

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.
- 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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2.4kV R-Rated fuses

Catalog symbols:

Code-(amps)R	Construction
2CLS-25	Standard (25A only)
2ACLS-25	AMPGARD hookeye (25A only)
JCK-_R	Standard (2R-24R)
JCK-A-_R	AMPGARD hookeye* (2R-24R)
2HCLS-_R	Hermetically sealed AMPGARD hookeye* (25A/2R-24R)
2BCLS-_R	Bolt-on (25A/2R-24R)

* For use in 400 amp AMPGARD motor starters.

Ratings:

- Volts
 - 2.4kV (nominal)
 - 2.54kV (max design)
- Amps 25-450A
- Interrupting ratings
 - 50kA Sym
 - 80kA Asym

Agency information:

- UL® Recognized: Guide #MSSS2, File #E96676

Recommended fuse holders for standard constructions:

Amp range	Description	Cat. No.
Fuseclips		
25-230A	3" enclosed fuseclip*	A3354730
25-450A	3" open fuseclip	1A0065
	3" spring loaded open fuseclip	9078A67G04
Fuse holders		
25-230A Single barrel	Non-disconnect holder, porcelain	2CLE-PNM-D
	Non-disconnect holder, glass polyester	2CLE-GNM-D
	Disconnect holder, porcelain	2CLE-PDM-D
	Disconnect holder, glass polyester	2CLE-GDM-E
390-450A Double barrel	Non-disconnect holder, porcelain	2CLE-PNM-E
	Non-disconnect holder, glass polyester	2CLE-GNM-E
	Disconnect holder, glass polyester	2CLE-GDM-E

* Single barrel only, not sold in pairs.

Dimensions - in [mm]

Construction	Amp range	Dimension			
		A	B	C	D
Standard - short	25-230A	10.8 (274)	3 (76)	3 (76)	—
	390-450A	10.8 (274)	3 (76)	3 (76)	3.3 (84)
AMPGARD Hookeye*	70-230A	10.8 (274)	3 (76)	3 (76)	—
	390-450A	10.8 (274)	3 (76)	3 (76)	3.3 (84)
Bolt-on	25-230A	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 and AMPGARD hookeye



Bolt-on



2.4kV R-Rated fuse catalog numbers

Amp rating	"R" Designation	Mounting style (minimum interrupting rating in amps)				Number of barrels
		Standard	AMPGARD Hookeye		Bolt-on	
			Regular	Hermetically sealed		
25	—	2CLS-25* (90)	2ACLS-25* (90)	2HCLS-25* (90)	2BCLS-25* (90)	1
70	2R	JCK-2R (165)	JCK-A-2R (165)	2HCLS-2R (170)	2BCLS-2R (170)	1
100	3R	JCK-3R (220)	JCK-A-3R (220)	2HCLS-3R (245)	2BCLS-3R (245)	1
130	4R	JCK-4R (320)	JCK-A-4R (320)	2HCLS-4R (340)	2BCLS-4R (340)	1
150	5R	JCK-5R (410)	JCK-A-5R (410)	2HCLS-5R (430)	2BCLS-5R (430)	1
170	6R	JCK-6R (480)	JCK-A-6R (480)	2HCLS-6R (500)	2BCLS-6R (500)	1
200	9R	JCK-9R (720)	JCK-A-9R (720)	2HCLS-200* (1000)	2BCLS-9R (1000)	1
230	12R	JCK-12R (970)	JCK-A-12R (970)	2HCLS-230* (1250)	2BCLS-12R (1250)	1
390	18R	JCK-18R (1430)	JCK-A-18R (1430)	2HCLS-390* (1700)	2BCLS-18R (1700)	2
450	24R	JCK-24R (1880)	JCK-A-24R (1880)	2HCLS-24R (2100)	2BCLS-24R (2100)	2

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

JCK and 2HCLS 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†								
2CLE-GDM-D	8.24 (209.3)	6 (152.4)	18 (457.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	11.72 (297.7)	60
2CLE-PDM-D	8.24 (209.3)	6 (152.4)	18 (457.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	11.72 (297.7)	60
Disconnect double barrel†								
2CLE-GDM-E	8.24 (209.3)	6 (152.4)	18 (457.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	15.28 (388.1)	60
2CLE-PDM-E	8.24 (209.3)	6 (152.4)	18 (457.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	15.28 (388.1)	60
Non-disconnect single barrel								
2CLE-GNM-D	8.24 (209.3)	6 (152.4)	18 (457.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	8.79 (223.3)	60
2CLE-PNM-D	8.24 (209.3)	6 (152.4)	18 (457.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	8.79 (223.3)	60
Non-disconnect double barrel								
2CLE-GNM-E	8.24 (209.3)	6 (152.4)	18 (457.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	12.48 (317.0)	60
2CLE-PNM-E	8.24 (209.3)	6 (152.4)	18 (457.2)	0.62 (15.7)	1.75 (44.4)	4.5 (114.3)	12.48 (317.0)	60

2.4kV disconnect mounting†

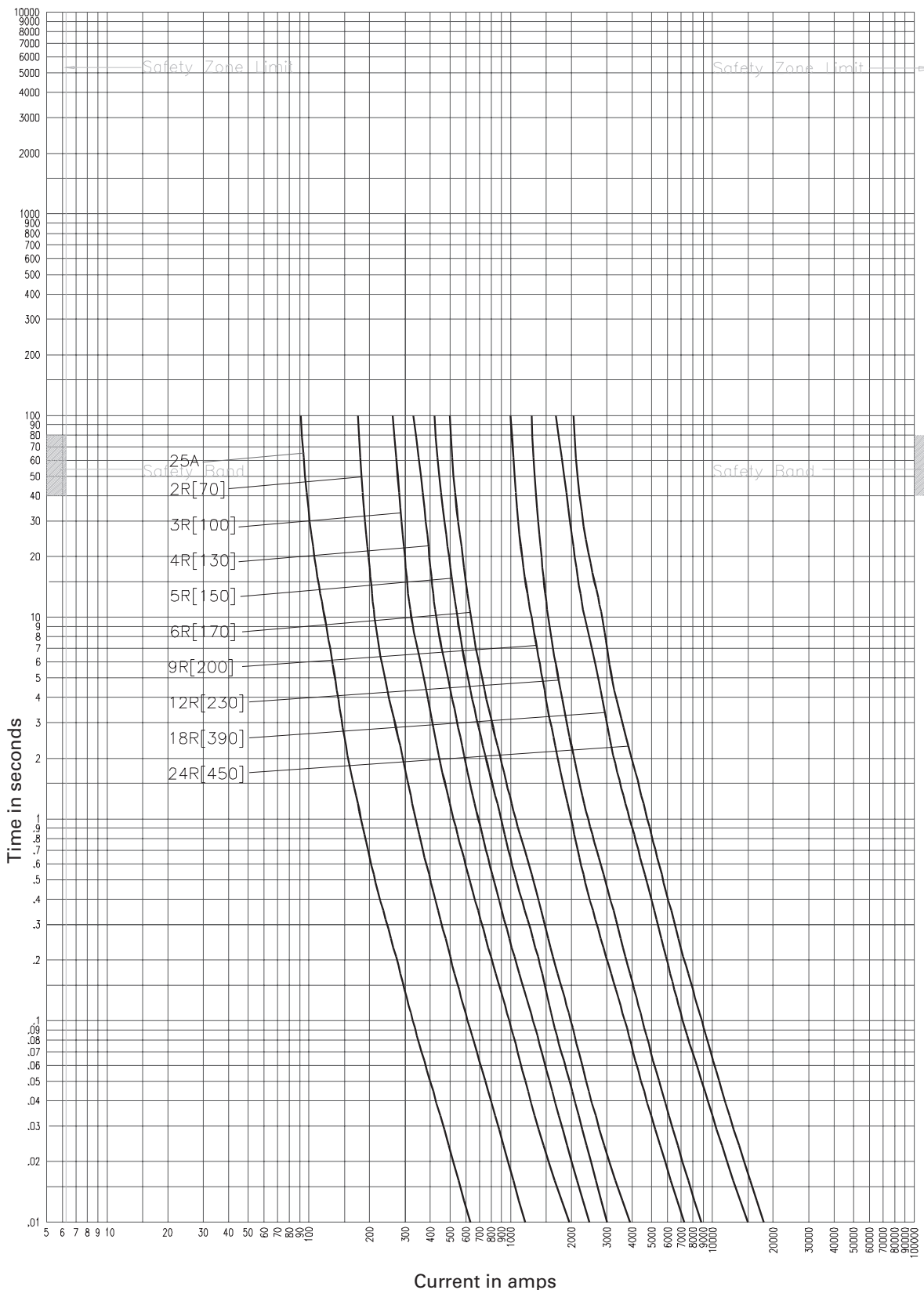


2.4kV non-disconnect mounting



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

2.4kV time-current curves — minimum melting for 2HCLS-_R and 2BCLS-_R (25A, 2R-24R @25°C)



2HCLS-_R and 2BCLS-_R

CURVE 66664702
January 2001
Reference # 666647,
512853, 639405

2.4kV time-current curves — total clearing for 2HCLS-_R and 2BCLS-_R (25A, 2R-24R @25°C)



2HCLS-_R and 2BCLS-_R

CURVE 66664704
January 2000
Reference # 666647,
512854, 639406

2.4kV peak let-through curves for 2HCLS-_R and 2BCLS-_R (25A, 2R-24R @25°C)



2HCLS-_R and 2BCLS-_R

CURVE 66700202
 January 2001
 Reference # 639315

2.4kV time-current curves – minimum melting for JCK-_R and JCK-A-_R (2R-24R @25°C)



2.4kV time-current curves – total clearing for JCK-_R and JCK-A-_R (2R-24R @25°C)



2.4kV peak let-through curves for JCK-_R and JCK-A-_R (2R-24R @25°C)



4.8kV R-Rated fuses

Catalog symbols:

Code-(amps)	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
30-450A	3" open fuseclip	—	1A0065
	3" spring loaded open fuseclip	—	9078A67G04
Fuse holders for CLS / JCL / 5HCLS			
30-230A Single barrel	Non-disconnect holder, porcelain	60	5HLE-PNM-D
	Non-disconnect holder, glass polyester	60	5HLE-GNM-D
	Disconnect holder, porcelain	60	5HLE-PDM-D
	Disconnect holder, glass polyester	60	5HLE-GDM-D
390-450A Double barrel	Non-disconnect holder, porcelain	60	5HLE-PNM-E
	Non-disconnect holder, glass polyester	60	5HLE-GNM-E
	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	15.6 (396)	3 (76)	3 (76)	—
	390-450A	15.6 (396)	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
		"R"		AMPGARD Hookeye			
		Standard - short	Standard - long	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)

	Hole centers A	Overall length B	Hole insert C	Hole centers D	Contact height E	Overall height F	
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)

4.8kV disconnect mounting†

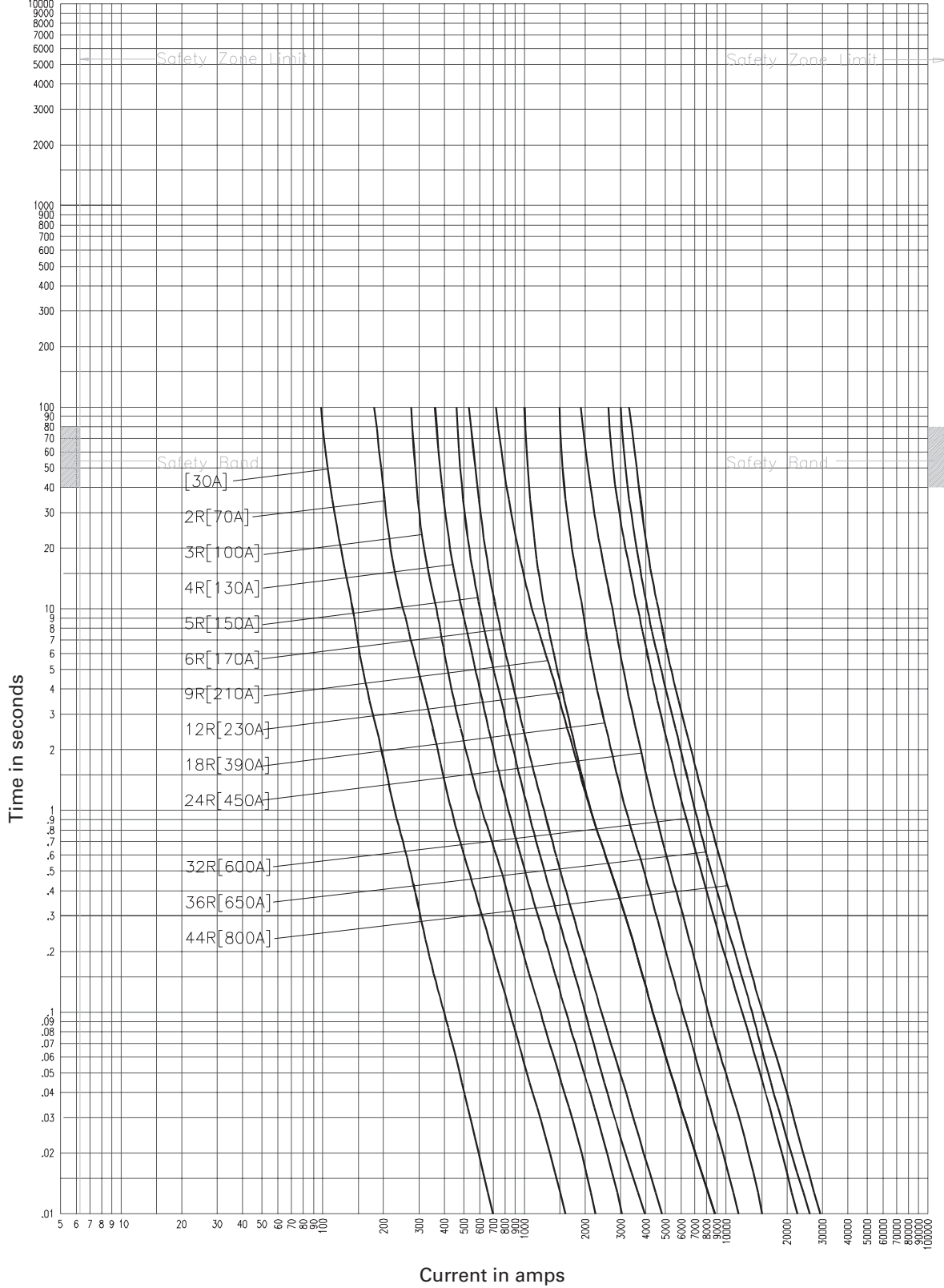


4.8kV non-disconnect mounting



† 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 5ACLS-30, 5CLS-30, 5HCLS-_R, 5BCLS-30 and 5BCLS-_R (30A, 2R-24R @ 25°C)



CURVE 66690602
January 2001
Reference # 666907,
666703, 666910,
667000, 639472.

5ACLS-30, 5CLS-30, 5HCLS-_R, 5BCLS-30, 5BCLS-_R,
5MCLS-_R-A, 5MCLS-_R-B

4.8kV time-current curves — total clearing for 5ACLS-30, 5CLS-30, 5HCLS-_R, 5BCLS-30 and 5BCLS-_R (30A, 2R-24R @ 25°C)



5ACLS-30, 5CLS-30, 5HCLS-_R, 5BCLS-30, 5BCLS-_R,
5MCLS-_R-A, 5MCLS-_R-B

CURVE 66690702
January 2001
Reference # 666907
666704, 666910,
6670001, 639472.

4.8kV peak let-through curves for 5ACLS-30, 5CLS-30, 5HCLS-_R, 5BCLS-30 and 5BCLS-_R (30A, 2R-24R @ 25°C)



5ACLS-30, 5CLS-30, 5HCLS-_R, 5BCLS-30, 5BCLS-_R,
5MCLS-_R-A, 5MCLS-_R-B

CURVE 66700203
January 2001
Reference # 639315
667002, 667008

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)



4.8kV time-current curves — minimum melting for 5LCLS-_R (2R-24R @ 25°C)



5LCLS-_R

CURVE 51285302
January 2001
Reference # 512853,
563863.

4.8kV time-current curves — total clearing for 5LCLS-R (2R-24R @ 25°C)



5LCLS-R

CURVE 51285402
January 2001
Reference # 512854,
563864.

4.8kV peak let-through curves for 5LCLS_R (2R-24R @ 25°C)



5LCLS_R

CURVE 66700204
January 2001
Reference # 639315

7.2kV R-Rated fuses

Catalog symbols:

Code-(amps)R	Construction
8CLS-_R	Standard (2R - 6R)
7CLS-_R	Standard (9R - 24R)
8ACLS-_R	AMPGARD hookeye* (2R - 6R)
7ACLS-_R	AMPGARD hookeye* (9R - 24R)
7BCLS-_R	Bolt-on (2R - 44R)

* For use in 400 amp AMPGARD motor starters.

Ratings:

- Volts
 - 7.2kV (nominal)
 - 8.3kV (max design 70-170A standard and AMPGARD Hookeye)
 - 7.2kV (max design 200-450A standard and AMPGARD Hookeye)
 - 7.2kV (max design 70-800 bolt-on)
- Amps 25-450A
- Interrupting ratings
 - 50kA Sym
 - 80kA Asym

Recommended fuse holders for standard constructions:

Amp range	Description	BIL (kV)	Cat. No.
Fuseclips			
70-230A	3" Enclosed fuseclip*	—	A3354730
70-450A	3" Open fuseclip	—	1A0065
	3" Spring loaded open fuseclip	—	9078A67G04
Fuse holders for 7CLS and 8CLS			
70-230A Single barrel	Non-disconnect holder, porcelain	75	8HLE-PNM-D
	Non-disconnect holder, glass polyester	75	8HLE-GNM-D
	Disconnect holder, porcelain	75	8HLE-PDM-D
	Disconnect holder, glass polyester	75	8HLE-GDM-D
390-450A Double barrel	Non-disconnect holder, porcelain	75	8HLE-PNM-E
	Non-disconnect holder, glass polyester	75	8HLE-GNM-E
	Disconnect holder, porcelain	75	8HLE-PDM-E
	Disconnect holder, glass polyester	75	8HLE-GDM-E

* Single barrel only, not sold in pairs.

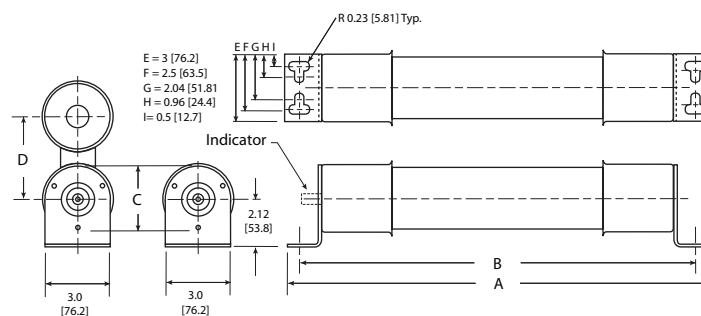
Dimensions - in [mm]

Construction	Amp range	Dimension			
		A	B	C	D
Standard	70-230A	15.8 (401)	3 (76)	3 (76)	—
	390-450A	15.8 (401)	3 (76)	3 (76)	3.3 (84)
AMPGARD hookeye	70-230A	15.8 (401)	3 (76)	3 (76)	—
	390-450A	15.8 (401)	3 (76)	3 (76)	3.3 (84)
Bolt-on	70-230A	19.2 (488)	17.9 (455)	3 (76)	—
	390-650A	19.2 (488)	17.9 (455)	3 (76)	3.3 (84)
	800A	19.2 (488)	17.9 (455)	4 (102)	3.3 (84)

Standard and AMPGARD hookeye



Bolt-on



7.2kV R-Rated fuse catalog numbers

Amp rating	"R" Designation		Mounting style (minimum interrupting rating in amps)			Number of barrels
			Standard	AMPGARD Hookeye	Bolt-on	
70	2R	8CLS-2R (160)	8ACLS-2R (160)	7BCLS-2R (160)	1	
100	3R	8CLS-3R (250)	8ACLS-3R (250)	7BCLS-3R (250)	1	
130	4R	8CLS-4R (325)	8ACLS-4R (325)	7BCLS-4R (325)	1	
150	5R	8CLS-5R (390)	8ACLS-5R (390)	7BCLS-5R (390)	1	
170	6R	8CLS-6R (500)	8ACLS-6R (500)	7BCLS-6R (500)	1	
200	9R	7CLS-9R (750)	7ACLS-9R (750)	7BCLS-9R (750)	1	
230	12R	7CLS-12R (1000)	7ACLS-12R (1000)	7BCLS-12R (1000)	1	
390	18R	7CLS-18R (1450)	7ACLS-18R (1450)	7BCLS-18R (1450)	2	
450	24R	7CLS-24R (2500)	7ACLS-24R (2500)	7BCLS-24R (2500)	2	
650	36R	—	—	7BCLS-36R (3000)	2	
800	44R	—	—	7BCLS-44R (3250)	2	

8CLS, 8ACLS, 7CLS, 7ACLS Type mountings - in (mm)

Catalog number	Hole centers		Overall length C	Hole inset D	Hole centers		Contact height F	Overall height G	BIL rating (kV)
	A	B			E				
Disconnect single barrel†									
8HLE-GDM-D	16.25 (412.8)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	7 (177.8)	11.72 (297.7)	75	
8HLE-PDM-D	16.25 (412.8)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	7 (177.8)	11.72 (297.7)	75	
Disconnect double barrel†									
8HLE-GDM-E	16.25 (412.8)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	7 (177.8)	17.78 (451.6)	75	
8HLE-PDM-E	16.25 (412.8)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	7 (177.8)	17.78 (451.6)	75	
Non-disconnect single barrel									
8HLE-GNM-D	16.25 (412.7)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	7 (177.8)	11.29 (286.7)	75	
8HLE-PNM-D	16.25 (412.7)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	7 (177.8)	11.29 (286.7)	75	
Non-disconnect double barrel									
8HLE-GNM-E	16.25 (412.7)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	7 (177.8)	14.98 (380.5)	75	
8HLE-PNM-E	16.25 (412.7)	6 (152.4)	23 (584.2)	0.62 (15.7)	1.75 (44.4)	7 (177.8)	14.98 (380.5)	75	

7.2kV disconnect mounting†



7.2kV 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.

7.2kV time-current curves — minimum melting for 8CLS- R, 7CLS- R, 8ACLS- R, 7ACLS- R and 7BCLS- R (2R-44R @ 25C)



8CLS- R, 7CLS- R, 8ACLS- R, 7ACLS- R and 7BCLS- R

CURVE TC66700602
December 2008

7.2kV time-current curves — total clearing for 8CLS-_R, 7CLS-_R, 8ACLS-_R, 7ACLS-_R and 7BCLS-_R (2R-44R @ 25C)



8CLS-_R, 7CLS-_R, 8ACLS-_R, 7ACLS-_R and 7BCLS-_R

CURVE TC66700702
December 2008

7.2kV peak let-through curves for 8CLS-_R, 7CLS-_R, 8ACLS-_R, 7ACLS-_R and 7BCLS-_R (2R-44R @ 25C)



8CLS-_R, 7CLS-_R, 8ACLS-_R, 7ACLS-_R and 7BCLS-_R

CURVE 66700205
January 2001
Reference # 639315
667002, 667008

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