MPEFX Series
Automotive EV Fuses

RoHS Compliant

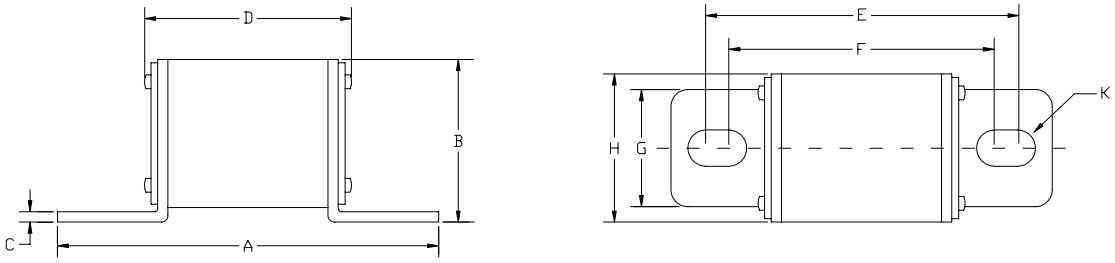
Description

EFX series EV fuses are specially engineered and tested to provide best-in-class protection performance in protecting high power battery charging and managing systems of Electrical Vehicles and Hybrid Electrical Vehicles, up to 1000 Vdc in ratings from 63A to 500A.

Features

- Reliable clearing of DC fault currents
- High cycling performance
- Low watt losses
- Ultra-compact size and power density
- High breaking capacity to 50kA
- QR code marks on each fuse for traceability
- UL Approved

Diagram



Part Number	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	K (mm)
MP010937	117 ±1.5	24 ±1	2 ±0.1	74 ±1.5	100.5 ±1	87.5 ±1	32.5 ±0.5	36.3 +1.2/-0.5	Ø8.5 ±0.5
MP010938									
MP010939	126.5±1.5	48 ±0.8	3 ±0.15	71.8 ±1	106 ±1.5	89 ±1.5	34 ±0.5	47 ±0.5	Ø10.5 ±0.3
MP010940									
MP010941									

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multicomp PRO

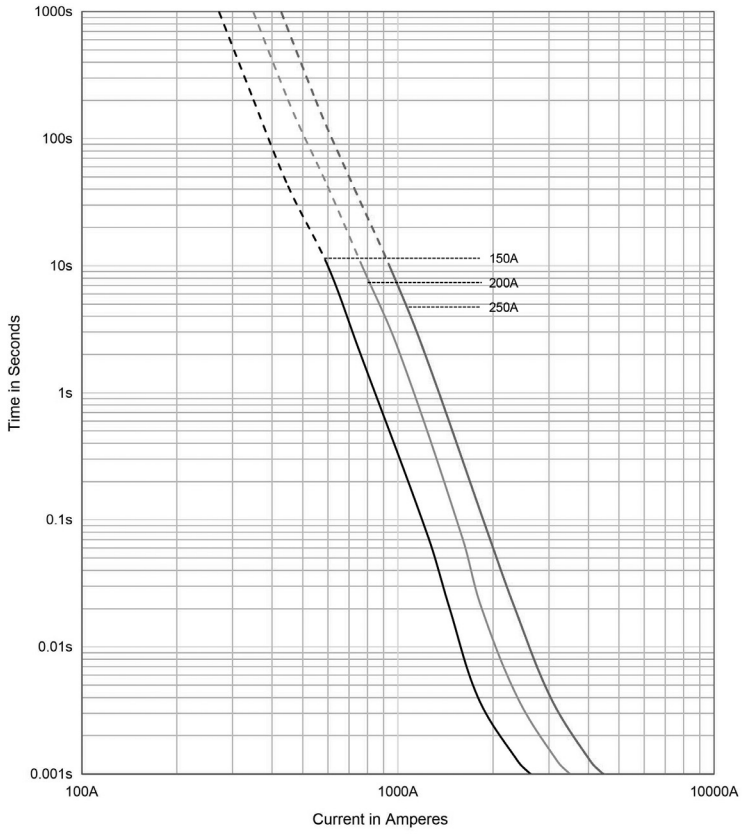
Electrical Specification Table

Part Number	Size (mm)	Rated Current	Ampere Code	Rated Voltage	Breaking Capacity		I^2t (A^2sec)		Watt Loss (W)
					UL**	Self-Certified	Pre-arcing	Total @ 1000V DC	0.5 In
MP010937	74×36*	200A	3200	1000V DC	-	50kA	8300	43900	6.6
MP010938		250A	3250				13300	75600	8.5
MP010939	71×47**	350A	3350		4In ~ 50kA	-	21600	115000	14.5
MP010940		400A	3400				28600	163000	17
MP010941		450A	3450				38200	223000	19.5

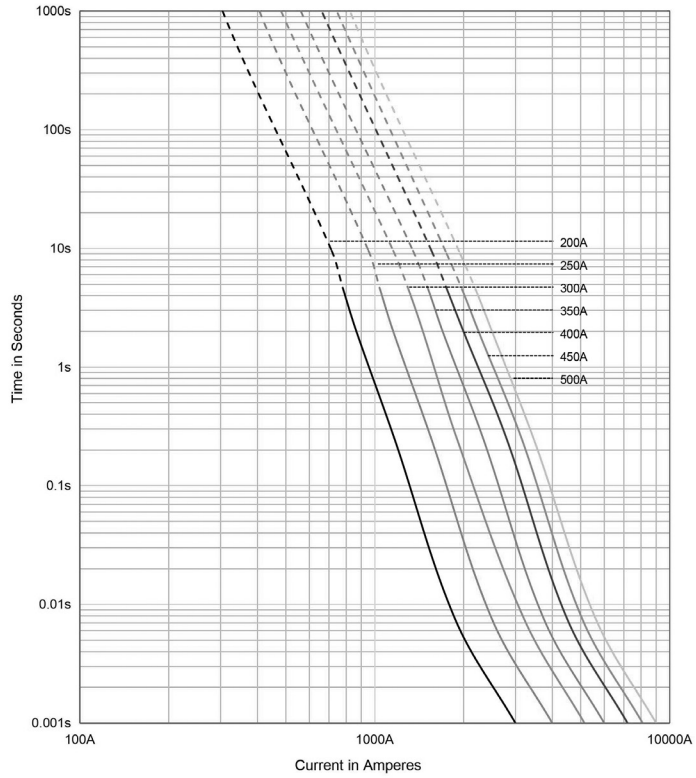
Note:
* Recommend mounting torque is 12+/-1.0Nm (M8);
** Temperature rise: 0.5In < 50K & Recommend mounting torque is 20+/-1Nm (M10).

Time Current Curve

MP010937 \ MP010938

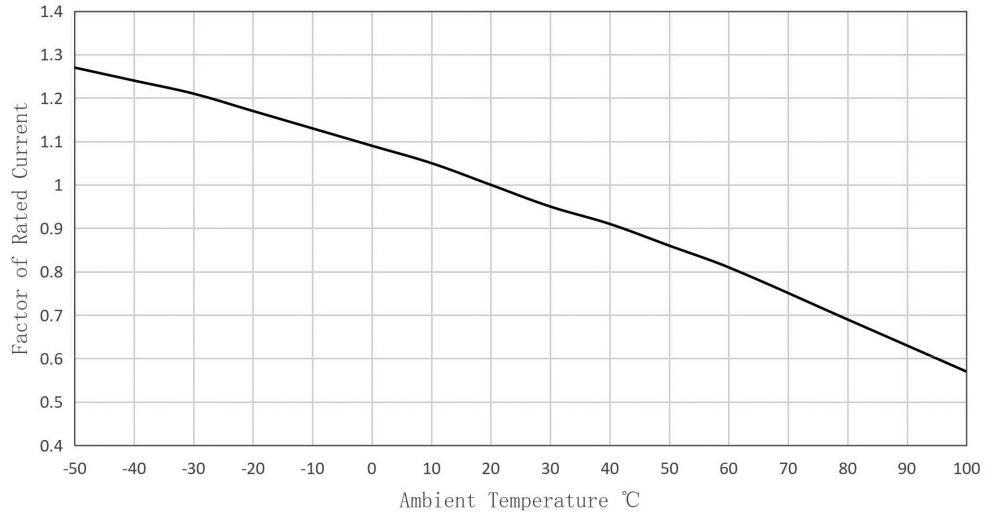


MP010939 \ MP010940 \ MP010941



Temperature Derating Curve

MP010937 / MP010938 / MP010939 / MP010940 / MP010941

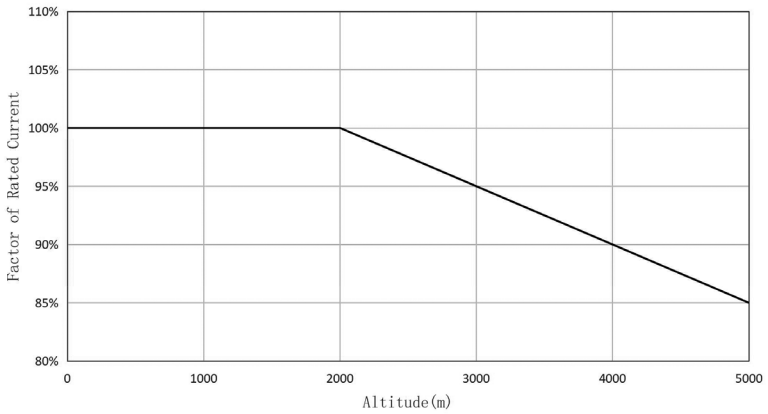


Conditions for Operation

- Normal temperature: -5°C to +40°C
- The altitude of the site of installation of the fuses should not exceed 2000m above sea level
- The air should be clean and its relative humidity does not exceed 50% at a maximum temperature of 40°C
- Higher relative humidifies are permitted at lower temperatures, e.g., 90 % at 20°C
- Under these conditions, moderate condensation may occasionally occur due to variation in temperature.
- For operating conditions other than above, please contact the manufacturer.

Re-Rating with High Altitude

The formula for calculating current load at high altitude: I = In × (1- (h-2000)/100×(0.5/100)) h is altitude, less than 5000m.



Part Number Table

Description	Part Number
EFX, EV Automotive Fuse, 200A, 1000V DC	MP010937
EFX, EV Automotive Fuse, 250A, 1000V DC	MP010938
EFX, EV Automotive Fuse, 350A, 1000V DC	MP010939
EFX, EV Automotive Fuse, 400A, 1000V DC	MP010940
EFX, EV Automotive Fuse, 450A, 1000V DC	MP010941