

Motor Protection

Amp-Trap® and 9F60 Series

MEDIUM VOLTAGE FUSES

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. These fuses come with a 3 (size D) or 4 (size E) inch diameter barrels with ferrules and are mounted in spring reinforced clips. Used in and required for replacement in motor controllers by many major manufacturers.

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.
- Blown-fuse indicator to give positive identification of open fuse.
 - Amp-Trap, 3" Barrel: 1 lb tripped force - 0.44 inch
 - 9F60: 0.125 lb tripped force - 0.20 inch
- Many parts offered in non-indicating versions for use in Class 1, Div 2 environments.
- Hook-eye option featured on some models for non-load break isolation by hookstick.
 - A051F part numbers include welded hook-eye feature and are designed for use in Eaton Ampgard MCC, and direct replacement for 5ACLS series Eaton fuses.
 - Optional hook-eye is also available on A480 part numbers, factory installed.

Ratings:

Amp-Trap

A240R

- **Volts:** 2.4kVAC
- **Amps:** 1 to 36R
- **IR:** 65kA Sym

A480R

- **Volts:** 4.8kVAC
- **Amps:** 2 to 36R
- **IR:** 64-65kA

A051F

- **Volts:** 5.08kV
- **Amps:** 2 to 24R
- **IR:** 50kA Sym

A072F

- **Volts:** 7.2kVAC
- **Amps:** 2 to 24R
- **IR:** 65kA Sym

9F60 SERIES TYPE EJ-2

9F60

- **Volts:** 2.54kVAC, 5.08kVAC
- **Amps:** 2 to 36R
- **IR:** 50kA Sym

APPLICATIONS:

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



APPROVALS:

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

2.4kV AND 5.08kV FERRULE MOUNTED FUSES:

2.4kV R-Rated 9F60 EJ-2 Series

7" (179 mm) Clip Centers - Barrel diameter size D (3")

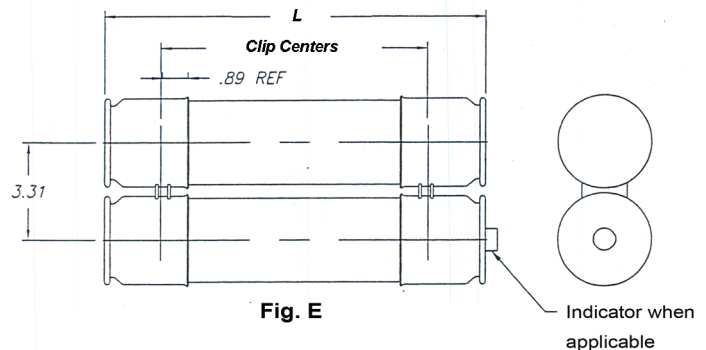
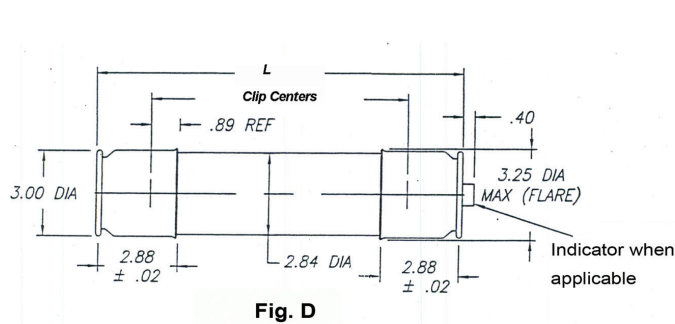


| Catalog No. | Size | Continuous Amp rating at 40°C | Minimum Interrupting Rating RMS Amp | No of Barrels | Fig. | Indicating | Dimension L Inches (mm) | 1 Phase interrupting rating | |
|-------------|------|-------------------------------|-------------------------------------|---------------|------|------------|-------------------------|---|-----------------------------------|
| | | | | | | | | UL Component Recognition Max IR RMS Sym | Max Voltage Tested Max IR RMS Sym |
| 9F60LCB502 | 2R | 70 | 195 | 1 | D | Yes | 10.88 [276] | 50kA at 2.54kV | 50kA at 2.54kV |
| 9F60LCB503 | 3R | 100 | 270 | | | | | | |
| 9F60LCB504 | 4R | 130 | 370 | | | | | | |
| 9F60LCB506 | 6R | 170 | 580 | | | | | | |
| 9F60LCB509 | 9R | 200 | 820 | | | | | | |
| 9F60LCB512 | 12X | 230 | 1150 | | | | | | |
| 9F60MCB518 | 18R | 390 | 1800 | 2 | E | | | | |
| 9F60MCB524 | 24R | 450 | 2400 | | | | | | |
| 9F60LCL302 | 2R | 70 | 195 | 1 | D | No | 10.88 [276] | 50kA at 2.54kV | 50kA at 2.54kV |
| 9F60LCL303 | 3R | 100 | 270 | | | | | | |
| 9F60LCL304 | 4R | 130 | 370 | | | | | | |
| 9F60LCL306 | 6R | 170 | 580 | | | | | | |
| 9F60LCL309 | 9R | 200 | 820 | | | | | | |
| 9F60LCL312 | 12X | 230 | 1150 | | | | | | |
| 9F60MCL318 | 18R | 390 | 1800 | 2 | E | | | | |
| 9F60MCL324 | 24R | 450 | 2400 | | | | | | |

5.08kV R-Rated 9F60 EJ-2 Series

12" (305 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 | |
|-------------|------|-------------------------------|-------------------------------------|---------------|------|------------|-------------------------|---|-----------------------------------|
| | | | | | | | | UL Component Recognition Max IR RMS Sym | Max Voltage Tested Max IR RMS Sym |
| 9F60LJD502 | 2R | 70 | 195 | 1 | D | Yes | 15.97 [406] | 50kA at 5.08kV | 50kA at 5.08kV |
| 9F60LJD503 | 3R | 100 | 270 | | | | | | |
| 9F60LJD504 | 4R | 130 | 370 | | | | | | |
| 9F60LJD506 | 6R | 170 | 580 | | | | | | |
| 9F60LJD509 | 9R | 200 | 820 | | | | | | |
| 9F60LJD512 | 12X | 230 | 1150 | | | | | | |
| 9F60MJD518 | 18R | 390 | 1800 | 2 | E | | | | |
| 9F60MJD524 | 24R | 450 | 2400 | | | | | | |
| 9F60LJN302 | 2R | 70 | 195 | 1 | D | No | 15.97 [406] | 50kA at 5.08kV | 50kA at 5.08kV |
| 9F60LJN303 | 3R | 100 | 270 | | | | | | |
| 9F60LJN304 | 4R | 130 | 370 | | | | | | |
| 9F60LJN306 | 6R | 170 | 580 | | | | | | |
| 9F60LJN309 | 9R | 200 | 820 | | | | | | |
| 9F60LJN312 | 12X | 230 | 1150 | | | | | | |
| 9F60MJN318 | 18R | 390 | 1800 | 2 | E | | | | |
| 9F60MJN324 | 24R | 450 | 2400 | | | | | | |



4.8kV / 5.08kV FERRULE MOUNTED FUSES:

4.8kV 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 | |
|-------------|-------|-------------------------------|-------------------------------------|---------------|------|------------|-------------------------|---|-----------------------------------|
| | | | | | | | | UL Component Recognition Max IR RMS Sym | Max Voltage Tested Max IR RMS Sym |
| A480R2R-1 | 2R | 70 | 190 | 1 | F | Yes | 15.88 [403] | 65kA at 5.5kV | 65kA at 5.5kV |
| A480R3R-1 | 3R | 100 | 225 | | | | | | |
| A480R4R-1 | 4R | 130 | 330 | | | | | | |
| A480R5R-1 | 5R | 150 | 400 | | | | | | |
| A480R6R-1 | 6R | 170 | 500 | | | | | | |
| A480R9R-1 | 9R | 200 | 740 | | | | | | |
| A480R12R-1 | 12R | 230 | 955 | 2 | G | | 64kA at 5.5kV | 64kA at 5.5kV | |
| A480R18R-1 | 18R | 390 | 1440 | | | | | | |
| A480R24R-1 | 24R | 450 | 1910 | | | | | | |
| A480R36R-1 | 36R** | 650 | 2810 | 3 | H | | | | |

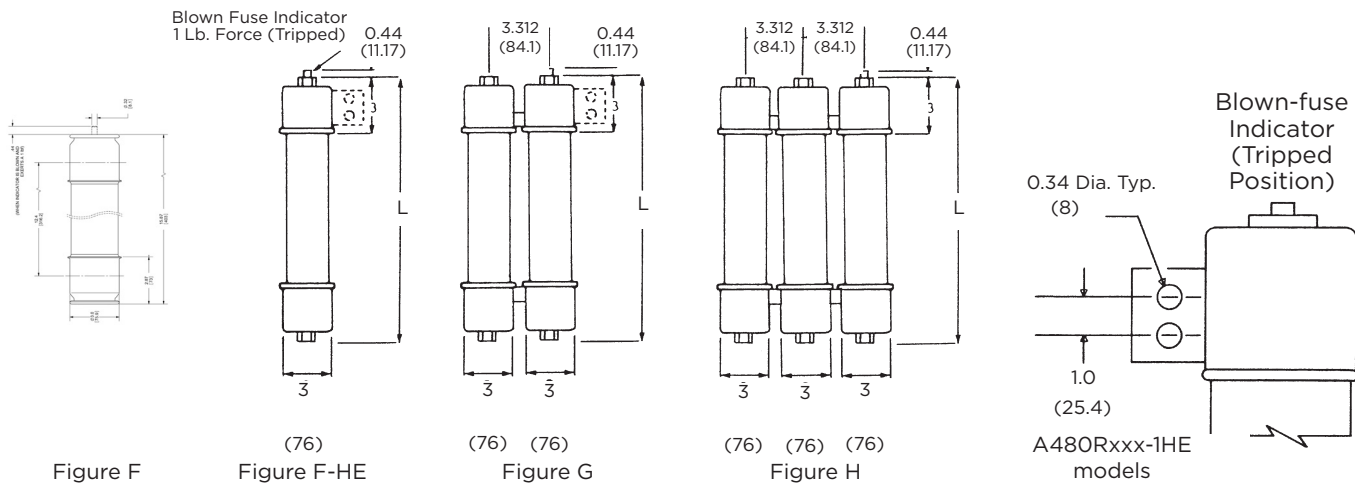
** Not recommended for use in fuse clips which grasp only one barrel.

4.8kV R-Rated Amp-Trap Series with Hookeye

12.75" (324 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 | |
|--------------|------|-------------------------------|-------------------------------------|---------------|------|------------|-------------------------|---|-----------------------------------|
| | | | | | | | | UL Component Recognition Max IR RMS Sym | Max Voltage Tested Max IR RMS Sym |
| A480R2R-1HE | 2R | 70 | 190 | 1 | F-HE | Yes | 16.13 [410] | 50kA at 5.08kV | 63kA at 5.5kV |
| A480R3R-1HE | 3R | 100 | 225 | | | | | | |
| A480R4R-1HE | 4R | 130 | 330 | | | | | | |
| A480R5R-1HE | 5R | 150 | 400 | | | | | | |
| A480R6R-1HE | 6R | 170 | 500 | | | | | | |
| A480R9R-1HE | 9R | 200 | 740 | | | | | | |
| A480R12R-1HE | 12R | 230 | 955 | 2 | G | | | | |
| A480R18R-1HE | 18R | 390 | 1440 | | | | | | |
| A480R24R-1HE | 24R | 450 | 1910 | | | | | | |



4.8kV / 5.08kV FERRULE MOUNTED FUSES:

5.08kV R-Rated Amp-Trap Ferrule Mount w/ Hookeye, for use in Ampgard Switchgear



| Catalog No. | Size | Continuous Amp rating at 40°C | Rated Minimum Interrupting Current | No of Barrels | Fig. | Indicating | Dimension L Inches (mm) | UL Component Recognition Max IR RMS Sym | Max Voltage Tested Max IR RMS Sym |
|----------------|------|-------------------------------|------------------------------------|---------------|------|------------|-------------------------|--|--------------------------------------|
| A051F1DHR0-2R | 2R | 70 | 220 | 1 | I | Yes** | 15.88 (403.2) | 50kA @5.08kV | 50kA @5.08kV |
| A051F1DHR0-3R | 3R | 100 | 270 | | | | | | |
| A051F1DHR0-4R | 4R | 130 | 360 | | | | | | |
| A051F1DHR0-5R | 5R | 150 | 450 | | | | | | |
| A051F1DHR0-6R | 6R | 170 | 600 | | | | | | |
| A051F1DHR0-9R | 9R | 200 | 900 | | | | | | |
| A051F1DHR0-12R | 12R | 230 | 1200 | 2 | J | | | | |
| A051F2DHR0-18R | 18R | 390 | 1500 | | | | | | |
| A051F2DHR0-24R | 24R | 450 | 2200 | | | | | | |

** All part numbers available without indication by substituting "DHR0" w/ "DHRN". Example: A051F1DHRN-24R

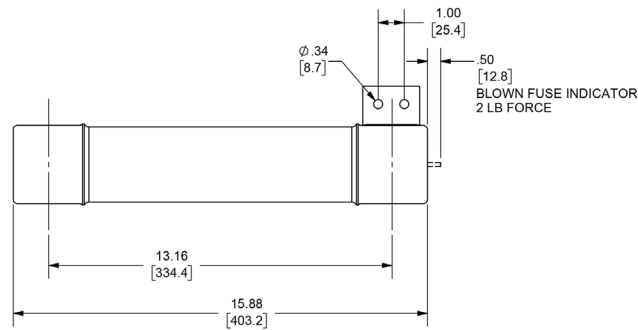


Figure I

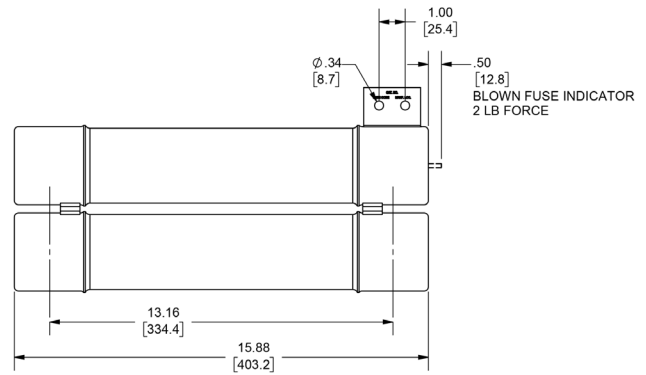


Figure J

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