



Your problem: Parallel cables from your main transformer. The welding station down in the machine shop. Need a fuse designed specifically to protect your solar power installation? Applications as varied and specialized as telecommunications systems, forklifts, and DC-powered equipment . . . If your plant is like most, it's full of highly specialized circuit protecting applications. Still, as specialized as the installations sometimes are, they have in common the need for a high performance, failsafe solution.

Our solution: No matter how specialized your application is, Mersen brings its broad expertise and numerous resources to bear on it. The result is a line of Special Purpose Fuses that unfailingly perform to application-specific requirements. Whether you're specifying our Helio Protection fuses, Cable Protectors, Welder Protectors, and Telecommunications fuses — or replacing our Form 600 fuses, or Forklift Truck fuses.

Want more information fast? For more technical or application-specific information, please call our special purpose products experts at 978-465-4853 or visit our website at ep.mersen.com.

Special Purpose

A WORLD OF
CIRCUIT PROTECTION
UNDER ONE ROOF

EV/Automotive

- M-fuse Battery Module Fuses SP 2
- MEV55 Battery Pack Fuses . . SP 5
- MEV70 Battery Pack Fuses . . SP 9
- MEV100 Battery Pack Fuses SP 12
- Hybrid Xp Series SP 15
- Hybrid Xs-EV Series SP 17
- Automotive Fuses & Holders SP 21
- Forklift Truck Fuses. SP 24

Cable Protectors

- CP 600V Cable Protectors . SP 26
- 2CL 250V Cable Protectors SP 34

DC Protection

- A60C Capacitor Fuses SP 35
- A4BX Welder Protectors . . . SP 36
- A2Y & A6Y Form 600 Fuses SP 37

Photovoltaic (PV)

- HP6M PV Fuses SP 39
- HP10M PV Fuses SP 41
- Dual HP10M Fuses. SP 43
- HP15M PV Fuses SP 44
- Dual HP15M Fuses SP 46
- HP15G PV Fuses. SP 47
- HP6J PV Fuses. SP 49
- HP10J PV Fuses. SP 51
- HP10NH PV Fuses SP 55
- HP12NH PV Fuses SP 57
- HP15NH PV Fuses SP 59

Mersen
Expertise, our source of energy

S
P

m-fuse MF 100VDC Max.

L/R $\leq 1.5\text{ms}$, 50 - 200A

SPECIAL PURPOSE

BATTERY MODULE FUSES

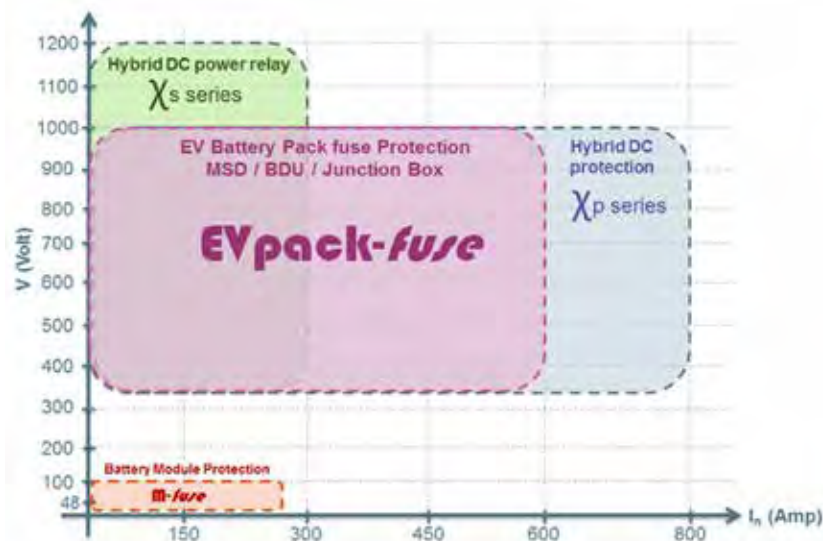
SP



m-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.

m-fuse provides the ultimate protection of the battery modules 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 100VDC, Current rating (I_n) = 50 to 200A, Interrupting Rating (IR) = 20kA, L/R $\leq 1.5\text{ms}$, Minimum Breaking Capacity (MBC) < 1kA.



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): 50 to 200A
- Interrupting Rating: 20kA @ 100VDC, L/R $< 1.5\text{ms}$

APPLICATIONS:

- Battery modules protection
- EV/HEV
- Electrical Energy Storage
- Supercapacitor module protection

STANDARDS:

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



PRODUCT RANGE



MF100A-4

MF-A Round Body Fuse

Catalog number	Rated DC voltage	Rated current I _n	Power dissipation at 0.5 I _n	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MF50A-4	100 V	50 A	0.8 W	180 A	50 ms	68 g
MF60A-4	100 V	60 A	0.9 W	210 A	50 ms	68 g
MF70A-4	100 V	70 A	1.1 W	250 A	50 ms	68 g
MF80A-4	100 V	80 A	1.6 W	280 A	50 ms	68 g
MF90A-4	100 V	90 A	1.8 W	320 A	50 ms	68 g
MF100A-4	100 V	100 A	2 W	360 A	50 ms	68 g
MF125A-4	100 V	125 A	2.6 W	450 A	50 ms	68 g
MF150A-4	100 V	150 A	3.2 W	540 A	50 ms	68 g
MF175A-4	100 V	175 A	4 W	630 A	50 ms	68 g
MF200A-4	100 V	200 A	4.4 W	720 A	50 ms	68 g



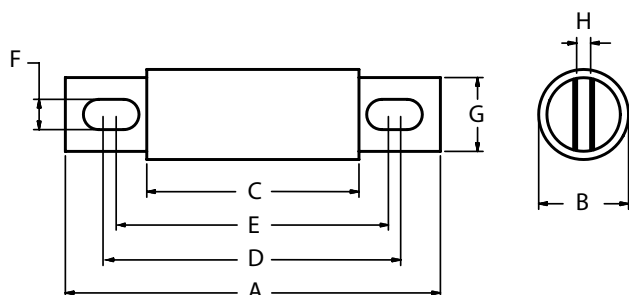
MF50B-4

MF-B Cylindrical Body Fuse

Catalog number	Rated DC voltage	Rated current I _n	Power dissipation at 0.5 I _n	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MF50B-4	100 V	50 A	1.8 W	140 A	10 s	28 g
MF60B-4	100 V	60 A	2.1 W	170 A	10 s	28 g
MF75B-4	100 V	75 A	2.7 W	210 A	10 s	28 g
MF80B-4	100 V	80 A	2.7 W	225 A	10 s	28 g
MF100B-4	100 V	100 A	2.3 W	280 A	10 s	28 g
MF125B-4	100 V	125 A	2.5 W	350 A	10 s	28 g
MF150B-4	100 V	150 A	2.7 W	420 A	10 s	28 g
MF160B-4	100 V	160 A	3.1 W	450 A	10 s	28 g
MF180B-4	100 V	180 A	3.4 W	500 A	10 s	28 g

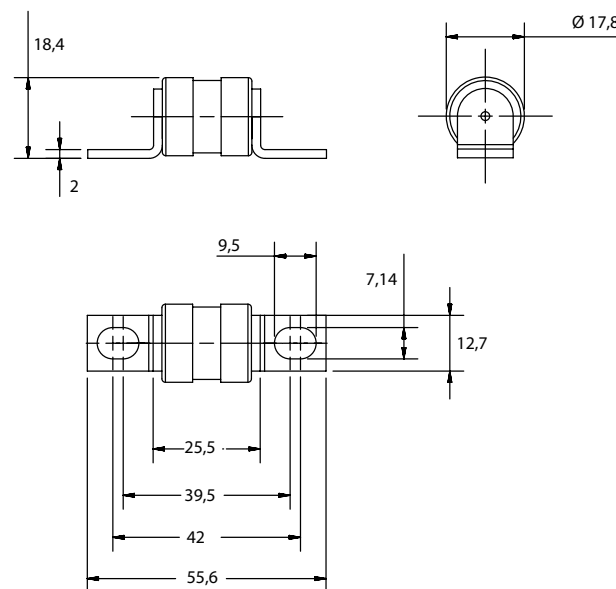
DIMENSIONS

MFA -4 (50-200A)



MF50A-4 to MF200A-4 (inch. / mm)	2,66 67,6	1 25,4	1,16 29,5	2,19 55,6	1,88 47,6	0,31 7,9	0,74 18,8	0,13 3,3
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MFB -4 (50-180A)



Dimensions in mm

ACCESSORIES



1SC250



1SC375

Fuse blocks

Catalog number	Item number	Rated DC voltage	Application DC Fuses	Contact Materials	Weight
P243 Fuse blocks					
P243D	P243D	1000 V	MF-A fuses from 70 to 450A	Tin-Plated Copper	0.12 kg
1SC/1MSC Modular Fuse blocks					
1SCM8	1SCM8	1000 V	MF-A, MEV70A, MEV100A fuses up to 400A	Zinc-Plated Steel	68 g
1SC250	1SC250	1000 V	MF-A, MEV70A, MEV100A fuses up to 400A	Zinc-Plated Steel	68 g
1SC375	1SC375	1000 V	MF-A, MEV70A, MEV100A fuses up to 800A	Zinc-Plated Steel	68 g
1SCM10	1SCM10	1000 V	MF-A, MEV70A, MEV100A fuses up to 800A	Zinc-Plated Steel	68 g

EVpack-fuse MEV55

550 VDC Max., L/R $\leq$ 1ms, 5 - 50A

SPECIAL PURPOSE

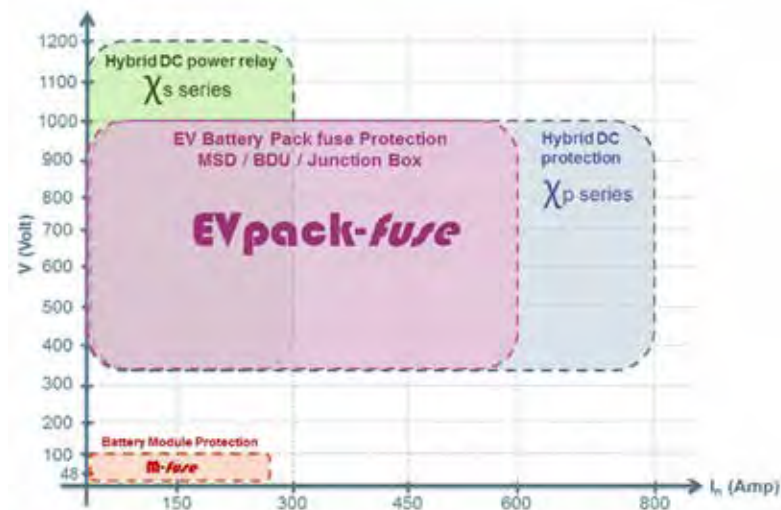
BATTERY PACK FUSES



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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

SP

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/disconnector / switch
- Maintenance Safety Disconnect (MSD)

STANDARDS:

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

CE  **EV pack-fuse**

PRODUCT RANGE



MEV55C30

MEV55C Ferrule Fuse

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



MEV55C15-S

MEV55C -S Surface Mount Fuse

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



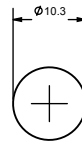
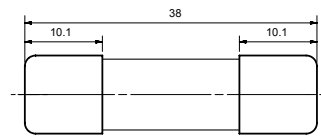
MEV55C30-P

MEV55C -P PC Board Mount

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

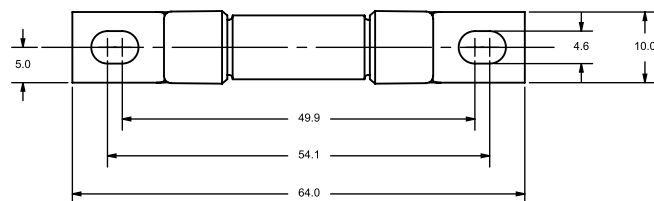
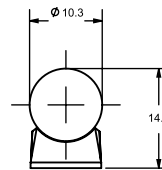
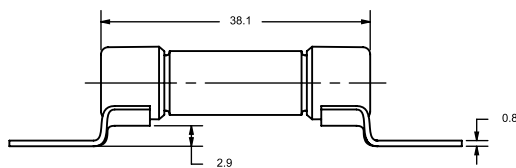
DIMENSIONS

MEV55C Ferrule Fuse (5-50A)



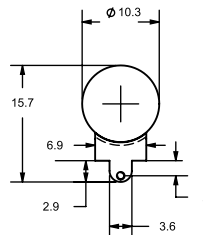
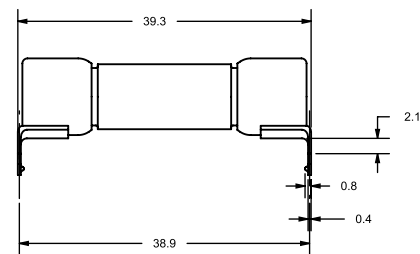
Dimensions in mm

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



Dimensions in mm

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



Dimensions in mm

S
P

ACCESSORIES

Fuse blocks



30311



30312



30313



30321



30322



30323

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	Adder	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	Adder	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	Adder	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

EVpack-fuse MEV70

700 VDC Max., L/R $\leq$ 1ms, 35 - 600A

SPECIAL PURPOSE

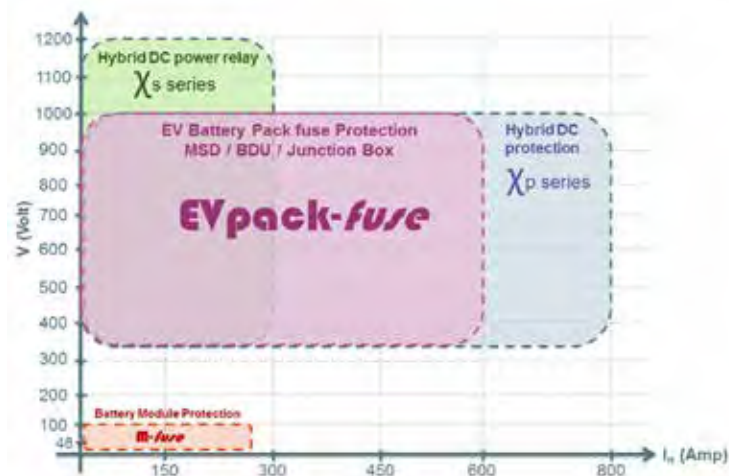
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It has been specifically engineered and tested to provide DC applications best-in-class protection performance: Up to 700VDC, Current rating (I_n)= 35 to 600A, Interrupting Rating (IR) = 20kA, L/R $\leq$ 1ms, Minimum Breaking Capacity (MBC) < 3kA for a perfect matching with DC contactor in addition to withstanding high inrush current auxiliary applications (e.g. air conditioning...) with MEV70V.



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): 35 to 600A
- Interrupting Rating (IR): 20kA @ 700VDC, L/R $\leq$ 1ms
- High inrush current capability

SP

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 / disconnecter / switch
- Maintenance Safety Disconnect (MSD)

STANDARDS:

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

CE  **EV pack-fuse**

PRODUCT RANGE



MEV70V100-S

MEV70V -S Surface Mount Fuse

Catalog number	Rated DC voltage	Rated current I _n	Power dissipation at 0.5 I _n	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV70V35-S	700 V	35 A	0.86 W	125 A	5 s	9.9 g
MEV70V40-S	700 V	40 A	0.82 W	150 A	5 s	9.9 g
MEV70V50-S	700 V	50 A	1.2 W	175 A	5 s	9.9 g
MEV70V60-S	700 V	60 A	1.47 W	200 A	5 s	9.9 g
MEV70V70-S	700 V	70 A	1.89 W	200 A	30 s	59 g
MEV70V80-S	700 V	80 A	1.75 W	270 A	30 s	59 g
MEV70V100-S	700 V	100 A	2 W	330 A	30 s	59 g
MEV70V125-S	700 V	125 A	2.74 W	1500 A	150 ms	59 g
MEV70V150-S	700 V	150 A	3.54 W	1500 A	200 ms	59 g
MEV70V160-S	700 V	160 A	3.75 W	1500 A	300 ms	59 g
MEV70V175-S	700 V	175 A	4.63 W	1500 A	420 ms	59 g



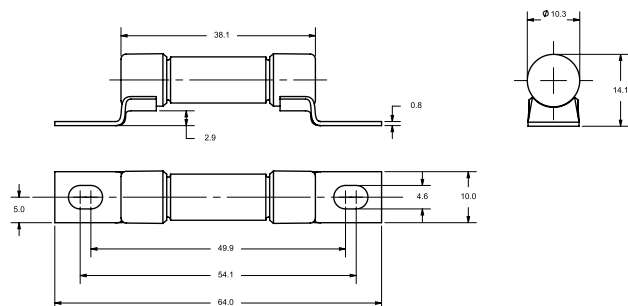
MEV70A600-4

MEV70A Round Body Fuse

Catalog number	Rated DC voltage	Rated current I _n	Power dissipation at 0.5 I _n	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV70A50-4	700 V	50 A	1.4 W	380 A	50 ms	99 g
MEV70A60-4	700 V	60 A	1.8 W	460 A	50 ms	99 g
MEV70A70-4	700 V	70 A	2.2 W	540 A	50 ms	99 g
MEV70A80-4	700 V	80 A	2.5 W	610 A	50 ms	99 g
MEV70A90-4	700 V	90 A	2.7 W	690 A	50 ms	99 g
MEV70A100-4	700 V	100 A	3.1 W	760 A	50 ms	99 g
MEV70A125-4	700 V	125 A	3.8 W	870 A	60 ms	0.17 kg
MEV70A150-4	700 V	150 A	4.5 W	1040 A	60 ms	0.17 kg
MEV70A175-4	700 V	175 A	5.2 W	1210 A	60 ms	0.17 kg
MEV70A200-4	700 V	200 A	5.9 W	1380 A	60 ms	0.17 kg
MEV70A225-4	700 V	225 A	6.7 W	1190 A	140 ms	0.26 kg
MEV70A250-4	700 V	250 A	7.4 W	1320 A	140 ms	0.26 kg
MEV70A300-4	700 V	300 A	8.8 W	1580 A	140 ms	0.26 kg
MEV70A350-4	700 V	350 A	10.2 W	1840 A	140 ms	0.26 kg
MEV70A400-4	700 V	400 A	11.7 W	2100 A	140 ms	0.26 kg
MEV70A450-4	700 V	450 A	12.4 W	2200 A	360 ms	0.52 kg
MEV70A500-4	700 V	500 A	13.9 W	2460 A	360 ms	0.52 kg
MEV70A600-4	700 V	600 A	16.6 W	2950 A	360 ms	0.52 kg

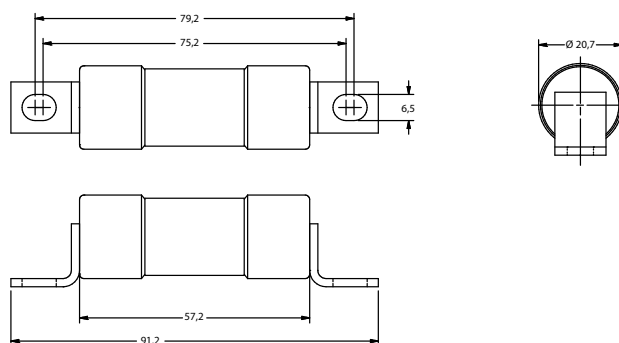
DIMENSIONS

MEV70V -S (35-60A)



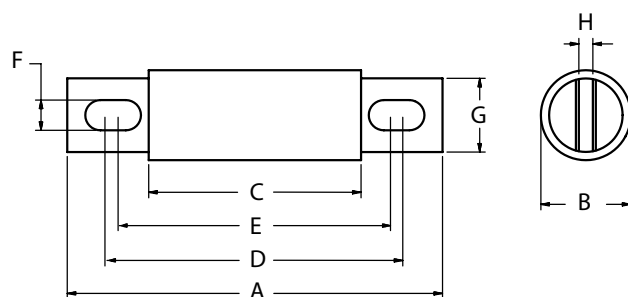
Dimensions in mm

MEV70V -S (70-175A)



Dimensions in mm

MEV70A -4 (50-600A)



Article Number	A	B	C	D	E	F	G	H
MEV70A50 to 100 (inch. / mm)	3.63 92.2	1 25.4	2.13 54.1	2.94 74.7	2.75 69.8	0.31 7.9	0.50 19	0.13 3.2
MEV70A125 to 200 (inch. / mm)	3.63 92.2	1.22 31	2.13 54.1	2.94 74.7	2.81 71.4	0.31 7.9	1 25.4	0.19 4.8
MEV70A225 to 400 (inch. / mm)	4.34 110	1.50 38.1	2.09 53.1	3.41 86.6	2.78 70.6	0.41 10.4	1 25.4	0.25 6.4
MEV70A450 to 600 (inch. / mm)	4.47 114	2 50.8	2.22 56.4	3.53 89.7	2.91 73.9	0.41 10.4	1.5 38.1	0.25 6.4

ACCESSORIES

Fuse blocks



1SC250



1SC375

Catalog number	Item number	Rated DC voltage	Application DC Fuses	Contact Materials	Weight
P243 Fuse blocks					
P243E	P243E	700 V	MEV70A fuses from 50 to 200A	Tin-Plated Copper	0.12 kg
P266 Fuse blocks					
P266C	P266C	1000 V	MEV70A fuses from 225 to 600A	Stainless Steel	0.40 kg
1SC/1MSC Modular Fuse blocks					
1SCM8	1SCM8	1000 V	MF-A, MEV70A, MEV100A fuses up to 400A	Zinc-Plated Steel	68 g
1SC250	1SC250	1000 V	MF-A, MEV70A, MEV100A fuses up to 400A	Zinc-Plated Steel	68 g
1SC375	1SC375	1000 V	MF-A, MEV70A, MEV100A fuses up to 800A	Zinc-Plated Steel	68 g
1SCM10	1SCM10	1000 V	MF-A, MEV70A, MEV100A fuses up to 800A	Zinc-Plated Steel	68 g

EVpack-fuse MEV100

1,000 VDC Max., L/R $\leq$ 1ms, 8 - 600A

SPECIAL PURPOSE

BATTERY PACK FUSES

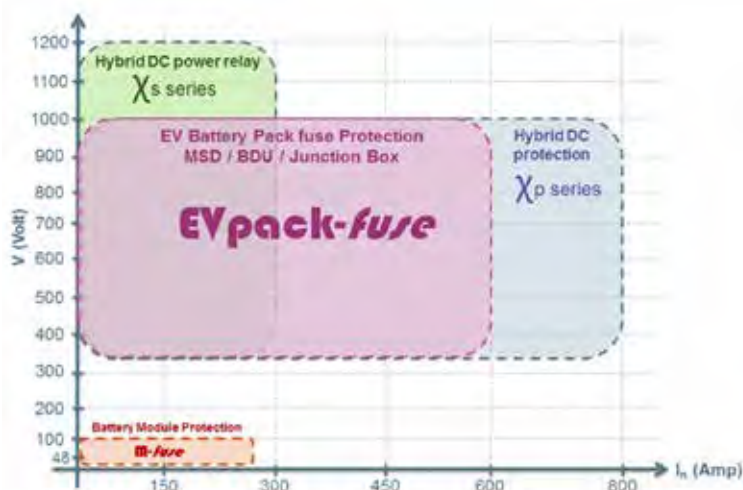
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- Full coverage of battery module voltage and current
- Ultra compact size
- Current Ratings (I_n): 8 to 600A
- Interrupting Rating (IR): 20kA @ 1,000 VDC, L/R $\leq$ 1ms

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 / disconnecter / switch
- Maintenance Safety Disconnect (MSD)

STANDARDS:

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



PRODUCT RANGE



MEV100C30

MEV100C Ferrule Fuse

Catalog number	Rated DC voltage	Rated current I _n	Power dissipation at 0.5 I _n	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV100C8	1000 V	8 A	0.23 W	16 A	100 s	7.5 g
MEV100C10	1000 V	10 A	0.32 W	20 A	100 s	7.5 g
MEV100C12	1000 V	12 A	0.42 W	24 A	100 s	7.5 g
MEV100C15	1000 V	15 A	0.63 W	30 A	100 s	7.5 g
MEV100C20	1000 V	20 A	0.92 W	40 A	100 s	7.5 g
MEV100C25	1000 V	25 A	1.1 W	50 A	100 s	7.5 g
MEV100C30	1000 V	30 A	1.2 W	60 A	100 s	7.5 g



MEV100C15-S

MEV100C -S Surface Mount

Catalog number	Rated DC voltage	Rated current I _n	Power dissipation at 0.5 I _n	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV100C8-S	1000 V	8 A	0.23 W	16 A	100 s	9.9 g
MEV100C10-S	1000 V	10 A	0.32 W	20 A	100 s	9.9 g
MEV100C12-S	1000 V	12 A	0.42 W	24 A	100 s	9.9 g
MEV100C15-S	1000 V	15 A	0.63 W	30 A	100 s	9.9 g
MEV100C20-S	1000 V	20 A	0.92 W	40 A	100 s	9.9 g
MEV100C25-S	1000 V	25 A	1.1 W	50 A	100 s	9.9 g
MEV100C30-S	1000 V	30 A	1.2 W	60 A	100 s	9.9 g



MEV100A300-4

MEV100A Round Body Fuse

Catalog number	Rated DC voltage	Rated current I _n	Power dissipation at 0.5 I _n	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV100A50-4 or -4Y*	1000 V	50 A	1.8 W	960 A	40 ms	0.12 kg
MEV100A60-4 or -4Y*	1000 V	60 A	2.2 W	1160 A	40 ms	0.12 kg
MEV100A70-4 or -4Y*	1000 V	70 A	2.7 W	1350 A	40 ms	0.12 kg
MEV100A80-4 or -4Y*	1000 V	80 A	3.2 W	1540 A	40 ms	0.12 kg
MEV100A90-4 or -4Y*	1000 V	90 A	3.6 W	1730 A	40 ms	0.12 kg
MEV100A100-4 or -4Y*	1000 V	100 A	4.3 W	1920 A	40 ms	0.12 kg
MEV100A125-4 or -4Y*	1000 V	125 A	4 W	940 A	80 ms	0.19 kg
MEV100A150-4 or -4Y*	1000 V	150 A	5.2 W	1130 A	80 ms	0.19 kg
MEV100A175-4 or -4Y*	1000 V	175 A	6.3 W	1320 A	80 ms	0.19 kg
MEV100A200-4 or -4Y*	1000 V	200 A	7.4 W	1510 A	80 ms	0.19 kg
MEV100A225-4	1000 V	225 A	6.7 W	2200 A	80 ms	0.30 kg
MEV100A250-4	1000 V	250 A	7.6 W	2430 A	80 ms	0.30 kg
MEV100A300-4	1000 V	300 A	9.5 W	2920 A	80 ms	0.30 kg

*Catalog numbers ending with "-4Y" are designated for metric screws



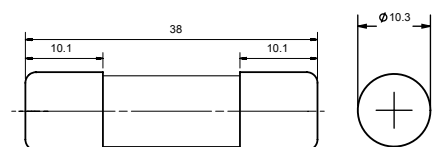
MEV100J400-4

MEV100J Round Body Fuse

Catalog number	Rated DC voltage	Rated current I _n	Power dissipation at 0.5 I _n	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV100J350-4	1000 V	350 A	9 W	700 A	180 s	0.86 kg
MEV100J400-4	1000 V	400 A	10.4 W	800 A	180 s	0.86 kg
MEV100J450-4	1000 V	450 A	11.2 W	900 A	235 s	1.34 kg
MEV100J500-4	1000 V	500 A	11.6 W	1000 A	280 s	1.34 kg
MEV100J600-4	1000 V	600 A	16.4 W	1200 A	200 s	1.34 kg

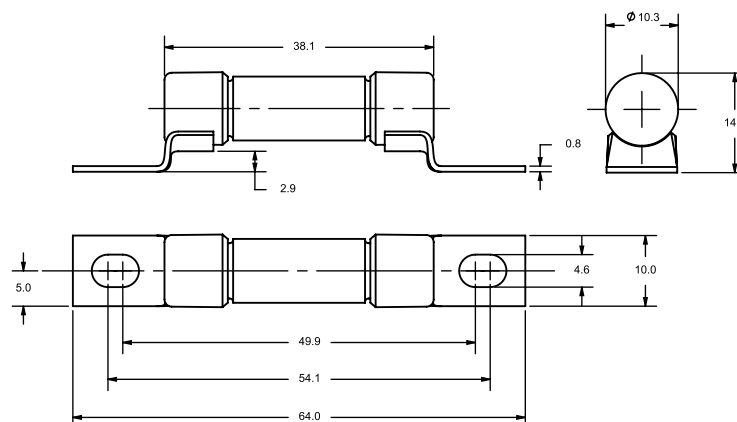
DIMENSIONS

MEV100C Ferrule Fuse (8-30A)



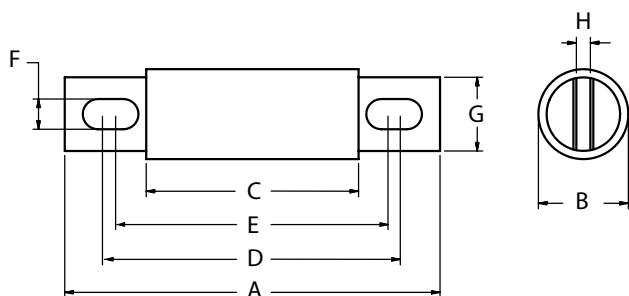
Dimensions in mm

MEV100C -S Surface Mount Fuse (8-30A)



Dimensions in mm

MEV100A (50-300A) & MEV100J (350-600A)



Article Number	A	B	C	D	E	F	F*	G	H
MEV100A50 to 100 (inch. / mm)	4.38 111	1 25.4	2.88 73	3.69 93.6	3.50 88.9	0.31 7.9	0.35 9.0	0.75 19	0.13 3.2
MEV100A125 to 200 (inch. / mm)	4.38 111	1.22 31	2.88 73	3.69 93.6	3.56 90.5	0.31 7.9	0.35 9.0	1 25.4	0.19 4.8
MEV100A225 to 300 (inch. / mm)	5.09 129	1.50 38.1	2.84 72.2	4.16 106	3.53 89.7	0.40 10.2	-	1 25.4	0.25 6.4
MEV100J350 to 400 (inch. / mm)	7.13 181	2.13 54	3.38 85.9	5.81 137.2	5.25 129.5	0.41 10.4	-	1.63 41.4	0.25 6.4
MEV100J450 to 600 (inch. / mm)	8 203.2	2.50 63.5	3.75 95.3	6.19 157.2	5.81 147.6	0.53 13.5	-	2.50 6.3	0.38 9.7

*Catalog numbers ending with "-4Y" are designated for metric screws

ACCESSORIES

Fuse blocks

Catalog number	Item number	Rated DC voltage	Application DC Fuses	Contact Materials	Weight
P243 Fuse blocks					
P243C	P243C	700 V	MEV70A fuses from 225 to 600A	Tin-Plated Copper	0.12 kg
P266 Fuse blocks					
P266A	P266A	1000 V	MEV100A fuses from 225 to 600A	Stainless Steel	0.39 kg
1SC/1MSC Modular Fuse blocks					
1SCM8	1SCM8	1000 V	MF-A, MEV70A, MEV100A fuses up to 400A	Zinc-Plated Steel	68 g
1SC250	1SC250	1000 V	MF-A, MEV70A, MEV100A fuses up to 400A	Zinc-Plated Steel	68 g
1SC375	1SC375	1000 V	MF-A, MEV70A, MEV100A fuses up to 800A	Zinc-Plated Steel	68 g
1SCM10	1SCM10	1000 V	MF-A, MEV70A, MEV100A fuses up to 800A	Zinc-Plated Steel	68 g



Hybrid Xp Series

700 VDC Max., $L/R \leq 1\text{ms}$, 35 - 600A

SPECIAL PURPOSE

HYBRID OVER CURRENT PROTECTING DEVICE



X_p product line-up belongs to the new hybrid DC Over-Current Protection (O.C.P.) range developed by Mersen.

It provides maximum flexibility in equipment design and ultimate protection. They have been engineered to provide protection for DC applications: Battery Energy Storage, EV/HEV, Smart-grid, PV installations, etc ...

The X_p system is composed by fast acting pyro element, controlled by a gate current, plus a parallel clearing element.

This protection meets custom requirements of very fast operating time and very high overload current.

TECHNICAL DATA OVERVIEW

Voltage	Up to 1.000VDC
Ampere Range [A]	0 ... 800 A
Switchability	Max. 12kA - 1.000VDC with L/R=5ms
Temperature range	-40 ... 90 °C
Gate control current	2A - 10A [2ms]
Gate control resistance	2.2Ω
L/R max.	5ms
Max switching current / Max inrush current	400A / 400A - 10 sec.
Power dissipation	20W @ 25°C

FEATURES/BENEFITS:

- DC application focused design
- Extremely low watt losses (~20W / 400A)
- Excellent cycling performance
- Ultra-fast acting (300 μs)
- Small footprint
- Large inrush current 15IN for 100ms
- Tunable Time-Current curve

APPLICATIONS:

- 100V to 1,000VDC
- Battery Energy Storage, 100 - 1,000 VDC
- Electric Vehicle, Hybrid Electric Vehicle
- PV installations (1,500VDC in dev.)
- Supercapacitors
- DC General Purposes
- Remote Power Switch Contactor

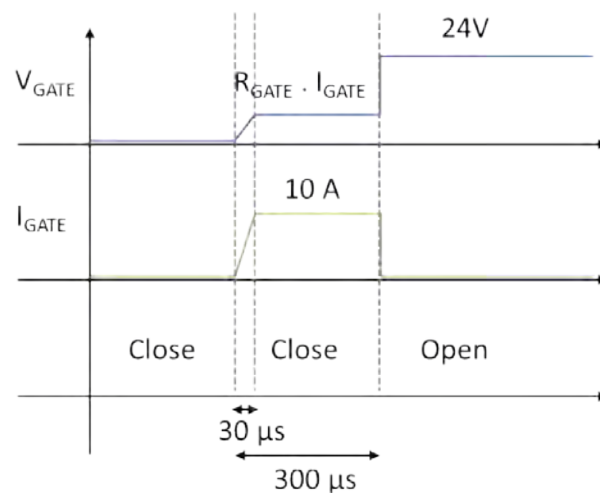
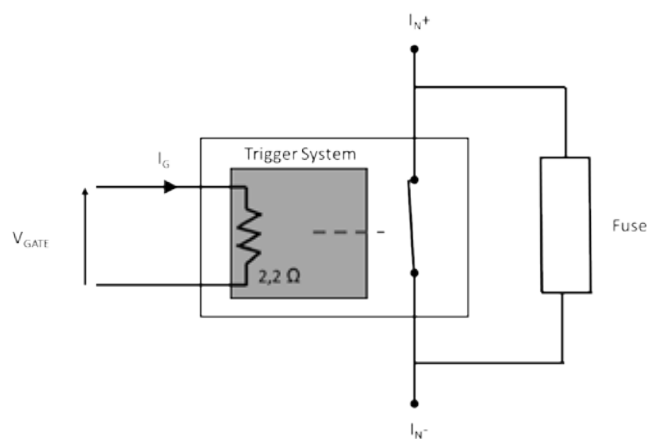
STANDARDS:

- IATF - ISO/TS 16949 Quality management undergoing certification

TECHNICAL DATA

Xp series DC fuse	
Gate control characteristics	
Triggering time	See figure "Triggering Time"
No Fire Gate Control Current I_G	$< 0.8\text{A}$
Dielectric test after triggering	750VDC
Fire Gate Control Current I_G	1A - 10A
Gate control resistance	$2.2\ \Omega$
Gate Control resistance after triggering	$> 100\ \Omega$
Output characteristics	
Load voltage	Up to 1000VDC
Operating range	100 - 1000VDC
Current	Up to 800A @ I_n
Overload current $T=25^\circ\text{C}$ / 240 mm ² connection	600A / 2 mn 1,000A / 10s 2,000A / 5s 7,000A / 100 ms
On state resistance	$200\ \mu\Omega$
Off state resistance	$> 5\ \text{M}\Omega$
Power dissipation	20 W @ 25°C
Switchability	12kA - 1,000 VDC with $L/R = 5\text{ms}$
System characteristics (can be tailored for you)	
Vibration resistance	ISO 16 750-3 (under qualification)
Mech. shock resistance	ISO 16 750-3 (under qualification)
Temperature cycle resistance	ISO 16 750-4 (under qualification)
Chemical loads resistance	ISO 16 750-5 (under qualification)

SCHEMATICS AND OPERATION



Hybrid X_s-EV Series

700 VDC Max., L/R ≤ 1ms, 35 - 600A

SPECIAL PURPOSE

HYBRID DC POWER RELAY



The new X_s-EV product series is one of the latest developments in Mersen Hybrid DC Power Relays.

X_s-EV have been engineered to provide high DC switching performances versus conventional mechanical power relays. This series addresses DC-applications like, but not limited to, Electrical Energy Storage, EV/HEV, DC Smart-grid, PV installations.

X_s-EV provide maximum flexibility in equipment design and ultimate DC operation performance. This Power Relay is a Hybrid technology with the capability of switching both high voltage and high current, designed specially for electrical vehicle applications.

All information provided in this datasheet relates to prototypes still under development. Most features can be modified to adjust to customers' needs (incl. current/voltage ratings and timings). Some characteristics will require additional testing to confirm preliminary estimation (incl. cycling and extreme environment operation).

TECHNICAL DATA OVERVIEW

Voltage Range DC	500 ... 1200 VDC
Breaking capacity	Up to 2,000 A @ 1,200VDC
Product Size	162 x 66 x 95 mm
Current	300A (nominal)
Device current polarity	Bidirectional
L/R max.	≤ 5ms (for higher rates please contact Mersen)
Weight	0.8 kg

FEATURES/BENEFITS:

- DC specific design
- Bidirectional
- Arc-less
- Reduced footprint & mass
- Low conduction losses
- Repeatable current make/break capability for resistive & inductive loads at full rated voltage and current
- Enhanced cycling performances
- Built-in turn ON fault detection
- Built-in precharging circuit (optional)
- Easily tunable L/R rating (optional)
- Galvanic insulation

APPLICATIONS:

- DC Power Relay for demanding EV applications
- EES
- DC grid protection, PV applications
- Railway

STANDARDS:

- IATF - ISO/TS 16949 Quality management system
- ISO 26262 functional safety (pending)

PRODUCT RANGE



XsEV90B300-B2000

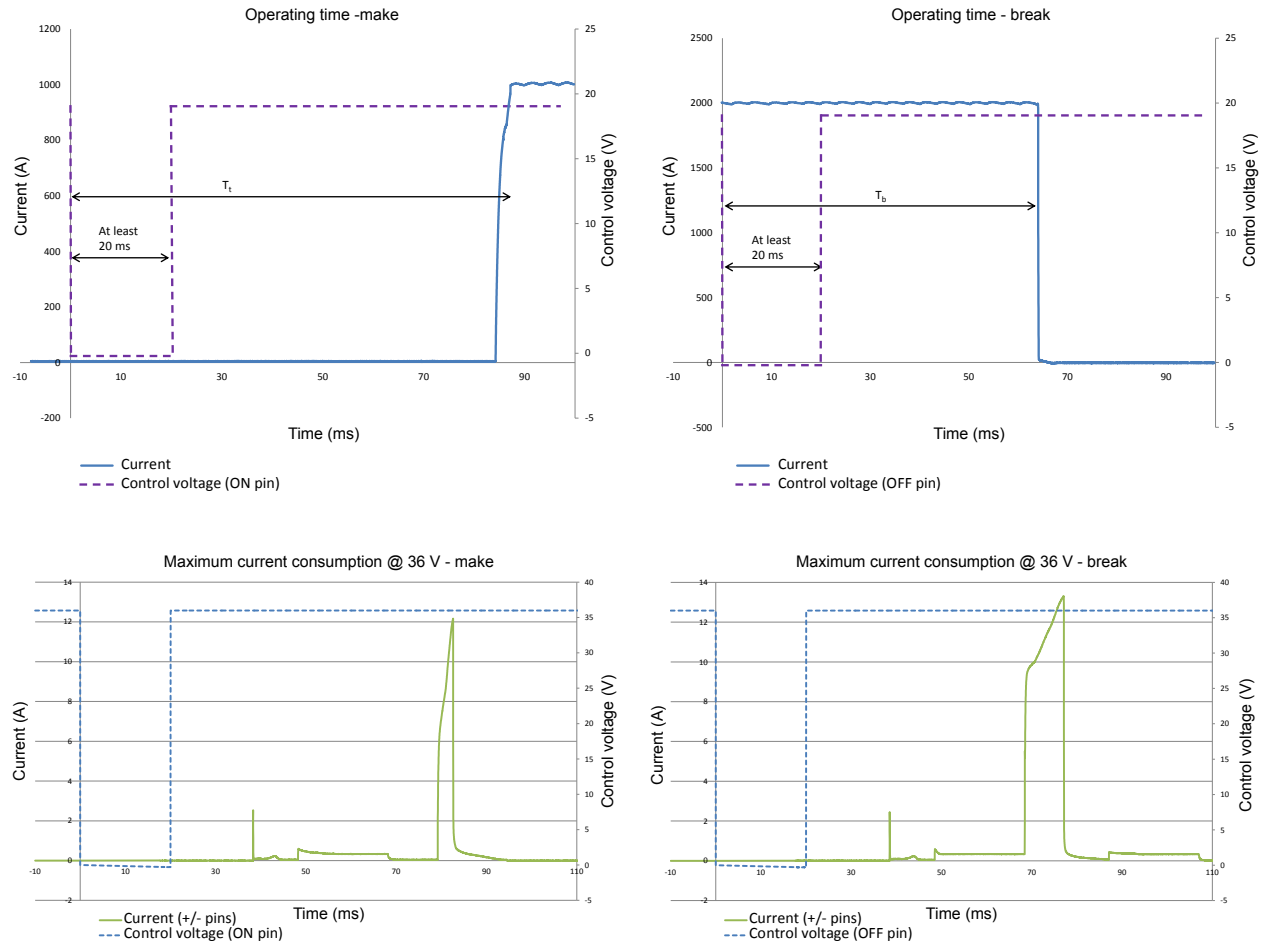
Xs-EV

Catalog number	Rated voltage DC (IEC)	Rated current I _N	Rated breaking capacity DC	Charging circuit	Weight	Package
XsEV90B300-B2000	900 V	300 A	2000 A	No	0.8 kg	1
XsEV90B300-B1500	900 V	300 A	1500 A	No	0.8 kg	1
XsEV120B300-B1500	1200 V	300 A	1500 A	No	0.8 kg	available 2017-03
XsEV120B300-B2000	1200 V	300 A	2000 A	No	0.8 kg	available 2017-03
XsEV120C300-B2000	1200 V	300 A	2000 A	Yes	-	in development

TECHNICAL DATA

	Xs-EV
Bistable	Yes
Degree of protection	IP 30
Circuit break time	Typ. 70 ms (see typical switching behaviour)
Operating temperature	-40°C to 85°C
Wiring cross sections	> 95mm ²
Body Material	PA 12 (colored black)
Max. ON/OFF switching current	Max. ON = 1000A Max. OFF = 500A/1000A/1500A/2000A
Insulation	Resistance > 100MΩ (initially)
Dielectric strength	3000VDC
Internal contact gap	3mm (2 x 1.5mm)
Contact voltage drop	150mV (initially) 175mV (after typical life)
Operating time	Make: Typ. 90 ms Break: Typ. 90 ms (including galvanic insulation)
Power supply voltage (+/-)	18 - 36VDC
Switching & holding current	Switching: Typ. 10A Holding: Typ. 0.1A
Input control voltage (On/Off)	Low level: 0 - 5VDC High level: 8 - 36VDC
Control current (ON/OFF)	40 μA (max)
Tightening torque (recommended)	Power terminals: M8 (15Nm) Base plate: M5 (4Nm)
Vibration resistance	> 6 g (50...2000 Hz) ISO 16750-3 (pending)
Pollution degree	PD 1 (prototype only)
Altitude	Max. 2000m
Number of cycles vs current and L/R	> 20 cycles @ 2000A, 500VDC, L/R = 0.5ms > 2000 cycles @ 300A, 500VDC, L/R = 5ms
Lifetime	> 100.000 cycles (mechanical)
Transient voltage during clearing current	Typ. 1400VDC @ 2000A/900VDC – 1700VDC @ 2000A/1200VDC

TYPICAL SWITCHING BEHAVIOR



The XsEV is an active-low device. If the on and off pins are connected to high impedance, or not connected, they will be in high level. To switch the device on or off, pull the corresponding pin to low level (< 5 V) during at least 20 ms. After 20 ms the closing or opening sequence starts. A typical command strategy would be to connect the command pin to the ground with a transistor or an optocoupler (see typical electrical connection diagram below). A command pin will triggered the opening or closing sequence only once, no matter how long it is kept at low level. After it has been brought back to high level, it can be triggered again. If both pins are triggered at the same time, the opening sequence will start.

Technical drawing of the M8 mounting bracket, showing front and side views with dimensions.

Front View (Left):

- Overall height: 96
- Height to the top of the mounting holes: 74.2
- Width: 66

Side View (Right):

- Overall height: 76.8
- Width: 162
- Distance between the two mounting holes: 26
- Mounting holes are labeled M8.



AF, AF2, AF3

Automotive Fuses

SPECIAL PURPOSE

AF

- Automotive fuse
- Fast-acting
- Plastic Body
- Zinc alloy terminals
- ISO 8820-3 compliant

1A through 40A, 32VAC/DC
1000 A I.R.



STANDARD FUSE AMPERE RATINGS

Catalog Number	Ampere Rating	Volts	Body Color
AF-1	1A	32V	BLACK
AF-2	2A	32V	GREY
AF-3	3A	32V	VIOLET
AF-4	4A	32V	PINK
AF-5	5A	32V	TAN
AF-7-1/2	7-1/2A	32V	BROWN
AF-10	10A	32V	RED
AF-15	15A	32V	BLUE
AF-20	20A	32V	YELLOW
AF-25	25A	32V	NATURAL
AF-30	30A	32V	GREEN
AF-35	35A	32V	BLUE GREEN
AF-40	40A	32V	AMBER

AF2

- Automotive fuse
- Fast-acting
- Plastic body
- Zinc alloy terminals
- ISO 8820-3 compliant

2A through 30A, 32VDC
1000 A I.R.



STANDARD FUSE AMPERE RATINGS

Catalog Number	Ampere Rating	Volts	Body Color
AF2-2	2A	32V	GREY
AF2-3	3A	32V	VIOLET
AF2-4	4A	32V	PINK
AF2-5	5A	32V	TAN
AF2-7-1/2	7-1/2A	32V	BROWN
AF2-10	10A	32V	RED
AF2-15	15A	32V	BLUE
AF2-20	20A	32V	YELLOW
AF2-25	25A	32V	NATURAL
AF2-30	30A	32V	GREEN

AF3

- Automotive fuse
- Time-delay
- Plastic body
- Zinc alloy/tin-plated terminals
- ISO 8820-3 compliant

20A through 80A, 32VDC, 1000 A I.R.



STANDARD FUSE AMPERE RATINGS

Catalog Number	Ampere Rating	Volts	Body Color
AF3-20	20A	32V	YELLOW
AF3-30	30A	32V	GREEN
AF3-40	40A	32V	AMBER
AF3-50	50A	32V	RED
AF3-60	60A	32V	BLUE
AF3-70	70A	32V	TAN
AF3-80	80A	32V	NATURAL

AFH, AF2H, AF3H

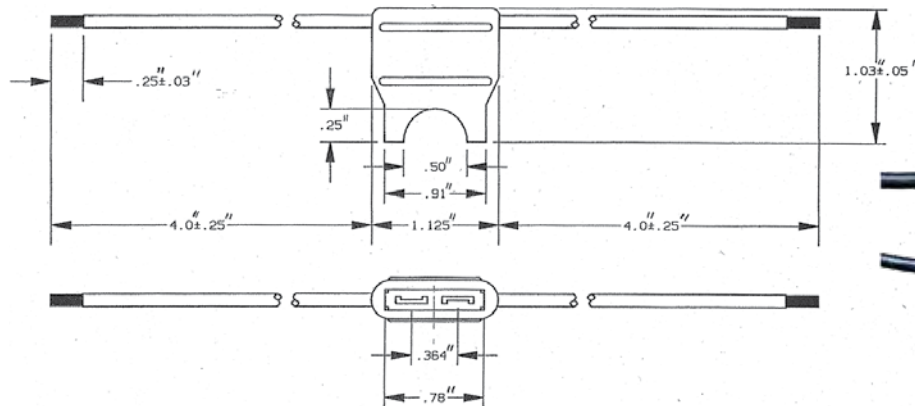
Automotive Fuse Holders

SPECIAL PURPOSE

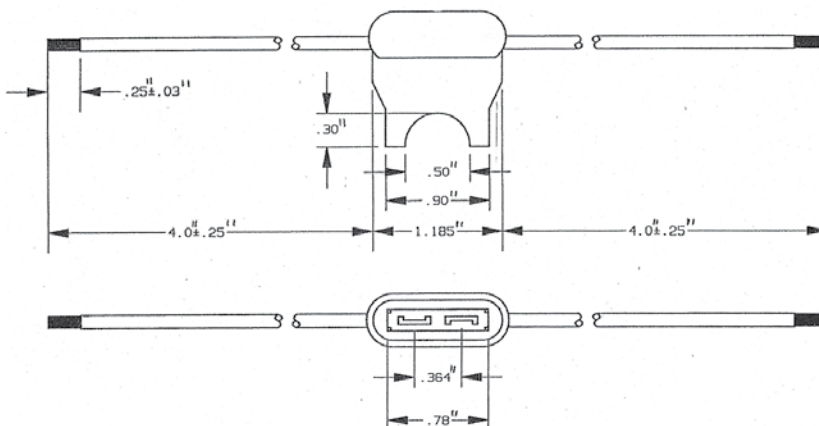
AFH

In-line fuseholders for blade type automobile fuses. 4" stranded wire leads are stripped back 1/4".

Catalog Number	Fuse Type & Max Amp	Volts	Body Color	AWG/Color
AFH20-14	AF Fuse/20A	32V	BLACK	#14/BLACK
AFH20-14Y	AF Fuse/20A	32V	YELLOW	#14/BLACK
AFH20-16	AF Fuse/20A	32V	YELLOW	#16/BLACK
AFH20-16Y	AF Fuse/20A	32V	YELLOW	#16/BLACK

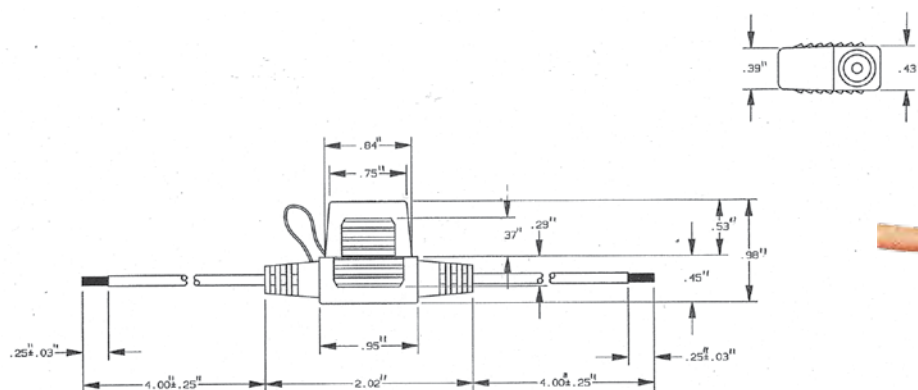


Catalog Number	Fuse Type & Max Amp	Volts	Body Color	AWG/Color
AFH30-12	AF Fuse/30A	32V	BLACK	#12/YELLOW
AFH30C	AF Fuse/30A	32V	BLACK	#12/ORANGE



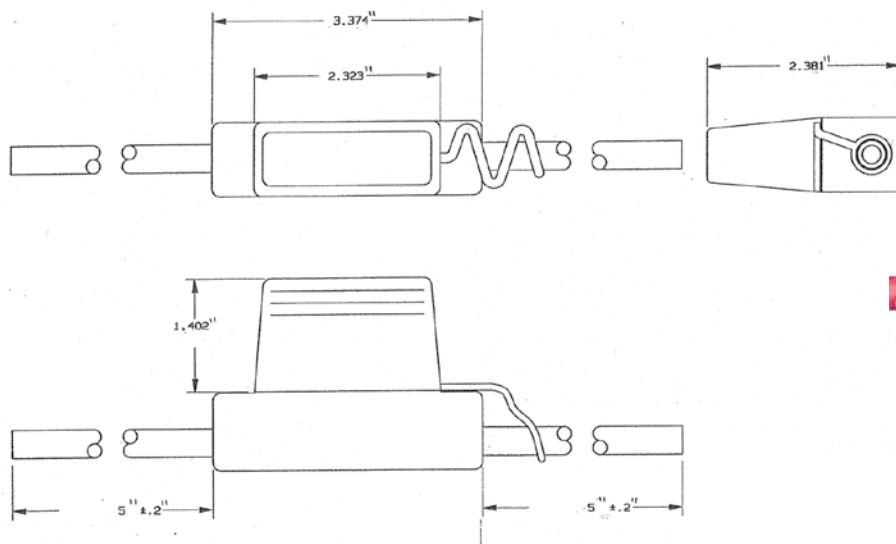
AF2H

Catalog Number	Fuse Type & Max Amp	Volts	Body Color	AWG/Color
AF2H30C	AF Fuse/30A	32V	BLACK	#12/ORANGE



AF3H

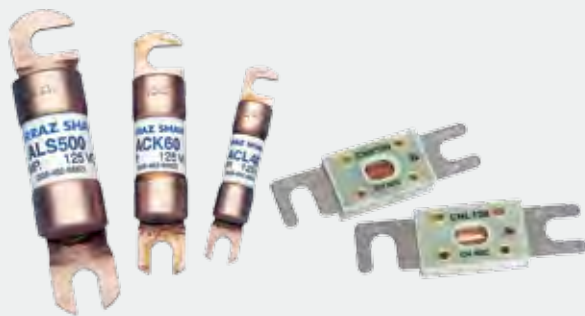
Catalog Number	Fuse Type & Max Amp	Volts	Body Color	AWG/Color
AF3H60C	AF Fuse/60A	32V	BLACK	#6/RED



Forklift Truck Fuses

ACK, ACL, ALS, CNL, CNN

SPECIAL PURPOSE



Mersen Forklift Truck and Battery Isolator fuses are specially designed for the heavy duty loads associated with DC battery powered equipment such as forklift trucks, hand trucks, motorized work platforms, and other DC battery operated systems. Rugged construction and stud mounted bolt-in design assure a long life in adverse conditions for these fuses. This expanded line of Forklift Truck Fuses can fulfill virtually all of your heavy duty circuit protection needs up to 125V AC or DC. The round body ACK, ACL and ALS fuses combine higher voltage ratings and more ampere ratings with higher interrupting ratings. The flat CNL and CNN style fuses have a lower voltage rating but are also AC and DC, more space saving and have visual "see-thru" indication to show when they have operated.

FEATURES/BENEFITS:

- All fuses are AC and DC rated
- Expanded ampere ratings
- Time-delay and general purpose types
- Link is visible through window (CNL/CNN)

HIGHLIGHTS:

- AC/DC ratings
- Embossed catalog No's.
- Stud mounted
- Time-delay - ACK
- General purpose - ACL, ALS

APPLICATIONS:

- Forklift trucks
- Battery hand trucks
- Motorized work platforms
- Battery systems

RATINGS:

ACK:

- **Volts:** 125VAC / DC
- **Amps:** 1 to 400A
- **IR:** 10kA I.R. AC / DC

ACL

- **Volts:** 125VAC / DC
- **Amps:** 30 to 120A
- **IR:** 100kA I.R. AC, 10kA I.R. DC

ALS

- **Volts:** 125VAC / DC
- **Amps:** 100 to 500A
- **IR:** 10kA I.R. AC / DC

CNL

- **Volts:** 80V AC / DC
- **Amps:** 35 to 500A
- **IR:** 2.5kA I.R. AC / DC

CNN

- **Volts:** 130V AC
- **Amps:** 10-800A
- **Volts:** 75V DC
- **Amps:** 10 to 300A
- **Volts:** 48V DC
- **Amps:** 301-800A
- **IR:** 2.5kA I.R. AC / DC

APPROVALS:

- UL recognized components (All Products) File E60314



CATALOG NUMBERS (AMPS)

ACK Fuse				ACL Fuse		ALS Fuse		CNL Fuse				CNN Fuse			
ACK2	ACK25	ACK80	ACK175	ACL30	ACL70	ALS100	ALS300	—	CNL100	CNL250	CNL600	CNN10	CNN100	CNN250	CNN600
ACK3	ACK30	ACK90	ACK200	ACL35	ACL80	ALS150	ALS350	CNL35	CNL125	CNL275	CNL675	CNN35	CNN125	CNN275	CNN225
ACK5	ACK35	ACK100	ACK225	ACL40	ACL90	ALS175	ALS400	CNL40	CNL130	CNL300	—	CNN40	—	CNN300	—
ACK6	ACK40	ACK120	ACK250	ACL50	ACL100	ALS200	ALS450	CNL50	CNL150	CNL325	CNL750	CNN50	CNN150	CNN325	CNN700
ACK10	ACK50	ACK140	ACK300	ACL60	ACL120	ALS225	ALS500	CNL60	CNL175	CNL350	—	CNN60	CNN175	CNN350	—
ACK15	ACK60	ACK150	ACK400			ALS250		CNL80	CNL200	CNL400	—	CNN80	CNN200	CNN400	CNN800
								—	CNL225	CNL500		CNN90	CNN225	CNN500	

RECOMMENDED FUSE BLOCKS FOR FORKLIFT TRUCK FUSE FUSES

Fuse	Fuse Block
ACK(70-100)	P243C
ACL(70-120)	P243E
CNL	FTFH, FTFH-1
CNN	FTFH, FTFH-1

DIMENSIONS

Catalog No.	Outline Figure	A	B	C	D	E	F	G
		In. (mm)	In. (mm)	In. (mm)	In. (mm)	In. (mm)	In. (mm)	In. (mm)
ACK 1-30	1	3.07 (77.9)	2.5 (63.5)	.56 (14.3)	.5 (12.7)	.28 (7.1)	.593 (15)	.03 (.8)
ACK 35-60	1	3.74 (95)	3 (76.2)	.81 (20.6)	.75 (19.1)	.34 (8.7)	.86 (21.8)	.047 (1.2)
ACK 70-100	1	4.46 (113.4)	3.5 (88.9)	1.06 (26.9)	1 (25.4)	.38 (9.5)	1.12 (28.5)	.06 (1.6)
ACK 120-200	1	4.72 (119.8)	3.75 (95.4)	1.06 (26.9)	1 (25.4)	.38 (9.5)	1.12 (28.5)	.06 (1.6)
ACK 225-400	1	4.71 (119.7)	3.75 (95.4)	1.06 (26.9)	1 (25.4)	.38 (9.5)	1.12 (28.5)	.06 (1.6)
ACL 30-60	1	3.07 (77.9)	2.5 (63.5)	.56 (14.3)	.5 (12.7)	.28 (7.1)	.593 (15)	.03 (.8)
ACL 70-120	1	3.49 (88.6)	2.75 (69.9)	.81 (20.6)	.75 (19.1)	.34 (8.7)	.86 (21.8)	.047 (1.2)
ALS 100-500	1	4.71 (119.7)	3.75 (95.4)	1.06 (26.9)	1 (25.4)	.38 (9.5)	1.12 (28.5)	.06 (1.6)
CNL/CNN	2	3.188 (80.9)	2.44 (61.9)	.89 (22.6)	.75 (19.0)	.34 (8.7)	—	—

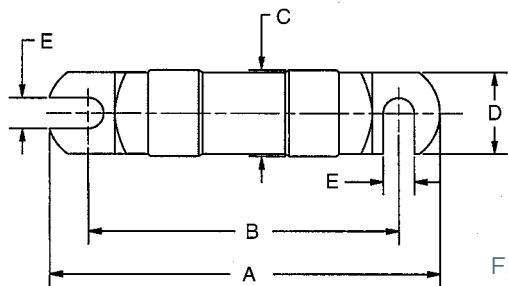


Figure 1

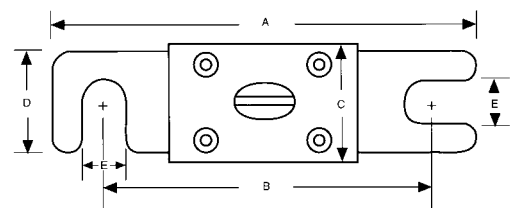
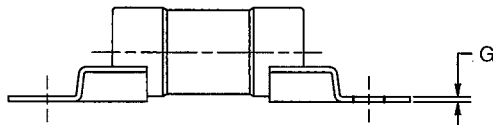


Figure 2



CP

600V Cable Protectors

SPECIAL PURPOSE



Mersen CP Cable Protectors are special purpose limiters which are crimped or bolted to cables or terminals to clear and isolate faults quickly, increasing the reliability of service entrance and distribution runs. CP Cable Protectors have a 200,000A interrupting rating, yet will carry low cable overloads which are handled by standard protective devices. Cable protectors are rated in terms of cable size and material (Al or Cu). Heavier duty CPH cable protectors are available on special order. Heat shrinkable (HS) tubing can be specified for field installation. TI blown fuse trigger indicators may be available upon request. Refer to the application information section for more information.

Type	Termination	Description		Catalog # for Cable Type	
		Cable Size	Copper	Aluminum	
1	Cable to Cable	2	CP2C1	-	
		1/0	CP1/OC1	-	
		2/0	CP2/OC1	-	
		4/0	CP4/OC1	CP4/OA1	
		250kcmil	CP250C1	CP250A1	
		350kcmil	CP350C1	CP350A1	
		400kcmil	CP400C1	-	
		500kcmil	CP500C1	CP500A1	
		600kcmil	CP600C1	CP600A1	
		750kcmil	CP750C1	CP750A1	
3	Cable to Offset Bus	2	CP2C3	-	
		1/0	CP1/OC3	-	
		2/0	CP2/OC3	-	
		4/0	CP4/OC3	CP4/OA3	
		250kcmil	CP250C3	CP250A3	
		350kcmil	CP350C3	CP350A3	
		400kcmil	CP400C3	-	
		500kcmil	CP500C3	CP500A3	
		600kcmil	CP600C3	CP600A3	
		750kcmil	CP750C3	CP750A3	
5	Straight Bus to Offset Bus	2/0	CP2/OC5	CP2/OC5	
		4/0	CP4/OC5	CP4/OC5	
		250kcmil	CP250C5	CP250C5	
		350kcmil	CP350C5	CP350C5	
		500kcmil	CP500C5	CP500C5	
		600kcmil	CP600C5	CP600C5	
		750kcmil	CP750C5	CP750C5	
6	Mole to Cable	4/0	CP4/OC6	CP4/OA6	
		250kcmil	CP250C6	CP250A6	
		350kcmil	CP350C6	CP350A6	
		400kcmil	CP400C6	-	
		500kcmil	CP500C6	CP500A6	
8	Mole to Offset Bus	4/0	CP4/OC8	CP4/OC8	
		250kcmil	CP250C8	CP250C8	
		350kcmil	CP350C8	CP350C8	
		500kcmil	CP500C8	CP500C8	
		750kcmil	CP750C8	CP750C8	

*Please consult factory for special terminations.

RATINGS:

- Sizes:** #2 to 1000kcmil aluminum or copper
- Volts:** 600VAC
- IR:** 200kA I.R. AC

FEATURES/BENEFITS:

- Fiberglass bodies for dimensional stability in harsh environments
- Catalog number stamped into terminal for permanent identification
- Crimp terminals for aluminum cable include oxide inhibitor
- Molded rubber boots or heat shrinkable tubing available for insulation and protection
- Current limiting device
- Permitted by National Electrical Code®

APPROVALS:

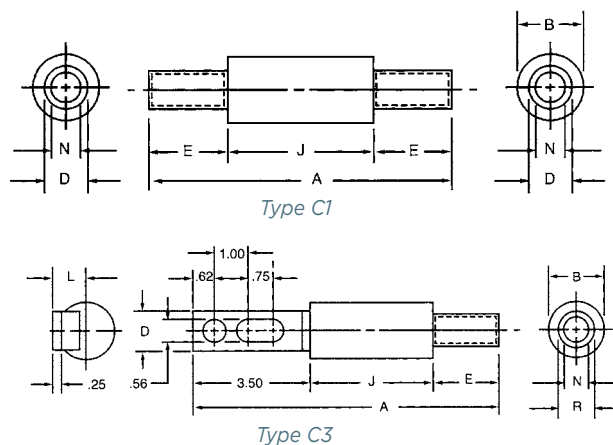


- UL listed to File E305297

Catalog Numbering System						
	CP	500	C	3	-	TI
Standard Duty	CP					
Heavy Duty	CPH					
Conductor Size						
Cable Material: Copper or Aluminum	C					
Termination	A					
Heat Shrink Trigger Indicator	HS					
	TI					

TYPE C1 - DIMENSIONS (CABLE TO CABLE - COPPER)

Catalog No.	Cable* Size	Dimensions - Inches (mm)					
		A	B	D	E	J	N
CP2C1	#2	.712 [180]	1.44 [37]	.42 [11]	1.75 [44]	3.62 [92]	.31 [7.9]
CP1/OC1	1/0	.712 [180]	1.44 [37]	.52 [13]	1.75 [44]	3.62 [92]	.39 [9.9]
CP2/OC1	2/0	.712 [180]	1.44 [37]	.56 [14]	1.75 [44]	3.62 [92]	.44 [11]
CP4/OC1	4/0	.712 [180]	1.44 [37]	.68 [17]	1.75 [44]	3.62 [92]	.55 [14]
CP250C1	250kcmil	.738 [188]	1.44 [37]	.75 [19]	1.88 [48]	3.62 [92]	.62 [16]
CP350C1	350kcmil	.762 [194]	1.62 [41]	.88 [22]	2.00 [51]	3.62 [92]	.71 [18]
CP400C1	400kcmil	.762 [194]	1.62 [41]	.94 [24]	2.00 [51]	3.62 [92]	.75 [19]
CP500C1	500kcmil	.938 [238]	1.88 [48]	1.05 [27]	2.88 [73]	3.62 [92]	.85 [22]
CP600C1	600kcmil	.951 [242]	2.50 [64]	1.07 [27]	2.88 [73]	3.75 [95]	.94 [24]
CP750C1	750kcmil	.951 [242]	2.50 [64]	1.32 [34]	2.88 [73]	3.75 [95]	1.06 [27]
CP1000C1	1000kcmil	10.00 [254]	3.00 [76]	1.50 [38]	3.13 [79]	3.75 [95]	1.16 [29]

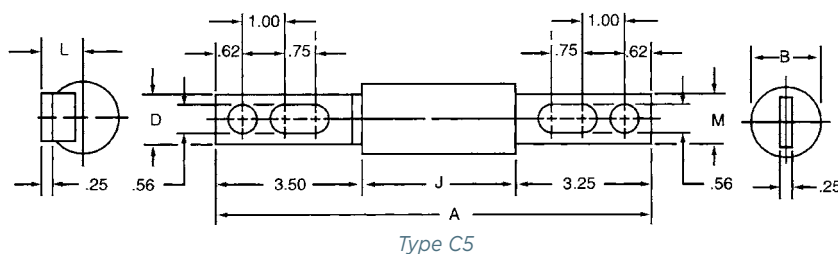


TYPE C3 - DIMENSIONS (CABLE TO OFFSET BUS - COPPER)

Catalog No.	Cable* Size	Dimensions - Inches (mm)								
		A	B	D	E	I	J	L	N	R
CP2C3	#2	8.87 [225]	1.44 [37]	1.12 [28]	1.75 [44]	3.50 [88.9]	3.62 [92]	.96 [24]	.31 [7.9]	.42 [11]
CP1/OC3	1/0	8.87 [225]	1.44 [37]	1.12 [28]	1.75 [44]	3.50 [88.9]	3.62 [92]	.96 [24]	.39 [9.9]	.52 [13]
CP2/OC3	2/0	8.87 [225]	1.44 [37]	1.12 [28]	1.75 [44]	3.50 [88.9]	3.62 [92]	.96 [24]	.44 [11]	.56 [14]
CP4/OC3	4/0	8.87 [225]	1.44 [37]	1.12 [28]	1.75 [44]	3.50 [88.9]	3.62 [92]	.96 [24]	.55 [14]	.68 [17]
CP250C3	250kcmil	9.00 [229]	1.44 [37]	1.12 [28]	1.88 [48]	3.50 [88.9]	3.62 [92]	.96 [24]	.62 [16]	.75 [19]
CP350C3	350kcmil	9.12 [232]	1.62 [41]	1.12 [28]	2.00 [51]	3.50 [88.9]	3.62 [92]	.96 [24]	.71 [18]	.88 [22]
CP400C3	400kcmil	9.12 [232]	1.62 [41]	1.12 [28]	2.00 [51]	3.50 [88.9]	3.62 [92]	.96 [24]	.75 [19]	.88 [22]
CP500C3	500kcmil	10.00 [254]	1.88 [48]	1.62 [41]	2.88 [73]	3.50 [88.9]	3.62 [92]	1.19 [30]	.85 [22]	1.05 [27]
CP600C3	600kcmil	10.13 [257]	2.50 [64]	2.00 [51]	2.88 [73]	3.50 [88.9]	3.75 [95]	1.31 [33]	.94 [24]	1.07 [27]
CP750C3	750kcmil	10.13 [257]	2.50 [64]	2.00 [51]	2.88 [73]	3.50 [88.9]	3.75 [95]	1.31 [33]	1.06 [27]	1.32 [34]
CP1000C3	1000kcmil	10.63 [270]	3.00 [76]	2.00 [51]	3.13 [79]	3.75 [95]	3.75 [95]	1.56 [40]	1.16 [29]	1.50 [38]

TYPE C5 - DIMENSIONS (STRAIGHT BUS TO OFFSET BUS - COPPER)

Catalog No.	Cable Size	Dimensions - Inches (mm)					
		A	B	D	J	L	M
CP4/OC5	4/0	10.37 [263]	1.44 [37]	1.12 [28]	3.62 [92]	.96 [24]	1.12 [28]
CP250C5	250kcmil	10.37 [263]	1.44 [37]	1.12 [28]	3.62 [92]	.96 [24]	1.12 [28]
CP350C5	350kcmil	10.37 [263]	1.62 [41]	1.12 [28]	3.62 [92]	.96 [24]	1.12 [28]
CP400C5	400kcmil	10.37 [263]	1.62 [41]	1.12 [28]	3.62 [92]	.96 [24]	1.12 [28]
CP500C5	500kcmil	10.37 [263]	1.88 [48]	1.62 [41]	3.62 [92]	1.19 [30]	1.50 [38]
CP600C5	600kcmil	10.50 [267]	2.50 [64]	2.00 [51]	3.75 [95]	1.31 [33]	2.00 [51]
CP750C5	750kcmil	10.50 [267]	2.50 [64]	2.00 [51]	3.75 [95]	1.31 [33]	2.00 [51]



* kcmil = MCM

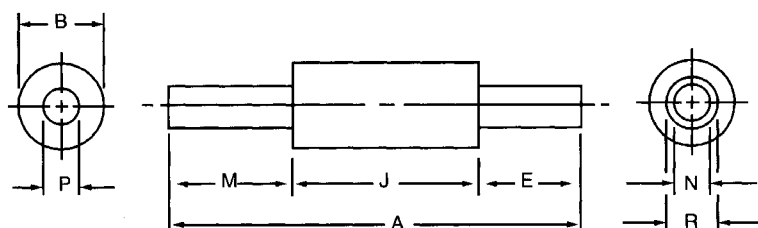
CABLE TYPE

- TYPE 1—Cable to cable
- TYPE 2—Bus to cable
- TYPE 3—Cable to offset bus
- TYPE 5—Bus to offset bus
- TYPE 6—Mole to cable
- TYPE 7—Bus to bus
- TYPE 8—Mole to offset bus



TYPE C6 - DIMENSIONS (MOLE TO CABLE - COPPER)

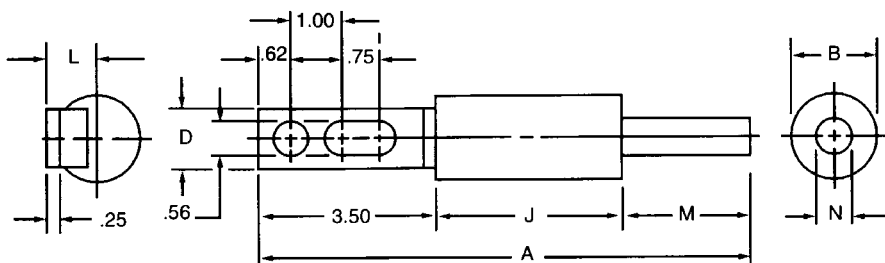
Catalog No.	Cable* Size	Dimensions - Inches (mm)							
		A	B	E	J	M	N	P	R
CP4/OC6	4/0	7.87 (200)	1.44 (37)	1.75 (44)	3.62 (92)	2.50 (64)	.55 (14)	.52 (13)	.68 (17)
CP250C6	250kcmil	8.00 (203)	1.44 (37)	1.88 (48)	3.62 (92)	2.50 (64)	.62 (16)	.58 (14)	.75 (19)
CP350C6	350kcmil	8.12 (206)	1.62 (41)	2.00 (51)	3.62 (92)	2.50 (64)	.71 (18)	.68 (17)	.88 (22)
CP500C6	500kcmil	9.38 (238)	1.88 (48)	2.88 (73)	3.62 (92)	2.88 (73)	.85 (22)	.81 (21)	1.05 (27)
CP750C6	750kcmil	9.51 (427)	2.50 (64)	2.88 (73)	3.75 (95)	2.88 (73)	1.06 (27)	1.00 (25)	1.32 (34)



Type C6

TYPE C8 - DIMENSIONS (MOLE TO OFFSET BUS - COPPER)

Catalog No.	Cable* Size	Dimensions - Inches (mm)						
		A	B	D	J	L	M	N
CP4/OC8	4/0	9.62 (244)	1.44 (37)	1.12 (28)	3.62 (92)	.96 (24)	2.50 (64)	.52 (14)
CP250C8	250kcmil	9.62 (244)	1.44 (37)	1.12 (28)	3.62 (92)	.96 (24)	2.50 (64)	.58 (13)
CP350C8	350kcmil	9.62 (244)	1.62 (41)	1.12 (28)	3.62 (92)	.96 (24)	2.50 (64)	.68 (17)
CP500C8	500kcmil	10.00 (254)	1.88 (48)	1.62 (41)	3.62 (92)	1.19 (30)	2.88 (73)	.81 (21)
CP750C8	750kcmil	10.13 (257)	2.50 (64)	2.00 (51)	3.75 (95)	1.31 (33)	2.88 (73)	1.00 (25)

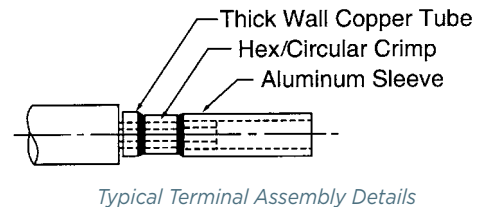
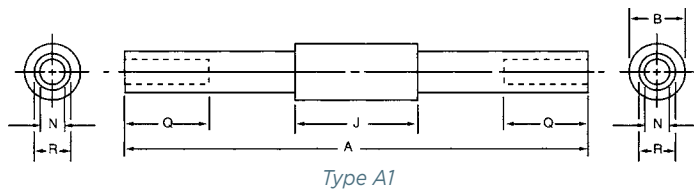


Type C8

* kcmil = MCM

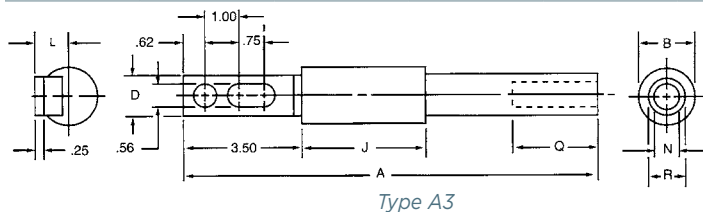
TYPE A1 - DIMENSIONS (CABLE TO CABLE - ALUMINUM)

Catalog No.	Cable* Size	Dimensions - Inches (mm)					
		A	B	J	N	Q	R
CP4/OA1	4/0	13.88 [353]	1.44 [37]	3.62 [92]	.55 [14]	2.50 [64]	.85 [22]
CP250A1	250kcmil	13.88 [353]	1.44 [37]	3.62 [92]	.59 [15]	2.50 [64]	.94 [24]
CP350A1	350kcmil	13.88 [353]	1.62 [41]	3.62 [92]	.71 [18]	2.50 [64]	1.13 [29]
CP500A1	500kcmil	15.38 [391]	1.88 [48]	3.62 [92]	.85 [22]	2.88 [73]	1.33 [34]
CP750A1	750kcmil	15.50 [394]	2.50 [64]	3.75 [95]	1.06 [27]	2.88 [73]	1.62 [41]



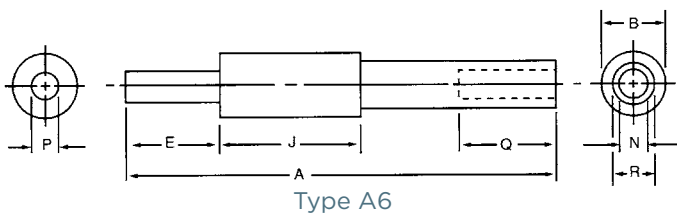
TYPE A3 - DIMENSIONS (CABLE TO OFFSET BUS - ALUMINUM)

Catalog No.	Cable* Size	Dimensions - Inches (mm)							
		A	B	D	J	L	N	Q	R
CP4/OA3	4/0	12.25 [311]	1.44 [37]	1.12 [28]	3.62 [92]	.96 [24]	.55 [14]	2.50 [64]	.85 [22]
CP250A3	250kcmil	12.25 [311]	1.44 [37]	1.12 [28]	3.62 [92]	.96 [24]	.59 [15]	2.50 [64]	.94 [24]
CP350A3	350kcmil	12.25 [311]	1.62 [41]	1.12 [28]	3.62 [92]	.96 [24]	.71 [18]	2.50 [64]	1.13 [29]
CP500A3	500kcmil	13.00 [330]	1.88 [48]	1.62 [41]	3.62 [92]	1.19 [30]	.85 [22]	2.88 [73]	1.33 [34]
CP750A3	750kcmil	13.12 [333]	2.50 [64]	2.00 [51]	3.75 [95]	1.31 [33]	1.06 [27]	2.88 [73]	1.62 [41]



TYPE A6 - DIMENSIONS (MOLE TO CABLE - ALUMINUM)

Catalog Number	Cable* Size	Dimensions - Inches (mm)							
		A	B	E	J	N	P	Q	R
CP4/OA6	4/0	11.25 [286]	1.44 [37]	2.50 [64]	3.62 [92]	.55 [14]	.52 [13]	2.50 [64]	.85 [22]
CP250A6	250kcmil	11.25 [286]	1.44 [37]	2.50 [64]	3.62 [92]	.59 [15]	.58 [14]	2.50 [64]	.94 [24]
CP350A6	350kcmil	11.25 [286]	1.62 [41]	2.50 [64]	3.62 [92]	.71 [18]	.68 [17]	2.50 [64]	1.13 [29]
CP500A6	500kcmil	12.38 [314]	1.88 [48]	2.88 [73]	3.62 [92]	.85 [22]	.81 [21]	2.88 [73]	1.33 [34]
CP750A6	750kcmil	12.50 [318]	2.50 [64]	2.88 [73]	3.75 [95]	1.06 [27]	1.00 [25]	2.88 [73]	1.59 [41]



Type 5 - Use Copper
Cable Protectors Type C5

Type 8 - Use Copper Cable
Protectors Type C8

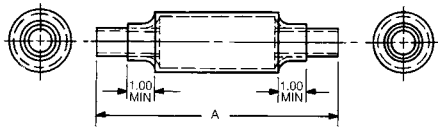
* kcmil = MCM

Note: Inside surface of sleeve ends is coated with oxide inhibitor and capped.

COPPER CABLE PROTECTORS WITH HEAT SHRINKABLE TUBING*

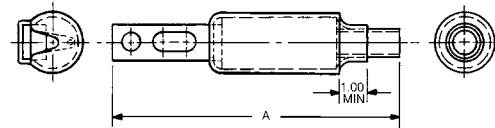
TYPE C1, COPPER CABLE - DIMENSIONS

Cable Size	Inches	A (mm)	Catalog No. Cable Protector With Heat Shrinkable Tubing
4/0	7.12	(180)	CP4/0C1-HS
250kcmil	7.38	(188)	CP250C1-HS
350kcmil	7.62	(194)	CP350C1-HS
500kcmil	9.38	(238)	CP500C1-HS
750kcmil	9.51	(242)	CP750C1-HS



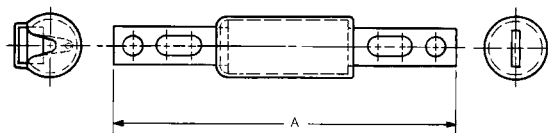
TYPE C3, COPPER CABLE - DIMENSIONS

Cable Size	Inches	A (mm)	Catalog No. Cable Protector With Heat Shrinkable Tubing
4/0	8.87	(225)	CP4/0C3-HS
250kcmil	9.00	(229)	CP250C3-HS
350kcmil	9.12	(232)	CP350C3-HS
500kcmil	10.00	(254)	CP500C3-HS
750kcmil	10.13	(257)	CP750C3-HS



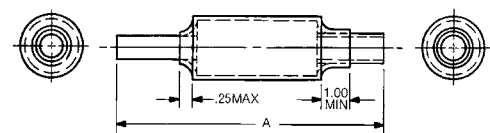
TYPE C5, COPPER CABLE - DIMENSIONS

Cable Size	Inches	A (mm)	Catalog No. Cable Protector With Heat Shrinkable Tubing
4/0	10.37	(263)	CP4/0C5-HS
250kcmil	10.37	(263)	CP250C5-HS
350kcmil	10.37	(263)	CP350C5-HS
500kcmil	10.37	(263)	CP500C5-HS
750kcmil	10.50	(267)	CP750C5-HS



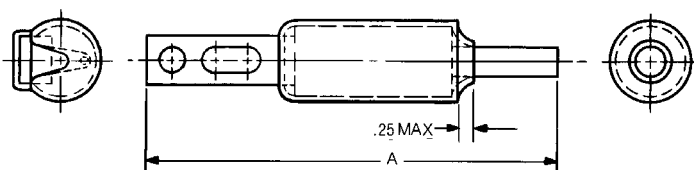
TYPE C6, COPPER CABLE - DIMENSIONS

Cable Size	Inches	A (mm)	Catalog No. Cable Protector With Heat Shrinkable Tubing
4/0	7.87	(200)	CP4/0C6-HS
250kcmil	8.00	(203)	CP250C6-HS
350kcmil	8.12	(206)	CP350C6-HS
500kcmil	9.38	(238)	CP500C6-HS
750kcmil	9.51	(242)	CP750C6-HS



TYPE C8, COPPER CABLE - DIMENSIONS

Cable Size	Inches	A (mm)	Catalog No. Cable Protector With Heat Shrinkable Tubing
4/0	9.62	(244)	CP4/0C8-HS
250kcmil	9.62	(244)	CP250C8-HS
350kcmil	9.62	(244)	CP350C8-HS
500kcmil	10.00	(254)	CP500C8-HS
750kcmil	10.13	(257)	CP750C8-HS

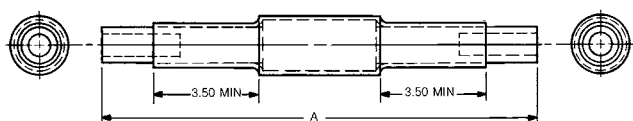


* Transparent heat shrinkable tubing is supplied separately with -HS Catalog No. Maximum curing conditions: 5 seconds at 450 °F.

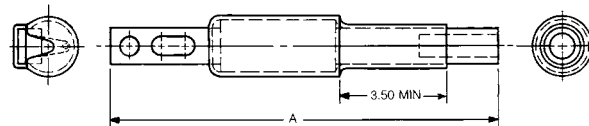
ALUMINUM CABLE PROTECTORS WITH HEAT SHRINKABLE TUBING*

TYPE A1, ALUMINUM CABLE -
DIMENSIONS

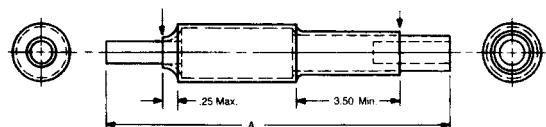
Cable Size	Inches	A (mm)	Catalog No. Cable Protector With Heat Shrinkable Tubing
4/0	13.88	[353]	CP4/0A1-HS
250kcmil	13.88	[353]	CP250A1-HS
350kcmil	13.88	[353]	CP350A1-HS
500kcmil	15.38	[391]	CP500A1-HS
750kcmil	15.50	[394]	CP750A1-HS

TYPE A3, ALUMINUM CABLE -
DIMENSIONS

Cable Size	Inches	A (mm)	Catalog No. Cable Protector With Heat Shrinkable Tubing
250kcmil	12.25	[311]	CP250A3-HS
350kcmil	12.25	[311]	CP350A3-HS
4/0	12.25	[311]	CP4/0A3-HS
500kcmil	13.00	[330]	CP500A3-HS
750kcmil	13.12	[333]	CP750A3-HS

TYPE A6, ALUMINUM CABLE -
DIMENSIONS

Cable Size	Inches	A (mm)	Catalog No. Cable Protector With Heat Shrinkable Tubing
4/0	11.25	[286]	CP4/0A6-HS
250kcmil	11.25	[286]	CP250A6-HS
350kcmil	11.25	[286]	CP350A6-HS
500kcmil	12.38	[314]	CP500A6-HS
750kcmil	12.50	[318]	CP750A6-HS



Type 5 - Use Copper Cable Protectors Type C5

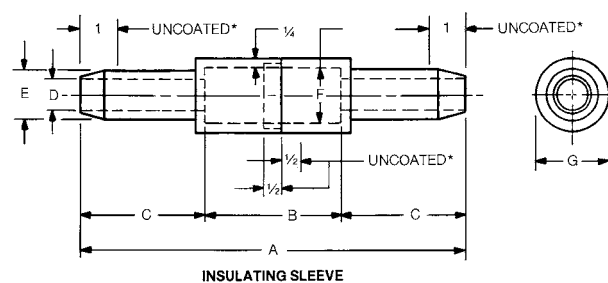
Type 8 - Use Copper Cable Protectors Type C8

* Transparent heat shrinkable tubing is supplied separately with -HS Catalog Numbers. Maximum curing conditions: 5 seconds at 450 °F.

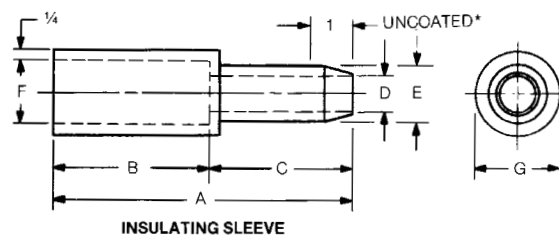
MOLDED RUBBER INSULATING SLEEVES**

FOR TYPE C1 COPPER CABLE
PROTECTORS - DIMENSIONS

Catalog No.	Cable Size	Dimensions - Inches (mm)						
		A	B	C	D	E	F	G
4/0CCR	4/0	10.44 (265)	3.69 (94)	3.38 (86)	.83 (21)	1.33 (33)	1.50 (38)	2.00 (51)
		14.19 (360)	3.69 (94)	5.25 (133)	1.31 (33)	1.81 (46)	1.94 (49)	2.44 (62)

FOR TYPE C3 COPPER CABLE
PROTECTORS - DIMENSIONS

Catalog No.	Cable Size	Dimensions - Inches (mm)						
		A	B	C	D	E	F	G
4/0CBR	4/0	7.06 (179)	3.69 (94)	3.38 (86)	.83 (21)	1.33 (33)	1.50 (38)	2.00 (51)
		8.94 (227)	3.69 (94)	5.25 (133)	1.31 (33)	1.81 (46)	1.94 (49)	2.44 (62)



** Molded rubber insulating sleeves are ordered by their own catalog numbers, and not as suffixes to the cable protector catalog numbers. Neoprene coated except as noted.

Mersen Cable Protectors have standard commercial splicing sleeve dimensions. Any crimping tool suitable for standard splicing sleeves, can be used. Follow crimping tool manufacturers instructions. Some crimping tool examples are shown below. It is recommended to use at least 2 crimps.

CABLE PROTECTOR SPLICING SLEEVE DIMENSIONS

Cable Size (MCM or kcmil)	Copper		Aluminum	
	ID	OD	ID	OD
#2	0.31 (7.87)	0.42 (10.69)	-	-
1/0	0.39 (9.91)	0.52 (13.21)	-	-
2/0	0.44 (11.18)	0.56 (14.22)	-	-
4/0	0.55 (13.97)	0.68 (17.27)	0.54 (13.8)	0.84 (21.5)
250	0.62 (15.75)	0.75 (19.05)	0.59 (15.1)	0.94 (23.7)
350	0.71 (18.03)	0.88 (22.35)	0.71 (18.0)	1.13 (28.7)
400	0.75 (19.05)	0.94 (23.88)	-	-
500	0.82 (20.83)	1.05 (26.67)	0.84 (21.2)	1.31 (33.3)
600	0.94 (23.88)	1.07 (27.18)	0.92 (23.4)	1.44 (36.6)
750	1.06 (26.92)	1.32 (33.53)	1.03 (26.2)	1.59 (40.4)
1000	1.16 (29.46)	1.50 (38.1)	-	-

PANDUIT - COPPER

Cable Size (MCM or kcmil)	CT-920, CT-920CH, CT-930, CT-930CH, CT-2920	
	Die	Die Color & Die No.
#2	CD-920-2	Brown P33
1/0	CD-920-1/0	Pink P42
2/0	CD-920-2/0	Black P45
4/0	CD-920-4/0	Purple P54
250	CD-920-250*	Yellow P62
350	CD-920-350	Red P71
400	CD-920-400	Blue P76
500	CD-920-500	Brown P87
600	CD-920-600	Green P94
750	CD-920-750	Black P106

* Copper Tap Connector Part Nos: HTCT250-8, HTCT250-2, HTCT250-250

* Tap Connector Die Part No: CD-930H-250

PANDUIT - ALUMINUM

Cable Size (MCM or kcmil)	CT-920, CT-920CH, CT-930, CT-930CH, CT-2920	
	Die	Die Color & Die No.
#2	CD-920-1/0	Pink P42
1/0	CD-920-3/0**	Tan P50 (Orange P50)
2/0	CD-920-4/0	Olive P54 (Purple 54)
4/0	CD-920-300	White P66
250	CD-920-350	Red P71
350	CD-920-500	Brown P87
400	CD-920-600	Green P94
500	CD-920-500A	Pink P99
600	CD-920-750	Black P106
750	-	-

** Aluminum Tap Connector Part No: HTAP2-8-L (PANDUIT Die Color & Die No)

Note: Crimp Tools CT 2940 and CT940H may be used with adapter CD-940-DA

THOMAS & BETTS - COPPER

Cable Size (MCM or kcmil)	13642M (13400) Hydraulic Head		TBM14 (14 TON) Head		TBM15 (15 TON) Head		Head	
	Die Cat No.	Die Code	Die Cat No.	Die Code	Die Cat No.	Die Code	Die Cat No.	Die Code
#2	11735	33	15528	33	15528	33	11402	33
1/0	11737	42	15508	42	15508	42	11334	42
2/0	11738	45	15526	45	15526	45	11405	45
4/0	11740	54	15511	54	15511	54H	11407	54H
250	11771	62	15510-CK	62	15510-CK	62	297-31669-7	62
350	11743	71H	15514-CK	71H	15514-CK	71H	11363	71
400	11744	76H	15512	76H	15512	76H	11410	76
500	11746-TB	87H	15506	87H	15506	87H	11423	87
600	11748	99H	15536-CK	94H	15536-CK	94H	11364	94
750	-	-	15515-CK	106H	15515-CK	106H	74506	106
1000			-	-	15603	125H	11416	125

THOMAS & BETTS - ALUMINUM

Cable Size (MCM or kcmil)	13642M (13400) Hydraulic Head		TBM14 Head		TBM15 Head		21940 (40 TON) Head	
	Die Cat No.	Die Code	Die Cat No.	Die Code	Die Cat No.	Die Code	Die Cat No.	Die Code
4/0	11742	66H	15534	66H	15534	66H	11409	66
250	11744	76H	15512	76H	15512	76H	11410	76
350	11747	94H	15536-CK	94H	15536-CK	94H	11364	94
400	-	-	-	-	-	-	-	-
500	11749	106H	15515-CK	106H	15515-CK	106H	74506	106
600	11751	112H	15504	115H	15609	112H	11426	112
750	-	-	-	-	15602	140H	11418	140

BURNDY - COPPER

Cable Size (MCM or kcmil)	Burndy Hypress and Die Set			
	Y35	Y39	Y750	Y46*
#2	U2CRT	U2CRT	U2CRT	U2CRT
1/0	U25RT	U25RT	U25RT	U25RT
2/0	U26RT	U26RT	U26RT	U26RT
4/0	U28RT	U28RT	U28RT	U28RT
250	U29RT	U29RT	U29RT	U29RT
350	U31RT	U31RT	U31RT	U31RT
400	U32RT	U32RT	U32RT	U32RT
500	-	U34RT	U34RT	U34RT
600	-	U36RT	U36RT	U36RT
750	-	U39RT	U39RT	U39RT
1000	-	-	-	P44RT**

* Requires PUADP-1 Adapter

** PUADP-1 Adapter not required

Note: Use Burndy Dies with Ilco ILC-15H crimp tool by installing adapter part no IL-D-PADP

BURNDY - ALUMINUM

Cable Size (MCM or kcmil)	Burndy Hypress and Die Set	
	Y35	Y39
#2	-	-
1/0	-	-
2/0	U26ART	U26ART
4/0	U28ART	U28ART
250	U29ART	U29ART
350	U31ART	U31ART
400	U32ART	U32ART
500	-	U34ART
600	-	U36ART
750	-	U39ART-2
1000	-	-

* Requires PUADP-1 Adapter

** PUADP-1 Adapter not required

2CL

250V Cable Protectors

SPECIAL PURPOSE

SP



Mersen 2CL Cable Protectors are special purpose limiters which are crimped or bolted to cables or terminals to clear and isolate faults quickly, increasing the reliability of service entrance and distribution runs. They are 250VAC current limiting with a 200,000A interrupting rating, yet will carry low cable overloads which are handled by standard protective devices. These cable protectors are rated for both copper and aluminum cabling per their corresponding cable size.

Catalog Numbering System				
	2CL	500	B	B
250VAC Cable Limiter				
Conductor Size				
Termination Type 1st End				
Termination Type 2nd End				

*Please consult factory for special terminations.

CATALOG NUMBERS

Type	Termination	Cable Size	Catalog No.
BB	Blade to Blade	1	2CL1BB
		2	2CL2BB
		3	2CL3BB
		4	2CL4BB
		1/0	2CL10BB
		2/0	2CL20BB
		3/0	2CL30BB
		4/0	2CL40BB
		250	2CL250BB
		350	2CL350BB
BF	Blade to Offset Bus	500	2CL500BB
		1	2CL1BF
		2	2CL2BF
		3	2CL3BF
		4	2CL4BF
		1/0	2CL10BF
		2/0	2CL20BF
		3/0	2CL30BF
		4/0	2CL40BF
		250	2CL250BF
CC	Cable to Cable	350	2CL350BF
		500	2CL500BF
		1/0	2CL10CC
		2/0	2CL20CC
		4/0	2CL40CC
		250	2CL250CC
CF	Cable to Offset Bus	350	2CL350CC
		500	2CL500CC
		1/0	2CL10CF
		2/0	2CL20CF
		4/0	2CL40CF
		250	2CL250CF
		350	2CL350CF
		500	2CL500CF

RATINGS:

- Sizes 1 to 500 kcmil copper and aluminum (CC, CF types copper only)
- **Volts:** 250VAC
- **IR:** 200kA I.R. AC

FEATURES/ BENEFITS:

- Fiberglass bodies for dimensional stability in harsh environments
- Catalog number stamped into terminal for permanent identification
- 250VAC Rated
- Shorter in length, smaller dimensions than standard 600VAC rated cable limiters

APPROVALS:

- Self Certified

A60C

Low Voltage Capacitor Fuses

SPECIAL PURPOSE

600V LOW VOLTAGE CAPACITOR FUSES

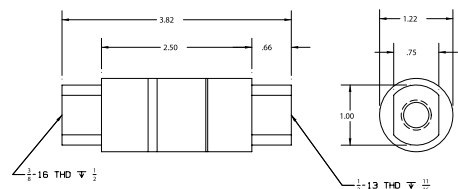


Mersen low voltage capacitor fuses provide advanced safety for power correction and harmonic filtering equipment. A capacitor fuse isolates a shorted capacitor before it can damage surrounding equipment or personnel. Typical capacitor failures occur when the internal dielectric can no longer withstand the applied voltage, resulting in a low impedance current path and generating excessive heat and pressure that can cause violent case rupture. Mersen low voltage capacitor fuses will isolate the shorted capacitor before case rupture occurs while routinely withstanding inrush current at startup.

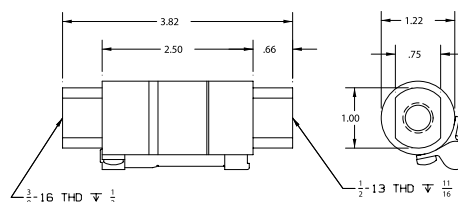
CATALOG NUMBERS (AMPS)

Without indicator	With indicator
A60C10-121	-
A60C15-121	-
A60C20-121	-
A60C25-121	A60C25-121TI
A60C30-121	-
A60C35-121	A60C35-121TI
A60C40-121	A60C40-121TI
A60C50-121	A60C50-121TI
A60C60-121	A60C60-121TI
-	A60C75-121TI
A60C80-121	A60C80-121TI
A60C100-121	A60C100-121TI
A60C125-121	A60C125-121TI
A60C150-121	A60C150-121TI
A60C175-121	A60C175-121TI
A60C200-121	A60C200-121TI
A60C225-121	A60C225-121TI
A60C250-121	A60C250-121TI
A60C300-121	A60C300-121TI

DIMENSIONS



A60C without Indicator



A60C with Indicator

RATINGS:

- **Volts:** 600VAC
- **Amps:** 10 to 300A
- **IR:** 200kA I.R.

FEATURES/ BENEFITS:

- High interrupting rating
- Current-limiting
- Capacitor inrush withstand capability
- Direct mount
- Optional blown fuse indication

APPROVALS:

- UL Recognized Component File E60314
- Tested by UL to CSA standard C22.2 No. 248.1



A4BX

Welder Protectors

SPECIAL PURPOSE



RATINGS:

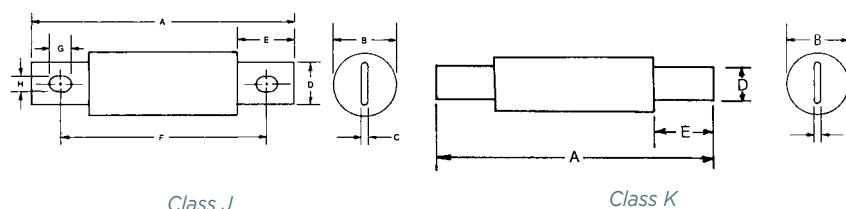
- **Volts:** 600VAC
- **Amps:** 100 to 600A
- **IR:** 200kA I.R.

APPROVALS:

- Self Certified

Mersen Welder Protectors are special purpose limiters used to provide isolation of faulted welding equipment and protection for the cable drop supplying the welder. Welder Protectors have a high thermal capacity and are less affected by high ambient temperatures and extended weld times than similar size Class J, K, or R fuses*. Welder Protectors should only be applied for isolation of short circuited welding circuits. Overload protection must be provided for by other means. *Contact factory for Class L sizes and ratings.*

A4BX (amps) - 150J; Class J Dimensions								
Ampere Rating	A	B	C	D	Inches			
					E	F	G	H
200	5-3/4	1-1/2	3/16	1-1/8	1-1/2	4-3/8	3/8	9/32
225-400	7-1/8	2	1/4	1-5/8	2-3/16	5-1/4	17/32	13/32
A4BX (amps) - 150; Class K Dimensions								
100	7-7/8	1	1/8	23/32	2-5/8	-	-	-
125-200	9-5/8	1-1/2	3/16	1-1/8	3-7/16	-	-	-
225-400	11-5/8	2	1/4	1-5/8	4-7/16	-	-	-
500-600	13-3/8	2-1/2	1/4	2	5-5/16	-	-	-



CATALOG NUMBERS (AMPS)

Class K Dimension	Class J Dimension
A4BX100-150	-
A4BX125-150	-
A4BX150-150	-
A4BX200-150	A4BX200-150J
A4BX225-150	A4BX225-150J
A4BX300-150	A4BX300-150J
A4BX400-150	A4BX400-150J
A4BX500-150	-
A4BX600-150	-

*For larger ratings consult factory.

A2Y/A6Y

Form 600 Fuses

SPECIAL PURPOSE



Mersen Form 600 fuses are the original current-limiting fuses, pre-dating all the standards. Their 500V DC rating (through 600A) is a useful feature for special fusing applications. Form 600 fuses provide a high degree of current limitation in AC and DC applications. Types 1 and 3 are dimensionally interchangeable with Class H and K fuses. Types 4 and 5 have unique rejection dimensions and are not interchangeable.

CATALOG NUMBERS (AMPS)

250V				600V			
A2Y1-1	A2Y70-4	A2Y200-3	A2Y450-3	A6Y1-1	A6Y70-4	A6Y200-3	A6Y450-3
A2Y2-1	A2Y70-5	A2Y200-4	A2Y450-4	A6Y2-1	-	A6Y200-4	A6Y450-4
A2Y3-1	A2Y80-3	-	-	A6Y3-1	A6Y80-3	A6Y200-5	A6Y450-5
A2Y5-1	A2Y80-4	-	A2Y500-3	A6Y5-1	A6Y80-4	A6Y225-3	A6Y500-3
A2Y6-1	A2Y90-3	-	A2Y500-4	A6Y6-1	A6Y90-3	A6Y225-4	A6Y500-4
A2Y8-1	A2Y90-4	-	A2Y500-5	A6Y8-1	-	A6Y225-5	A6Y500-5
A2Y10-1	A2Y100-3	A2Y250-3	A2Y600-3	A6Y10-1	A6Y100-3	A6Y250-3	A6Y600-3
A2Y15-1	A2Y100-4	A2Y250-4	A2Y600-4	A6Y15-1	A6Y100-4	A6Y250-4	A6Y600-4
A2Y20-1	A2Y125-3	-	A2Y600-5	A6Y20-1	A6Y125-3	A6Y250-5	A6Y600-5
A2Y25-1	A2Y125-4	A2Y300-3	-	A6Y25-1	A6Y125-4	A6Y300-3	A6Y650-4
A2Y30-1	-	A2Y300-4	-	A6Y30-1	A6Y125-5	A6Y300-4	A6Y800-4
A2Y35-1	A2Y150-3	-	-	A6Y35-1	A6Y150-3	A6Y300-5	A6Y800-5
A2Y40-1	A2Y150-4	A2Y350-3	-	A6Y40-1	A6Y150-4	A6Y350-3	A6Y1000-4
A2Y45-1	-	A2Y350-4	-	A6Y45-1	A6Y150-5	A6Y350-4	A6Y1000-5
A2Y50-1	A2Y175-3	A2Y400-3	-	A6Y50-1	A6Y175-3	A6Y400-3	A6Y1200-4
A2Y60-1	A2Y175-4	A2Y400-4	-	A6Y60-1	A6Y175-4	A6Y400-4	A6Y1200-5
A2Y70-3	-	-	-	A6Y70-3	A6Y175-5	A6Y400-5	-

RATINGS:

A2Y

- **Volts:** 250VAC, 500VDC
- **Amps:** 1 to 600A
- **IR:** 200kA I.R.AC, 100kA I.R. DC

A6Y

- **Volts:** 600VAC, 500VDC
- **Amps:** 1 to 8A (500VAC), 10 to 1200A (600VAC), 1 to 600A (500VDC)
- **IR:** 200kA I.R. AC, 100kA I.R. DC

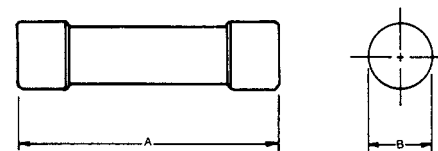
APPROVALS:

- UL Recognized Component File E60314
- DC Tested to UL248-1 (1-600A)



TYPE 1, 1-60 AMPS CLASS K DIMENSIONS

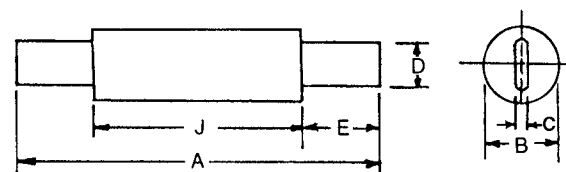
Ampere Rating	Inches: A2Y - 1-60A		Inches: A6Y - 1-60A	
	A	B	A	B
1-30	2	9/16	5	13/16
35-60	3	13/16	5-1/2	1-1/16



Type 1 1-60A

TYPE 3, 70-600 AMPS, CLASS K DIMENSIONS

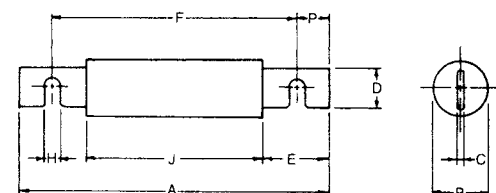
Ampere Rating	Inches					
	A	B	C	D	E	J
250 VAC/500 VDC - A2Y (Amp) - 3						
70-100	5-7/8	1	1/8	23/32	1-5/8	2-21/32
125-200	7-1/8	1-1/2	3/16	1-1/8	2-3/16	2-25/32
225-400	8-5/8	2	1/4	1-5/8	2-15/16	2-25/32
450-600	10-3/8	2-1/2	1/4	2	3-13/16	2-25/32
600 VAC/500 VDC - A6Y (Amp) - 3						
70-100	7-7/8	1	1/8	23/32	2-5/8	2-21/32
110-200	9-5/8	1-1/2	3/16	1-1/8	3-7/16	2-25/32
225-400	11-5/8	2	1/4	1-5/8	4-7/16	2-25/32
450-600	13-3/8	2-1/2	1/4	2	5-5/16	2-25/32



Type 3 70-600A

TYPE 4, 70-600 AMPS - DIMENSIONS

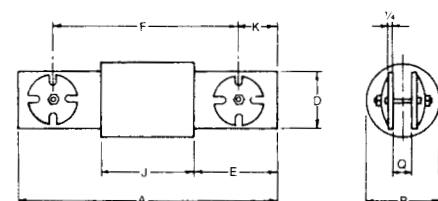
Ampere Rating	Inches								
	A	B	C	D	E	F	H	J	P
250 VAC/500 VDC - A2Y (Amp) - 4									
70-100	5-7/8	1	1/8	23/32	1-5/8	4-7/8	13/64	2-21/32	1/2
125-200	7-1/8	1-1/2	3/16	1-1/8	2-3/16	5-3/4	17/64	2-25/32	11/16
225-400	8-5/8	2	1/4	1-5/8	2-15/16	6-3/4	21/64	2-25/32	15/16
450-600	10-3/8	2-1/2	1/4	2	3-13/16	8-1/8	25/64	2-25/32	1-1/8
600 VAC/500 VDC - A6Y (Amp) - 4									
70-100	7-7/8	1	1/8	23/32	2-5/8	6-7/8	13/64	2-21/32	1/2
125-200	9-5/8	1-1/2	3/16	1-1/8	3-7/16	8-1/4	17/64	2-25/32	11/16
225-400	11-5/8	2	1/4	1-5/8	4-7/16	9-3/4	21/64	2-25/32	15/16
450-600	13-3/8	2-1/2	1/4	2	5-5/16	11-1/8	25/64	2-25/32	1-1/8



Type 4 70-600A

TYPE 4, 650-1200 AMPS - DIMENSIONS

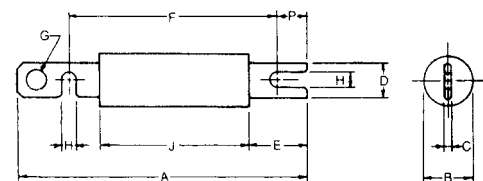
Ampere Rating	Inches							
	A	B	D	E	F	J	K	Q
600 VAC only - A6Y (Amp) - 4								
650-1200	10-1/2	3	2	3-3/8	7-7/8	3-3/4	1-5/16	5/8



Type 4 650-1200A

TYPE 5, 125-600 AMPS - DIMENSIONS

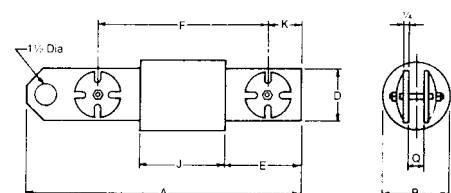
Ampere Rating	Inches								
	A	B	C	D	E	F	G	H	J
600 VAC/500 VDC - A6Y (Amp) - 5									
125-200	10-3/4	1-1/2	3/16	1-1/8	3-7/16	8-1/4	3/4	17/64	2-25/32
225-400	13-1/4	2	1/4	1-5/8	4-7/16	9-3/4	7/8	21/64	2-25/32
450-600	15-3/16	2-1/2	1/4	2	5-5/16	11-1/8	1	25/64	2-25/32



Type 5 125-600A

TYPE 5, 650-1200 AMPS - DIMENSIONS

Ampere Rating	Inches							
	A	B	D	E	F	J	K	Q
600 VAC only - A6Y (Amp) - 5								
650-1200	12-1/8	3	2	3-3/8	7-7/8	3-3/4	1-5/16	5/8



Type 5 650-1200A

HP6M

600V DC Midget (10x38mm) Photovoltaic Fuses

SPECIAL PURPOSE

FOR STRING PROTECTION



Mersen's HP6M photovoltaic (PV) fuse series is designed specifically for the protection of PV string wiring for 600VDC residential and commercial rooftop photovoltaic systems. Its enhanced construction makes it ideal for continuous temperature and current cycling withstand adding to system longevity. The 600VDC rated HP6M, designed for low minimum breaking capacity capabilities of 1.35 times the fuse rated current value, allows for safe circuit interruption under typical low fault current conditions produced by PV arrays. Protect your rooftop PV system from unexpected ground faults and string faults using Mersen's HelioProtection® fuse line.

APPLICATIONS:

- All photovoltaic applications
- PV string/array level protection
- Combiner box applications
- In-line PV module protection
- Inverters
- Battery charge controllers

CATALOG NUMBERS - FUSE HOLDER

	UltraSafe™ Non-Indicating	UltraSafe™ Indicating
Screw Type	USM1HEL	USM1IHEL
Spring Type	USGM1HEL	USGM1IHEL

For additional information, view catalog page for USCC & USM UltraSafe™ Fuse holders.

RATINGS:

- **Volts:** 600VDC
- **Amps:** 1 to 30A
- **IR:** 10kA I.R. DC
- **MBC:** 1.35 x In
- Photovoltaic Fuse, gPV

FEATURES/BENEFITS:

- Low fault current interrupting capability
- Durable construction for enhanced system longevity
- Temperature cycle withstand capability
- Guaranteed operation at temperature extremes
- Industry's first UL Listed Solution
- Globally accepted
-

APPROVALS:

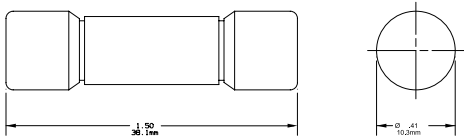
- UL Listed to Standard UL2579 File E333668
- CSA Component Certified C22.2
- IEC 60269-6 Approved



CATALOG NUMBERS AND ELECTRICAL CHARACTERISTICS

Voltage (VDC)	Amperage (A)	Catalog Number	Reference Number	Watts Loss @ 70% x I _n (W)	Watts Loss @ 80% x I _n (W)	Watts Loss @ 100% x I _n (W)	Interrupting Rating (kA)	Size (mm)
600	1	HP6M1	L1018565	0.14	0.19	0.31	10	10x38
	2	HP6M2	M1018566	0.19	0.26	0.43		
	3	HP6M3	N1018567	0.64	0.85	1.4		
	4	HP6M4	Q1018569	0.58	0.77	1.3		
	5	HP6M5	R1018570	0.65	0.87	1.4		
	6	HP6M6	S1018571	0.69	0.92	1.5		
	7	HP6M7	T1018572	0.83	1.11	1.8		
	8	HP6M8	V1018573	0.92	1.23	2.0		
	10	HP6M10	X1018575	0.96	1.28	2.1		
	12	HP6M12	Y1018576	1.12	1.49	2.5		
	15	HP6M15	Z1018577	0.99	1.32	2.2		
	20	HP6M20	A1018578	1.25	1.67	2.8		
	25	HP6M25	K1018610	1.38	1.84	3.1		
	30	HP6M30	L1018611	1.50	2.00	3.3		

DIMENSIONS



HP10M

1000V DC Midget (10x38mm) Photovoltaic Fuses

SPECIAL PURPOSE

FOR STRING PROTECTION



Mersen's HP10M photovoltaic (PV) fuse series was developed specifically for the protection of PV string wiring for 1000VDC industrial rooftop and utility scale photovoltaic systems. Its robust construction makes it ideal for continuous temperature and current cycling withstand adding to system longevity. The 1000VDC rated HP10M, designed for low minimum breaking capacity capabilities of 1.35 times the fuse rated current value, allows for safe circuit interruption under typical low fault current conditions produced by PV arrays. In addition to the standard ferrule terminal, parts are available with Crimp Cap terminals for in-line fuse applications. The unique wire crimp terminal (CC option) permits solderless wire-to-fuse connection for overmold encapsulation of fuse and wiring. Protect your off-grid or grid tied PV system from unexpected string faults using Mersen's HelioProtection® fuse line.

CATALOG NUMBERS - FUSE HOLDER

	UltraSafe™ Non-Indicating	UltraSafe™ Indicating
Screw Type	USM1HEL	USM1IHEL
Spring Type	USGM1HEL	USGM1IHEL

For additional information, view catalog page for USCC & USM UltraSafe™ Fuse holders.

RATINGS:

- **Volts:** 1000VDC
- **Amps:** 1 to 32A
- **IR:** 50kA I.R. DC
- **MBC:** 1.35 x In
- Photovoltaic Fuse, gPV

SP

FEATURES/BENEFITS:

- Low fault current interrupting capability
- Durable construction for enhanced system longevity
- Temperature cycle withstand capability
- Guaranteed operation at temperature extremes
- Industry's first UL Listed Solution
- Globally accepted

APPLICATIONS:

- All photovoltaic applications
- PV string/array level protection
- Combiner box applications
- In-line PV module protection
- Inverters
- Battery charge controllers

APPROVALS:

- UL Listed to Standard UL2579 File E333668
- CSA Component Certified C22.2
- IEC 60269-6 Approved

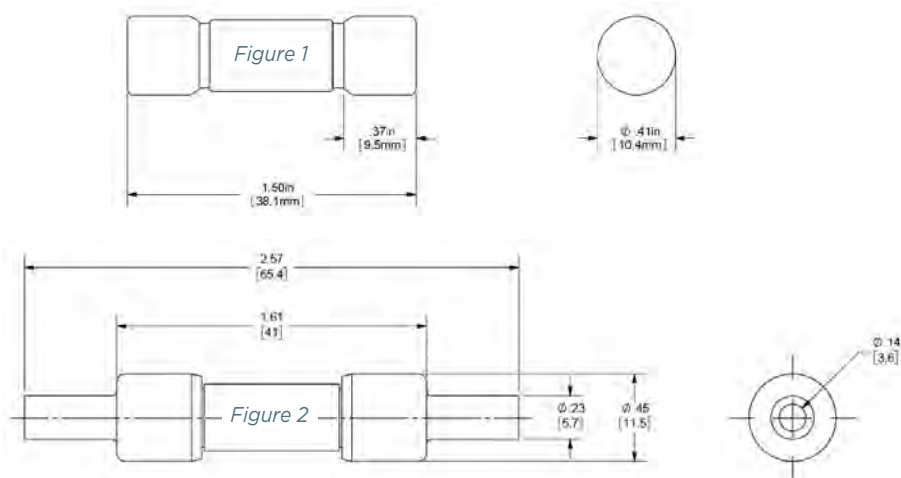


CATALOG NUMBERS AND ELECTRICAL CHARACTERISTICS

Voltage [VDC]	Amperage [A]	Catalog Number	Reference Number	Watts Loss @ 70% $\times I_n$ [W]	Watts Loss @ 80% $\times I_n$ [W]	Watts Loss @ 100% $\times I_n$ [W]	Interrupting Rating [kA]	Size [mm]
1000	1	HP10M1	B1018579	0.13	0.18	0.25	50	10x38 (Figure 1)
	2	HP10M2*	C1018580	0.16	0.25	0.32		
	3	HP10M3*	D1018581	0.66	0.87	1.36		
	3.5	HP10M3-1/2	H1043977	0.67	0.84	1.31		
	4	HP10M4*	E1018582	0.69	0.80	1.25		
	5	HP10M5*	F1018583	0.59	0.73	1.12		
	6	HP10M6	G1018584	0.42	0.67	1.05		
	7	HP10M7	H1018585	0.40	0.64	1.00		
	8	HP10M8	J1018586	0.77	0.88	1.48		
	10	HP10M10*	L1018588	0.67	0.9	1.5		
	12	HP10M12*	M1018589	0.72	1.0	1.8		
	15	HP10M15*	N1018590	0.9	1.3	2.2		
	20	HP10M20*	P1018591	1.1	1.5	2.8		
	25	HP10M25*	D1023825	1.3	1.8	3.0		
	30	HP10M30*	E1023826	1.63	2.12	3.93		
	32	HP10M32*	H1062170	1.7	2.3	4.0		
	1	HP10M1CC	F1061616	0.14	0.19	0.27	50	10 x 65 (Figure 2)
	2	HP10M2CC	G1061617	0.17	0.27	0.35		
	3	HP10M3CC	H1061618	0.72	0.95	1.49		
	3.5	HP10M3-1/2CC	J1061619	0.74	0.92	1.43		
	4	HP10M4CC	K1061620	0.76	0.88	1.38		
	5	HP10M5CC	L1061621	0.65	0.80	1.23		
	6	HP10M6CC	J1061527	0.46	0.74	1.15		
	7	HP10M7CC	K1061528	0.44	0.70	1.1		
	8	HP10M8CC	L1061529	0.85	0.97	1.63		
	10	HP10M10CC	M1061530	0.74	0.99	1.65		
	12	HP10M12CC	N1061531	0.79	1.1	1.98		
	15	HP10M15CC	P1061532	0.99	1.43	2.42		
	20	HP10M20CC	Q1061533	1.21	1.65	3.08		
	25	HP10M25CC	R1061534	1.43	1.98	3.3		
	30	HP10M30CC	S1061535	1.63	2.12	3.93		
	32	HP10M32CC	T1061536	1.7	2.3	4.0		

* Available in 176-piece bulk pack (add -B suffix to Catalog Number). Order quantity of one (1) -B suffix Catalog Number yields 176 fuses.

DIMENSIONS



CC terminal (Fig. 2): Recommended crimping tool: T & B Sta-Kon ERG4002 #10 -12 AWG (6-4 mm²)

HP15M

1500VDC Midget (10x85mm) Photovoltaic Fuses

SPECIAL PURPOSE

FOR STRING PROTECTION

SP



Mersen's HP15M photovoltaic (PV) fuse series is designed specifically for the protection of PV string wiring for 1500VDC utility scale photovoltaic systems. Its robust construction makes it ideal for continuous temperature and current cycling withstand adding to system longevity. The 1500VDC rated HP15M, designed for low minimum breaking capacity capabilities of 1.35 times the fuse rated current value, allows for safe circuit interruption under typical low fault current conditions produced by PV arrays and meets the trend for increased voltage for higher efficiency. In addition to the standard ferrule terminal, parts are available with Crimp Cap terminals for in-line fuse applications. The unique wire crimp terminal (CC option) permits solderless wire-to-fuse connection for overmold encapsulation of fuse and wiring. Protect your off-grid or grid tied PV system from unexpected line faults using Mersen's HelioProtection® fuse line.

APPLICATIONS:

- All photovoltaic applications
- PV string/array level protection
- Combiner box applications
- In-line PV module protection
- Inverters
- Battery charge controllers

RATINGS:

- **Volts:** 1500VDC
- **Amps:** 4A - 32A
- **SCCR:** 50kA

Photovoltaic Fuse

FEATURES/BENEFITS:

- Low fault current interrupting capability
- Durable construction for enhanced system longevity
- Temperature cycle withstand capability
- Guaranteed operation at temperature extremes
- Globally accepted
- Recommended Fuse holder: US15M1HEL

APPROVALS:

- UL Listed to Standard UL2579
- CSA Component Pending
- IEC 60269-6



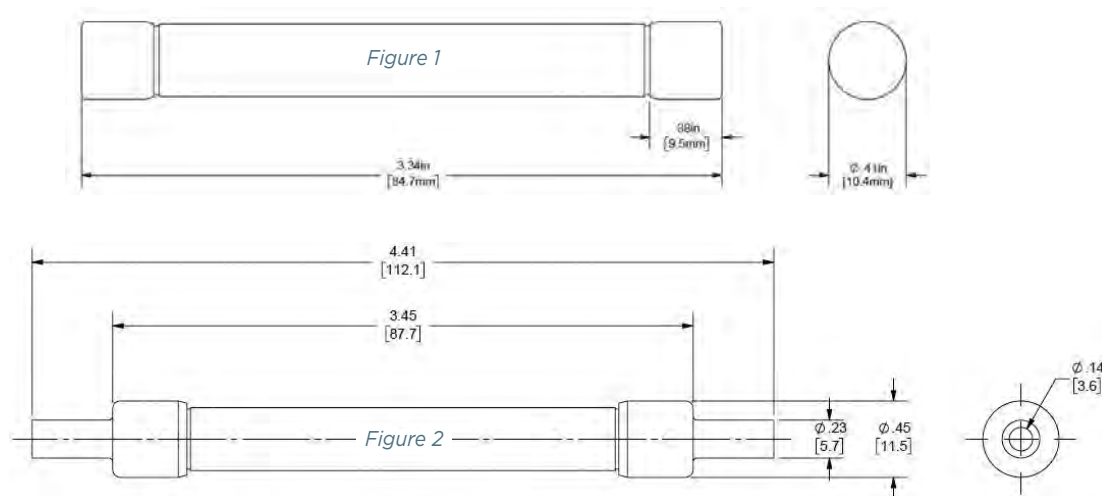
CATALOG NUMBERS AND ELECTRICAL CHARACTERISTICS

Voltage [VDC]	Amperage [A]	Catalog Number	Reference Number	Watts Loss @ 70% x I _n [W]	Watts Loss @ 80% x I _n [W]	Watts Loss @ 100% x I _n [W]	Interrupting Rating [kA]	Size [mm]
1500	4	HP15M4*	F1059569	1.03	1.43	2.58	50	10x85 (Figure 1)
	5	HP15M5*	X1055053	0.83	1.14	1.97		
	6	HP15M6*	Q1053667	0.96	1.36	2.44		
	7	HP15M7	R1053668	0.98	1.38	2.46		
	8	HP15M8	S1053669	1.03	1.50	2.60		
	10	HP15M10*	T1053670	1.24	1.79	3.10		
	12	HP15M12	V1053671	1.16	1.71	2.90		
	15	HP15M15*	W1053672	1.28	1.78	3.20		
	20	HP15M20*	X1053673	1.72	2.49	4.30		
	25	HP15M25*	Y1053674	2.14	3.10	5.40		
	30	HP15M30*	Z1053675	2.58	3.60	6.46		
	32	HP15M32*	G1059570	2.84	3.94	7.12		
	4	HP15M4CC**	A1061542	1.03	1.43	2.58		10 x 112 (Figure 2)
	5	HP15M5CC**	B1061543	0.83	1.14	1.97		
	6	HP15M6CC**	D1061545	0.96	1.36	2.44		
	7	HP15M7CC	E1061546	0.98	1.38	2.46		
	8	HP15M8CC	F1061547	1.03	1.50	2.60		
	10	HP15M10CC**	G1061548	1.24	1.79	3.10		
	12	HP15M12CC	H1061549	1.16	1.71	2.90		
	15	HP15M15CC**	J1061550	1.28	1.78	3.20		
	20	HP15M20CC**	K1061551	1.72	2.49	4.30		
	25	HP15M25CC**	L1061552	2.14	3.10	5.40		
	30	HP15M30CC**	M1061553	2.58	3.60	6.46		
	32	HP15M32CC**	N1061554	2.84	3.94	7.12		

* Available in 88-piece bulk pack (add -B suffix to Catalog Number). Order quantity of one (1) -B suffix Catalog Number yields 88 fuses.

** Available in 50-piece bulk pack (add -B suffix to Catalog Number). Order quantity of one (1) -B suffix Catalog Number yields 50 fuses.

DIMENSIONS



CC terminal (Fig. 2): Recommended crimping tool: T & B Sta-Kon ERG4002 #10 -12 AWG (6-4 mm²)

HP15G

1500VDC Class G (10x57mm) Photovoltaic Fuses

SPECIAL PURPOSE

FOR INLINE PV MODULE PROTECTION



Mersen's HP15G photovoltaic (PV) fuse series was engineered specifically for PV module ground fault protection of photovoltaic systems. Its enhanced construction makes it ideal for continuous temperature and current cycling withstand adding to system longevity. The 1500VDC rated HP15G, designed for low minimum breaking capacity capabilities of 1.35 times the fuse rated current value, allows for safe circuit interruption under typical low ground fault current conditions produced by PV arrays. In addition to the standard ferrule terminal, these products are available with Crimp Cap terminals for in-line fuse applications. The unique wire crimp terminal (CC option) permits solderless wire-to-fuse connection for overmold encapsulation of fuse and wiring. Protect your off-grid or grid tied PV system from unexpected ground faults and string faults using Mersen's Helioprotection® fuse line.

APPLICATIONS:

- In-line PV module protection

RATINGS:

- **Volts:** 1500VDC
- **Amps:** 2½A-5A
- **IR:** HP15G2½ to 4A, Self Certified to 50kA I.R.; HP15G5, 10kA I.R.
- **MBC:** 1.35 x In

Photovoltaic Fuse, gPV

FEATURES/BENEFITS:

- Low fault current interrupting capability
- Durable construction for enhanced system longevity
- Temperature cycle withstand capability
- Guaranteed operation at temperature extremes
- Industry's first UL Listed Solution
- Globally accepted
- Available in standard and bulk packaging options

APPROVALS:

- UL Listed to Standard UL2579 File E333668
- IEC 60269-6



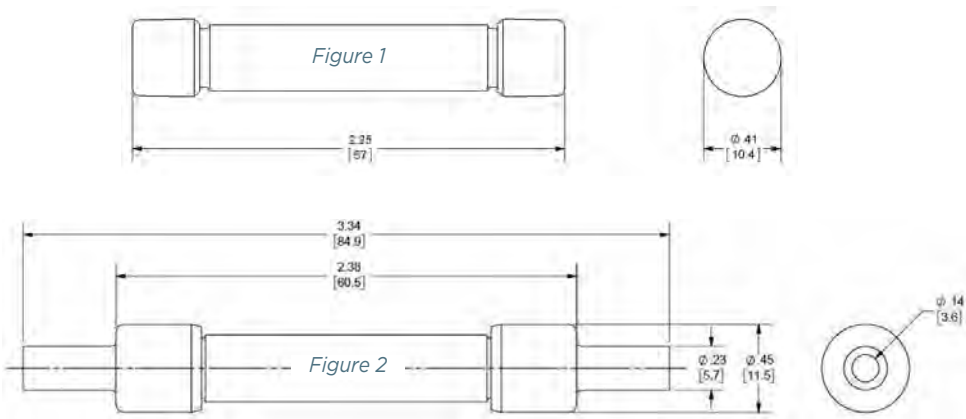
CATALOG NUMBERS AND ELECTRICAL CHARACTERISTICS

Voltage (VDC)	Amperage (A)	Catalog Number	Interrupting Rating (kA)	Size (mm)	
1500	2½	HP15G2½*	50	10 x 57 (Figure 1)	
	3	HP15G3*			
	3½	HP15G3½*			
	4	HP15G4*			
	5	HP15G5*	10	10 x 85 (Figure 2)	
	2½	HP15G2½CC**	50		
	3	HP15G3CC**			
	3½	HP15G3½CC**			
	4	HP15G4CC**			
	5	HP15G5CC**	10		

* Standard package: 5 fuses. Bulk package (-B suffix) quantity: 88 fuses. Ordering one (1) -B suffixed Catalog Number will yield 88 fuses.

** Standard package: 4 fuses. Bulk package (-B suffix) quantity: 70 fuses. Ordering one (1) -B suffixed Catalog Number will yield 70 fuses.

DIMENSIONS



CC terminal (Fig. 2): Recommended crimping tool: T & B Sta-Kon ERG4002 #10 -12 AWG (6-4 mm²)

HP6J

600V DC Class J Photovoltaic Fuses

SPECIAL PURPOSE

FOR ARRAY PROTECTION



Mersen's HP6J photovoltaic (PV) fuse series was engineered specifically for DC Recombiner Boxes in the protection of 600VDC photovoltaic systems. Its enhanced construction makes it ideal for continuous temperature and current cycling withstand adding to system longevity. The 600VDC rated HP6J designed for low minimum breaking capacity capabilities of 1.35 times the fuse rated current value allows for safe circuit interruption under typical low fault current conditions produced by PV arrays. Protect your off-grid or grid tied PV system from unexpected ground faults and line faults using Mersen's HelioProtection(r) fuse line.

CATALOG NUMBERS (AMPS)

Frame Size 1		Frame Size 2		Frame Size 3		Frame Size 4
HP6J70	HP6J90	HP6J110	HP6J175	HP6J225	HP6J350	HP6J450
HP6J80	HP6J100	HP6J125	HP6J200	HP6J250	HP6J400	HP6J500
		HP6J150		HP6J300		HP6J600

CATALOG NUMBERS - FUSE HOLDER

Box Terminal to Box Terminal Configuration, 1-Pole						
Ampere Rating	Clip Configuration	Wire Range	Wire Type	Stud Type	Catalog No.	Temperature Rating of Wire Terminal
100	In-line	2/0 - #6	Al/Cu	-	61006HPJ	90° C
200	Side	350kcmil - #6		-	62001HPJ	
400	In-line	(2) 350kcmil - #6		-	64031HPJ	
600	In-line	(2) 500kcmil - #4		-	6631HPJ	75° C

For additional configurations and information view Mersen's Solar Power Solutions Guide at <http://ep-us.mersen.com/solarpower>

RATINGS:

- **Volts:** 600VDC
- **Amps:** 70 to 600A
- **IR:** 10kA I.R. DC
- **MBC:** 1.35 x In
- Photovoltaic Fuse

SP

FEATURES/BENEFITS:

- Smallest footprint in the industry
- UL class J dimensions
- Low fault current interrupting capability
- Durable construction for enhanced system longevity
- Temperature cycle withstand capability
- Guaranteed operation at temperature extremes
- Industry's first UL Listed Solution
- Globally accepted

APPLICATIONS:

- Re-combiner (sub-combiner, array combiner, master combiner) applications
- Inverter DC input protection
- Battery charge controllers

APPROVALS:

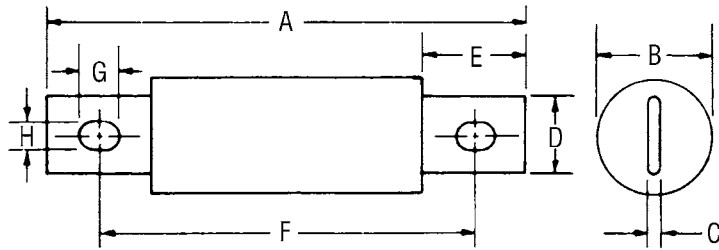
- UL Listed to Standard UL2579 File E333668
- CSA Component Certified C22.2



ELECTRICAL SPECIFICATIONS

Catalog Number	Ampere Rating (A)	Voltage (VDC)	Interrupting Rating (kA)	Watts Loss @ 80% x In (W)	Watts Loss @ 100% x In (W)
HP6J70	70	600	10	5.8	10
HP6J80	80	600	10	6.4	11
HP6J90	90	600	10	7.5	13
HP6J100	100	600	10	8.1	14
HP6J110	110	600	10	10.4	18
HP6J125	125	600	10	11	19
HP6J150	150	600	10	12.8	22
HP6J175	175	600	10	13.9	24
HP6J200	200	600	10	15.1	26
HP6J225	225	600	10	17.4	30
HP6J250	250	600	10	20.9	36
HP6J300	300	600	10	22	38
HP6J350	350	600	10	23.2	40
HP6J400	400	600	10	24.4	42
HP6J450	450	600	10	33.6	58
HP6J500	500	600	10	34.2	59
HP6J600	600	600	10	39.4	68

DIMENSIONS



Frame Size	Ampere Rating	A		B		C		D		E		F		G		H	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1	70-100	4-5/8	117	1-1/16	27	1/8	3.2	3/4	19	1	25	3-5/8	92	3/8	10	9/32	7
2	110-200	5-3/4	146	1-5/8	41	3/16	4.8	1-1/8	29	1-3/8	35	4-3/8	111	17/32	14	9/32	7
3	225-400	7-1/8	181	2-1/8	54	1/4	6.3	1-7/8	41	1-7/8	48	5-1/4	133	17/32	14	13/32	10
4	450-600	8	203	2-1/2	64	3/8	9.5	2	51	2-1/8	54	6	152	11/16	18	17/32	13

HP10J

1000V DC Class J Photovoltaic Fuses

SPECIAL PURPOSE

FOR ARRAY PROTECTION



Mersen's HP10J photovoltaic (PV) fuse series is designed specifically for DC Recombiner Boxes in the protection of 1000VDC photovoltaic systems. Its robust construction makes it ideal for continuous temperature and current cycling withstand adding to system longevity. The 1000VDC rated HP10J designed for low minimum breaking capacity capabilities of 1.35 times the fuse rated current value, allows for safe circuit interruption under typical low fault current conditions produced by PV arrays. Protect your off-grid or grid tied PV system from unexpected ground faults and line faults using Mersen's HelioProtection® fuse line.

APPLICATIONS:

- Re-combiner box (sub-combiner, array combiner, master combiner) applications
- Inverter DC input
- Battery charge controllers

CATALOG NUMBERS (AMPS)

Frame Size 1		Frame Size 2		Frame Size 3
HP10J70	HP10J125	HP10J250	HP10J350	HP10J450
HP10J80	HP10J160	HP10J300	HP10J400	HP10J500
HP10J100	HP10J200			HP10J600

- For NH3 mounting on 200A to 400A, add suffix "XL" to catalog number (ex. HP10J400XL). 200A part number is HP10J200/400XL.
- For mechanical blown fuse indication, add suffix "EI" to the catalog number (ex. HP10J200EI).
- When using the EI Indicator, if remote blown fuse signal is desired, select AOS-Q (quick connect terminal) or AOS-S (screw terminal).
- Mersen AOS (Add-on switches) contain one single-pole double-throw (NO-NC) contact rated 4 amperes resistive and 1 ampere inductive at 250VAC maximum.

RATINGS:

- **Volts:** 1000VDC (70A to 600A), 600VAC (70A to 400A)
- **Amps:** 70A to 600A
- **IR:** 65kA @ 1000VDC, 200kA @ 600VAC
- **MBC:** 1.35 x In
- Photovoltaic Fuse

S
P

FEATURES/BENEFITS:

- UL Listed to standard 2579 – Photovoltaic Fuses
- Smallest available footprint in the industry
- Enlarged mounting holes
- Low fault current interrupting capability
- Durable construction for enhanced system longevity
- Temperature cycle withstand capability
- Guaranteed operation at temperature extremes
- Blown fuse indicator options available (EI option)
- 200A to 400A available in NH3 mounting

APPROVALS:

- UL listed to Standard 2579 File E333668 (70A to 600A)
- UL listed to Standard 248 File E2137 (70A to 400A)
- CSA Component Certified C22.2 (70A to 400A)



LISTED



Class J PV Fuse, 1000VDC, 65kA IR DC, Frame Size 1



Catalog Number	Reference Number	Rated Current I _n (Amps)	Power Dissipation at 0.7xI _n (Watts)	Power Dissipation at 0.8xI _n (Watts)	Power Dissipation at 1.0xI _n (Watts)	Package
HP10J70	Z1040749	70	3	5	10	1
HP10J80	A1040750	80	4	5	10	1
HP10J100	B1040751	100	6	7	15	1
HP10J125	C1040752	125	5	7	14	1
HP10J160	D1040753	160	6	8	16	1
HP10J200	E1040754	200	10	15	27	1

Class J PV Fuse, 1000VDC, 65kA IR DC, Frame Size 2



Catalog Number	Reference Number	Rated Current I _n (Amps)	Power Dissipation at 0.7xI _n (Watts)	Power Dissipation at 0.8xI _n (Watts)	Power Dissipation at 1.0xI _n (Watts)	Package
HP10J250	F1040755	250	13	18	34	1
HP10J300	G1040756	300	16	22	37	1
HP10J350	H1040757	350	17	24	45	1
HP10J400	J1040758	400	19	27	52	1

Class J PV Fuse, 1000VDC, 65kA IR DC, Frame Size 3



Catalog Number	Reference Number	Rated Current I _n (Amps)	Power Dissipation at 0.7xI _n (Watts)	Power Dissipation at 0.8xI _n (Watts)	Power Dissipation at 1.0xI _n (Watts)	Package
HP10J450	K1040759	450	22	27	56	1
HP10J500	K1047107	500	22	31	58	1
HP10J600	L1047108	600	30	43	82	1

Fuse Blocks for Class J PV Fuse, Frame Size 1, 1-Pole, 1000VDC, 100kA SCCR



Catalog Number	Reference Number	Rated Current I _n (Amps)	Terminal Configuration	Wire Range	Wire Insulation Rating	Package
62001HPJ	S1037385	200	Box-Box	350kcmil - #6	90°C	1
62041HPJ	Q1043961	200	Box-Stud	350kcmil - #6	90°C	1
62011HPJ	Q1033680	200	Stud-Stud	350kcmil - #6	90°C	1

Fuse Blocks for Class J PV Fuse, Frame Size 2, 1-Pole, 1000VDC, 100kA SCCR



Catalog Number	Reference Number	Rated Current I _n (Amps)	Terminal Configuration	Wire Range	Wire Insulation Rating	Package
64031HPJ	T1037386	400	Box-Box	(2) 350kcmil - #6	90°C	1
64041HPJ	R1043962	400	Box-Stud	(2) 350kcmil - #6	90°C	1
64011HPJ	S1043963	400	Stud-Stud	(2) 350kcmil - #6	90°C	1

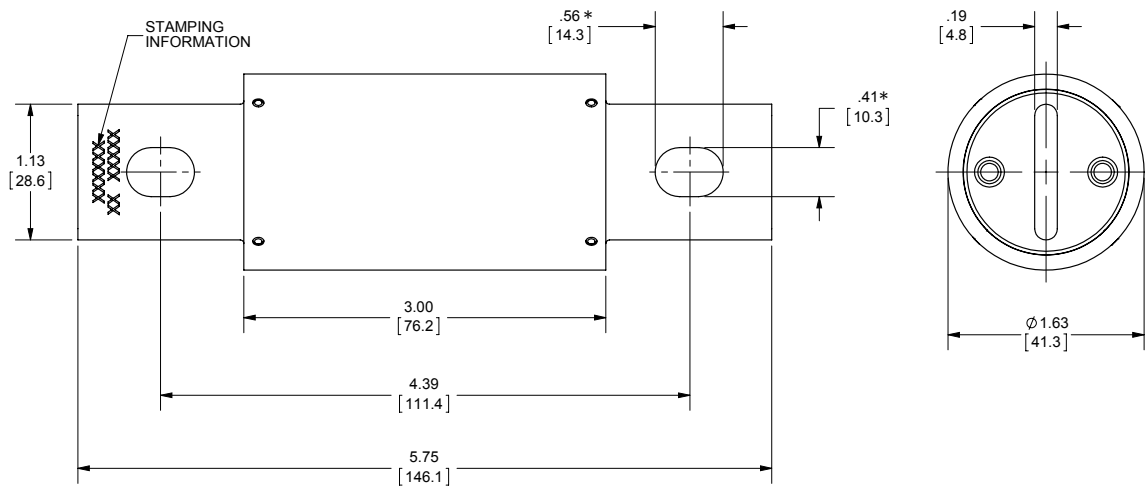
Fuse Blocks for Class J PV Fuse, Frame Size 3, 1-Pole, 1000VDC, 100kA SCCR



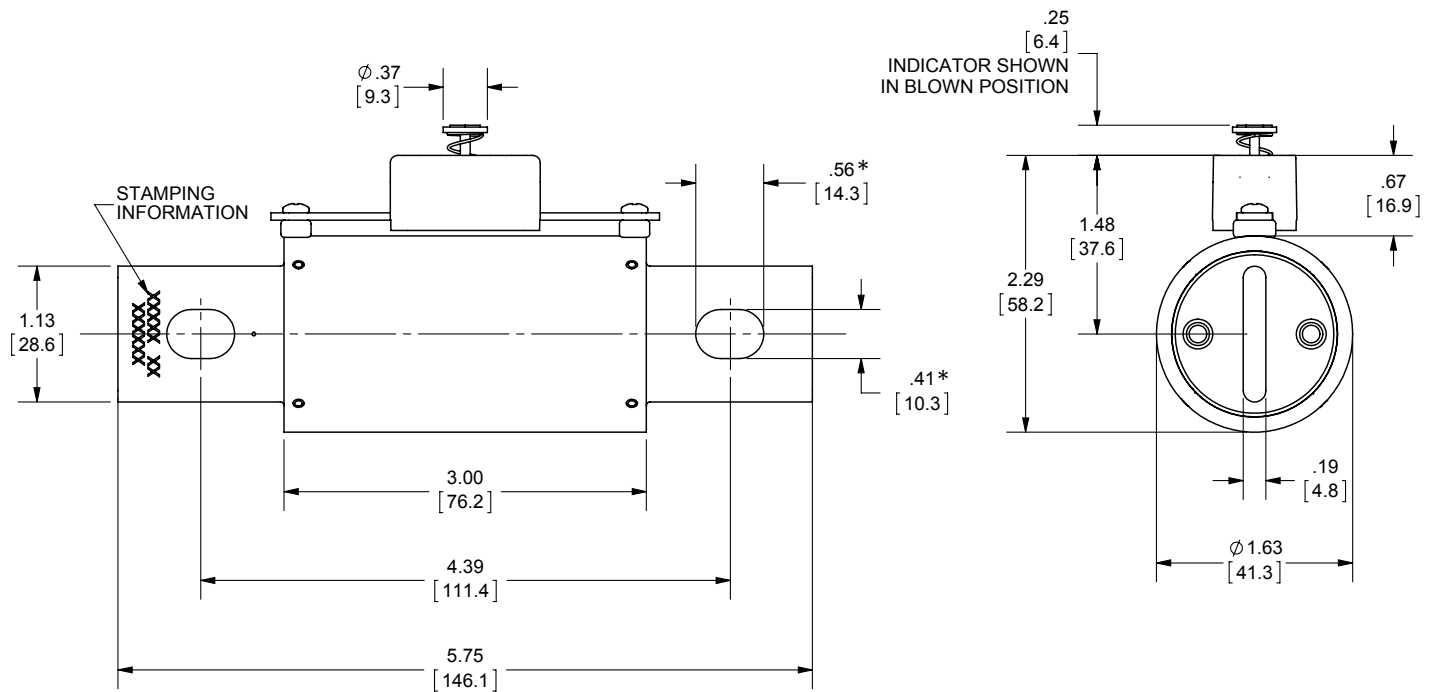
Catalog Number	Reference Number	Rated Current I _n (Amps)	Terminal Configuration	Wire Range	Wire Insulation Rating	Package
6631HPJ		600	Box-Box	(2) 350kcmil - #6	90°C	1
6641HPJ		600	Box-Stud	(2) 350kcmil - #6	90°C	1
6611HPJ		600	Stud-Stud	(2) 350kcmil - #6	90°C	1

DIMENSIONS

Class J (70-200A, 1000V DC)



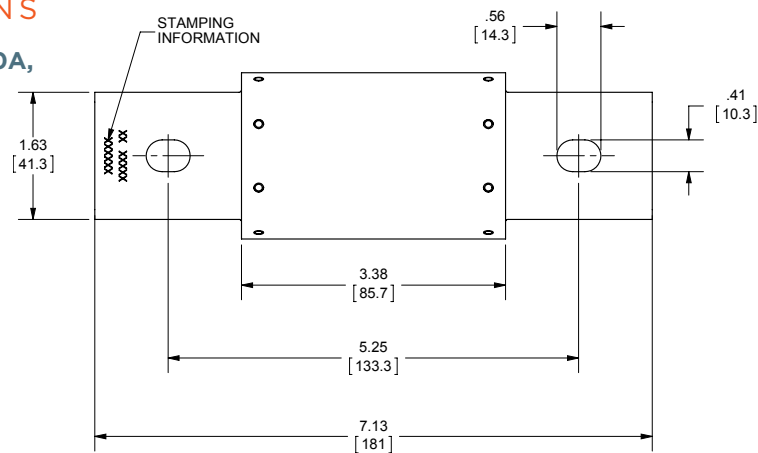
Class J EI (70-200A, 1000V DC)



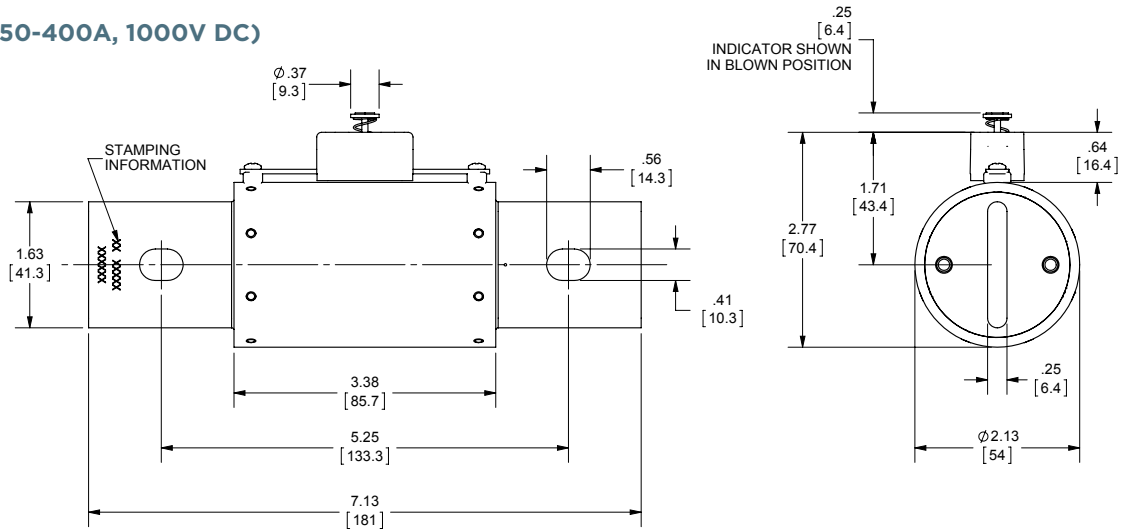
* Enlarged mounting holes designed to accept 5/16" DIA bolt sizes.

DIMENSIONS

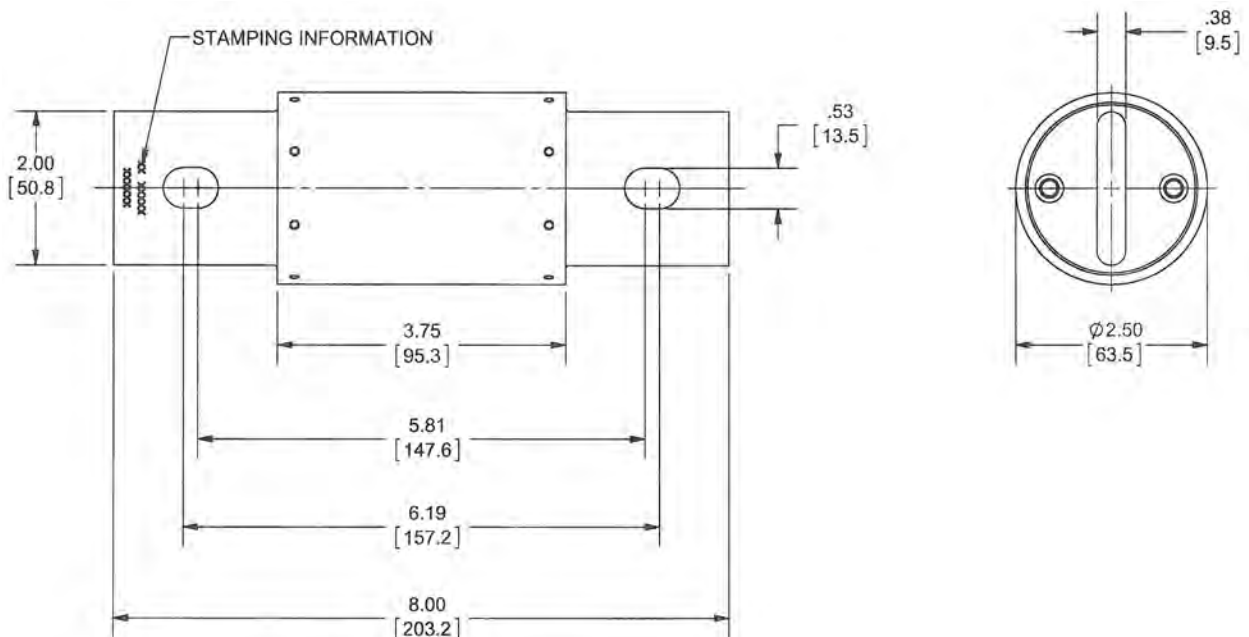
Class J (250-400A, 1000V DC)



Class J EI (250-400A, 1000V DC)



Class J (450-600A, 1000V DC)



HP10NH

1000V DC Size NH Photovoltaic Fuses

SPECIAL PURPOSE

FOR ARRAY PROTECTION



The HeliProtection® HP10NH photovoltaic (PV) fuse series was engineered and designed specifically for the protection of photovoltaic arrays. Its enhanced fuse construction is designed to withstand constant fluctuations in temperature and current cycling adding to system longevity. Low minimum breaking capacity of 1.35 times the fuse rated current value meets IEC and UL standards, allowing for safe circuit interruption under typical low fault current conditions produced by PV arrays. Typical applications include re-combiner box, master combiner box and inverter inputs.

CATALOG NUMBERS (AMPS)

Size NH1			Size NH2
HP10NH1GPV50	HP10NH1GPV80	HP10NH1GPV125	HP10NH2GPV200
HP10NH1GPV63	HP10NH1GPV100	HP10NH1GPV160	HP10NH2GPV250

CATALOG NUMBERS - FUSE BLOCK

Catalog Number	Ampere Rating [A]	Voltage Rating [V]	No. of Poles	For use with	Description
HPBB11PPR	250	1000	1	NH1	Open Style
HPBB11PPRFS					Open Style with Protective Cover
HPBB21PPR	315	1000	1	NH2	Open Style
HPBB21PPRFS					Open Style with Protective Cover

For additional information view the HPBB open style fuse block data sheet

CATALOG NUMBER - ACCESSORY

Catalog Number	NHHANDLE	Description
		Fuse Puller for Size NH 00-4

RATINGS:

- **Volts:** 1000VDC
- **Amps:** 50 to 250A
- **IR:** 50kA I.R. DC
- **MBC:** 1.35 x In
- Photovoltaic Fuse, gPV

FEATURES/BENEFITS:

- Global acceptance
- Low fault current interrupting capability
- Durable construction for enhanced system longevity
- Temperature cycle withstand capability
- High efficiency with low power losses

APPLICATIONS:

- Re-combiner box (sub-combiner, array combiner, master combiner) applications
- Inverter DC input
- Battery charge controllers

APPROVALS:

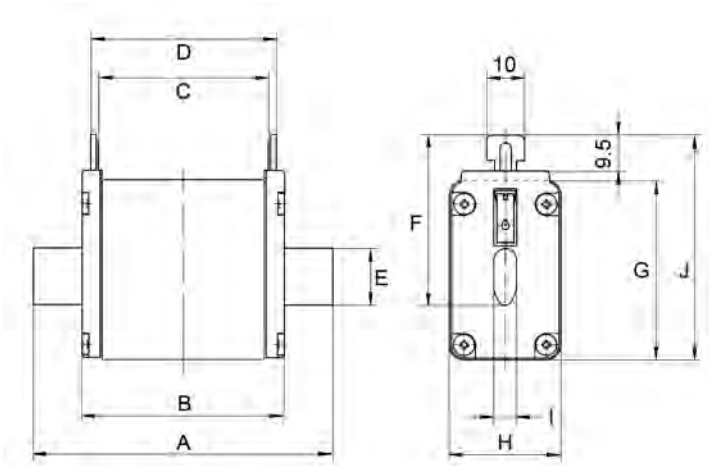
- IEC 60269-6 Certification
- UL Listed to standard 2579, File E358319



ELECTRICAL SPECIFICATIONS

Catalog Number	Reference Number	Size	Ampere Rating (A)	Voltage Rating (VDC)	Interrupting Rating (kA)	Watts Loss @ 70% x In (W)	Watts Loss @ 100% x In (W)
HP10NH1GPV50	Z1028283	NH1	50	1000	50	4.6	11
HP10NH1GPV63	A1028284	NH1	63	1000	50	5.4	13
HP10NH1GPV80	B1028285	NH1	80	1000	50	6.1	15
HP10NH1GPV100	C1028286	NH1	100	1000	50	7.2	17
HP10NH1GPV125	D1028287	NH1	125	1000	50	7.4	18
HP10NH1GPV160	E1028288	NH1	160	1000	50	9.6	23
HP10NH2GPV200	X1037619	NH2	200	1000	50	12	29
HP10NH2GPV250	Y1037620	NH2	250	1000	50	14	34

DIMENSIONS (MM)



Size	A	B	C	D	E	F	G	H	I	J
NH1	135	70.8	63	68	20	40	52.5	39.5	6	64.5
NH2	150	68	63	68	26	48.5	60	51	6	72

HP12NH

1250V DC Size NH Photovoltaic Fuses

SPECIAL PURPOSE

FOR ARRAY PROTECTION



Mersen's HP12NH photovoltaic (PV) fuse series was engineered and designed specifically for the protection of photovoltaic systems. HelioProtection® HP12NH fuse links are designed for the protection of cables in a PV group of chains when a short circuit occurs in a panel (main fuse category). This HelioProtection main fuse range enables us to offer a full range of protection with worldwide acceptance. They are of the gPV type and comply with both IEC 60269-6 and UL 2579 PV standards.

CATALOG NUMBERS (AMPS)

Size NH1XL	Size NH2XL	Size NH3L	
HP12NH1XLGPV125	HP12NH2XLGPV200	HP12NH3LGPV250	HP12NH3LGPV350
HP12NH1XLGPV160	HP12NH2XLGPV250	HP12NH3LGPV315	HP12BH3LGPV400

APPROVALS:

- UL Listed to 2579, photovoltaic fuse, File E358319
- IEC 60269-6 Certified, gPV
- RoHS Compliant

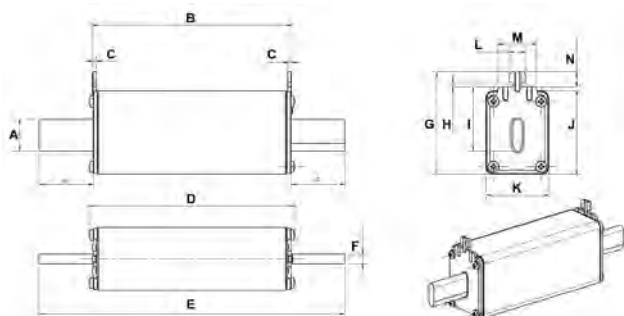


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CATALOG NUMBERS AND ELECTRICAL CHARACTERISTICS

SIZE	Voltage [VDC]	Amperage [A]	PLAIN BLADE		DIRECT MOUNTING		Watts Loss @ 70% x In [W]	Watts Loss @ 100% x In [W]	Inter- rupting Rating [kA]
			Catalog Number	Reference Number	Catalog Number	Reference Number			
NH1XL	1250	125	HP12NH1XLGPV125	G1039744	HP12NH1LGPV125B	K1048671	12	29	50
		160	HP12NH1XLGPV160	H1039745	HP12NH1LGPV160B	L1048672	14	34	
NH2XL		200	HP12NH2XLGPV200	J1039746	HP12NH2LGPV200B	M1048673	16	42	
		250	HP12NH2XLGPV250	K1039747	HP12NH2LGPV250B	N1048674	17	45	
NH3L		250	HP12NH3LGPV250	Z1033389	HP12NH3LGPV250B	P1048675	18	46	
		315	HP12NH3LGPV315	A1033390	HP12NH3LGPV315B	Q1048676	22	53	
		350	HP12NH3LGPV350	B1033391	HP12NH3LGPV350B	R1048677	23	55	
		400	HP12BH3LGPV400	C1033392	HP12NH3LGPV400B	S1048678	29	73	

DIMENSIONS (MM)



Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N
NH1	20	125.5	2.5	129.6	192.5	6	64.5	2.75	40.5	52.5	39.5	10	24	9.5
NH2	26	123	2.5	127	205	6	72	2.75		60	51	10	24	9.5
NH3	33	123	2.5		205		84.5	2.75	60	74	70	10	25	9.5

CATALOG NUMBERS - OPEN FUSE BASES AND FUSE-BASES WITH TOUCH PROTECTION

For use with	Voltage (VDC)	Amperage (A)	Design	Catalog Number
NH fuse-links NH1XL and gPV fuse-link size 121 with blade contacts	1500	250 A	Open design, screw mounting	SP36121
NH fuse-links NH2XL and NH3L and gPV fuse-link size 122-123 with blade contacts	1500	630 A	Open design, screw mounting	SP36122-123
NH fuse-links NH1XL (can accept Mersen gPV fuse-links size 121 and NH2XL rated 250A with derating)	1500	250 A	With touch protection, screw mounting (M10, M = 8-10Nm)	HPBB1XL1PPFS
NH fuse-links NH2XL and NH3L	1500	500 A	With touch protection, screw mounting (M10, M = 8-10Nm)	HPBB2XL3L1PPFS
NH fuse-links NH2XL and NH3L (can accept NH3L fuse-links up to 630 A with derating)	1500	500 A	With touch protection, screw mounting (M10, M = 8-10Nm) and busbar output (1x40x10 or 2x40x10)	HPBB2XL3L1PBFS

HP15NH

1500VDC Size NH Photovoltaic Fuses

SPECIAL PURPOSE

FOR ARRAY PROTECTION



APPROVALS:

- UL listed to 2579
- IEC 60269-6 Certified, gPV
- RoHS Compliant



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Mersen's HelioProtection HP15NH photovoltaic (PV) fuse series is designed specifically for protection of PV string wiring for 1500VDC utility scale photovoltaic arrays. Low minimum breaking capacity of 1.35 times the fuse rated current value meets both IEC and UL standards, allowing for safe circuit interruption under typical low fault current conditions produced by PV arrays. Typical applications include DC re-combiner box, master DC combiner box, and array inverter inputs.

CATALOG NUMBERS AND ELECTRICAL CHARACTERISTICS

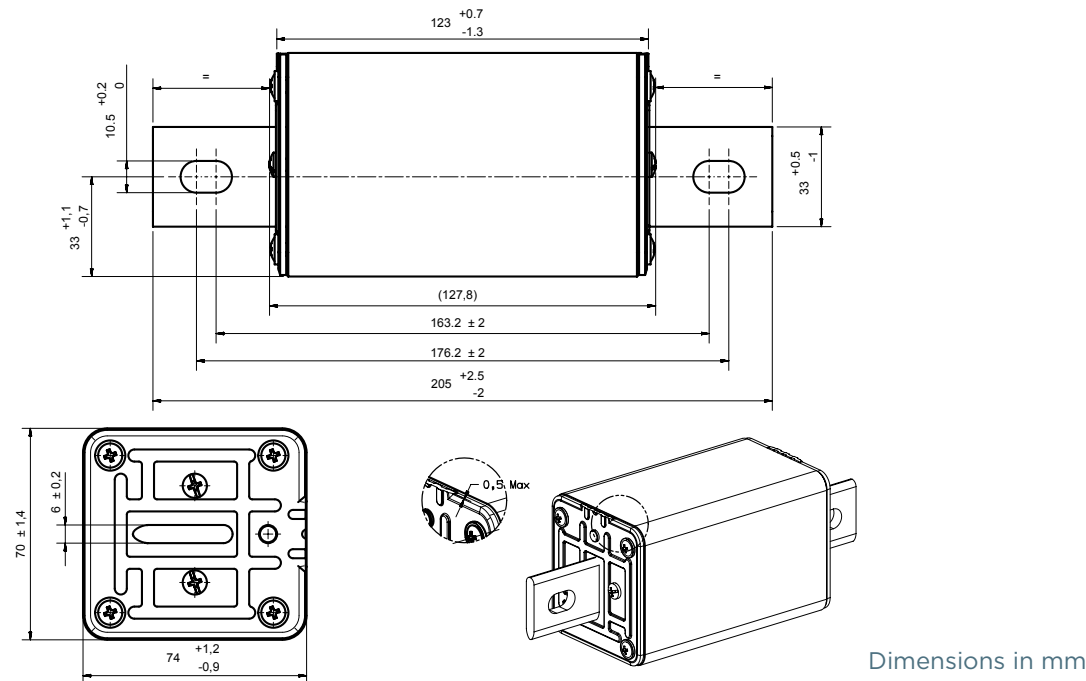
Voltage (VDC)	Amperage (A)	Catalog Number	Reference Number	Watts Loss @ 70% x In (W)	Watts Loss @ 100% x In (W)	Interrupting Rating (kA)	Size
1500	160	HP15NH3LGPV160B	T1048679	15	35	50	NH3L
	200	HP15NH3LGPV200B	V1048680	17	40		
	250	HP15NH3LGPV250B	W1048681	19	45		
	315	HP15NH3LGPV315B	X1048682	21	52		
	350	HP15NH3LGPV350B	Y1048683	23	56		
	400	HP15NH3LGPV400B	Z1048684	24	59		

CATALOG NUMBERS - FUSE BLOCKS

For use with	Voltage (VDC)	Amperage (A)	Terminal Type	Protective Cover	Catalog Number
NH3L	1500	500 max	Stud-Box	Yes	HPBB2XL3L1PBFS
			Stud-Stud	Yes	HPBB2XL3L1PPFS

DIMENSIONS

Special purpose gPV fuse link size 3L Direct Mounting without striker and without lugs



Special purpose gPV fuse link size 3L Direct Mounting with striker and without lugs

