

**RoHS
Compliant**

Description



MP-AE5 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 500V DC in ratings from 50A to 700A.

Features

- Reliable clearing of DC fault currents
- High cycling performance
- Low watt losses
- Ultra-compact size and power density
- High breaking capacity to 50kA
- Operation as low as 200% In overload protection
- Full coverage of battery module current
- QR code marks on each fuse for traceability
- UL and TUV Approved

Operating Conditions

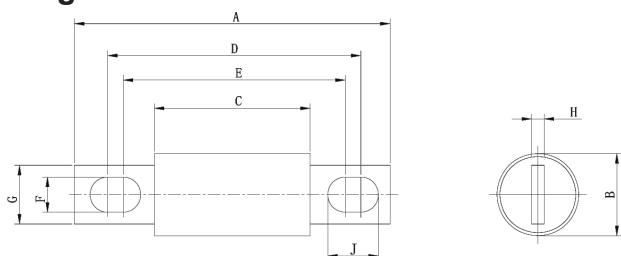
Where the following conditions apply, fuses complying with this standard are deemed capable of operating satisfactorily without further qualification.

- Normal temperature: -5°C-40°C;
- The altitude of the site of installation of the fuses does not exceed 2000 m above sea level;
- The air is clean and its relative humidity does not exceed 50 % at the maximum temperature of 40°C;
- Higher relative humidity is permitted at lower temperatures, e.g., 90 % at 20°C;
- Under these conditions, moderate condensation may occasionally occur due to variation in temperature.

Storage

During transportation and storage, avoid water seepage and mechanical damage.

Diagram



Fuse Size	A $\pm 0.8\text{mm}$	B $\pm 0.5\text{mm}$	C $\pm 0.8\text{mm}$	D $\pm 0.8\text{mm}$	E $\pm 0.8\text{mm}$	F $\pm 0.5\text{mm}$	G $\pm 0.5\text{mm}$	H $\pm 0.25\text{mm}$	J $\pm 0.5\text{mm}$
$\Phi 21 \times 40$	81	21	40	66	57	8.5	15	3.2	13
$\Phi 25 \times 44$	89	25	44	73	71	9	18	3.2	10
$\Phi 31 \times 53$	92	31	53	76	69	8.5	22	5	12
$\Phi 38 \times 53$	110	38	53	88	70	10.5	24.8	6	19.5
$\Phi 51 \times 53$	110	51	53	90	71	10.5	38	6	20

Dimensions : Millimetres

MP-AE5 series

Automotive EV Fuses

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Electrical Specifications

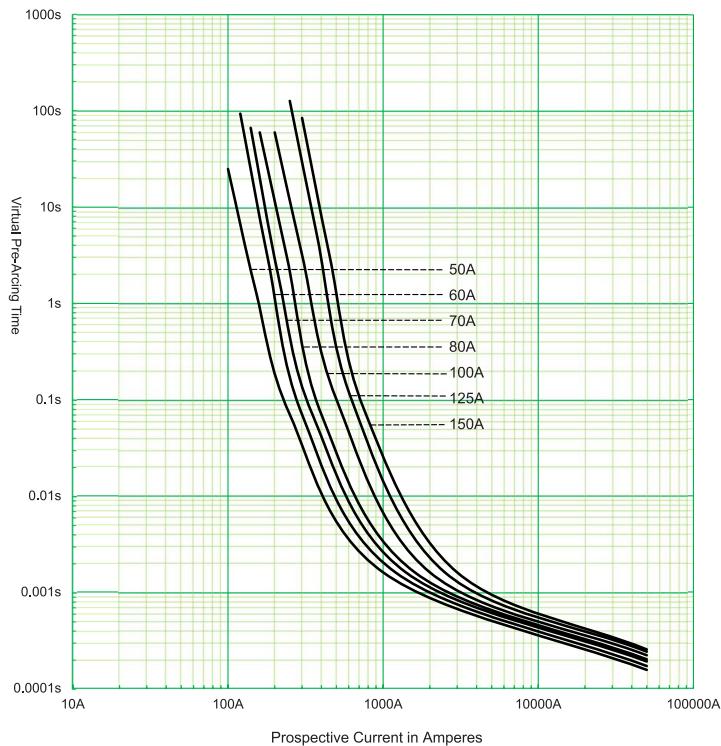
Size (mm)	Part Number	Rated Current	Amperes Code	Rated Voltage	Breaking Capacity		Melting I ² t (A ² s)	Clearing I ² t (A ² s)	Watt Loss (W)
					TUV**	Self-Certified			
21 × 40	MP010927	60A	2600	500V DC	30kA	50kA	274	2164	1.5
	MP010928	70A	2700				345	2933	1.8
	MP010929	80A	2800				392	3565	2.1
	MP010930	100A	3100				639	6826	2.4
	MP010931	125A	3125				930	11396	2.9
	MP010932	150A	3150				1062	14680	3.6
25 × 44	MP010933	200A	3200	500V DC	30kA	50kA	3455	31097	4.9
	MP010934	250A	3250				6870	46500	5.9
31 × 53	MP010935	300A	3300				12700	102871	6.9
	MP010936	400A	3400				18620	139400	9

Table 2

Time constant: $2 \pm 0.5\text{ms}$

Time Current Curve

MP010927/MP010928/MP010929/MP010930/MP010931/MP010932



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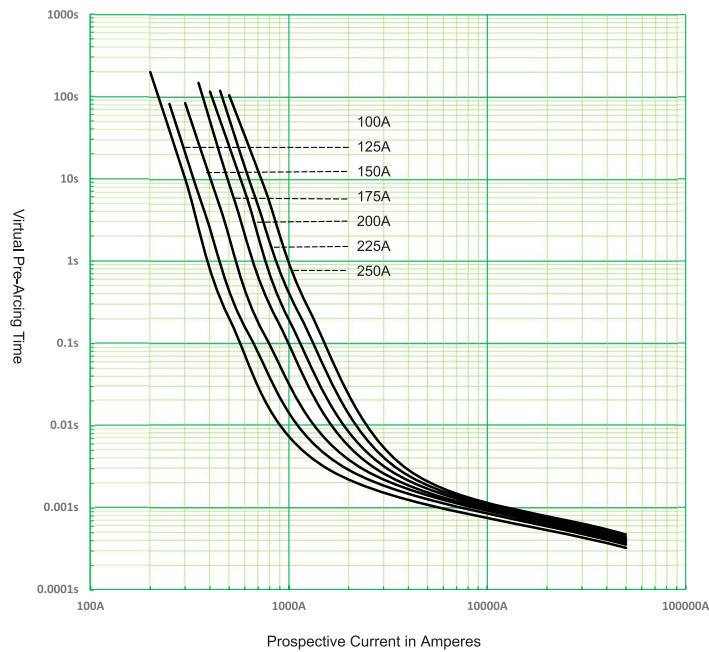
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MP-AE5 series Automotive EV Fuses

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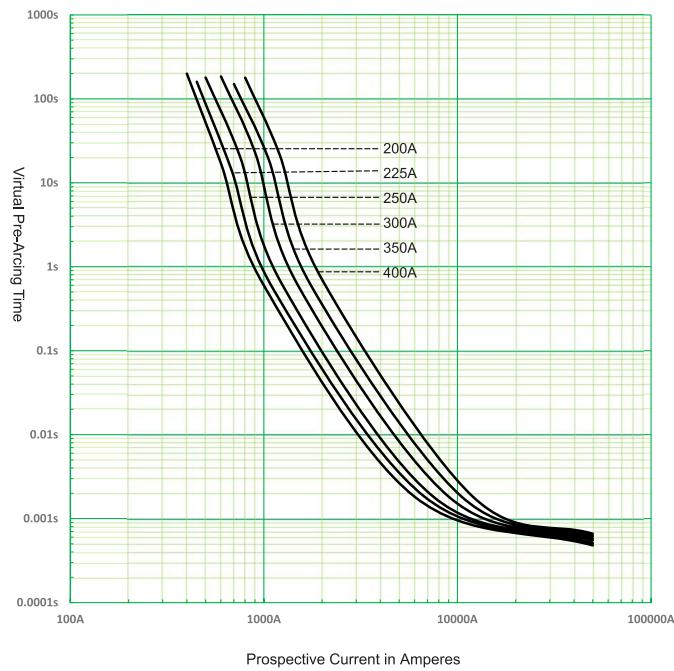
Time Current Curve

MP010933/MP010934



Time Current Curve

MP010935/MP010936



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MP-AE5 series

Automotive EV Fuses

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Part Number Table

Description	Part Number
Automotive EV Fuse, 60A, 500V DC	MP010927
Automotive EV Fuse, 70A, 500V DC	MP010928
Automotive EV Fuse, 80A, 500V DC	MP010929
Automotive EV Fuse, 100A, 500V DC	MP010930
Automotive EV Fuse, 125A, 500V DC	MP010931
Automotive EV Fuse, 150A, 500V DC	MP010932
Automotive EV Fuse, 200A, 500V DC	MP010933
Automotive EV Fuse, 250A, 500V DC	MP010934
Automotive EV Fuse, 300A, 500V DC	MP010935
Automotive EV Fuse, 400A, 500V DC	MP010936

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