

Motor Protection

Amp-Trap® Bolt-In Series

MEDIUM VOLTAGE FUSES

5.08kV, 7.2kV AND 15.5kV
BOLT-IN FUSES

M
V



Mersen R-Rated fuses are current-limiting, high interrupting rating fuses intended for the short circuit protection of medium voltage motors and motor control centers (MCC). R-Rated fuses are back-up fuses that have a minimum interrupting rating, and must be coordinated with overload relays in MCCs. These fuses are single, double, triple or quadruple barrels 3 inches diameter with end mounts designed for bolting directly to equipment bus or terminal pads. Used in and requested for replacement in MCCs from many manufacturers.

FEATURES/BENEFITS:

- The Amp-Trap Bolt-in series are UL Recognized.
- Bolt-in mounting for direct connection to bus or terminals.
- 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 2 lb tripped force - 0.50 inch (0.38 inch for -DHR0 part numbers)
 - 9F60: 0.125 lb tripped force - 0.2 inch

Ratings:

Amp-Trap

A051B

- **Volts:** 5.08kV AC
- **Amps:** 2 to 38R
- **IR:** 50kA Sym, 65kA Sym

A072B

- **Volts:** 7.2kV AC
- **Amps:** 2 to 24R, 19R to 57X
- **IR:** 50kA Sym, 65kA Sym

A155B

- **Volts:** 15.5kV AC
- **Amps:** 9 to 38X
- **IR:** 50kA Sym

9F60 Series Type EJ-2

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

APPLICATIONS:

- Short circuit protection of medium voltage motors and motor controllers.
- Bolt-in equipment for secure mechanical connection in blast-proof equipment
- Many parts offered in non-indicating versions for use in Class 1, Div 2 locations

APPROVALS:

- UL Recognized File E93367



DEFINITIONS:

R-Rating: R-Rated fuses are back-up fuses that operate as follows (Per IEEE C37.42-2016): 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 IEEE C37.42-2016 and should not be the sole factor in fuse selection.

5.08kV / 7.2kV BOLT-IN FUSES:

5.08kV R-Rated Amp-Trap Bolt-In Series

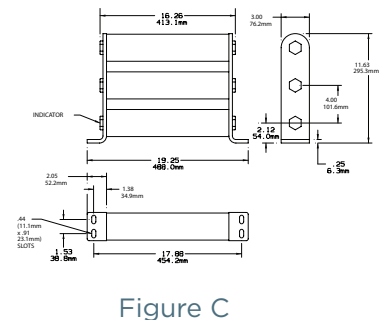
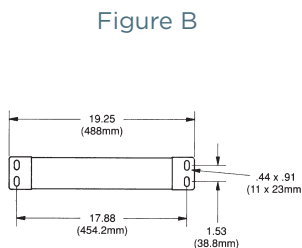
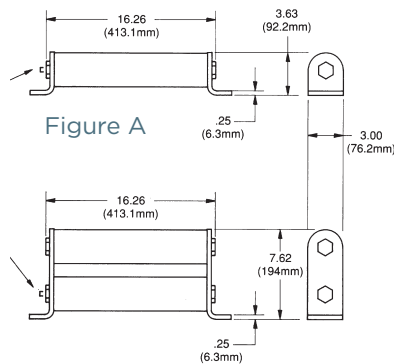


Catalog No.	Size	Continuous Amp rating at 40°C	Minimum Interrupting Rating RMS Amp	No of Barrels	Fig.	Indicating	1 Phase interrupting rating	
							UL Component Recognition Max IR RMS Sym	Max Voltage Tested Max IR RMS Sym
A051B1DARO-2R	2R	70	190	1	A	Yes	65kA at 5.08kV	65kA at 5.5kV
A051B1DARO-3R	3R	100	225					
A051B1DARO-4R	4R	130	330					
A051B1DARO-6R	6R	170	500					
A051B1DARO-9R	9R	200	740					
A051B1DARO-12R	12R	230	955	2	B	Yes	65kA at 5.08kV	65kA at 5.5kV
A051B2DARO-18R	18R	390	1440					
A051B2DARO-24R	24R	450	1910					
A051B2DARO-32R	32R	600	2500					
A051B2DARO-38R	38R	700	3100	3	C	Yes	50kA at 5.08kV	50kA at 5.2kV
A051B3DARO-48X	48X	750	3600					
A051B3DARO-57X	57X	900	4500					

7.2kV R-Rated Amp-Trap Bolt-In Series



Catalog No.	Size	Continuous Amp rating at 40°C	Minimum Interrupting Rating RMS Amp	No of Barrels	Fig.	Indicating	1 Phase interrupting rating	
							UL Component Recognition Max IR RMS Sym	Max Voltage Tested Max IR RMS Sym
A072B1DARO-2R	2R	70	190	1	A	Yes	65kA at 7.2kV	65kA at 7.7kV
A072B1DARO-3R	3R	100	225					
A072B1DARO-4R	4R	130	330					
A072B1DARO-5R	5R	150	400					
A072B1DARO-6R	6R	170	500					
A072B1DARO-9R	9R	200	740	2	B	Yes	65kA at 7.2kV	65kA at 7.7kV
A072B1DARO-12R	12R	230	955					
A072B2DARO-18R	18R	390	1440					
A072B2DARO-24R	24R	450	1910					



5.08kV / 7.2kV BOLT-IN FUSES:

5.08kV R-Rated 9F60, EJ-2 Bolt-In Series, for use in Mebane Style Switchgear

Catalog No.	Size	Continuous Amp rating at 40°C	Rated Minimum Interrupting Current	No of Barrels	Figure	Indicating	Dimension L Inches/ (mm)	UL Component Recognition Max IR RMS Sym	Max Voltage Tested Max IR RMS Sym
9F60LXD702	2R	70	195	1	D	Yes		50kA at 5.08kV	50kA at 5.08kV
9F60LXD703	3R	100	270						
9F60LXD704	4R	130	370						
9F60LXD706	6R	170	580						
9F60LXD709	9R	200	820						
9F60LXD712	12R	230	1150	2	E				
9F60MXD718	18R	390	1800						
9F60MXD724	24R	450	2400						

** All part numbers available without indication by substituting "DHRO" w/ "DHRN". Example: A051BIDHRN-24R

5.08kV R-Rated 9F60, EJ-2 Bolt-In Series, for use in Mebane Style Switchgear - Alternate Bolt Configuration

Catalog No.	Size	Continuous Amp rating at 40°C	Rated Minimum Interrupting Current	No of Barrels	Figure	Indicating	Dimension L Inches/ (mm)	UL Component Recognition Max IR RMS Sym	Max Voltage Tested Max IR RMS Sym
9F60LXD402	2R	70	195	1	F	Yes		50kA at 5.08kV	50kA at 5.08kV
9F60LXD403	3R	100	270						
9F60LXD404	4R	130	370						
9F60LXD406	6R	170	580						
9F60LXD409	9R	200	820						
9F60LXD412	12R	230	1150	2	G				
9F60MXD418	18R	390	1800						
9F60MXD424	24R	450	2400						

** All part numbers available without indication by substituting "DHRO" w/ "DHRN". Example: A051BIDHRN-24R

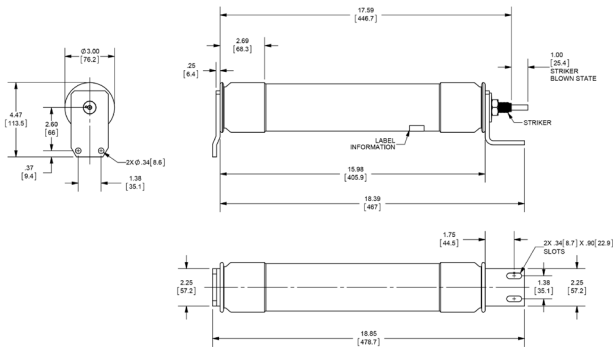


Figure D

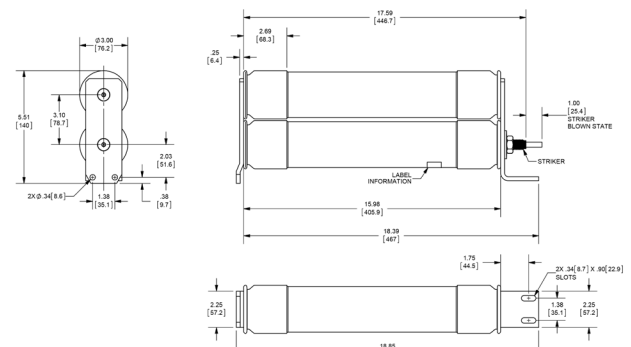


Figure E

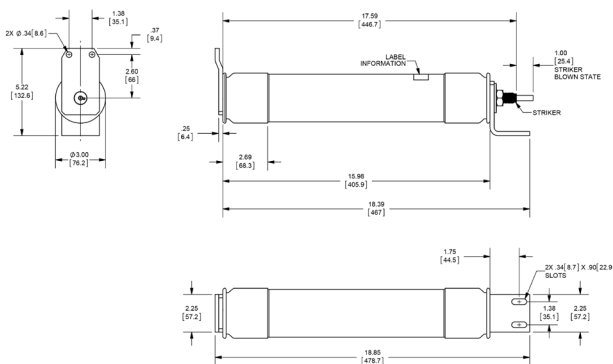


Figure F

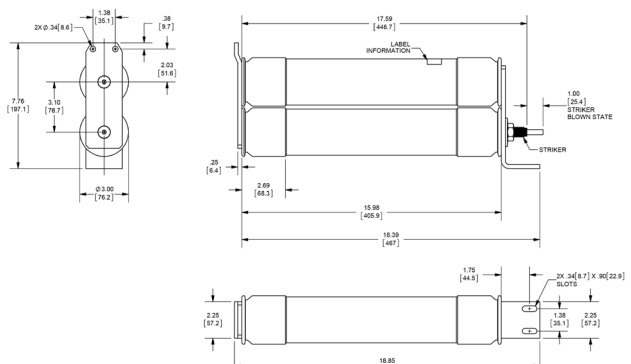


Figure G



5.08kV / 7.2kV BOLT-IN FUSES:

5.08kV R-Rated Amp-Trap Bolt-In Series, 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 Voltage Tested
								Max IR RMS Sym	Max IR RMS Sym
A051B1DHRO – 2R	2R	70	200	1	H	Yes**	15.88 [403.2]	50kA @5.08kV	50kA @5.08kV
A051B1DHRO – 3R	3R	100	290						
A051B1DHRO – 4R	4R	130	360						
A051B1DHRO – 5R	5R	150	450						
A051B1DHRO – 6R	6R	170	600						
A051B1DHRO – 9R	9R	200	900						
A051B2DHRO – 18R	18R	390	1500	2	I				
A051B2DHRO – 24R	24R	450	2200						

** All part numbers available without indication by substituting "DHRO" w/ "DHRN". Example: A051BIDHRN-24R

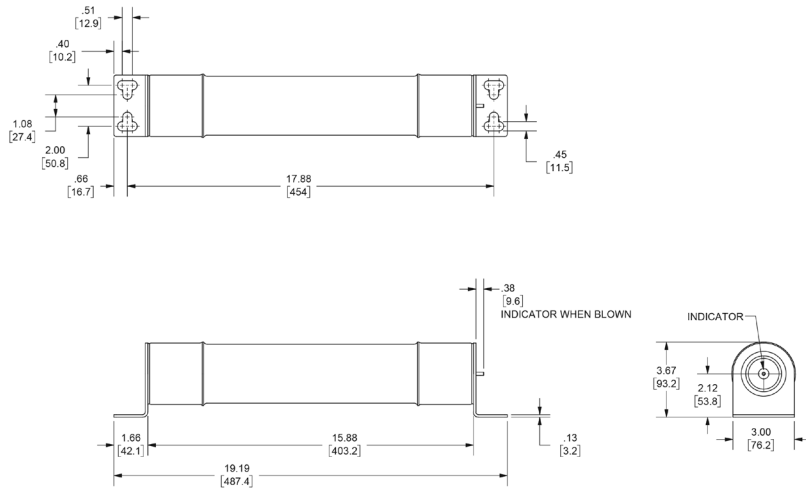


Figure H

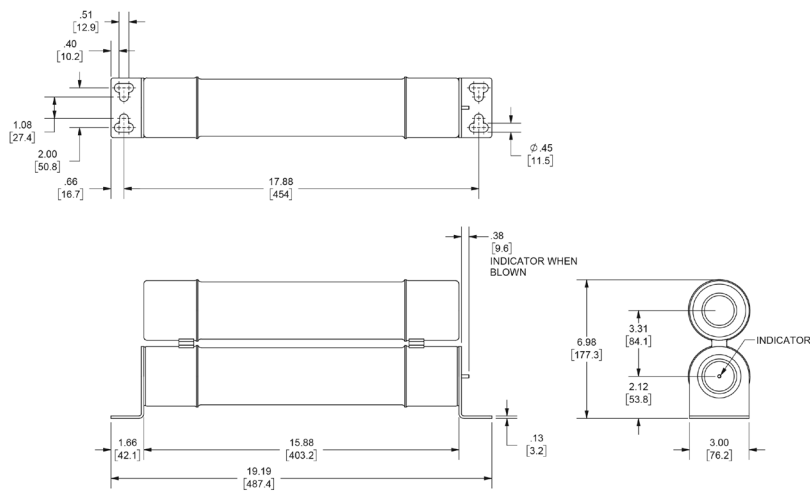


Figure I





7.2kV / 15.5kV BOLT-IN FUSES:

7.2kV R-Rated Amp-Trap Bolt-In Series

Catalog No.	Size	Continuous Amp rating at 40°C	Minimum Interrupting Rating RMS Amp	Indicating	1 Phase interrupting rating		No of Barrels	Fig.
					UL Component Recognition Max IR RMS Sym	Max Voltage Tested Max IR RMS Sym		
A072B1D0R0-19R	19R	300	1560	Yes	65kA at 7.2kV	65kA at 7.66kV	1	J
A072B2D0R0-32R	32R	540	3070			65kA at 7.66kV	2	K
A072B2D0R0-38R	38R	600	3480			65kA at 7.66kV	3	L
A072B3DBR0-48X	48X	750	4360			65kA at 7.2kV	3	L
A072B3DBR0-57X	57X	900	5000			65kA at 7.2kV	3	L



15.5kV R-Rated Amp-Trap Bolt-In Series

Catalog No.	Size	Continuous Amp rating at 40°C	Minimum Interrupting Rating RMS Amp	Indicating	1 Phase interrupting rating		No of Barrels	Fig.
					UL Component Recognition Max IR RMS Sym	Max Voltage Tested Max IR RMS Sym		
A155B2D0R0-9R	9R	200	888	Yes	50 kA at 15.5kV	50 kA at 15.5kV	2	M
A155B2D0R0-12R	12R	230	1200				3	N
A155B3D0R0-18X	18X	390	1900				4	0
A155B3D0R0-24X	24X	450	2633					
A155B4D0R0-32X	32X	600	3510					
A155B4D0R0-38X	38X	700	4000					

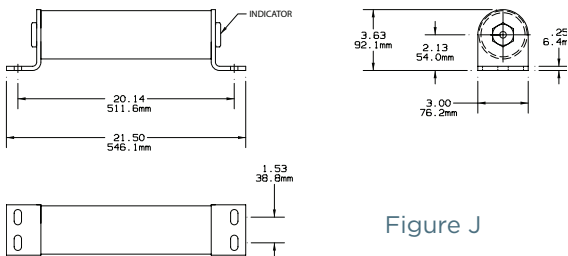


Figure J

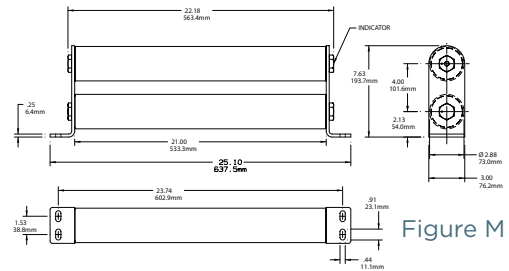


Figure M

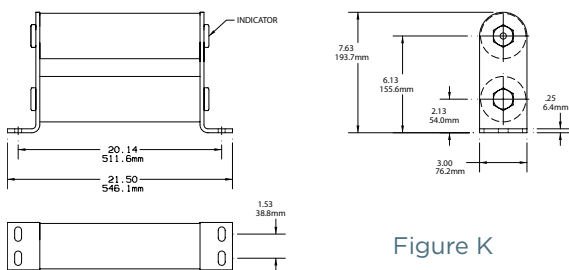


Figure K

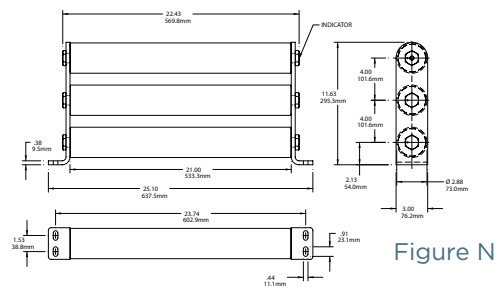


Figure N

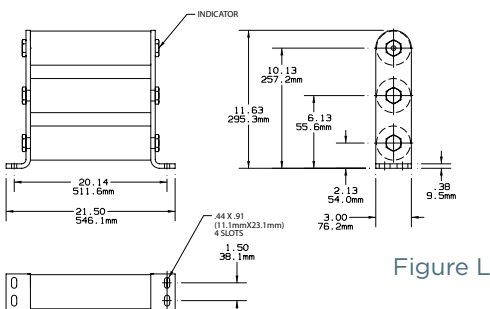


Figure L

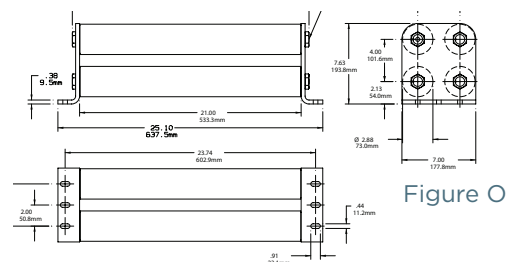


Figure O