

R-Rated medium voltage fuses for motor circuit protection



Features and benefits

- Current-limiting R-Rated fuses will safely interrupt all currents between their minimum and maximum interrupting ratings and will melt in a range of 15 to 35 seconds at a value of 100 times the “R” number per ANSI C37.46.
- R-Rated fuses are physically dimensioned for easy installation in existing hardware.
- Available in standard, AMPGARD Hookeye and hermetically sealed, and bolt-on mounting styles to meet application needs.
- 2.4kV and 4.8kV AMPGARD hermetically sealed constructions are suitable for Class I, Group D, Div. 2 hazardous locations.
- Open fuse indicator on all mounting styles speeds troubleshooting.
- Optional remote contact signaling microswitch available.
- Classified as backup fuses for current-limiting protection of medium voltage motor controllers (short-circuit performance only).
- These fuses are in a self-contained, non-venting package for installation indoors or outdoors in an enclosure.

Description:

- Indoor/enclosure, R-Rated medium voltage, current-limiting fuses for motor circuit protection.

Typical applications:

- Medium voltage motors and controllers

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4.8kV R-Rated fuses

Catalog symbols:

Code-(amps)R	Construction
5CLS-30	Standard - short (30A)
JCL-_R	Standard - short (2R - 24R)
5LCLS-_R	Standard - long (2R - 24R)
JCL-A-_R	AMPGARD Hookeye* (2R - 24R)
5ACLS-30	AMPGARD Hookeye* (30A)
5HCLS-30	Hermetically sealed AMPGARD Hookeye* (30A)
5HCLS-_R	Hermetically sealed AMPGARD Hookeye* (2R-24R)
5BCLS-30	Bolt-on (30A)
5BCLS-_R	Bolt-on (2R - 44R)

* For use in 400 amp AMPGARD motor starters.

Ratings:

- Volts
 - 4.8kV (nominal)
 - 5.08kV (max design)
- Amps 30-450A
- Interrupting ratings
 - 50kA Sym
 - 80kA Asym

Agency information:

- UL Recognized: Guide #MSSS2, File #E96676 (JCL-_R [2R-24R] and JCL-A-_R [2R-24R])

Recommended fuse holders for standard constructions:

Amp range	Description	BIL (kV)	Cat. No.
Fuseclips			
30-230A	3" Enclosed fuseclip*	—	A3354730
	3" Open fuseclip	—	1A0065
30-450A	3" Spring loaded open fuseclip	—	9078A67G04
Fuse holders for CLS / JCL / 5HCLS			
	Non-disconnect holder, porcelain	60	5HLE-PNM-D
	Non-disconnect holder, glass polyester	60	5HLE-GNM-D
30-230A Single barrel	Disconnect holder, porcelain	60	5HLE-PDM-D
	Disconnect holder, glass polyester	60	5HLE-GDM-D
	Non-disconnect holder, porcelain	60	5HLE-PNM-E
	Non-disconnect holder, glass polyester	60	5HLE-GNM-E
390-450A Double barrel	Disconnect holder, porcelain	60	5HLE-PDM-E
	Disconnect holder, glass polyester	60	5HLE-GDM-E
Fuse holders for 5LCLS†			
	Non-disconnect holder, porcelain	60	5CLE-PNM-D
	Non-disconnect holder, glass polyester	60	5CLE-GNM-D
70-230A Single barrel	Disconnect holder, porcelain	60	5CLE-PDM-D
	Disconnect holder, glass polyester	60	5CLE-GDM-D
	Disconnect holder, porcelain	75	8CLE-PDM-D
	Disconnect holder, glass polyester	75	8CLE-GDM-D
390-450A Double Barrel	Disconnect holder, porcelain	60	5CLE-PDM-E
	Disconnect holder, glass polyester	60	5CLE-GDM-E

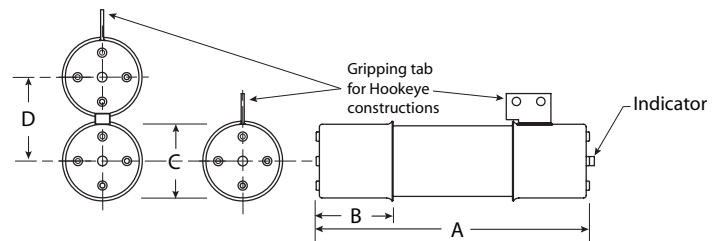
* Single barrel only, not sold in pairs.
 ** Not available for standard - long constructions
 † Not available for 390 to 450 amp ratings.

Dimensions - in [mm]

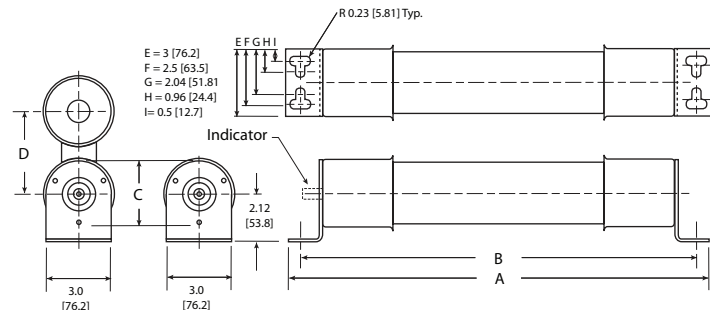
Construction	Amp range	Dimension			
		A	B	C	D
Standard - short	30-230A	15.9 (404)	3 (76)	3 (76)	—
	390-450A	15.9 (404)	3 (76)	3 (76)	3.3 (84)
Standard - long	70-230A	17.9 (455)	3 (76)	3 (76)	—
	390-450A	17.9 (455)	3 (76)	3 (76)	3.3 (84)
AMPGARD Hookeye*	30-230A	15.9 (404)	3 (76)	3 (76)	—
	390-450A	15.9 (404)	3 (76)	3 (76)	3.3 (84)
Bolt-on	30-230A	19.2 (488)	17.9 (455)	3 (76)	—
	390-450A	19.2 (488)	17.9 (455)	3 (76)	3.3 (84)

* Includes hermetically sealed versions.

Standard (short and long) and AMPGARD Hookeye



Bolt-on



4.8kV R-Rated fuse catalog numbers

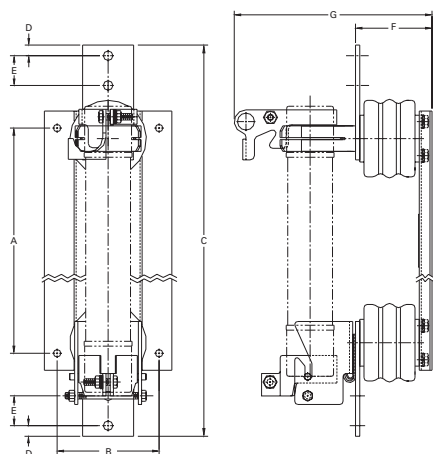
Amp Rating	"R" Designation	Mounting style (minimum interrupting rating in amps)					Number of barrels
		Standard - short	Standard - long	AMPGARD Hookeye			
				Regular	Hermetically sealed	Bolt-on	
30	—	5CLS-30* (95)	—	5ACLS-30* (95)	5HCLS-30* (95)	5BCLS-30* (95)	1
70	2R	JCL-2R (165)	5LCLS-2R (165)	JCL-A-2R	5HCLS-2R (180)	5BCLS-2R (180)	1
100	3R	JCL-3R (220)	5LCLS-3R (220)	JCL-A-3R	5HCLS-3R (270)	5BCLS-3R (270)	1
130	4R	JCL-4R (320)	5LCLS-4R (320)	JCL-A-4R	5HCLS-4R (350)	5BCLS-4R (350)	1
150	5R	JCL-5R (410)	5LCLS-5R (410)	JCL-A-5R	5HCLS-5R (450)	5BCLS-5R (450)	1
170	6R	JCL-6R (480)	5LCLS-6R (480)	JCL-A-6R	5HCLS-6R (540)	5BCLS-6R (540)	1
200	9R	JCL-9R (720)	5LCLS-9R (720)	JCL-A-9R	5HCLS-9R (700)	5BCLS-9R (700)	1
230	12R	JCL-12R (970)	5LCLS-12R (970)	JCL-A-12R	5HCLS-12R (1000)	5BCLS-12R (1000)	1
390	18R	JCL-18R (1430)	5LCLS-18R (1430)	JCL-A-18R	5HCLS-18R (1450)	5BCLS-18R (1450)	2
450	24R	JCL-24R (1880)	5LCLS-24R (1880)	JCL-A-24R	5HCLS-24R (2000)	5BCLS-24R (2000)	2
600	32R	—	—	—	—	5BCLS-32R (2600)	2
650	36R	—	—	—	—	5BCLS-36R (3000)	2
800	44R	—	—	—	—	5BCLS-44R (3250)	2

* Does not comply with ANSI C37.46 for "R" rating.

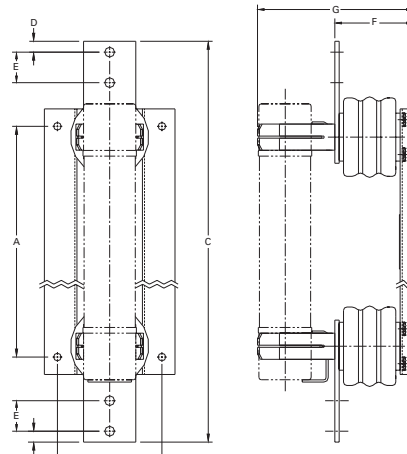
5CLS, JCL, JCL-A, 5ACLS, 5HCLS and 5LCLS Type mountings - in (mm)

Catalog number	Hole centers		Overall length	Hole Inset	Hole centers	Contact height	Overall height	BIL rating (kV)
	A	B	C	D	E	F	G	
Disconnect single barrel†								
5CLE-GDM-D	15.24 (387.1)	6 (152.4)	25 (647.7)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	11.72 (297.7)	60
5CLE-PDM-D	15.24 (387.1)	6 (152.4)	25 (647.7)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	11.72 (297.7)	60
5HLE-PDM-D	16.25 (412.8)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	11.72 (297.7)	60
5HLE-GDM-D	16.25 (412.8)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	11.72 (297.7)	60
Disconnect double barrel†								
5CLE-GDM-E	15.24 (387.1)	6 (152.4)	25 (647.7)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	15.28 (388.1)	60
5CLE-PDM-E	15.24 (387.1)	6 (152.4)	25 (647.7)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	15.28 (388.1)	60
5HLE-GDM-E	16.25 (412.8)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	15.28 (388.1)	60
5HLE-PDM-E	16.25 (412.8)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	15.28 (388.1)	60
Non-disconnect single barrel								
5CLE-GNM-D	15.24 (387.1)	6 (152.4)	25 (635.0)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	8.79 (223.3)	60
5CLE-PNM-D	15.24 (387.1)	6 (152.4)	25 (635.0)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	8.79 (223.3)	60
5HLE-GNM-D	16.25 (412.7)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	8.79 (223.3)	60
5HLE-PNM-D	16.25 (412.7)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	8.79 (223.3)	60
Non-disconnect double barrel								
5HLE-PNM-E	16.25 (412.7)	6 (152.4)	25 (635.0)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	12.48 (317.0)	60
5HLE-GNM-E	16.25 (412.7)	6 (152.4)	25 (635.0)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	12.48 (317.0)	60

4.8kV disconnect mounting†

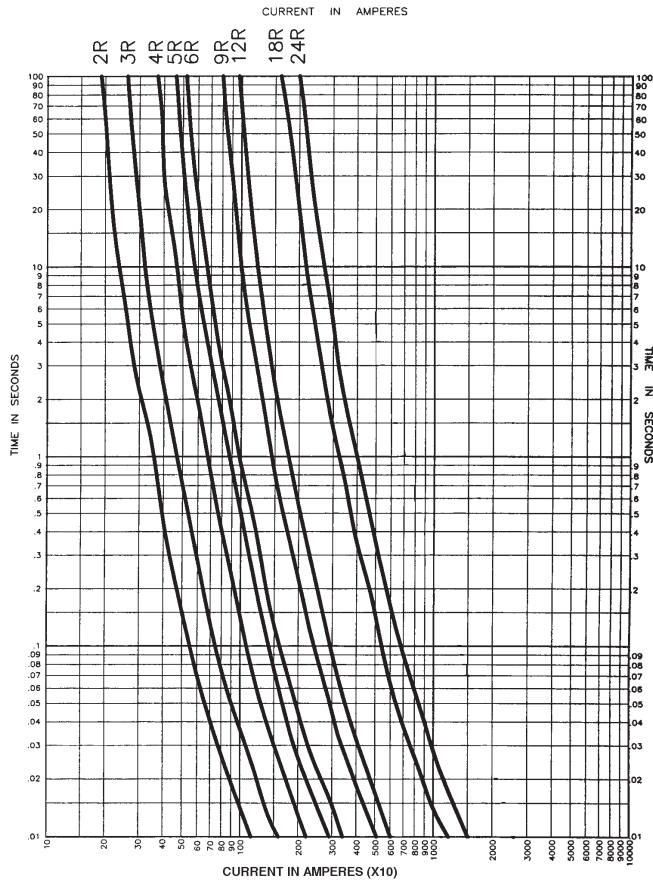


4.8kV non-disconnect mounting

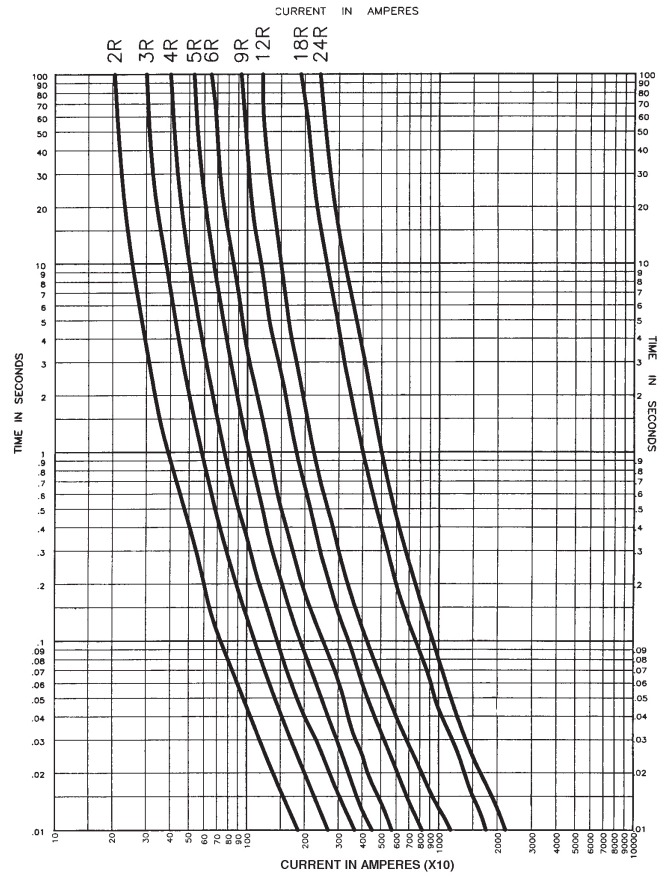


† Disconnect mountings provide a means for fuse extraction only. Do not use a disconnect mounting for load switching or fuse removal while energized.

4.8kV Time-current curves — minimum melting for JCL-_R and JCL-A-_R (2R-24R @25°C)



4.8kV Time-current curves — total clearing for JCL-_R and JCL-A-_R (2R-24R @25°C)



4.8kV Peak let-through curves for JCL-_R and JCL-A-_R (2R-24R @25°C)

