

EVpack-fuse MEV55

550 VDC Max., L/R ≤ 1ms, 5 - 50A

BATTERY FUSES

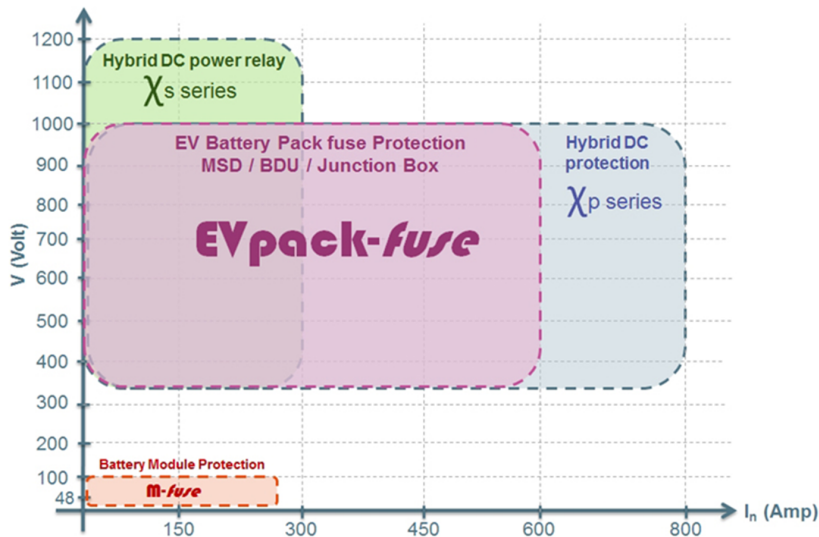
BATTERY PACK FUSES



EVpack-fuse line-up belongs to the new DC Over-Current protection (O.C.P.) range developed by MERSEN to address specific needs in EV/HEV and Battery Electrical Storage System.

EVpack-fuse provides the ultimate protection of the battery pack offering reliable clearing of DC fault currents.

It has been specifically engineered and tested to provide DC applications best-in-class protection performance: Up to 550VDC, Current rating (I_n)= 5 to 50A, Interrupting Rating (IR) = 20kA, L/R ≤ 1ms, Minimum Breaking Capacity (MBC) < 3kA for a perfect matching with DC contactor.



FEATURES & BENEFITS

- Design for DC applications
- Low watt losses
- High cycling performance
- Full coverage of battery module voltage and current
- Ultra compact size
- Current Ratings (I_n): 5 to 50A
- Interrupting Rating (IR): 20kA @ 550VDC, L/R < 1ms

APPLICATIONS

- EV/HEV
- Electrical Energy Storage
- Battery pack protection
- Battery Disconnect Unit (BDU)
- Battery Junction Box for auxiliaries
- Battery charger
- Supercapacitor pack protection
- Backup protection for DC relay / disconnect / switch
- Maintenance Safety Disconnect (MSD)

STANDARDS

- Power Cycling & Vibration: JASO D622
- IATF - ISO/TS 16949 Quality management undergoing certification



EV pack-fuse

PRODUCT RANGE



MEV55C30

MEV55C Ferrule Fuse

Catalog number	Rated voltage DC (UL)	Rated current I _n	Power dissipation at 0.5 I _n	Min. breaking capacity (MBC)	Max. time to clear MBC	Package	Weight
MEV55C5	550 V	5 A	0.25 W	10 A	10 s	80	7.5 g
MEV55C6	550 V	6 A	0.29 W	12 A	10 s	80	7.5 g
MEV55C7	550 V	7 A	0.31 W	14 A	10 s	80	7.5 g
MEV55C8	550 V	8 A	0.4 W	16 A	10 s	80	7.5 g
MEV55C10	550 V	10 A	0.45 W	20 A	10 s	80	7.5 g
MEV55C12	550 V	12 A	0.47 W	24 A	10 s	80	7.5 g
MEV55C15	550 V	15 A	0.49 W	30 A	100 s	80	7.5 g
MEV55C20	550 V	20 A	0.56 W	40 A	100 s	80	7.5 g
MEV55C25	550 V	25 A	0.63 W	50 A	100 s	80	7.5 g
MEV55C30	550 V	30 A	0.68 W	60 A	100 s	80	7.5 g
MEV55C30/40	550 V	40 A	0.63 W	150 A	10 s	80	7.5 g
MEV55C30/50	550 V	50 A	1 W	180 A	10 s	80	7.5 g



MEV55C30-S

MEV55C-S Surface Mount Fuse

Catalog number	Rated voltage DC (UL)	Rated current I _n	Power dissipation at 0.5 I _n	Min. breaking capacity (MBC)	Max. time to clear MBC	Package	Weight
MEV55C5-S	550 V	5 A	0.25 W	10 A	10 s	80	9.9 g
MEV55C6-S	550 V	6 A	0.29 W	12 A	10 s	80	9.9 g
MEV55C7-S	550 V	7 A	0.31 W	14 A	10 s	80	9.9 g
MEV55C8-S	550 V	8 A	0.4 W	16 A	10 s	80	9.9 g
MEV55C10-S	550 V	10 A	0.45 W	20 A	10 s	80	9.9 g
MEV55C12-S	550 V	12 A	0.47 W	24 A	10 s	80	9.9 g
MEV55C15-S	550 V	15 A	0.49 W	30 A	100 s	80	9.9 g
MEV55C20-S	550 V	20 A	0.56 W	40 A	100 s	80	9.9 g
MEV55C25-S	550 V	25 A	0.63 W	50 A	100 s	80	9.9 g
MEV55C30-S	550 V	30 A	0.68 W	60 A	100 s	80	9.9 g
MEV55C30/40-S	550 V	40 A	0.63 W	150 A	10 s	80	9.9 g
MEV55C30/50-S	550 V	50 A	1 W	180 A	10 s	80	9.9 g



MEV55C30-P

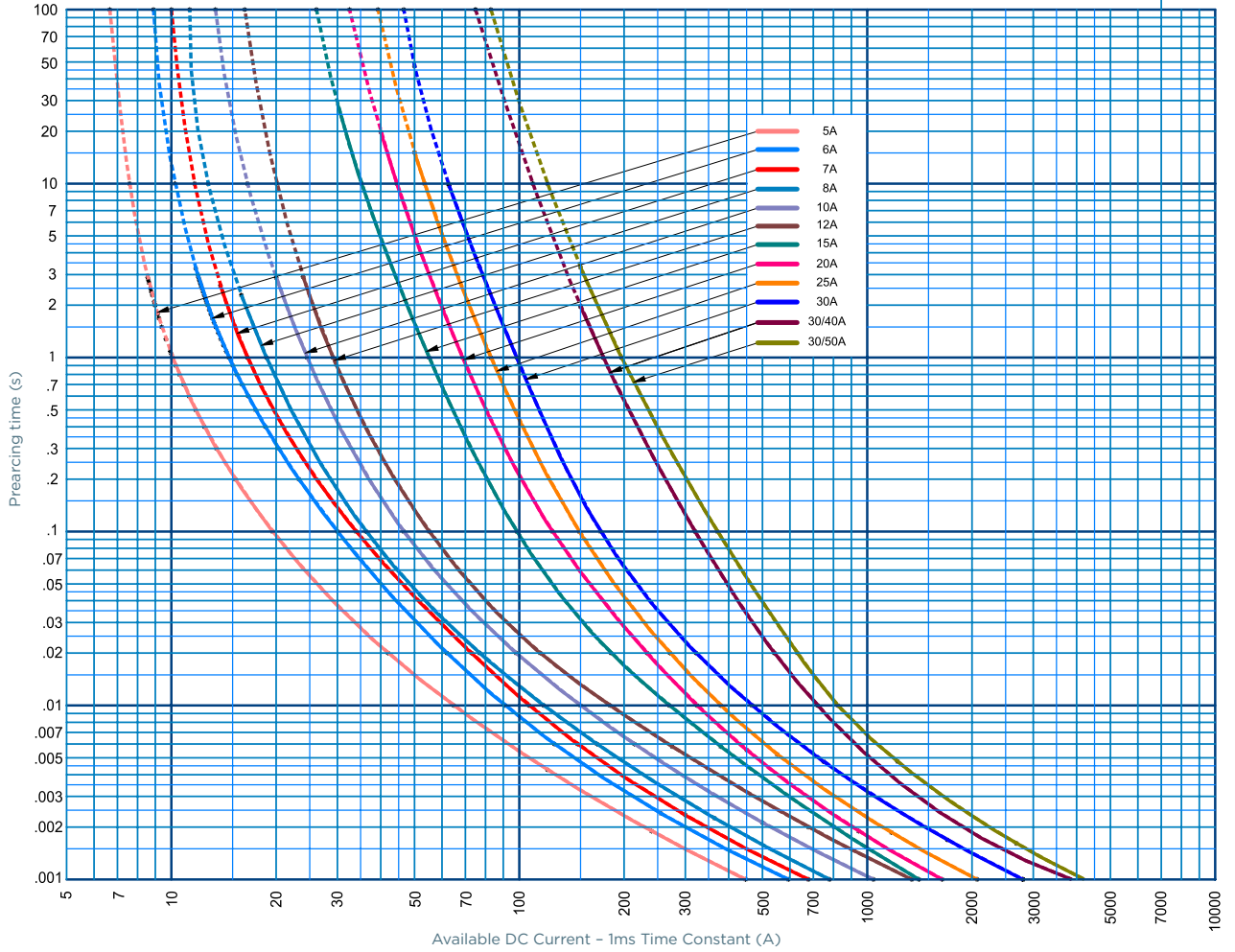
MEV55C-P PC Board Mount

Catalog number	Rated voltage DC (UL)	Rated current I _n	Power dissipation at 0.5 I _n	Min. breaking capacity (MBC)	Max. time to clear MBC	Package	Weight
MEV55C5-P	550 V	5 A	0.25 W	10 A	10 s	80	9.9 g
MEV55C6-P	550 V	6 A	0.29 W	12 A	10 s	80	9.9 g
MEV55C7-P	550 V	7 A	0.31 W	14 A	10 s	80	9.9 g
MEV55C8-P	550 V	8 A	0.4 W	16 A	10 s	80	9.9 g
MEV55C10-P	550 V	10 A	0.45 W	20 A	10 s	80	9.9 g
MEV55C12-P	550 V	12 A	0.5 W	24 A	10 s	80	9.9 g
MEV55C15-P	550 V	15 A	0.45 W	30 A	100 s	80	9.9 g
MEV55C20-P	550 V	20 A	0.54 W	40 A	100 s	80	9.9 g
MEV55C25-P	550 V	25 A	0.59 W	50 A	100 s	80	9.9 g
MEV55C30-P	550 V	30 A	0.65 W	60 A	100 s	80	9.9 g
MEV55C30/40-P	550 V	40 A	0.63 W	150 A	10 s	80	9.9 g
MEV55C30/50-P	550 V	50 A	1.1 W	180 A	10 s	80	9.9 g

MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

TIME CURRENT CHARACTERISTIC CURVES

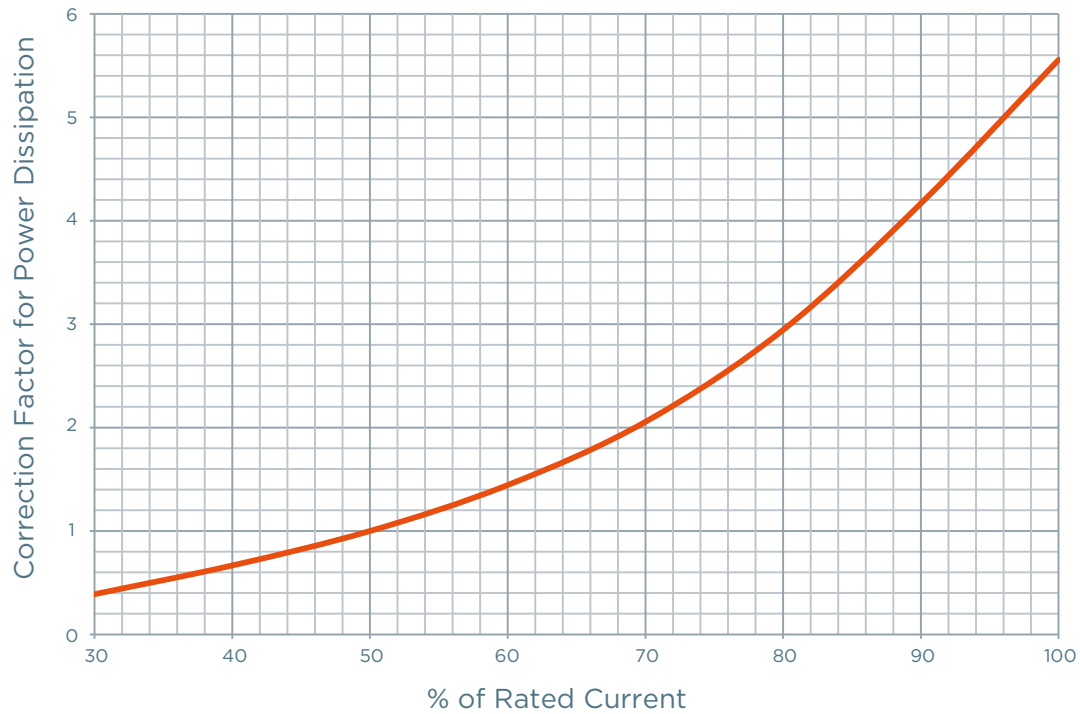
MEV55C, -S, -P



MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

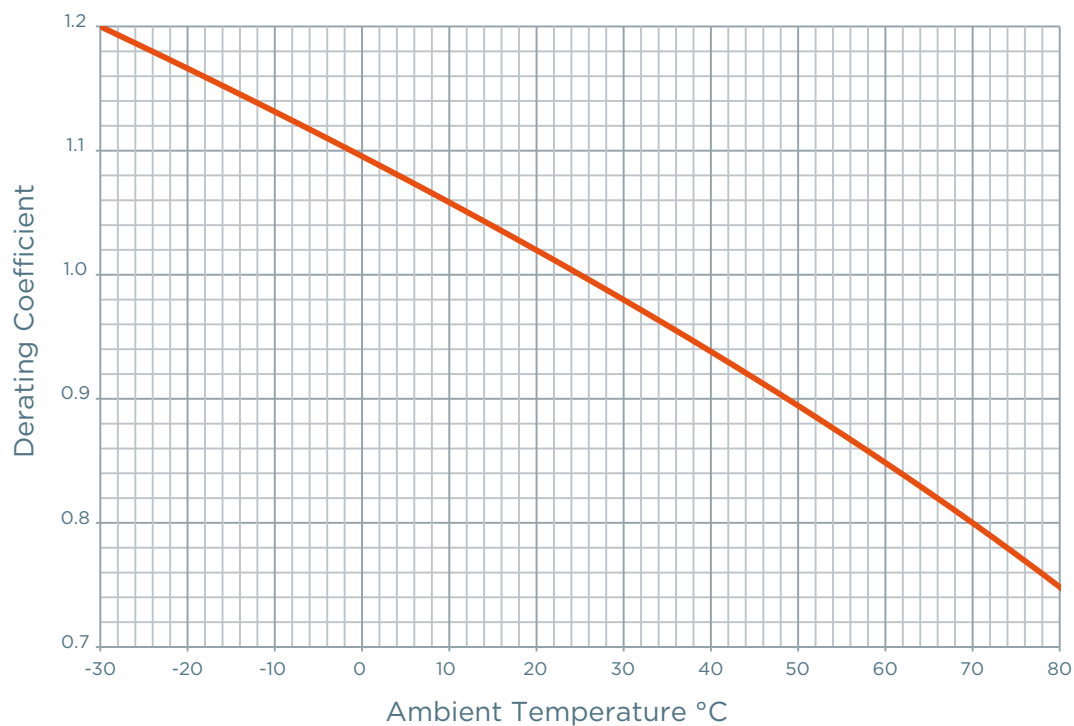
POWER DISSIPATION

MEV55C, -S, -P



TEMPERATURE DERATING

MEV55C, -S, -P



EVpack-fuse MEV55

550 VDC Max., L/R ≤ 1ms, 5 - 50A

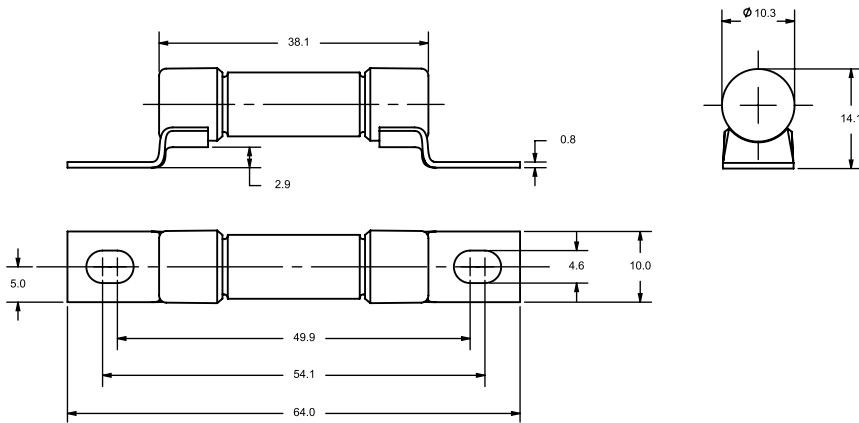
DIMENSIONS

MEV55C Ferrule Fuse (5-50A)



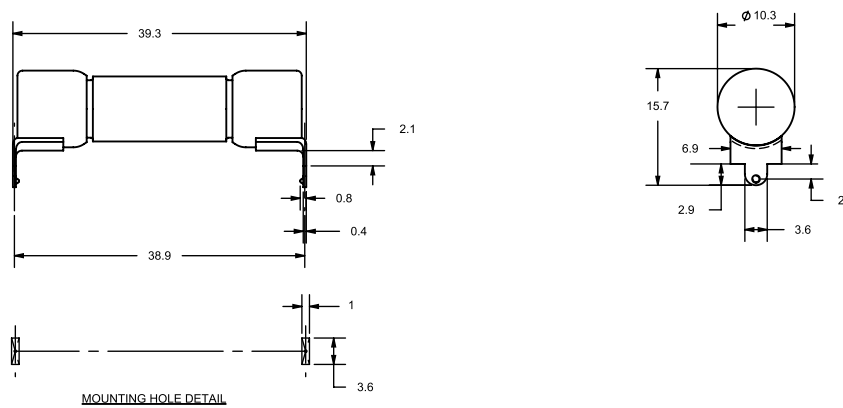
Dimensions in mm

MEV55C -S Surface Mount Fuse (5-50A)



Dimensions in mm

MEV55C -P PC Board Mount (5-50A)



Dimensions in mm

Recommended Mounting Torque and Bolt Size

Fuse Type	Mounting Style	Fuse Rating	Thread Size	Tightening Torque	
				N-m	in-lbs
MEV55C	Surface mount (-S)	5 - 50A	1/4-20	5,5	50

MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

ACCESSORIES



30311



30312



30313

Fuse blocks

Catalog number	Item number	Rated DC voltage	Application DC Fuses	Number of poles/phases	Contact Materials	Wire Range	Weight
Open-style fuse blocks							
Screw w/ double quick connects at both ends							
30310	30310	600 V	MEV55C fuses up to 30A	Extension	Tin-plated Copper	Cu #10-14	42 g
30311	30311	600 V	MEV55C fuses up to 30A	1	Tin-plated Copper	Cu #10-14	47 g
30312	30312	600 V	MEV55C fuses up to 30A	2	Tin-plated Copper	Cu #10-14	80 g
30313	30313	600 V	MEV55C fuses up to 30A	3	Tin-plated Copper	Cu #10-14	0.12 kg
Pressure plate (sems) w/ double quick connects at both ends							
30320	30320	600 V	MEV55C fuses up to 30A	Extension	Tin-plated Copper	Cu #10-14	-
30321	30321	600 V	MEV55C fuses up to 30A	1	Tin-plated Copper	Cu #10-14	96 g
30322	30322	600 V	MEV55C fuses up to 30A	2	Tin-plated Copper	Cu #10-14	93 g
30323	30323	600 V	MEV55C fuses up to 30A	3	Tin-plated Copper	Cu #10-14	0.13 kg
Copper box							
30350	30350	600 V	MEV55C fuses up to 30A	Extension	Tin-plated Copper	Cu #6-14	-
30351	30351	600 V	MEV55C fuses up to 30A	1	Tin-plated Copper	Cu #6-14	49 g
30352	30352	600 V	MEV55C fuses up to 30A	2	Tin-plated Copper	Cu #6-14	-
30353	30353	600 V	MEV55C fuses up to 30A	3	Tin-plated Copper	Cu #6-14	0.13 kg