

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					

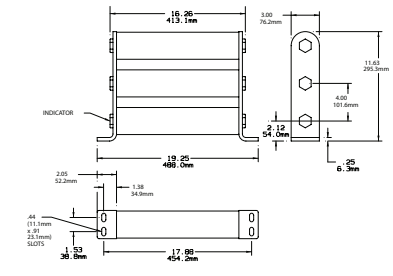
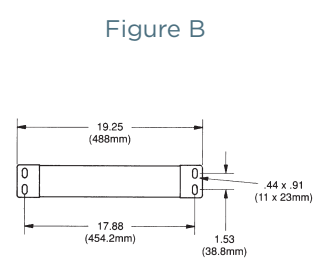
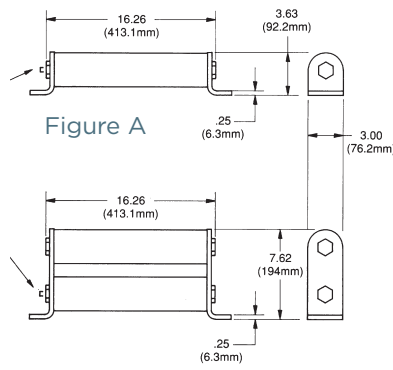


Figure C

5.08kV / 7.2kV BOLT-IN FUSES:

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

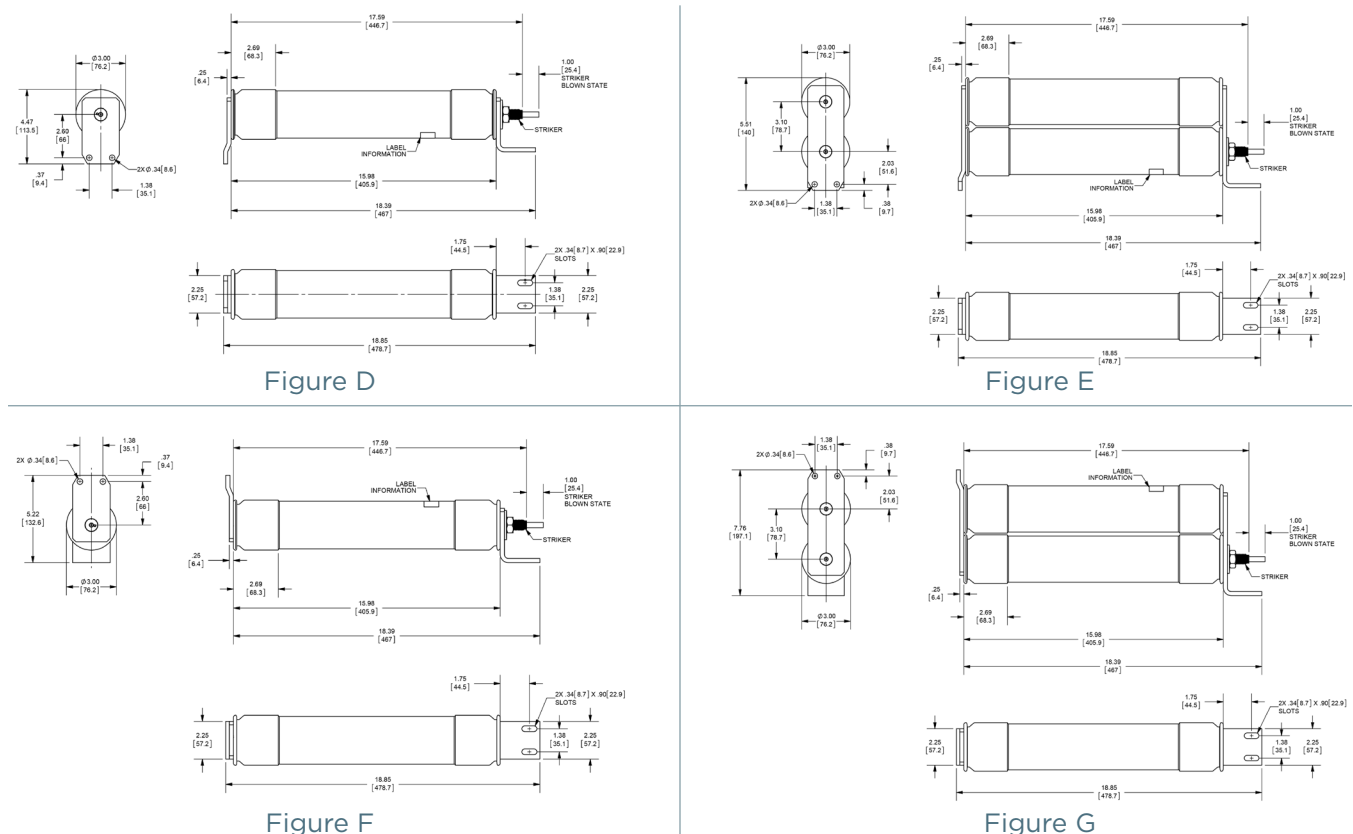
Catalog No.	Size	Continuous Amp rating at 40°C	Rated Minimum Interrupting Current	No of Barrels	Figure	Indicating	Dimension L Inches/ (mm)	UL Component Recognition Max IR RMS Sym	Max Voltage Tested Max IR RMS Sym
9F60LXD702	2R	70	195	1	D	Yes		50kA at 5.08kV	50kA at 5.08kV
9F60LXD703	3R	100	270						
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



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						
A051B1DHRO – 12R	12R	230	1200	2	I				
A051B2DHRO – 18R	18R	390	1500						
A051B2DHRO – 24R	24R	450	2200						

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

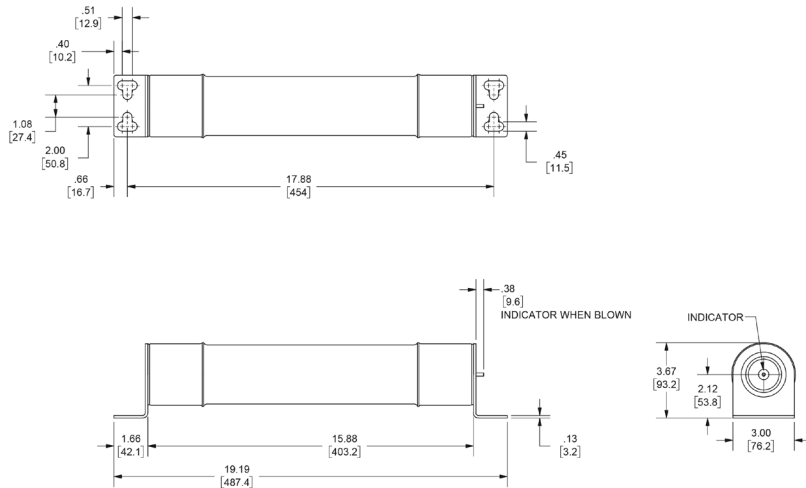


Figure H

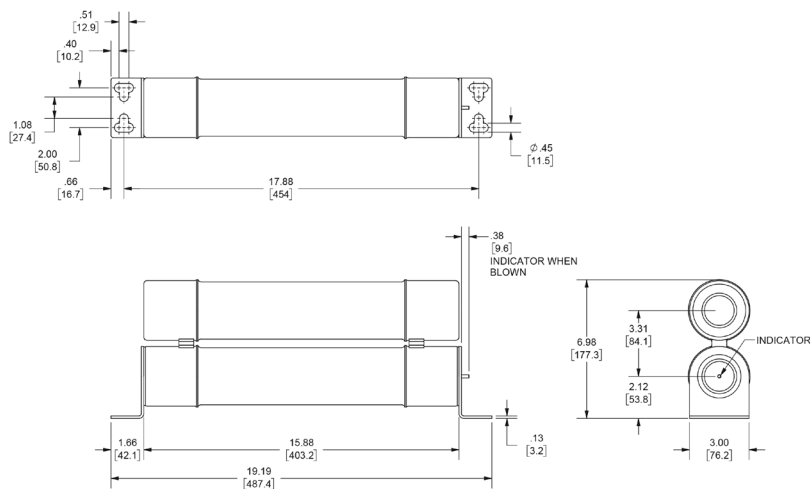


Figure I



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





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					

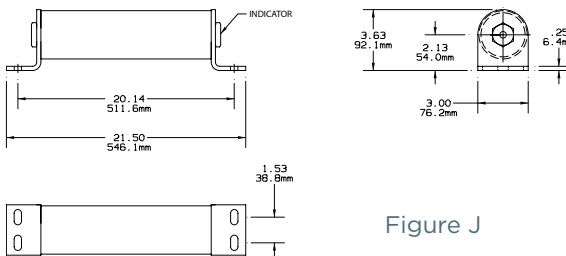


Figure J

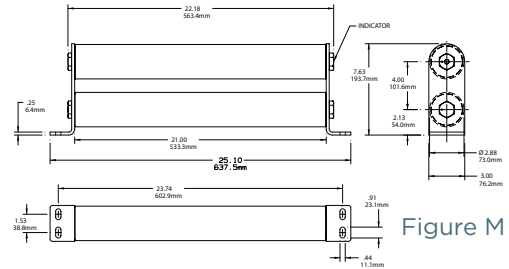


Figure M

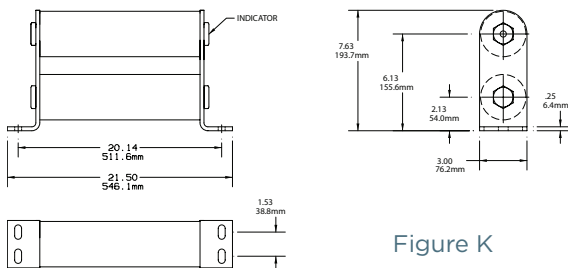


Figure K

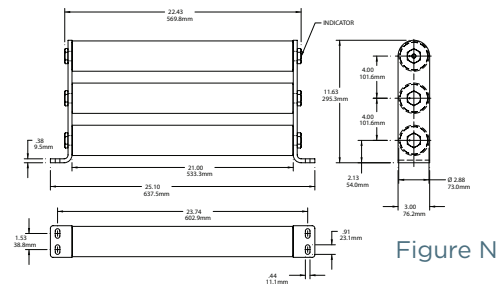


Figure N

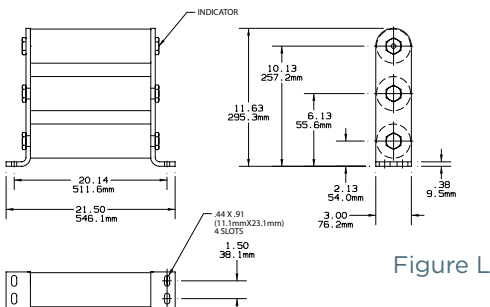


Figure L

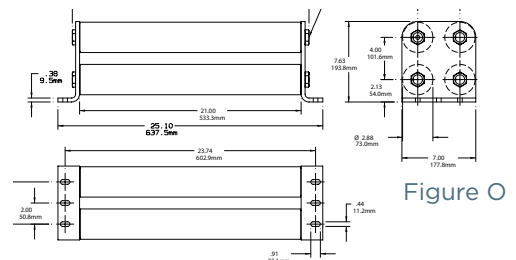


Figure O

Motor Protection

Amp-Trap® and 9F60 Series

MEDIUM VOLTAGE FUSES

2.4kV, 2.54kV, 4.8kV, 5.08kV AND 7.2kV
FERRULE MOUNTED 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 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 2 lb tripped force - 0.50 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

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.

2.4kV FERRULE MOUNTED FUSES:



2.4kV R-Rated Amp-Trap Series

7.5" (191 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
A240R1R	1R	35	100	1	A	Yes	10.88 [276]	65kA at 2.6kV	65kA at 2.6kV
A240R2R	2R	70	170						
A240R3R	3R	100	250						
A240R4R	4R	130	340						
A240R5R	5R	150	420						
A240R6R	6R	170	500						
A240R9R	9R	200	760						
A240R12R	12R	230	1000						
A240R18R	18R	390	1500	2	B				
A240R24R	24R	450	2000						
A240R36R	36R**	650	2900	3	C				

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

2.4kV / 2.54kV Ferrule mounted fuses:

Indicator Flush with Surface

2 Lb. Force (Tripped)

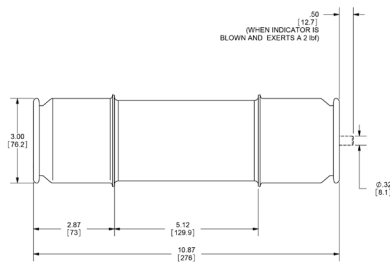


Figure A

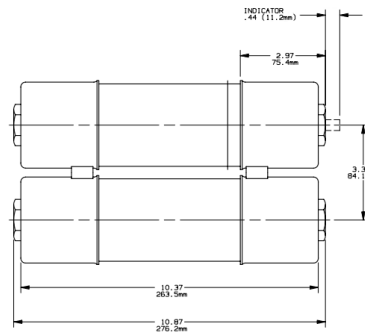


Figure B

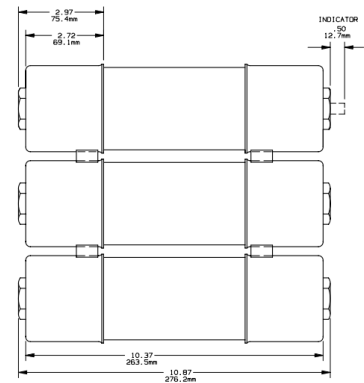


Figure C

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	12R	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	12R	230	1150						
9F60MCL318	18R	390	1800	2	E				
9F60MCL324	24R	450	2400						

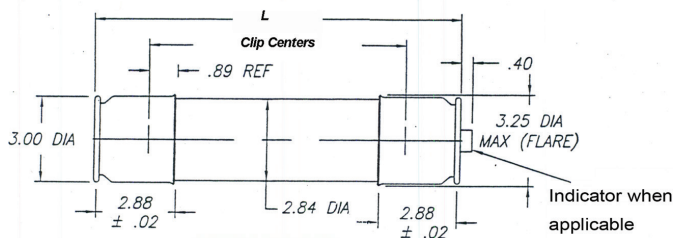


Fig. D

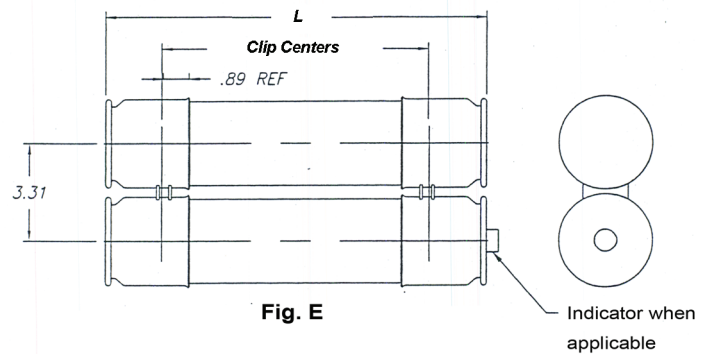


Fig. E

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	12R	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	12R	230	1150						
9F60MJN318	18R	390	1800	2	E*				
9F60MJN324	24R	450	2400						

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Amp-Trap® and 9F60 Series

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FEATURES/BENEFITS:

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- 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 2 lb tripped force - 0.50 Inch
 - 9F60: 0.125 lb tripped force - 0.20 Inch
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 - 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

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 Sum	Max Voltage Tested Max IR RMS Sum
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 Sum	Max Voltage Tested Max IR RMS Sum
A480R2R-1HE	2R	70	190	1	F	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						

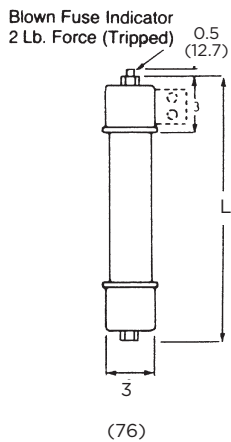


Figure F

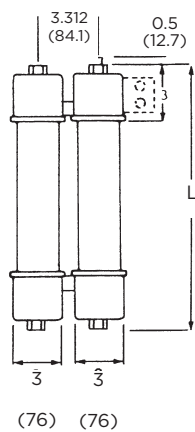


Figure G

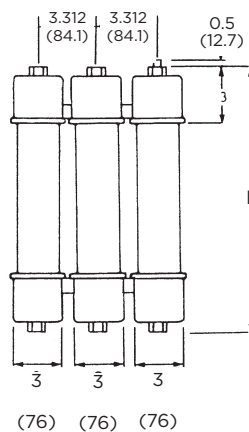
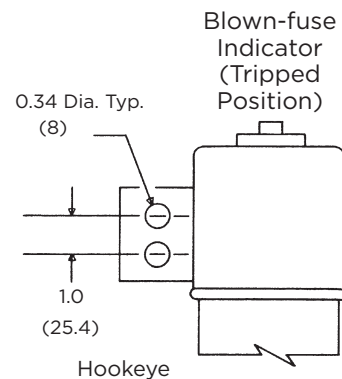


Figure H



Blown-fuse Indicator (Tripped Position)

Hookeye

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
A051F1DHRO – 2R	2R	70	200	1	I	Yes**	15.88 [403.2]	50kA @5.08kV	50kA @5.08kV
A051F1DHRO – 3R	3R	100	290						
A051F1DHRO – 4R	4R	130	360						
A051F1DHRO – 5R	5R	150	450						
A051F1DHRO – 6R	6R	170	600						
A051F1DHRO – 9R	9R	200	900						
A051F1DHRO – 12R	12R	230	1200	2	J				
A051F2DHRO – 18R	18R	390	1500						
A051F2DHRO – 24R	24R	450	2200						

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

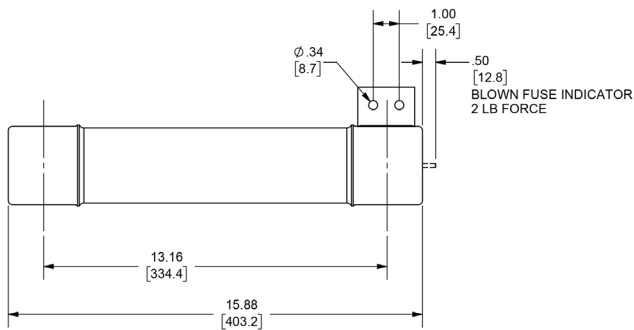


Figure I

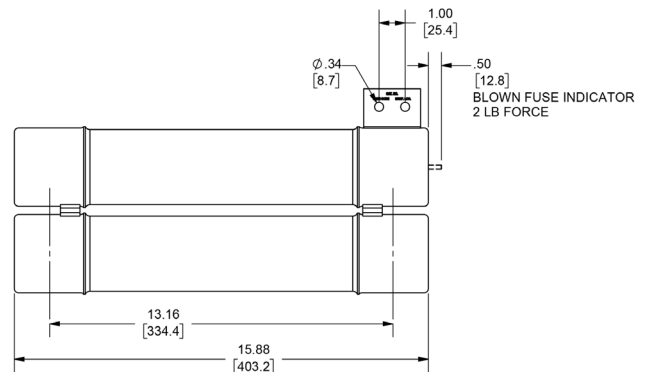


Figure J

5.08kV R-Rated 9F60 EJ-2 Series

14" (356 mm) Clip Centers - Barrel diameter size E (4") - Use clip parts 9F61BNW452

Catalog No.	Size	Continuous Amp rating at 40°C	Minimum Interrupting Rating RMS Amp	Indicating	Dimension L Inches (mm)	1 Phase interrupting rating		No of Barrels	Fig.
						UL Component Recognition Max IR RMS Sym	Max Voltage Tested Max IR RMS Sym		
9F60NLD830	30R	550	3600	Yes	19.12 [486]	50kA at 5.08kV	50kA at 5.08kV	2	K
9F60NLD836	36R	650	4200						

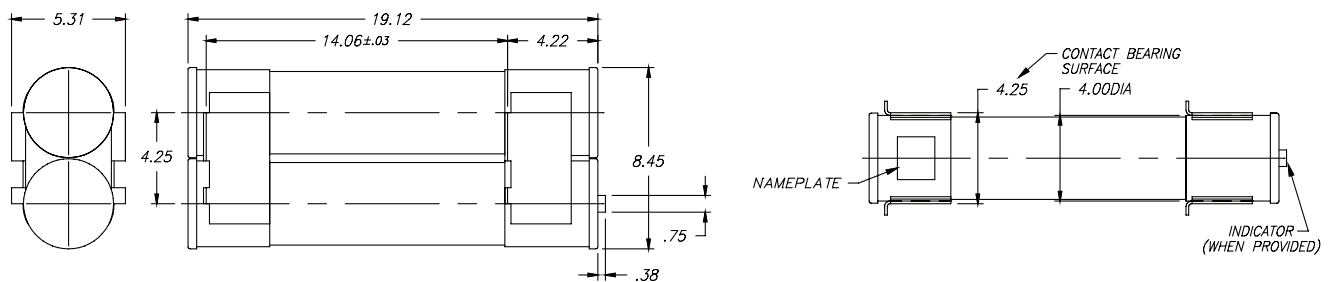


Figure K

MV

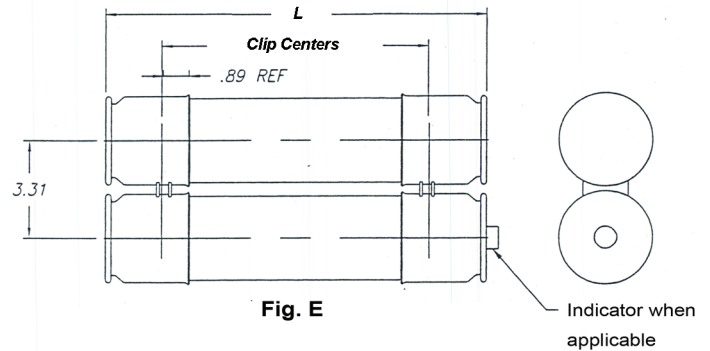
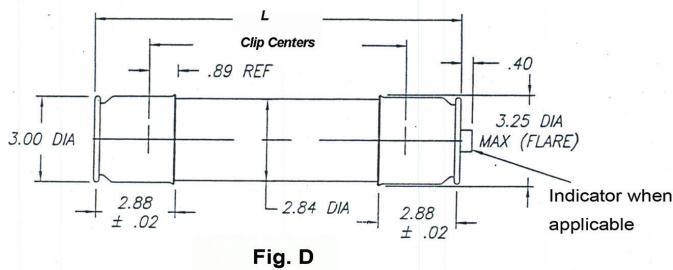
2.4kV AND 5.08kV FERRULE MOUNTED FUSES:

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	12R	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	12R	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	12R	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	12R	230	1150						
9F60MJN318	18R	390	1800	2	E*				
9F60MJN324	24R	450	2400						

MV

Motor Protection

Amp-Trap® and 9F60 Series

MEDIUM VOLTAGE FUSES

2.4kV, 2.54kV, 4.8kV, 5.08kV AND 7.2kV
FERRULE MOUNTED 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 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 2 lb tripped force - 0.50 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

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	
								UL Component Recognition Max IR RMS Sym	Max Voltage Tested Max IR RMS Sym
A072F1D0R0-2R	2R	70	190	1	L	Yes	15.88 (403)	65kA at 7.2kV	65kA 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	M				
A072F2D0R0-18R	18R	390	1440						
A072F2D0R0-24R	24R	450	1910						



Indicator Flush with Surface
2 Lb. Force (Tripped)

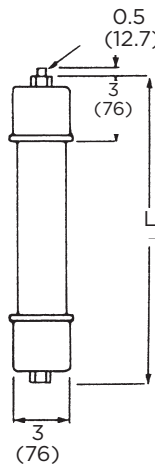


Figure L

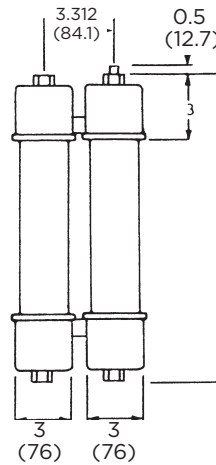


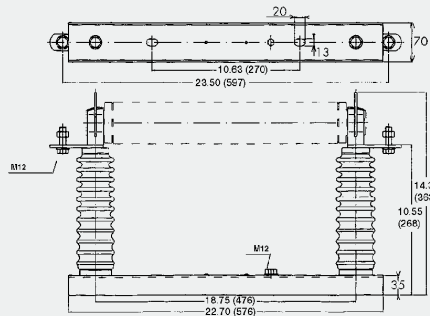
Figure M

Motor Protection

Amp-Trap® DIN-Style Fuses

MEDIUM VOLTAGE FUSES

R-RATED IEC DIN STYLE MV FUSES



Amp-Trap® R-Rated DIN style fuses are current-limiting, high interrupting rating fuses, intended for the short circuit protection of medium voltage motors and motor controllers. This product range offers North American R-Rated performance in the IEC 282-1 DIN mounting configuration of 442mm. R-Rated fuses are applied as back up fuses that have a minimum interrupting rating, and must be coordinated with overload relays in combination motor starters. Amp-Trap R-Rated, DIN type fuses are offered in voltage ratings of 3.3kV, 5.3kV and 7.2kV in ratings from 2R to 19R. All fuses within this product group are UL component recognized.

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.

Spring-Reinforced Clip MR45 & Spring Ref.# L096472

Fuse-Holder: SI 24/442 Ref # K209424 In compliance with IEC 282-1, DIN standard 43625. * Note: Ratings above 19R may be achieved by paralleling fuses. Please consult factory for details.

RATINGS:

A033D1

- **Volts:** 3300V AC
- **Amps:** 2 to 19R*
- **IR:** 65kA Sym

A055D1

- **Volts:** 5300V AC
- **Amps:** 2 to 19R*
- **IR:** 65kA Sym

A072D1

- **Volts:** 7200V AC
- **Amps:** 2 to 19R*
- **IR:** 65kA Sym

FEATURES/BENEFITS:

- Clip mount DIN 45: R-Rated fuses with North American ANSI characteristics in a standard DIN 442mm size.
- Current-limiting for superior equipment protection
- Blown fuse indicator provides positive identification of open fuse. 4.5lb tripping force - 1.0”.

HIGHLIGHTS:

- R-Rated
- UL recognized

APPLICATIONS:

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

APPROVALS:

- UL recognized component File E93367

MV



Fig.	Catalog Number	Size	Continuous Amp Rating 55 ° C**	Continuous Amp Rating 40 ° C**	Minimum Interrupting Rating RMS Rating	1 Phase Interrupting Rating Maximum Tested	
						RMS Asym	RMS Sym
3.3kv Max. DIN IEC Style 442 mm							
A	A033D1DSRO-2R	2R	63	70	190	100kA @ 3300V	65kA @ 3300V
A	A033D1DSRO-3R	3R	90	100	225		
A	A033D1DSRO-4R	4R	115	130	225		
A	A033D1DSRO-5R	5R	135	150	400		
A	A033D1DSRO-6R	6R	150	170	540		
A	A033D1DSRO-9R	9R	180	200	780		
A	A033D1DSRO-12R	12R	210	230	955		
A	A033D1DSRO-13R	13R*	230	260	1050		
A	A033D1DSRO-16R	16R*	270	300	1200		
A	A033D1DSRO-19R	19R*	280	310	1280		
5.5kV Max. DIN IEC Style 442 mm							
A	A055D1DSRO-2R	2R	63	70	190	100kA @ 5500V	65kA @ 5500V
A	A055D1DSRO-3R	3R	90	100	225		
A	A055D1DSRO-4R	4R	115	130	225		
A	A055D1DSRO-5R	5R	135	150	400		
A	A055D1DSRO-6R	6R	150	170	540		
A	A055D1DSRO-9R	9R	180	200	780		
A	A055D1DSRO-12R	12R	210	230	955		
A	A055D1DSRO-13R	13R*	230	260	1050		
A	A055D1DSRO-16R	16R*	270	300	1200		
A	A055D1DSRO-19R	19R*	280	310	1280		
7.2kV Max. DIN IEC Style 442 mm							
A	A072D1DSRO-2R	2R	63	70	190	100kA @ 7200V	65kA @ 7200V
A	A072D1DSRO-3R	3R	90	100	225		
A	A072D1DSRO-4R	4R	115	130	400		
A	A072D1DSRO-5R	5R	135	150	540		
A	A072D1DSRO-6R	6R	150	170	550		
A	A072D1DSRO-9R	9R	180	200	780		
A	A072D1DSRO-12R	12R	210	230	955		
A	A072D1DSRO-13R	13R*	230	260	1050		
A	A072D1DSRO-16R	16R*	270	300	1200		
A	A072D1DSRO-19R	19R*	280	310	1280		

* 13R, 16R and 19R are not standard ratings defined in ANSI C37.46.

** This rating defines the thermal capability of the fuse per ANSI 37.46 and should not be the sole factor in fuse selection.

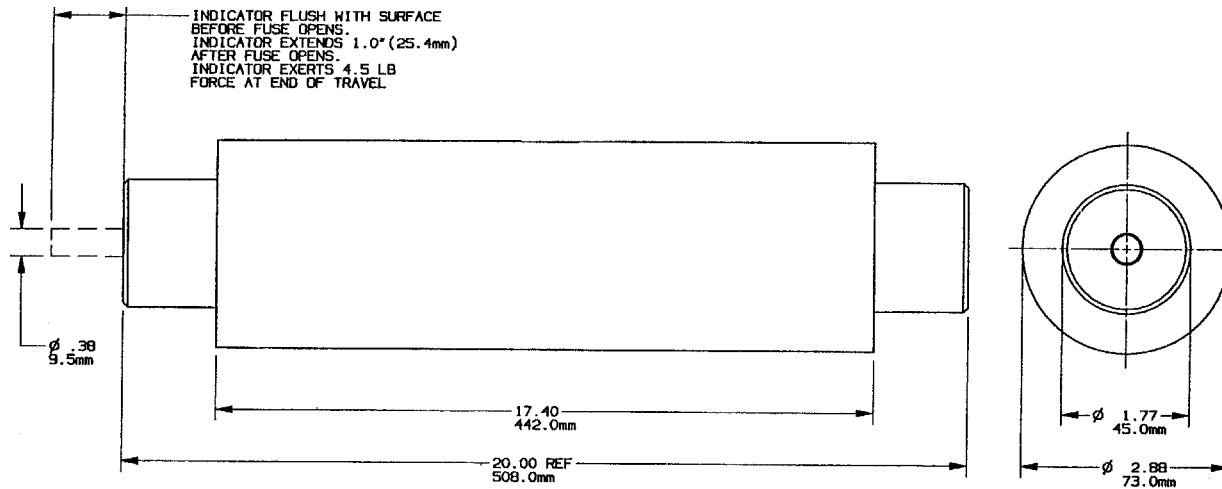


Figure A