



HV Motor Fuses

Description

MR series fuses are current-limiting partial range fuses intended for the protection of medium voltage motor control.

They have standardised dimensions and are fully interchangeable with other fuses of the same type and rating. Blown fuse indication is standard on all types.

The design of the striker travel and force meets international requirements for mechanical actuation and can be used for visual indication or mechanical actuation.

Features

- Integral indicating pin for visual or mechanical operation.
- 2.5kV and 5.5kV fuses can be hermetically sealed and supplied with out indicator for use in hazardous location application.
- Fully plated metal parts for low contact resistance.
- Standard 'R' ratings ensure interchangeability.

Installation notes

When replacing motor starting fuses, always match the 'R' rating - not the amp rating - to maintain identical co-ordination and motor starting capability. These fuses can replace any manufacturers' motor fuse having the same dimensions and R rating. Ensure that the fuse clips still have good tension and clean all contact surfaces before re-installing fuses. The striker pin should be pointing up when installing fuses.

Fuses should be replaced in sets of three to avoid nuisance blowing caused by element damage.

Motor Circuits

There are motor/fuse selection charts in each section. To use these fuse charts it is necessary to know the starting current and run-up time of the motor. For starting conditions not shown, please contact Fusetek.

- Select appropriate run-up time (6 or 15 seconds)
- Read down to appropriate starting current range.
- Read across to find 'R' rating.

Tag Variations

A variety of end contact arrangements are available. Add the following suffix to the part number for; Hookeye - W, 2" longer Body - X, Bolt in end tags - BI

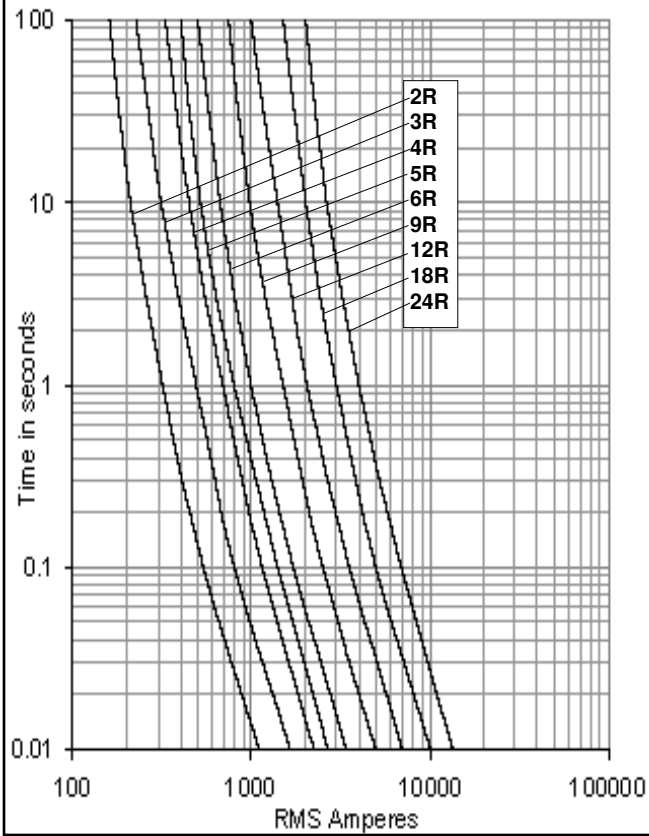
'R' Rating Defined

The 'R' rating for a fuse is established by dividing the 20-35 second melt current of the fuse by 100.

In this way, fuses having the same 'R' rating will melt at the same current level at 20s - thus ensuring identical motor starting capability and co-ordination with the overload relays.

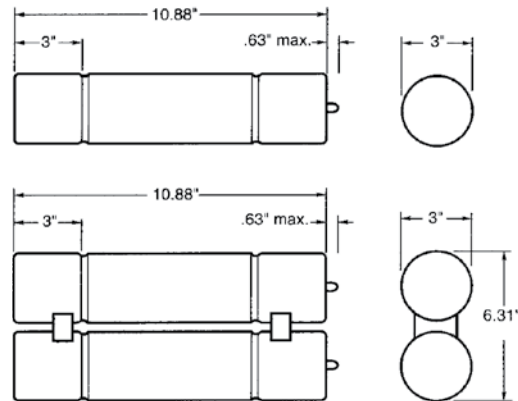
2.5kV Motor fuses - 7" centre Clip-in style

Melting Time Current Characteristics



General Specifications

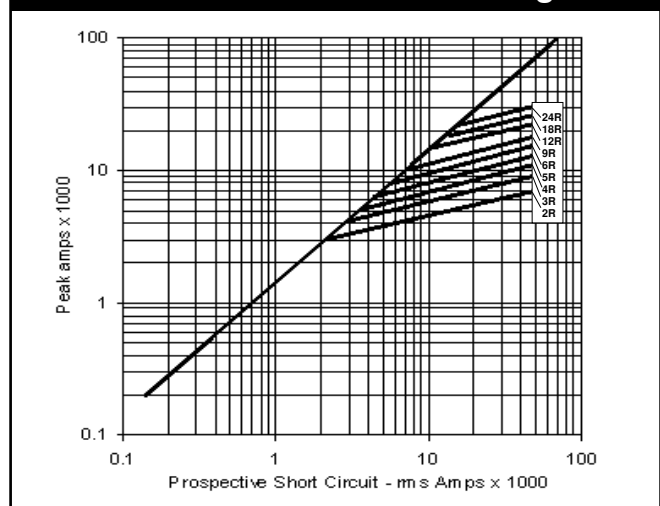
Part Number	'R'	FLA	D x L (inches)		I.R kA	total I ² t x 1000
70-2R-1C-2.75	2R	70	3	10.8	50 kA rms	75
100-3R-1C-2.75	3R	100	3	10.8		150
130-4R-1C-2.75	4R	130	3	10.8		230
150-5R-1C-2.75	5R	150	3	10.8		300
170-6R-1C-2.75	6R	170	3	10.8		380
200-9R-1C-2.75	9R	200	3	10.8		550
230-12R-1C-2.75	12R	230	3	10.8		720
390-18R-2C-2.75	18R	390	2x3	10.8		1700
450-24R-2C-2.75	24R	450	2x3	10.8		2200



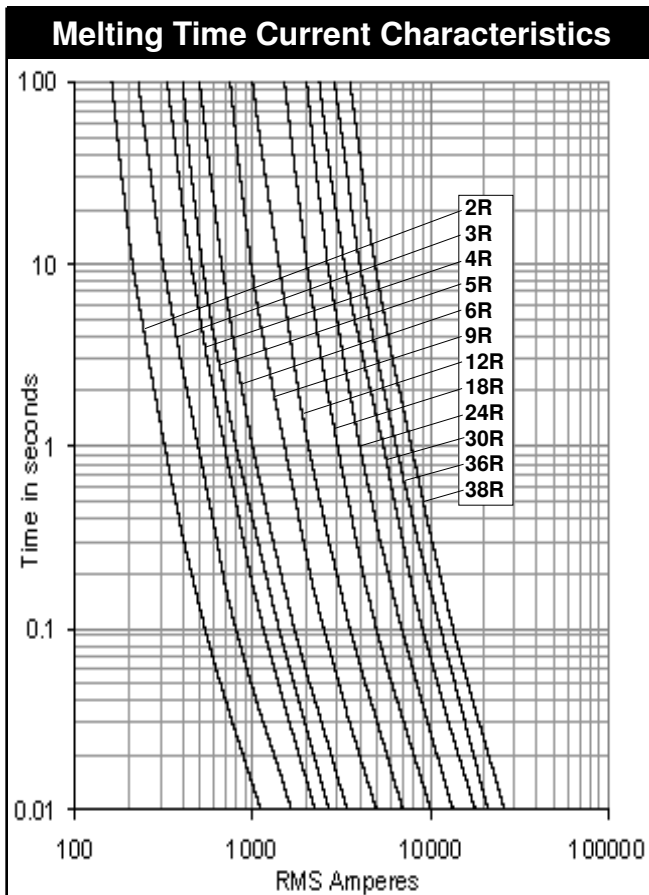
Fuse selection for Motors rated 2.5kV or less

Fuse Rating	Motor Starting Current (A)			
	for 6 sec. run-up		for 15 sec. run-up	
	from	to	from	to
2R	140	165	120	150
3R	165	250	150	215
4R	250	340	215	350
5R	340	430	300	420
6R	430	550	420	480
9R	550	800	480	680
12R	800	1400	680	1200
18R	1400	1650	1200	1400
24R	1650	2300	1400	1800

Current Cut-off at rated voltage

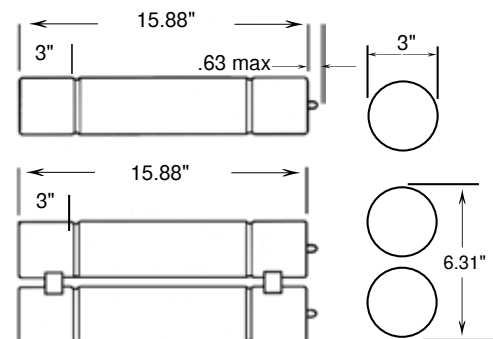


5.5kV Motor fuses - 12" centre Clip-in style



General Specifications

Part Number	A	F.L.A	D x L (inches)		I.R kA	total I ² t x1000
70-2R-1C5.5	2R	70	3	15.8	50kA rms	75
100-3R-1C-5.5	3R	100	3	15.8		150
130-4R-1C-5.5	4R	130	3	15.8		230
150-5R-1C-5.5	5R	150	3	15.8		300
170-6R-1C-5.5	6R	170	3	15.8		380
200-9R-1C-5.5	9R	200	3	15.8		550
230-12R-1C-5.5	12R	230	3	15.8		720
390-18R-2C-5.5	18R	390	2x3	15.8		1700
450-24R-2C-5.5	24R	450	2x3	15.8		2200
550-30R-2C-5.5	30R	550	2x3	15.8		3300
650-36R-2C-5.5	36R	650	2x3	15.8		5200



Fuse selection for Motors rated 5.5kV or less

Fuse Rating	Motor Starting Current (A)			
	for 6 sec. run-up		for 15 sec. run-up	
	from	to	from	to
2R	140	165	120	150
3R	165	260	150	225
4R	260	360	225	315
5R	360	435	315	375
6R	435	540	375	450
9R	540	780	450	675
12R	780	1080	675	950
18R	1080	1650	950	1350
24R	1650	2100	1350	1800
30R	2100	2750	1800	2250
36R	2750	3300	2250	2850

