

# Motor Protection

## Amp-Trap® and 9F60 Series

2.4kV, 2.54kV, 4.8kV, 5.08kV and 7.2kV

### Ferrule mounted fuses:

Mersen R-Rated fuses are current-limiting, high interrupting rating fuses intended for the short circuit protection of medium voltage motors and motor controllers. R-Rated fuses are back-up fuses that have a minimum interrupting rating, and must be coordinated with overload relays in combination motor starters. The motor starter manufacturer generally specifies the R-Rated fuse size. These fuses come with a 3 (size D) or 4 (size E) inch diameter barrels with ferrules and are mounted in spring reinforced clips.

### Features/Benefits:

- The Amp-Trap and 9F60 R-Rated fuses are UL Recognized.
- Ferrule mounting for standard clips and interchangeability with other brands of fuses.
- Current-limiting for superior equipment protection.
- Metal embossed catalog number and manufacturing date for lasting identification.
- Hookeye for non load-break isolation by hookstick
  - On the 4.8kV an optional hookeye mounted in the factory is available.
  - On all other 3" barrel if a hookeye is required, use the operating eye 9F61AAW612. (See page E58)
- Blown-fuse indicator to give positive identification of open fuse.
  - Amp trap: 3" Barrel 2 lb tripped force - 0.50 Inch
  - 9F60: 0.125 lb tripped force – 0.20 Inch

### Highlights:

- R-Rated
- UL recognized

### Applications:

- Short circuit protection of medium voltage motors and motor controllers.

### Definitions:

**R-Rating:** R-Rated fuses are back-up fuses that operate as follows (Per ANSI C37.46-2000): An R-Rated fuse will melt in the range of 15 to 35 seconds at a value of current equal to 100 times the "R" rating.

**Back-up Current-Limiting Fuses:** A back-up current-limiting fuse is a fuse that can interrupt any current between its rated minimum interrupting current and its maximum interrupting current. Back-up fuses are not designed or intended to open under overload conditions.

**Continuous Ampere Rating at 40°C:** The continuous amp rating defines the thermal capability of the fuse per ANSI C37.46 and should not be the sole factor in fuse selection.



### Ratings:

#### Amp-Trap A240R

**Volts** : 2.4kV AC  
**Amps** : 1 to 36R  
**IR** : 65kA Sym

#### A480R

**Volts** : 4.8kV AC  
**Amps** : 2 to 36R  
**IR** : 50kA Sym

#### A072F

**Volts** : 7.2kV AC  
**Amps** : 2 to 24R  
**IR** : 50kA Sym

### 9F60 SERIES TYPE EJ-2

#### 9F60

**Volts** : 2.54kV AC  
: 5.08kV ac  
**Amps** : 2 to 36R  
**IR** : 50kA Sym

### Approvals:

- Amp-Trap: UL File E93367
- 9F60: UL File E191980



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## Amp-Trap® and 9F60 Series



### 7.2kV Ferrule Mounted Fuses:

#### 7.2kV R-Rated Amp-Trap Series

12.5" (317 mm) Clip Centers – Barrel diameter size D (3")



Catalog No.	Size	Continuous Amp rating at 40°C	Minimum Interrupting Rating RMS Amp	No of Barrels	Fig.	Indicating	Dimension L Inches (mm)	1 Phase interrupting rating	Max Voltage Tested
								UL Component Recognition Max IR RMS Sym	Max IR RMS Sym
A072F1D0R0-2R	2R	70	190	1	A	Yes	15.88 (403)	50kA at 7.2kV	50kA at 7.7kV
A072F1D0R0-3R	3R	100	225						
A072F1D0R0-4R	4R	130	330						
A072F1D0R0-5R	5R	150	400						
A072F1D0R0-6R	6R	170	500						
A072F1D0R0-9R	9R	200	740						
A072F1D0R0-12R	12R	230	955	2	B	Yes	15.88 (403)	50kA at 7.2kV	50kA at 7.7kV
A072F2D0R0-18R	18R	390	1440						
A072F2D0R0-24R	24R	450	1910						

Indicator Flush with Surface

2 Lb. Force (Tripped)

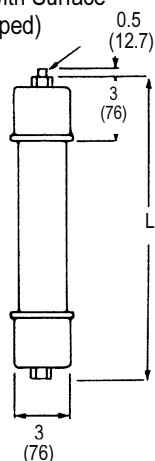


Figure A

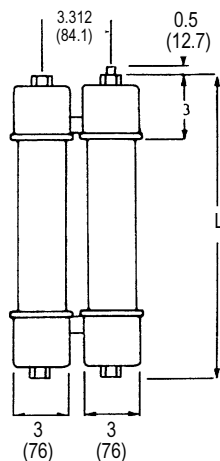


Figure B