

MP-AE5 series

Automotive EV Fuses

multicompPRO

**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

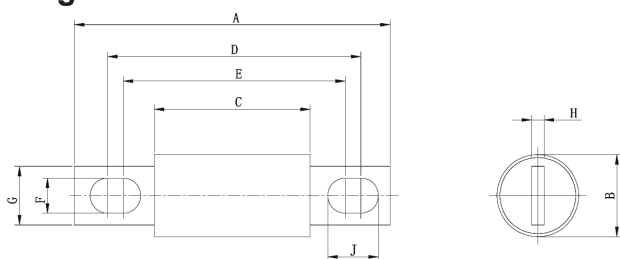
Where the following conditions apply, fuses complying with this standard are deemed capable of operating satisfactorily without further qualification.

- 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 ±0.8mm	B ±0.5mm	C ±0.8mm	D ±0.8mm	E ±0.8mm	F ±0.5mm	G ±0.5mm	H ±0.25mm	J ±0.5mm
Φ21 × 40	81	21	40	66	57	8.5	15	3.2	13
Φ25 × 44	89	25	44	73	71	9	18	3.2	10
Φ31 × 53	92	31	53	76	69	8.5	22	5	12
Φ38 × 53	110	38	53	88	70	10.5	24.8	6	19.5
Φ51 × 53	110	51	53	90	71	10.5	38	6	20

Dimensions : Millimetres

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

multicompPRO

MP-AE5 series

Automotive EV Fuses

multicompPRO

Electrical Specifications

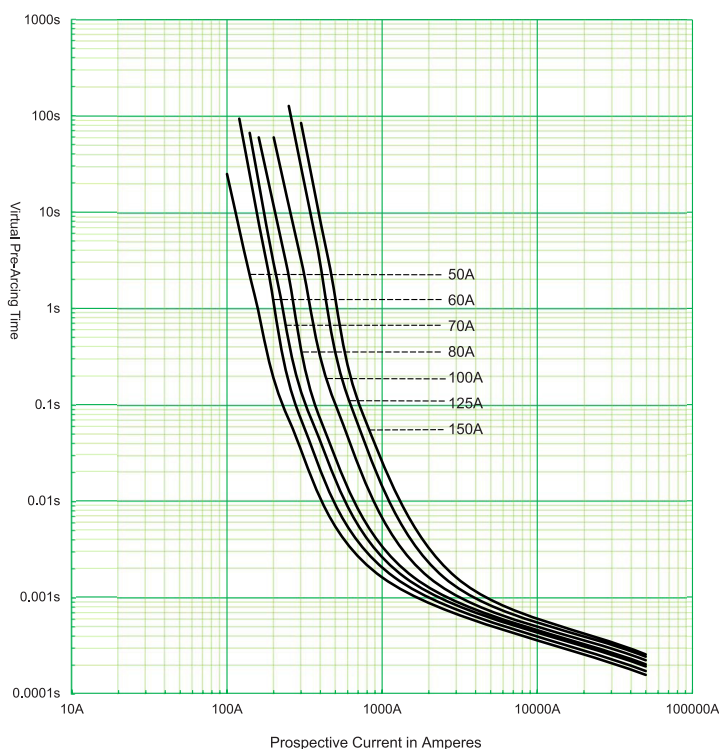
Size (mm)	Part Number	Rated Current	Ampere Code	Rated Voltage	Breaking Capacity		Melting I ² t (A ² s)	Clearing I ² t (A ² s)	Watt Loss (W) 0.5 In
					TUV**	Self-Certified			
21 × 40	MP010927	60A	2600	500V DC	30kA	50kA	274	2164	1.5
	MP010928	70A	2700				345	2933	1.8
	MP010929	80A	2800				392	3565	2.1
	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				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 ± 0.5ms

Time Current Curve

MP010927/MP010928/MP010929/MP010930/MP010931/MP010932



Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

multicompPRO

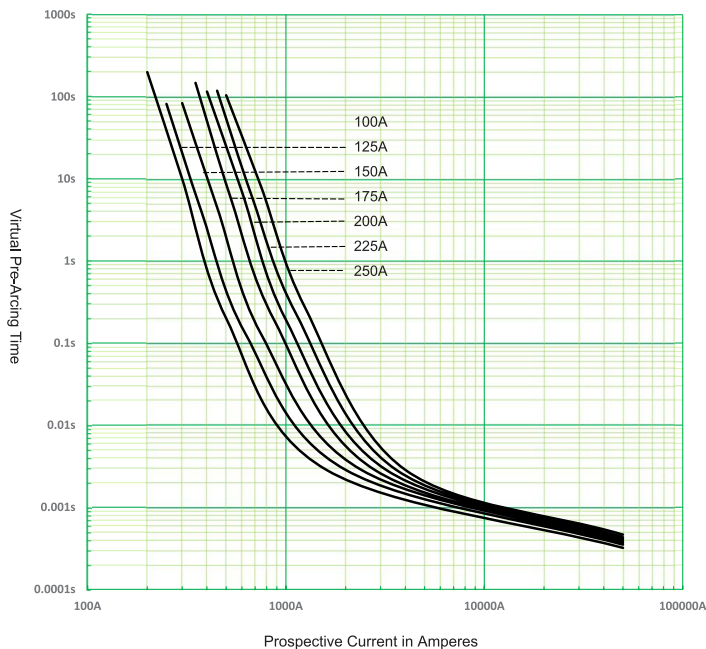
MP-AE5 series

Automotive EV Fuses

multicompPRO

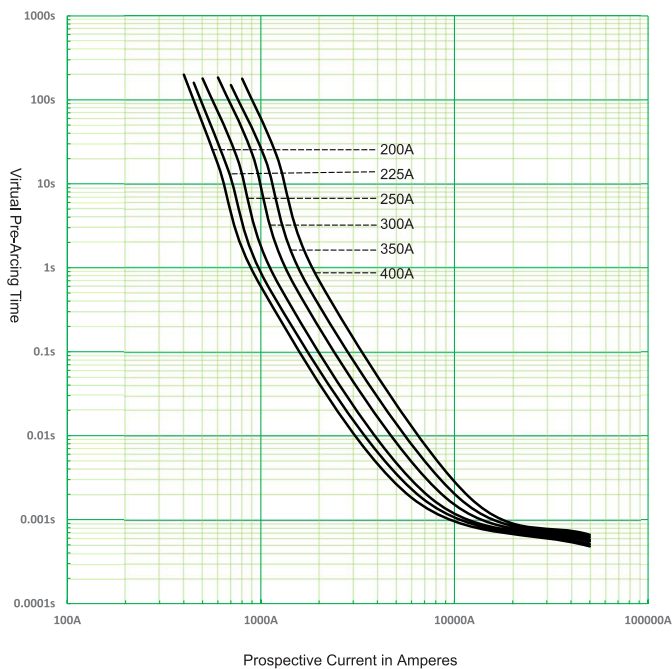
Time Current Curve

MP010933/MP010934



Time Current Curve

MP010935/MP010936



Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

multicompPRO

MP-AE5 series

Automotive EV Fuses

multicompPRO

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

Important Notice : This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

multicompPRO