
- ❑ fish tape or string blower/vacuum
- ❑ floodlights
- ❑ gang rollers: with at least 4 ft. effective radius
- ❑ gloves
- ❑ guide-in flexible tubing (elephant trunks)
- ❑ hand winches (come-a-long)
- ❑ HI-POT tester
- ❑ lint-free rags
- ❑ make-up air blower & hose
- ❑ manhole edge sheave
- ❑ measuring tape
- ❑ personal protection equipment (PPE)
- ❑ plywood sheets
- ❑ portable electric generator
- ❑ pre-lubing devices
- ❑ pulling rope
- ❑ pump, diaphragm
- ❑ radios or telephones
- ❑ reel arbor
- ❑ reel brakes
- ❑ reel jacks
- ❑ several wire rope slings of various lengths
- ❑ shackles/clevis
- ❑ short ropes for temp tie-offs
- ❑ swivels
- ❑ warning flags, signs

Installation – Feed-In Setups

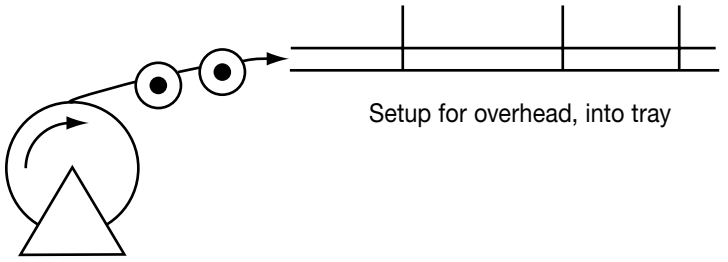
Cable Feed-In Setups

The following diagrams illustrate various cable feed-in setups:





Setup for duct close to floor



Setup for overhead, into tray

The feed-in setup should unreel the cable with a natural curvature (Figure 1) as opposed to a reverse "S" curvature (Figure 2).

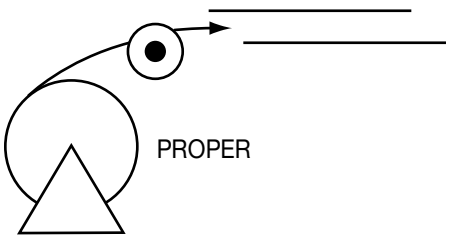


Figure 1

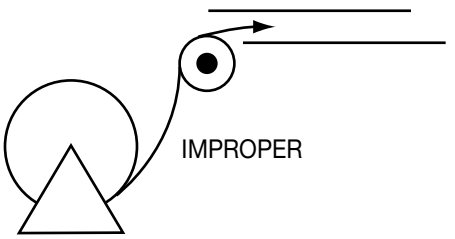


Figure 2

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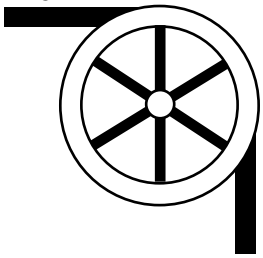
Installation – Feed-In Setups

Cable Feed-In Setups (continued)

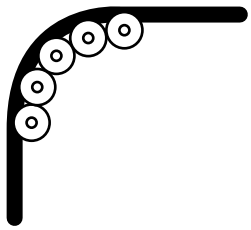
Single sheaves should only be used for GUIDING cables. Arrange multiple blocks to maintain bending radii whenever cable changes direction or elevation.

Single Sheave



For pulling around bends, use conveyor sheave assemblies of the appropriate radius series.

Sheave Assembly



The pulleys must be positioned to ensure that the effective curvature is smooth and changes direction or elevation evenly at each pulley. Never allow a polygon curvature to occur (Figure 3).

The fit of a pulley around the cable is also important when pulling heavy weights (i.e. pulleys at the top of a vertical drop).

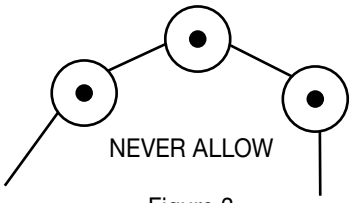
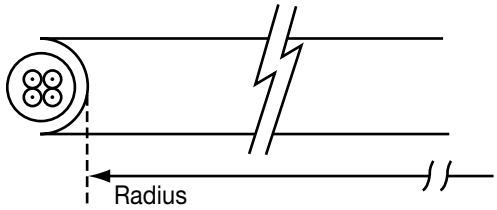


Figure 3

Remember to use the radius of the surface over which the cable is bent, not the outside flange diameter of the pulley. A “10 inch” cable sheave typically has a 10 inch outside flange diameter with a 6 inch inside diameter that provides an inside (bending) radius of 3 inches.



Installation – Conductor Maximum Pulling Tensions

Multi-Conductor Cables Having Equal-Sized Conductors; In Parallel or as Multiplexed Assemblies

AWG/kcmil	MAXIMUM ALLOWABLE PULLING TENSION (LBS)					
	NUMBER OF CONDUCTORS					
	1	2	3	4	5	6
18	13	26	39	41	52	62
16	20	40	60	65	81	97
14	33	66	99	105	132	158
12	52	104	157	167	209	251
10	83	166	249	266	332	399
8	132	264	396	423	528	634
6	210	420	630	672	840	1008
4	334	668	1002	1069	1336	1603
2	531	1062	1593	1699	2124	2548
1	670	1339	2009	2142	2678	3214
1/0	845	1690	2534	2703	3379	4055
2/0	1065	2130	3194	3407	4259	5111
3/0	1342	2685	4027	4296	5370	6444
4/0	1693	3386	5078	5417	6771	8125
250	2000	4000	6000	6400	8000	9600
350	2800	5600	8400	8960	10000	10000
500	4000	8000	10000	10000	10000	10000
750	6000	10000	10000	10000	10000	10000
1000	8000	10000	10000	10000	10000	10000

The maximum allowable pulling tensions are for direct attachment to the conductor.
$T = 0.008 \times cmil \times n$, if $n \leq 3$
$T = 0.008 \times cmil \times n \times 0.8$, if $n > 3$

When more than two conductors are pulled in parallel in an installation containing bends, the maximun allowable pulling tension is limited to the two conductor column, regardless of the number of conductors that are being pulled.

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Installation – Conductor Maximum Pulling Tensions

Multi-Conductor Cables Having Equal-Sized Conductors, without Subassemblies

NUMBER OF CONDUCTORS	MAXIMUM ALLOWABLE PULLING TENSION (LBS)				
	CONDUCTOR SIZE (AWG/kcmil)				
	18	16	14	12	10
2	26	40	66	104	166
3	39	60	99	157	249
4	41	65	105	167	266
5	52	81	132	209	332
6	62	97	158	251	399
7	73	113	184	293	465
8	83	129	210	334	531
9	93	145	237	376	598
10	104	161	263	418	664
12	124	194	316	502	797
14	145	226	368	585	930
15	156	242	395	627	996
16	166	258	421	669	1000
18	187	290	473	752	1000
19	197	306	500	794	1000
20	207	323	526	836	1000
22	228	355	549	919	1000
24	249	387	631	1000	1000
25	259	403	658	1000	1000
30	311	484	789	1000	1000
37	383	596	974	1000	1000

The maximum allowable pulling tensions are for multi-conductor cables pulled into a raceway or cable tray using a basket grip or similar device secured directly to the cable jacket. It is recommended that a combination of basket grips and pulling eyes be used whenever possible.

$T = 0.008 \times cmil \times n$, if $n \leq 3$

$T = 0.008 \times cmil \times n \times 0.8$, if $n > 3$

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Installation – Training and Bending Limitations

Physical Limitations Training and Bending

Overview

Training is the positioning of cable when it is not under tension. Bending is the positioning of cable when it is under tension. When installing cable, the object is to limit the mechanical forces so that the cable's physical and electrical characteristics are maintained for the expected service life. Bends in conductors, multi-conductor cables or assemblies of conductors shall be made so that the cable will not be damaged.

A nonshielded cable can tolerate a sharper bend than a shielded cable. This is especially true for cables having helically applied metallic shielding tapes which, when bent too sharply, can separate or buckle and cut into the insulation. Remember that offsets are bends.

The problem is compounded by the fact that most tapes are under jackets that conceal such damage. The extruded polymers used for insulation shields have sufficient conductivity and coverage initially to pass acceptance testing, then fail prematurely due to corona at the shield/insulation interface.

Minimum Bending Radius in Accordance with National Electric Code

Voltage	Conductors	Shielding	Cable Types	Minimum Bending Radius as a Multiple of Conductor/Assembly Diameter		
600 V	Single	Nonshielded	All	5X		
601-2000 V			All	8X		
600 V or 2000 V	Multi-conductor or Multiplexed	Nonshielded	TC or TC-ER	1 in. (25 mm) or less	Over 1 in. to 2 in. (>25 mm to 50 mm)	Over 2 in. (>50 mm)
				4X	5X	6X
			MC[3]	7X		
		Shielded	All	12X		
			TC or TC-ER	12X		
			MC	12X/7X[1]		
Over 2000 V	Single	Nonshielded	MV	8X		
			MC[3]	7X		
		Shielded	MC and MV	12X[2]		
	Multi-conductor or Multiplexed	Nonshielded	MC and MV	8X		
		Shielded	MC and MV	12X/7X[1,2]		

[1] 12 times the diameter of an individual shielded conductor or 7 times the overall cable diameter, whichever is greater.

[2] Since UniShield® is a unique construction, there are no applicable values for the bending radius in the NEC. However, General Cable recommends 8 times for single conductors, and for multiplexed or multi-conductor cables, it is 8 times the diameter of the individual conductors or 5 times the overall diameter, whichever is greater, in accordance with ANSI/ICEA S-93-639 5-46 kV *Shielded Power Cable for Use in the Transmission and Distribution of Electric Energy.*

[3] Per 330.24B Interlocked-Type Armor or Continuously Corrugated Metallic Sheath.

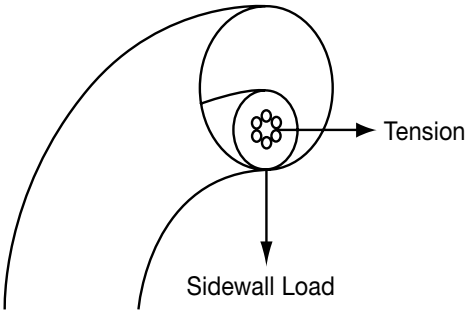
Installation – Maximum Sidewall Pressure

Overview

Sidewall bearing pressure (SWBP), or sidewall loading, is the radial force exerted on a cable being pulled around a conduit bend or sheave. Excessive SWBP can crush a cable and is, therefore, one of the most restrictive factors in installations having bends and requiring high pulling tensions. SWBP is reduced by increasing the radius of bends.

The maximum tension that can safely be applied to the cable during installation can be calculated using the maximum SWBP for the cable and the radius of the bend it is traversing.

For example, a cable having a maximum SWBP of 300 lb/ft that is being pulled around a bend having a radius of 2 feet should have no more than 300 lbs/ft x 2 ft or 600 lbs tension applied to it as the cable exits the bend.



CABLE TYPE		SWBP[1] (LBS/FT)
300 V and 600 V, Shielded and Nonnshielded, Control & Instrumentation (≤ 10 AWG)		500
600 V and 2400 V Nonshielded Power (≥ 8 AWG)		1200
5 kV - 46 kV Shielded Power	Concentric Neutral with Extrude-To-Fill (Encapsulating) Jacket	2000
	Concentric Neutral without Jacket	1200[2]
	LACT Shielded with Overlaying (Sleeved) Jacket	1500
	Helical Tape Shielded with Overlaying (Sleeved) Jacket	1500
	Wire Shielded with Overlaying (Sleeved) Jacket	1500
TECK90 and HVTECK Cable (All Voltages)		1000
Interlocked Armored Cable (All Voltages)		1000
CCW® MC-HL Armored Cable (All Voltages)		500

[1] When exceeding 1000 lbs/ft SWBP, proceed with caution.

[2] For a three-cable pull (triplexed or parallel), a maximum SWBP limit of 750 lbs/ft is recommended.

General Cable's Approval List of Cable Pulling Lubricants

The following manufacturers, who are listed in the 2006 UL Electrical Construction Equipment Directory, provide wire pulling compounds intended for use as lubricants in installing electrical conductors in raceways. These manufacturers have had some of their products evaluated by Underwriters Laboratories (UL) to determine their compatibility with conductor insulation and coverings.

Since it is not feasible to test every possible combination of cable material with every wire pulling compound, the installer should check with the pulling compound manufacturer or the cable manufacturer to determine compatibility between specific cable materials and the pulling compound.

The Listing Mark for these products includes the UL symbol, together with the word "LISTED," a control number and the product name "Wire Pulling Compound." Refer to the latest edition of the UL Electrical Construction Equipment Directory for the current listing of manufacturers of wire pulling compounds and their control numbers.

3M Company
American Bentonite International Inc.
American Polywater Corp.
Arnco Corp.
Dura-Line Corp.
Greenlee Textron
Ideal Industries Inc.*
J. C. Whitlam Mfg. Co.
Klein Tools Inc.
Madison Electric Products Inc.
Rainbow Technology Corp.
Rectorseal
Thomas & Betts Corp.

*Yellow 77 not recommended for use with UniShield® cables.

For LSZH jacketed cable, consult with pulling compound manufacturers.

Other wire pulling compounds may be suitable for use with General Cable constructions. Contact the wire pulling compound manufacturer regarding the suitability of their products with specific General Cable products.

DC "HI-POT" Pre-Test Guidelines for MV Cables

The test voltage should be increased in steps of 10 kV, or minimum of 5 steps. The duration at each step should be long enough for the current to reach a steady value (1 minute suggested). The test current will momentarily increase for each voltage increment due to charging of the capacitance and the dielectric absorption characteristics of the insulation. Stabilized current should be recorded at each step.

The maximum test voltage should be maintained for 15 minutes (new cable, shielded) / 5 minutes (nonshielded). Leakage current should be recorded each minute after the maximum test voltage has been reached.

Increase of leakage current at any step may be an indication of a cable insulation problem. Failure of the cable or cable accessories may result unless the voltage is rapidly reduced.

Otherwise, the leakage current should stabilize after about 5 minutes. Leakage current is essentially a function of the construction and length of cable, but it can be influenced by the test conditions (wind and humidity) as well as the test apparatus (leads).

Typical leakage currents in the order of 100 – 150 microamperes or higher are not unusual. A defective installation is identified by increasing leakage current with time, at a fixed DC voltage.

All testing should be performed by qualified personnel taking all appropriate safety precautions.

DC "HI-POT" Testing Guidelines for MV Cables

DC High Potential (HI-POT) Testing of Medium-Voltage Power Cable

Overview

This procedure is intended to provide general guidelines for high potential DC testing of power cables.

All tests made after cable installation and during the guarantee period shall be made in accordance with applicable specifications.

All safety precautions must be observed during testing at high voltage.

Read, understand and follow the Operator's Manual for the particular test set being used!

Test Equipment

Direct current test equipment is available commercially with a wide range of voltages. Accessory equipment necessary to safely conduct high voltage tests—such as safety barriers, rubber gloves and nonconducting hard hats—must be used; consult appropriate safety officer.

Test Procedures

See IEEE Standard 400 Article 5 Direct Voltage Testing. Acceptable procedures, although varying slightly in technique, have more or less been standardized as either a "withstand test" or a "time-leaking current test."

Before performing any DC overpotential tests:

- All equipment must be disconnected from the cable circuit, i.e., taps, motors, circuit breakers, surge arrestors, etc. This will preclude damage to such equipment and will prevent test interruptions due to flashovers and/or trip-outs resulting from excessive leakage current.
- Establish adequate clearance between the circuit test ends and any grounded object, and to other equipment not under test (about 2.5 feet).
- Ground all circuit conductors not under test with all cable shields including nearby equipment.
- Consult termination manufacturers for maximum test voltage recommendations and time limitations.

The direct current test voltage may be applied either continuously or in predetermined steps to the maximum value in accordance with applicable specifications.

- **Continuous Method –** Apply test voltage at an approximate rise rate of 1 kV per second or 75% of the rated current output of the equipment, whichever is less. Some equipment will take longer to reach the maximum test voltage because of the amount of charging current.
- **Step Method –** Apply test voltage slowly in 5 to 7 increments of equal value to the maximum specified. Allow sufficient time at each stop for the leakage current to stabilize.

HI-POT TESTING PROCEDURES

Normally this requires only a few seconds unless cable circuits of high capacitance are involved.

Record leakage current at each step.

Maintain the test voltage at the prescribed value for the time designated in applicable specifications. The following times are usually considered adequate. At the end of the test period, set the test set voltage control to zero, allow the residual voltage on the circuit to decay, then ground the conductor just tested.

CAUTION

It should be recognized that DC charges on cable can build up to potentially dangerous levels if grounds are removed too quickly. Maintain solid grounds after the test on the cable for at least 4 times the duration of the test. On exceptionally long cable lengths, it may be necessary to increase the grounding time. It is advantageous to maintain these grounds longer and while reconnecting circuit components.

- **Acceptance Testing –** After installation and before the cable is placed in regular service, the specified test voltage shall be applied for **15 consecutive minutes.**
- **Proof Testing –** At any time during the period of guarantee, the cable circuit may be removed from service and tested at a reduced voltage (normally 65 percent of the original acceptance value) for **5 consecutive minutes.**
- Record the leakage current at one minute intervals for the duration of the test time involved.

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DC "HI-POT" Testing Guidelines for MV Cables

DC High Potential (HI-POT) Testing of Medium-Voltage Power Cable

Comments

The significance of conducting DC high-voltage tests on nonshielded, nonmetallic-sheathed cable is dependent upon the environment in which it is installed because the characteristics of the return circuits are unknown. The environment must be carefully considered, or test results may not be significant. In fact, these tests can result in damage to the cable insulation.

Humidity, condensation and actual precipitation on the surface of a cable termination can increase the leakage current by several orders of magnitude. Humidity also increases the corona current, which indication is included in the total leakage current. Wind prevents the accumulation of space charges at all bare energized terminals.

This results in an increase of corona. It is most desirable to reduce or eliminate corona current at the bare metal extremities of cable or terminations. This may be accomplished by covering these areas with plastic envelopes, plastic or glass containers, plastic wrap or suitable electrical putty.

Routine periodic DC maintenance testing of cable for the evaluation of the insulation strength is not a common practice. Some power cable users have adopted a program of testing circuits during planned outages, preferring possible breakdowns during testing rather than experiencing a service outage. It is nearly impossible to recommend test voltage values for those maintenance tests with the history of the cable circuit. An arbitrary test voltage level could break down a cable circuit that would otherwise render long trouble-free service at normal operating AC voltage.

The main usefulness of DC high-voltage testing is to detect conducting particles left on the creepage surface during splicing or termination.

Test equipment should be supplied from a stable, constant voltage source. Do not use the same source that is supplying arc welders or other equipment causing line voltage fluctuations. The output voltage of the test set must be filtered and regulated. Consider using a portable, motor-driven alternator to energize the test set.

The gradual decrease or non-increase of leakage current with respect to time at maximum test voltage is the acceptance criteria for DC HI-POT testing.

Testing Problems

Extra Leakage Current:

- Failure to guard against corona
- Failure to clean insulation surface
- Failure to keep cable ends dry
- Failure to provide adequate clearance to ground
- Improper shield termination

Erratic Readings:

- Fluctuating voltage to test set
- Improper test leads

Environmental Influences:

- High relative humidity
- Dampness, dew, fog
- Wind, snow

Results vs. Cable Life

To date there is no basis for correlation between DC test results and cable life expectancy.

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Field Electrical "HI-POT" Testing Guidelines

Acceptance Testing

Acceptance testing is performed to detect any defects in cable insulation and terminations which may have resulted from poor workmanship or mechanical damage. This proof test confirms the integrity of the insulation and accessories before the cable is placed into service.

After installation and before the cable is placed in regular service, the test voltages specified in the ICEA S-97-682 Table should be applied for 15 consecutive minutes. Record the leakage current at one minute intervals for the duration of the test.

ICEA DC Field Test Voltages
ICEA S-97-682 Utility Shielded Power Cables Rated 5,000-46,000 Volts

Rated Voltage Phase-to-Phase (kV)	Conductor Size		Nominal Insulation Thickness (Insulation Level)				Maximum DC Field Test Voltages (kV)			
							During or After Installation		First 5 Years	
	AWG/kcmil	mm^2	100%		133%		100%	133%	100%	133%
			mils	mm	mils	mm				
5	8 - 1000	8.4 - 507	90	2.29	115	2.92	28	36	9	11
	> 1000	> 507	140	3.56	140	3.56				
8	6 - 1000	13.3 - 507	115	2.92	140	3.56	36	44	11	14
	> 1000	> 507	175	4.45	175	4.45				
15	2 - 1000	33.6 - 507	175	4.45	220	5.59	56	64	18	20
	> 1000	> 507	220	5.59						
25	1 - 2000	42.4 - 1013	260	6.60	320	8.13	80	96	25	30
28	1 - 2000	42.4 - 1013	280	7.11	345	8.76	84	100	26	31
35	1/0 - 2000	53.5 - 1013	345	8.76	420	10.7	100	124	31	39
46	4/0 - 2000	107.2 - 1013	445	11.3	580	14.7	132	172	41	54

DC test voltages are applied to discover gross problems such as improperly installed accessories or mechanical damage. DC testing is not expected to reveal deterioration due to aging in service. There is some evidence that DC testing of aged cross-linked polyethylene cables can lead to early cable failures. Information on this subject is available in EPRI project report TR-101245, "Effect of DC Testing in Extruding Cross-Linked Polyethylene Insulated Cables."

Dimensions and weights are nominal; subject to industry tolerances.

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Emergency Overload Current Guidelines

The increase or decrease of the load current is not associated with an instantaneous change of the cable temperature. Hence, during emergency conditions, the cable may be overloaded for short periods of time at the maximum overload temperature of 130°C/140°C for cable rated at 90°C/105°C continuous.

Operations at the emergency overload temperature shall not exceed 1500 cumulative hours during the lifetime of the cable. Lower temperature for emergency overload conditions may be required due to the type of material used in the cable splices and terminations or environmental conditions.

Short Circuit Current Calculation Overview

The maximum short circuit current which is permitted to flow in the insulated conductor, or the metallic shielding and bonding (grounding) components, is dependent on the duration of the short circuit and the material used in the cable.

Insulated Conductors Formula

The graphs on the following pages show the short circuit capability of 10 AWG to 1000 kcmil, copper and aluminum, XLPE and EPR insulated conductors for various periods of time. These graphs are in accordance with ICEA publication P-32-382. The equations are based on the assumption that the duration of the short circuit is so short that the heat generated is contained within the conductor, taking into consideration the temperature limit of the insulation.

The graphs are derived from the following formula:

$$\text{Copper Conductor } \left[\frac{I}{A}\right]^2 \quad t = 0.0297 \log_{10} \left[\frac{T_2 + 234}{T_1 + 234}\right]$$

$$\text{Aluminum Conductor } \left[\frac{I}{A}\right]^2 \quad t = 0.0125 \log_{10} \left[\frac{T_2 + 228}{T_1 + 228}\right]$$

Which simplify to:

$$\text{Copper Conductor } I = \frac{0.07195\ A}{\sqrt{t}} \quad \text{amperes for MV-90}$$

$$\text{Copper Conductor } I = \frac{0.06773\ A}{\sqrt{t}} \quad \text{amperes for MV-105}$$

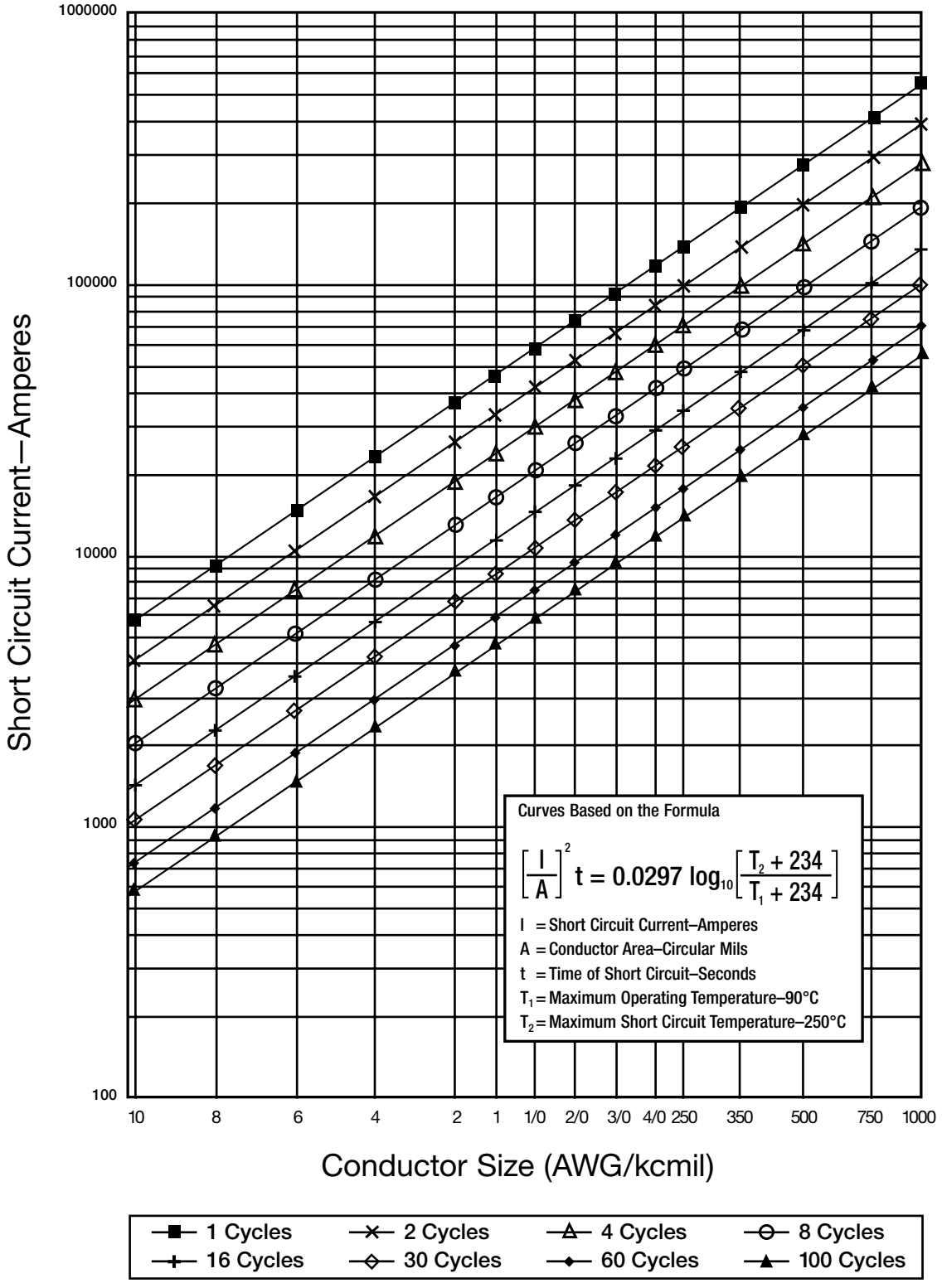
$$\text{Aluminum Conductor } I = \frac{0.0470\ A}{\sqrt{t}} \quad \text{amperes for MV-90}$$

$$\text{Aluminum Conductor } I = \frac{0.044\ A}{\sqrt{t}} \quad \text{amperes for MV-105}$$

Where:
- I = Short circuit current (amperes)
- A = Conductor cross-sectional area (circular mils)
- t = Short circuit duration (seconds)
- T_1 = Maximum normal operating temperature, 90°C for MV-90 or 105°C for MV-105
- T_2 = Maximum short circuit temperature, 250°C

Short Circuit Currents

Allowable Short Circuit Currents For Thermoset Insulated Copper Conductors Rated For 90°C Maximum Continuous Operation



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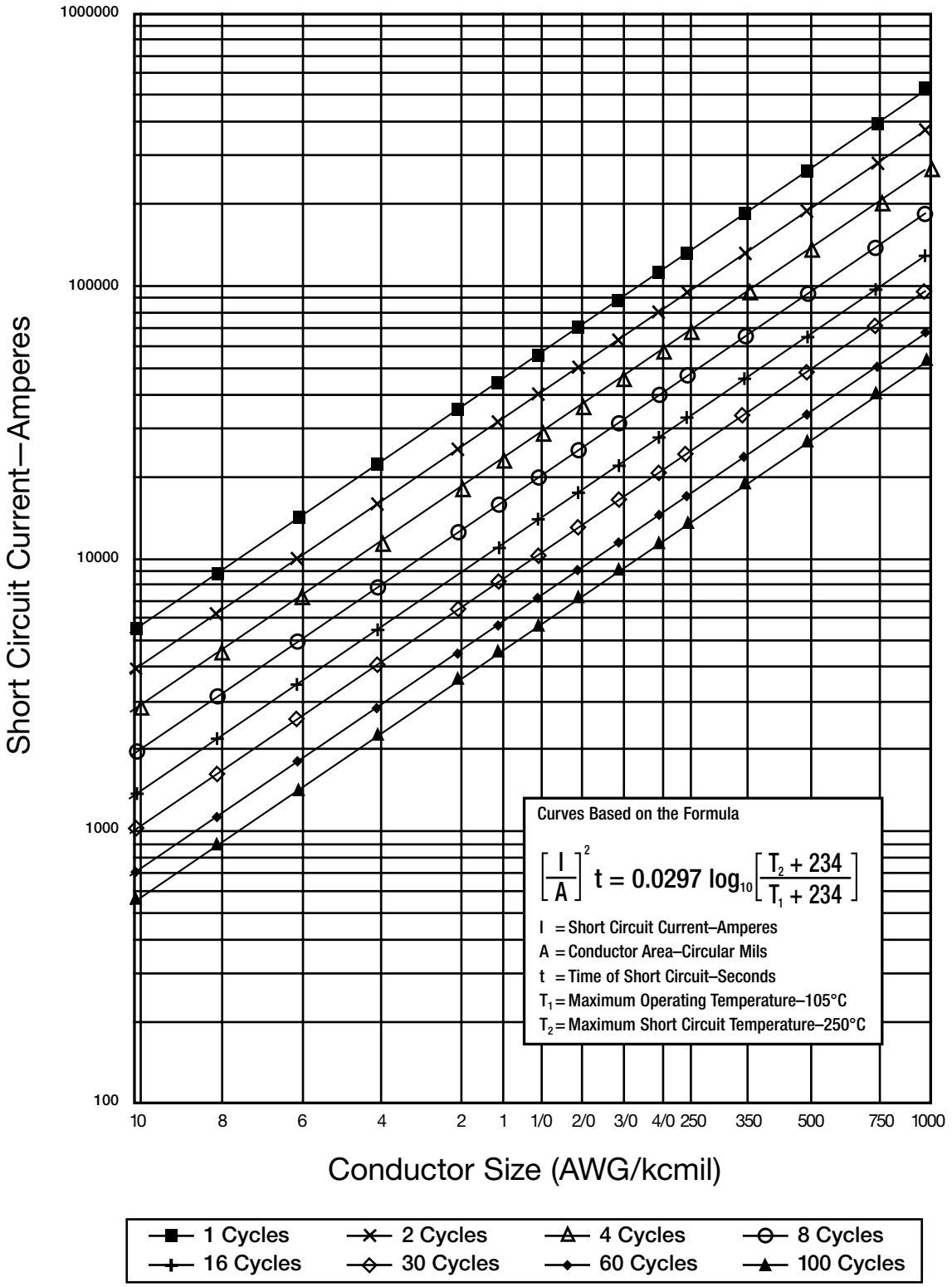
Short Circuit Currents

Allowable Short Circuit Currents For Thermoset Insulated Copper Conductors Rated For 105°C Maximum Continuous Operation



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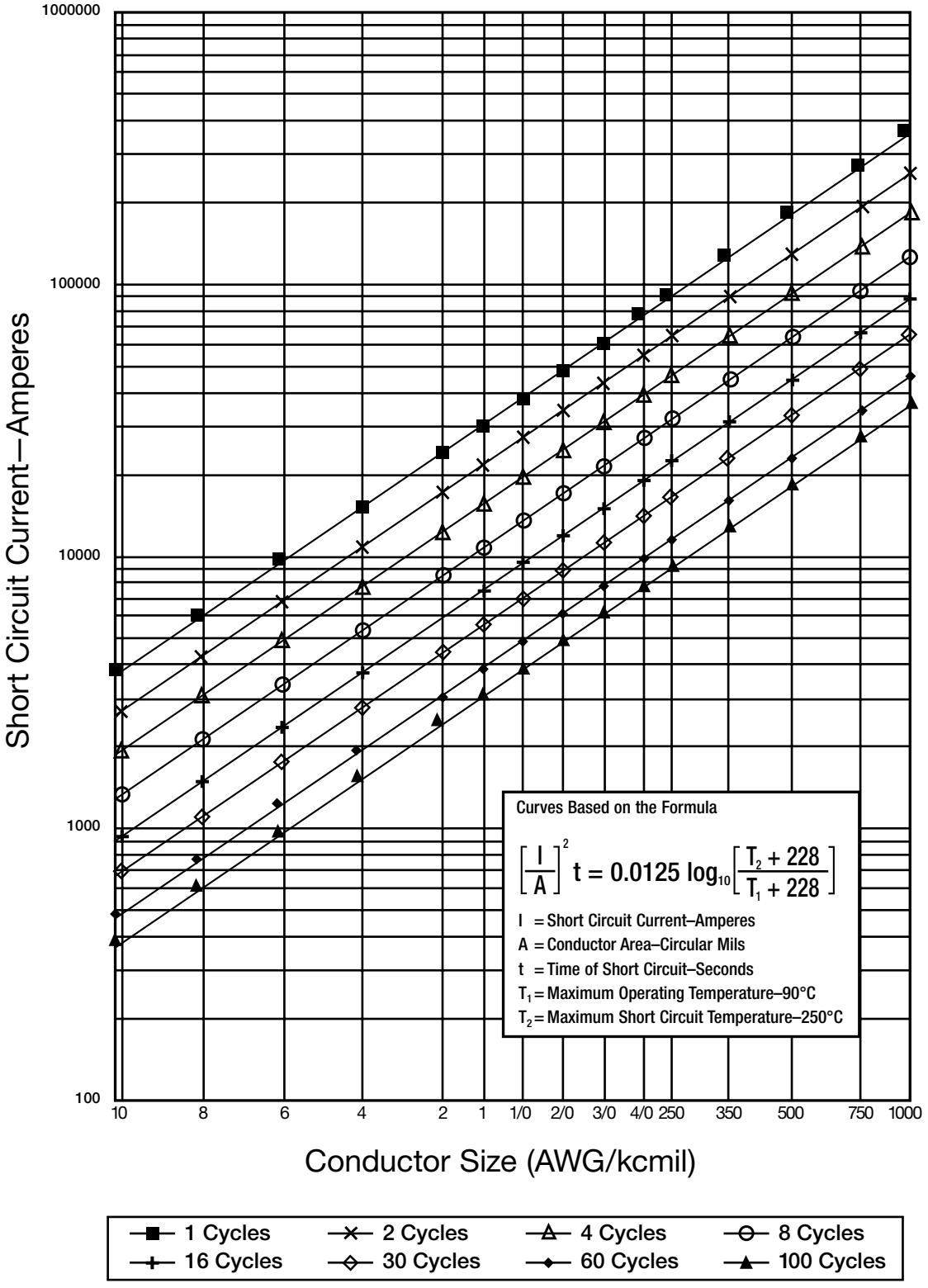
Short Circuit Currents

Allowable Short Circuit Currents For Thermoset Insulated Aluminum Conductors Rated For 90°C Maximum Continuous Operation



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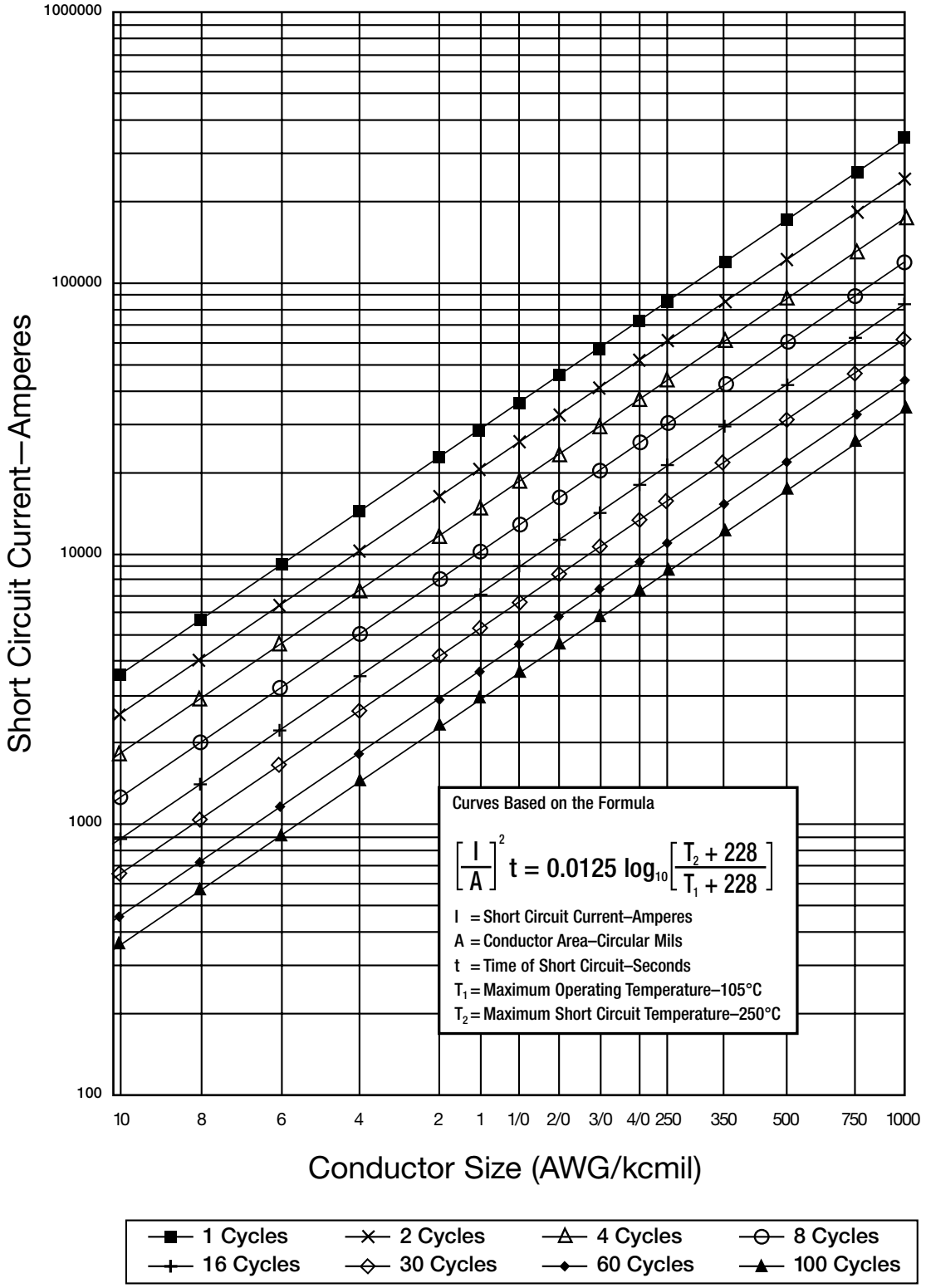
Short Circuit Currents

Allowable Short Circuit Currents For Thermoset Insulated Aluminum Conductors Rated For 105°C Maximum Continuous Operation



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CCW® Sheath as a Grounding Conductor

CCW® DIAMETER INCHES	ALUMINUM CROSS-SECTIONAL AREA kcmil	EQUIVALENT ALUMINUM CONDUCTOR	EQUIVALENT COPPER CONDUCTOR	CCW® 10 CYCLE FAULT CAPABILITY* (kA)
0.49	26.39	6	9	2.84
0.53	30.79	6	8	3.32
0.58	33.46	5	8	3.60
0.62	35.19	5	7	3.79
0.67	39.58	5	7	4.27
0.71	43.98	4	6	4.74
0.75	47.50	4	6	5.11
0.80	51.89	4	6	5.59
0.84	55.42	3	5	5.97
0.89	58.94	3	5	6.35
0.93	61.58	3	5	6.64
0.97	65.97	3	5	7.11
1.02	66.85	2	5	7.21
1.06	69.49	2	4	7.49
1.11	94.56	1	3	10.19
1.15	98.96	1	3	10.67
1.19	101.16	1	3	10.90
1.24	104.46	1	3	11.26
1.29	108.86	1/0	2	11.73
1.34	123.75	1/0	2	13.33
1.37	132.32	1/0	2	14.26
1.42	136.00	2/0	2	14.66
1.47	142.13	2/0	1	15.32
1.51	145.80	2/0	1	15.71
1.60	174.26	3/0	1/0	18.75
1.64	179.67	3/0	1/0	19.36
1.69	185.07	3/0	1/0	19.95

CCW® DIAMETER INCHES	ALUMINUM CROSS-SECTIONAL AREA kcmil	EQUIVALENT ALUMINUM CONDUCTOR	EQUIVALENT COPPER CONDUCTOR	CCW® 10 CYCLE FAULT CAPABILITY* (kA)
1.75	206.72	3/0	1/0	22.28
1.85	209.67	3/0	1/0	22.60
1.90	220.01	4/0	2/0	23.71
1.96	233.29	4/0	2/0	25.14
2.03	257.96	250	2/0	27.80
2.15	291.60	250	3/0	31.43
2.28	310.83	300	3/0	33.50
2.32	314.03	300	3/0	33.85
2.40	355.94	350	4/0	38.36
2.45	362.85	350	4/0	39.11
2.53	371.49	350	4/0	40.04
2.58	378.40	350	4/0	40.78
2.62	387.04	350	4/0	41.72
2.75	407.78	400	4/0	43.94
2.85	454.12	450	250	48.94
2.98	474.51	450	250	51.15
3.03	483.77	450	250	52.14
3.11	491.19	450	250	52.94
3.16	502.31	500	300	54.14
3.32	530.11	500	300	57.13
3.41	537.53	500	300	57.93
3.63	559.77	550	300	60.33
3.67	578.30	550	350	62.32
3.80	598.69	550	350	64.53
3.98	630.20	600	350	67.92
4.10	650.59	650	350	70.12

*Short Circuit Capacity based on ICEA P-45-482

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Short Circuit Current for Copper Shields

Formula—Short Circuit Current for Copper Shields

In the *three conductor* cables, a copper tape is applied over each extruded semi-conducting insulation shield with a helical gap. Because the three copper tape shields are cabled in intimate contact with the bonding (grounding) conductor, their combined total cross-sectional areas may be considered an integral shielding system for the purpose of calculating short circuit capacity. It is not possible however, to determine the contact resistance between the components, due to possible oxides or film which may form on the components or movement of the cable core during handling. It may be advisable to consider the short circuit capacity of the individual shields independently. Because the insulation shields are in thermal contact with the inner PVC jacket, the maximum short circuit temperature T2 is 200°C. Refer to ICEA P-45-482, "Short Circuit Performance of Metallic Shields and Sheaths on Insulated Cable," for calculations involving cables that have other operating parameters.

Under these temperature conditions the short circuit current formula is: $I = \frac{M \cdot A}{\sqrt{t}}$ amperes

TYPE OF SHIELD OR SHEATH	FORMULA FOR CALCULATING A
1. Wires applied either helically, as a braid or serving; or longitudinally with corrugations	nd_s^2
2. Helically applied tape, not overlapped	1.27 nwb
3. Helically applied flat tape, overlapped	$4\ bd_m\ x\sqrt{\frac{100}{2(100-L)}}$
4. Corrugated tape, longitudinally applied	$1.27[\pi(d_{is}+50)+B]b$
5. Tubular sheath	$4\ bd_m$

Meaning of Symbols:

A	=	Effective cross-sectional area, shield or sheath
B	=	Tape overlap (mils) (usually 375)
b	=	Thickness of tape (mils)
d_{is}	=	Diameter over semiconducting insulation shields (mils)
d_m	=	Mean diameter of shield or sheath (mils)
d_s	=	Diameter of wires (mils)
I	=	Short circuit current (amperes)
w	=	Width of tape (mils)
n	=	Number of serving or braid wires or tapes
L	=	Overlap of tape (percent)
t	=	Short circuit duration (seconds)
M	=	0.058 for 5-15 kV cables 0.060 for 25-46 kV cables

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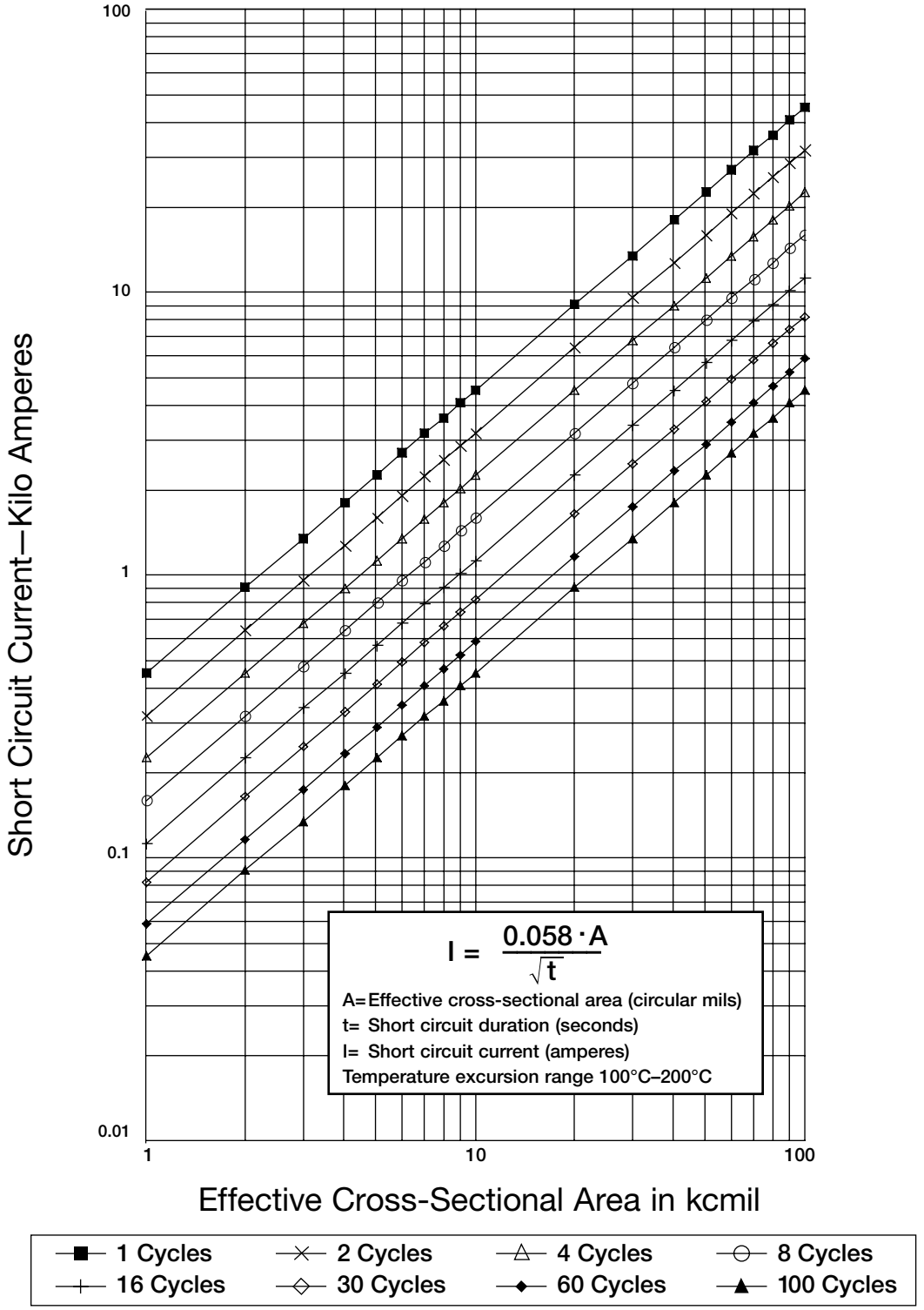
Formula – Short Circuit Currents for Copper Shields

Allowable Copper Shield Short Circuit Currents for 5–15 kV



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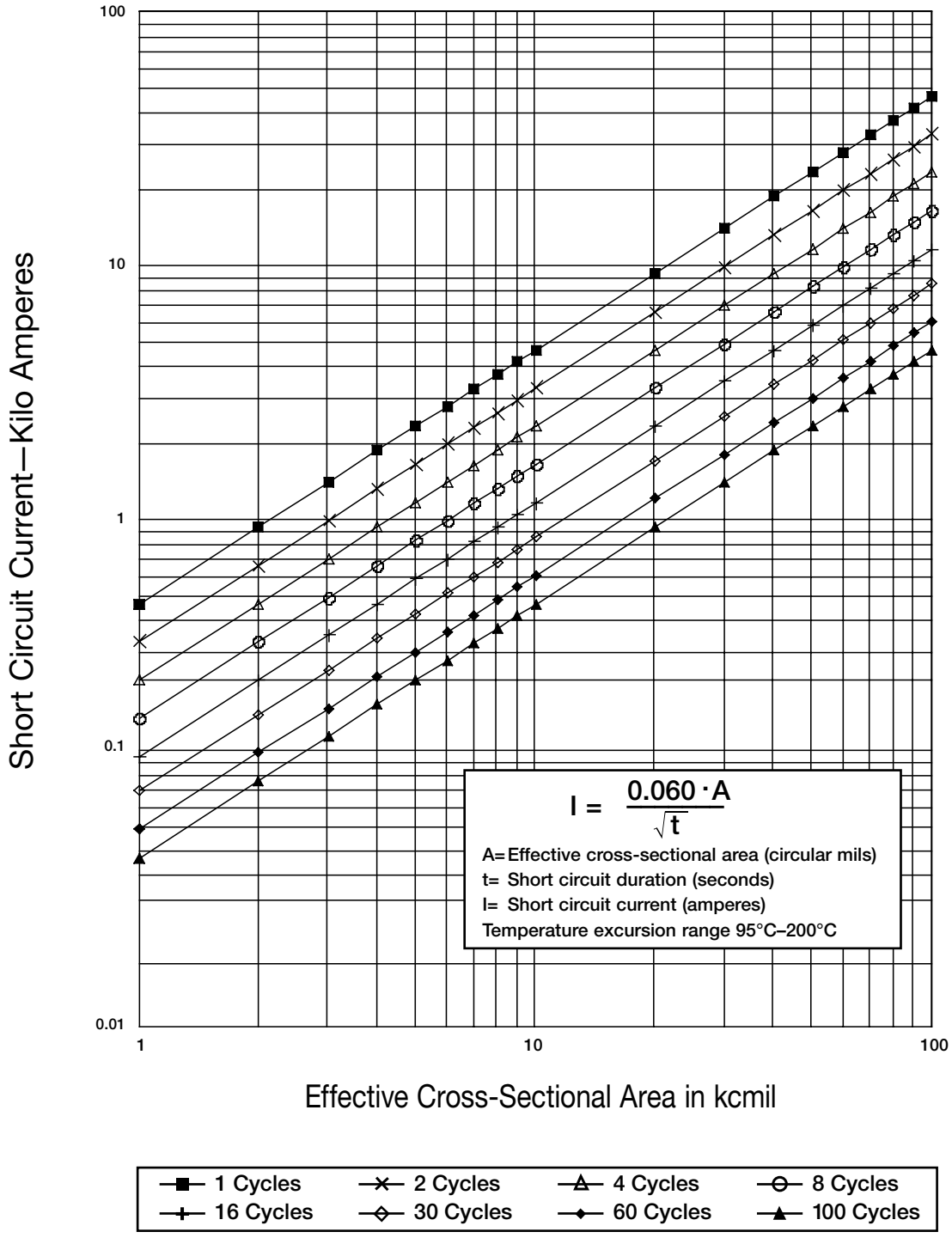
Formula – Short Circuit Currents for Copper Shields

Allowable Copper Shield Short Circuit Currents for 25–46 kV



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AC Resistance & Inductive Reactance

AC Resistance ohms/km (at operating temperature)

CONDUCTOR SIZE AWG OR kcmil	SINGLE STRANDED CONDUCTOR*					3 CONDUCTOR CABLE**	
	COPPER			ALUMINUM (ACM)		FACTOR	
	60°C	75°C	90°C	75°C	90°C	CU	AL
14	9.7550	10.2630	10.7550	—	—	1.00	—
12	6.1480	6.4660	6.7780	10.6730	11.1880	1.00	1.00
10	3.8680	4.0690	4.2650	6.7010	7.0240	1.00	1.00
8	2.4320	2.5580	2.6810	4.2130	4.4160	1.00	1.00
6	1.5300	1.6090	1.6870	2.6520	2.7800	1.00	1.00
4	.9614	1.0110	1.0600	1.6670	1.7470	1.00	1.00
3	.7630	.8025	.8412	1.3210	1.3850	1.00	1.00
2	.6055	.6369	.6676	1.0480	1.0990	1.01	1.00
1	.4797	.5046	.5289	.8313	.8714	1.01	1.00
1/0	.3803	.4000	.4193	.6591	.6909	1.02	1.00
2/0	.3018	.3174	.3327	.5234	.5486	1.03	1.00
3/0	.2393	.2517	.2638	.4154	.4354	1.04	1.01
4/0	.1898	.1997	.2093	.3292	.3451	1.05	1.01
250	.1613	.1696	.1778	.2789	.2923	1.06	1.02
300	.1346	.1416	.1485	.2325	.2439	1.06	1.02
350	.1157	.1217	.1276	.1997	.2093	1.07	1.03
400	.1015	.1068	.1119	.1748	.1833	1.09	1.03
500	.0818	.0861	.0902	.1402	.1470	1.11	1.05
600	.0677	.0712	.0746	.1171	.1227	1.13	1.07
750	.0557	.0586	.0614	.0943	.0988	1.16	1.10
1000	.0428	.0450	.0472	.0716	.0750	—	1.16

*Except for the most critical cases, these values may be used for 2 or 3 conductors in non-metallic or aluminum conduit.
**Multiply the single conductor values by these factors to determine the AC resistance of 3 conductor cable.
Impedance (Z, ohms/km) is obtained using the following formula: $Z = \sqrt{R2 + XL2}$ (neglecting capacitance).
R = AC Resistance ohm/km
Multiply ohms/km by 0.3048 to obtain ohms/1000 ft. Dimensions and weights are nominal; subject to industry tolerance.

Inductive Reactance ohms/km (at 60 hertz) 600 Volt & 1000 Volt

CONDUCTOR SIZE	VOLTAGE	3 SINGLE CABLES				3 CONDUCTOR CABLE	
		ONE CABLE DIAMETER SPACING			IN ALUMINUM	ALUMINUM ARMOR* CONDUIT*	
A	W	G A O	R B kcmil	C VOLTS			
		RW90	RA90	TECK90	RW90	AC90, ACWU90	TECK90
14	600	—	—	—	.1480	.1230	.1230
12	600	—	—	—	.1395	.1160	.1155
10	600	—	—	—	.1315	.1095	.1090
8	1000	—	—	—	.1455	.1225	.1145
6	1000	—	—	—	.1370	.1140	.1175
4	1000	—	—	—	.1290	.1075	.1105
3	1000	—	—	—	.1255	.1045	.1070
2	1000	—	—	—	.1230	.1025	.1045
1	1000	—	—	—	.1280	.1065	.1060
1/0	1000	.1695	.2040	.2190	.1200	.1000	.1020
2/0	1000	.1660	.2010	.2140	.1165	.0970	.0995
3/0	1000	.1650	.1970	.2130	.1135	.0945	.0965
4/0	1000	.1630	.1960	.2080	.1110	.0925	.0945
250	1000	.1620	.1925	.2085	.1105	.0920	.0950
300	1000	.1600	.1895	.2045	.1085	.0905	.0930
350	1000	.1595	.1875	.2010	.1070	.0895	.0915
400	1000	.1570	.1875	.1990	.1055	.0880	.0910
500	1000	.1565	.1865	.1955	.1035	.0865	.0890
600	1000	.1550	.1820	.1950	.1015	.0845	.0910
750	1000	.1535	.1800	.1915	.1000	.0835	.0900
1000	1000	.1520	.1770	.1875	.0985	.0820	.0880

Note: Values shown are based on nominal cable dimensions, which are influenced by changes in materials and conductor design. Except for the most critical cases, such variations are of little consequence.
Formula XL = $0.17362 \log_{10} \frac{GMD}{GMR}$ ohms/km. XL = Inductive reactance ohms/km. GMD = Geometric mean distance between conductors. GMR = Geometric mean radius of conductors.
For 3 conductors in steel conduit or steel armor, multiply table values by 1.25.
Multiply ohms/km by 0.3048 to obtain ohms/1000 ft. Dimensions and weights are nominal; subject to industry tolerance.

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AC Resistance & Inductive Reactance

Inductive Reactance ohms/km (at 60 hertz) 5 kV – TECK90 and HVTECK (Aluminum Armored)

CONDUCTOR SIZE AWG OR kcmil	SINGLE CONDUCTOR ONE CABLE DIAMETER SPACING (A, B, C)			3 CONDUCTOR* (A, B, C)		
	TECK 90 5 kV UNSHIELDED	HVTECK SHIELDED		TECK 90 5 kV UNSHIELDED	HVTECK SHIELDED	
		5 kV (100%)	5 kV (133%)		5 kV (100%)	5 kV (133%)
6	.2630	.2770	.2810	.1385	.1495	.1660
4	.2530	.2630	.2710	.1290	.1400	.1490
2	.2400	.2540	.2600	.1205	.1305	.1390
1	.2310	.2440	.2500	.1145	.1220	.1310
1/0	.2240	.2330	.2440	.1100	.1185	.1270
2/0	.2225	.2270	.2370	.1065	.1150	.1220
3/0	.2165	.2205	.2310	.1030	.1100	.1180
4/0	.2130	.2170	.2250	.1010	.1075	.1150
250	.2110	.2150	.2220	.1000	.1060	.1120
300	.2075	.2110	.2170	.0980	.1038	.1090
350	.2040	.2075	.2140	.0960	.1020	.1070
400	.2010	.2045	.2110	.0950	.1010	.1050
500	.1980	.2015	.2090	.0925	.0980	.1040
600	.1970	.2000	.2030	.0945	.1010	.1060
750	.1935	.1975	.2010	.0935	.0990	.0980
1000	.1895	.1920	.1960	.0910	.0955	.0950

Note: Values shown are based on nominal cable dimensions, which are influenced by changes in materials and conductor design. Except for the most critical cases, such variations are of little consequence.
Formula XL = 0.17362 $\log_{10} \frac{GMD}{GMR}$ ohms/km. XL = Inductive reactance ohms/km. GMD = Geometric mean distance between conductors. GMR = Geometric mean radius of conductors.
For 3 conductors in steel conduit or steel armor, multiply table values by 1.25.
Multiply ohms/km by 0.3048 to obtain ohms/1000 ft. Dimensions and weights are nominal; subject to industry tolerance.

Inductive Reactance ohms/km (at 60 hertz) 15 kV, 25 kV & 28 kV - HVTECK (Aluminum Armored)

CONDUCTOR SIZE AWG OR kcmil	3 CONDUCTOR* (A, B, C)					
	15 kV (100%)	15 kV (133%)	25 kV (100%)	25 kV (133%)	28 kV (100%)	28 kV (133%)
2	.1510	-	-	-	-	-
1	.1425	.1500	.1575	.1700	.1605	.1725
1/0	.1365	.1435	.1510	.1640	.1540	.1665
2/0	.1315	.1385	.1455	.1580	.1485	.1605
3/0	.1265	.1330	.1405	.1510	.1440	.1540
4/0	.1225	.1285	.1360	.1465	.1385	.1490
250	.1205	.1275	.1335	.1430	.1360	.1450
300	.1170	.1235	.1290	.1390	.1320	.1410
350	.1155	.1205	.1260	.1350	.1290	.1370
400	.1140	.1190	.1240	.1325	.1270	.1350
500	.1105	.1150	.1200	-	.1220	-
600	.1100	.1155	.1205	-	-	-
750	.1080	.1120	-	-	-	-
1000	.1045	-	-	-	-	-

Note: Values shown are based on nominal cable dimensions, which are influenced by changes in materials and conductor design. Except for the most critical cases, such variations are of little consequence.
Formula XL = 0.17362 $\log_{10} \frac{GMD}{GMR}$ ohms/km. XL = Inductive reactance ohms/km. GMD = Geometric mean distance between conductors. GMR = Geometric mean radius of conductors.
For 3 conductors in steel conduit or steel armor, multiply table values by 1.25.
Multiply ohms/km by 0.3048 to obtain ohms/1000 ft. Dimensions and weights are nominal; subject to industry tolerance.

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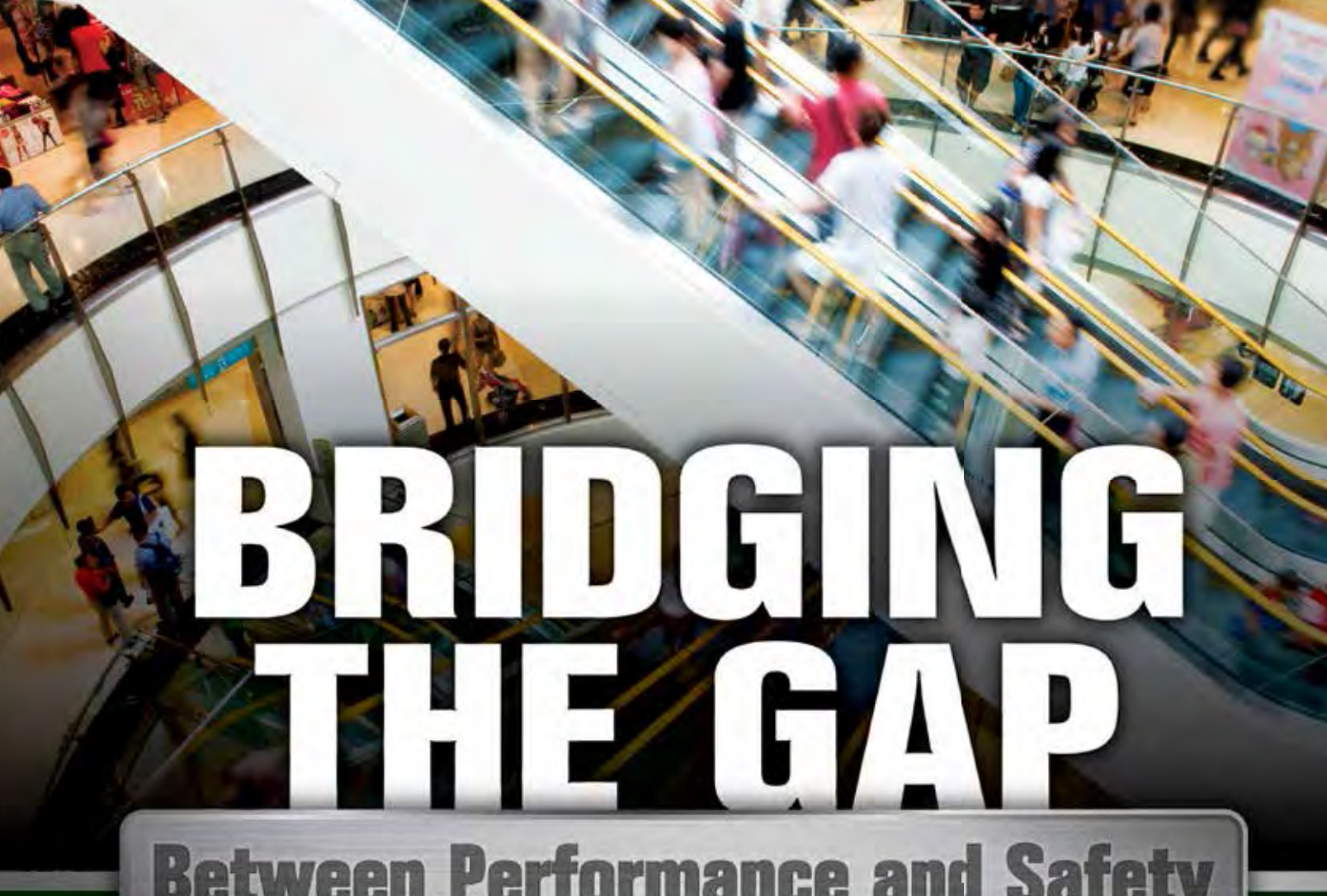

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