

# HP15MxxR

1500VDC Midget (10x85mm) Photovoltaic Fuses

## SPECIAL PURPOSE

## FOR STRING PROTECTION



Mersen's GEN2 of the HP15M photovoltaic (PV) fuse series is designed specifically to meet the severe temperature and current cycling of a PV system. Subjected to stringent cycle testing, the GEN2 provides enhanced reliability. These 1500VDC rated fuses are designed for low minimum breaking capacity capabilities of 1.35 times the fuse rated current value, which allows for safe circuit interruption under typical low fault current conditions. In addition to the standard ferrule terminal, parts are also 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

**Disclaimer:** Similar to thermal devices, the performance of these fuses is influenced by ambient temperature. Consequently, the current capability of the PV Fuses must be adjusted in accordance with their Temperature Derating Curve.

[Click to download Ampere Rating vs. Ambient Temperature \(Temp Derating\) curve.](#)

### RATINGS:

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

Photovoltaic Fuse

### FEATURES/BENEFITS:

- Low fault current interrupting capability
- Durable construction for enhanced system longevity
- Temperature and load cycling capability
- Certified to global standards
- Recommended fuse holders: HP15FHM32A, HP15FHM32B, US15M1HEL

### APPROVALS:

- UL Listed to Standard UL 248-19
- CSA Component Certified C22.2
- IEC 60269-6



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### CATALOG NUMBERS AND ELECTRICAL CHARACTERISTICS

| Voltage [VDC] | Amperage [A] | Catalog Number |                     |                 | Watts Loss @ 70% x I <sub>n</sub> [W] | Watts Loss @ 80% x I <sub>n</sub> [W] | Watts Loss @ 100% x I <sub>n</sub> [W] | Interrupting Rating [kA] | Size [mm]   |
|---------------|--------------|----------------|---------------------|-----------------|---------------------------------------|---------------------------------------|--|--------------------------|---|
|               |              | Ferrule        | Crimp Cap 10-12 AWG | Crimp Cap 8 AWG |                                       |                                       |  |                          |   |
| 1500          | 4            | HP15M4R*       | HP15M4RCC**         | HP15M4RCC8**    | 0.72                                  | 1.01                                  | 1.78                                   | 50                       | Ferrule:<br>10x85<br>(Figure 1)<br><br>Crimp Cap<br>10-12 AWG:<br>10 x 112<br>(Figure 2)<br><br>Crimp Cap<br>8 AWG:<br>10 x 112<br>(Figure 3) |
|               | 5            | HP15M5R*       | HP15M5RCC**         | HP15M5RCC8**    | 0.83                                  | 1.14                                  | 1.97                                   |                          |   |
|               | 6            | HP15M6R*       | HP15M6RCC**         | HP15M6RCC8**    | 0.96                                  | 1.36                                  | 2.44                                   |                          |   |
|               | 7            | HP15M7R*       | HP15M7RCC**         | HP15M7RCC8**    | 0.98                                  | 1.38                                  | 2.46                                   |                          |   |
|               | 8            | HP15M8R*       | HP15M8RCC**         | HP15M8RCC8**    | 1.03                                  | 1.50                                  | 2.60                                   |                          |   |
|               | 10           | HP15M10R*      | HP15M10RCC**        | HP15M10RCC8**   | 1.24                                  | 1.79                                  | 3.10                                   |                          |   |
|               | 12           | HP15M12R*      | HP15M12RCC**        | HP15M12RCC8**   | 1.30                                  | 1.79                                  | 3.08                                   |                          |   |
|               | 15           | HP15M15R*      | HP15M15RCC**        | HP15M15RCC8**   | 1.30                                  | 1.76                                  | 2.95                                   |                          |   |
|               | 20           | HP15M20R*      | HP15M20RCC**        | HP15M20RCC8**   | 1.77                                  | 2.36                                  | 4.27                                   |                          |   |
|               | 25           | HP15M25R*      | HP15M25RCC**        | HP15M25RCC8**   | 2.21                                  | 3.07                                  | 5.54                                   |                          |   |
|               | 30           | HP15M30R*      | HP15M30RCC**        | HP15M30RCC8**   | 2.63                                  | 3.62                                  | 6.42                                   |                          |   |
|               | 32           | HP15M32R*      | HP15M32RCC**        | HP15M32RCC8**   | 3.18                                  | 4.22                                  | 7.14                                   |                          |   |

#### Catalog Number

- with "CC" suffix = Product with Crimp Cap terminals for in-line fuse applications 10-12 AWG.
- with "CC8" suffix = Product with Crimp Cap terminals for in-line fuse applications 8 AWG.

\* 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

Figure 1

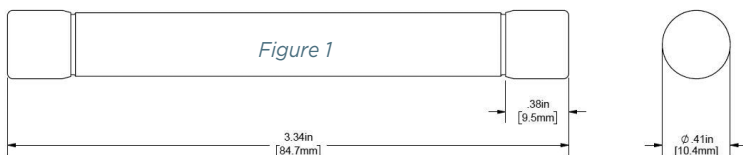
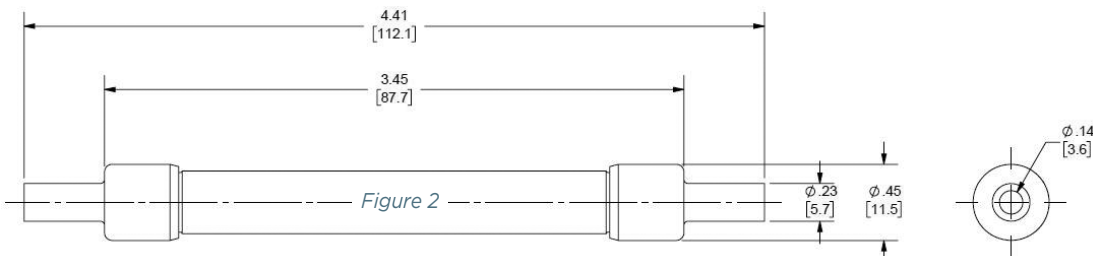
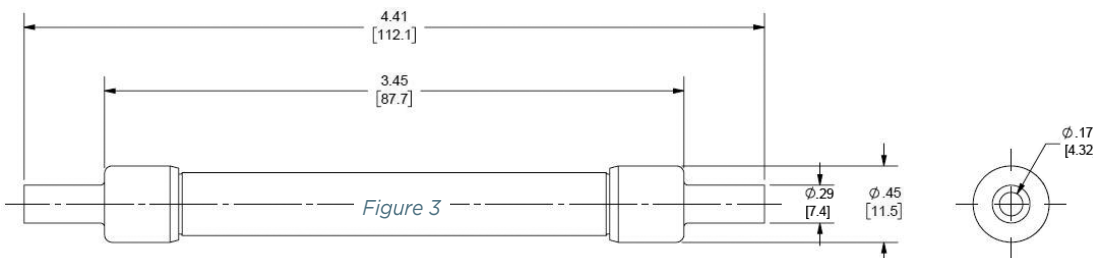


Figure 2



CC terminal (Fig. 2): Recommended crimping tool: T & B Sta-Kon ERG4002 #10 -12 AWG (5.26 - 3.31 mm<sup>2</sup>)

Figure 3



CC terminal (Fig. 3): Recommended crimping tool: T & B Sta-Kon ERG4002 #8 AWG (8.36 mm<sup>2</sup>)

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