

2.75kV E-Rated

Medium voltage fuses for feeder circuit, switchgear and transformer protection



Description:

- E-Rated, current-limiting, medium voltage fuses for feeder circuit, switchgear and transformer protection.

Features and benefits:

- Bussmann® series current-limiting E-Rated medium voltage fuses are defined by their melting time-current characteristic that permit their electrical interchangeability with other fuses of the same E Rating.
- E-Rated fuses must have a defined current response time specified by ANSI C37.46. E-Rated fuse of 100 amps and below must melt in 300 seconds at an RMS current within the range of 200% to 240% of the fuse's nameplate current rating. E-Rated fuses greater than 100 amps must melt in 600 seconds at an RMS current within the range of 220% to 264% of the fuse's nameplate current rating.
- E-Rated fuses are physically dimensioned for easy installation in existing hardware.
- Current-limiting fuses provide positive interruption even on low fault currents. The fuse limits the magnitude of electromechanical stresses in the protected apparatus.
- Open fuse indicator easily integrates into automation schemes and speeds troubleshooting by providing a positive visual indication of fuse operation.
- 50/60Hz operating frequency for worldwide application.
- Mountings are available in disconnect and non-disconnect versions with porcelain or glass polyester insulators.
- Live parts and end fittings available.

Typical applications:

- Medium voltage transformer primary protection
- Medium voltage feeder circuit protection
- Medium voltage switches
- Medium voltage metal-enclosed switchgear

2.75kV E-Rated medium voltage ferrule fuses

Catalog symbols:

- 2CLE-_E
- JCX-_E

Ratings:

- Volts
 - 2.75kV
- Amps
 - 10 to 450A
- Interrupting ratings
 - 50kA RMS Sym (2CLE-_E)
 - 40kA RMS Sym (JCX-_E)

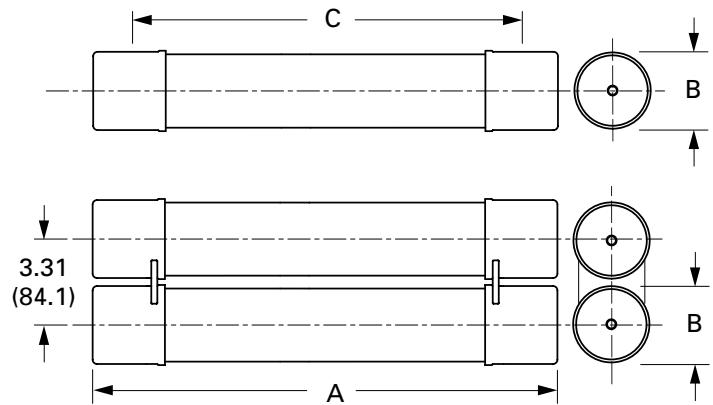
Agency information:

- E-Rated fuses meet the performance characteristics of ANSI C37.46

Recommended fuse holders:

CLE

Dimensions (see catalog number tables for values)



Amp rating	Fuse mounting type*	Voltage BIL (kV)	Approximate dimensions - in (mm)		Length C	Catalog number				
			Diameter A	Clip center B		Mounting (including live parts, end fittings)**		Live parts (including end fittings)	End fittings (disconnect only)	
						Porcelain insulator	Glass-polyester insulator			
CLE										
15E-25E Single barrel	Non-disconnect	60	2 (51)	8.1 (206)	9.5 (241)	2CLE-PNM-C	2CLE-GNM-C	CLE-NL-C	—	
	Disconnect†	60				2CLE-PDM-C	2CLE-GDM-C	CLE-DL-C	CLE-DF-C	
10E-225E Single barrel	Non-disconnect	60	3 (76)	7 (178)	10.9 (277)	2CLE-PNM-D	2CLE-GNM-D	CLE-NL-D	—	
	Disconnect†	60				2CLE-PDM-D	2CLE-GDM-D	CLE-DL-D	CLE-DF-D	
250E-300E 350X-450X Double barrel	Non-disconnect	60	3 (76)	7 (178)	10.9 (277)	2CLE-PNM-E	2CLE-GNM-E	CLE-NL-E	—	
	Disconnect†	60				2CLE-PDM-E	5CLE-GDM-E	CLE-DL-E	CLE-DF-E	

* See page 9 for illustrations and dimensions.

** End fittings supplied only when required.

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

Recommended fuseclips:

Description	Fuse diameter - in (mm)	Figure	Clip dimensions - in (mm)							Catalog number
			A	B	C	D	E	F	G	
Enclosed fuseclip	2 (51)	1	3.75 (95)	1.98 (50)	2.01 (51)	1.19 (30)	4.54 (115)	1.51 (38)	0.4 (10)	A3354710*
Enclosed fuseclip	3 (76)	1	4.14 (105)	2.45 (62)	3.01 (76)	1.19 (30)	5.64 (143)	1.51 (38)	0.4 (10)	A3354730*
Open fuseclip	3 (76)	2	See dimensions drawing							1A0065
Spring loaded open fuse-clip	3 (76)	3	See dimensions drawing							9078A67G04

*For single barrel applications only. Not sold in pairs.

Figure 1

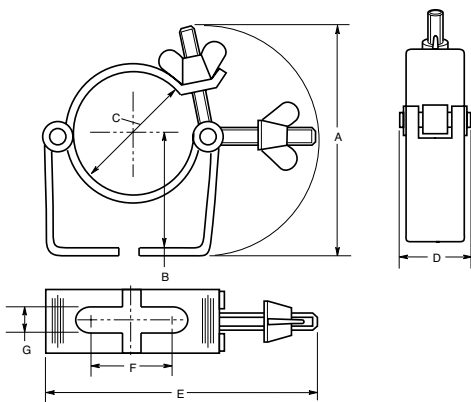


Figure 2



Figure 3



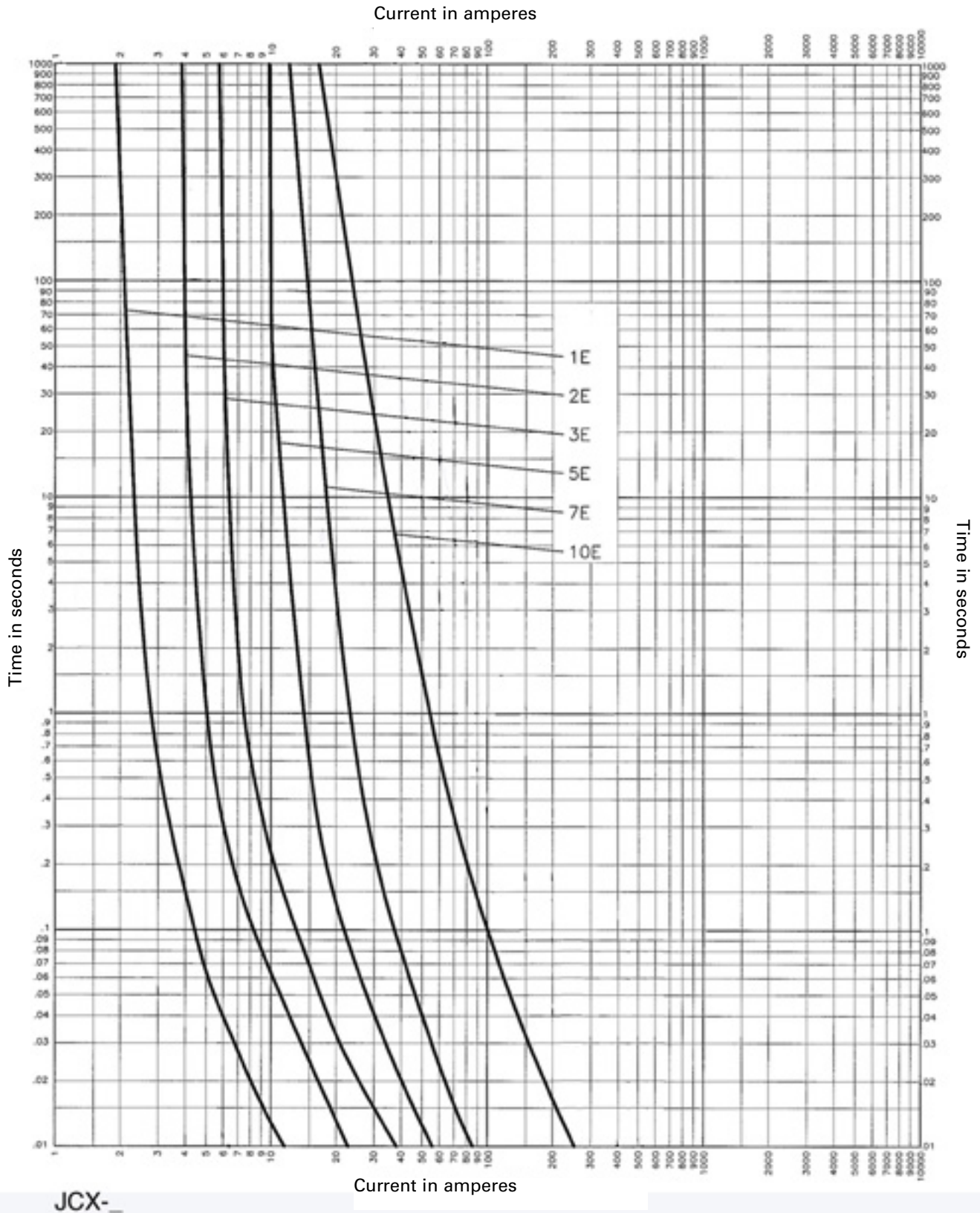
CLE and JCX

Amp rating	Dimensions - in (mm)			Interrupting rating kA (RMS Sym.)	Number of barrels	Installation location	Catalog number
	Length A	Diameter B	Clip centers C				
1	9.2 (234)	2 (51)	7 (178)	40	1	Indoor/outdoor	JCX-1E
2	9.2 (234)	2 (51)	7 (178)	40	1	Indoor/outdoor	JCX-2E
3	9.2 (234)	2 (51)	7 (178)	40	1	Indoor/outdoor	JCX-3E
5	9.2 (234)	2 (51)	7 (178)	40	1	Indoor/outdoor	JCX-5E
7	9.2 (234)	2 (51)	7 (178)	40	1	Indoor/outdoor	JCX-7E
10	9.2 (234)	2 (51)	7 (178)	40	1	Indoor/outdoor	JCX-10E
10	10.9 (277)	3 (76)	7 (178)	50	1	Indoor	2CLE-10E
15	9.5 (241)	2 (51)	8.1 (206)	50	1	Indoor	2CLE-15E
20	9.5 (241)	2 (51)	8.1 (206)	50	1	Indoor	2CLE-20E
25	9.5 (241)	2 (51)	8.1 (206)	50	1	Indoor	2CLE-25E
30	10.9 (277)	3 (76)	7 (178)	50	1	Indoor	2CLE-30E
40	10.9 (277)	3 (76)	7 (178)	50	1	Indoor	2CLE-40E
50	10.9 (277)	3 (76)	7 (178)	50	1	Indoor	2CLE-50E
65	10.9 (277)	3 (76)	7 (178)	50	1	Indoor	2CLE-65E
80	10.9 (277)	3 (76)	7 (178)	50	1	Indoor	2CLE-80E
100	10.9 (277)	3 (76)	7 (178)	50	1	Indoor	2CLE-100E
125	10.9 (277)	3 (76)	7 (178)	50	1	Indoor	2CLE-125E
150	10.9 (277)	3 (76)	7 (178)	50	1	Indoor	2CLE-150E
200	10.9 (277)	3 (76)	7 (178)	50	1	Indoor	2CLE-200E
225	10.9 (277)	3 (76)	7 (178)	50	1	Indoor	2CLE-225E
250*	10.9 (277)	3 (76)	7 (178)	50	2	Indoor	2CLE-250E
300*	10.9 (277)	3 (76)	7 (178)	50	2	Indoor	2CLE-300E
350**	10.9 (277)	3 (76)	7 (178)	50	2	Indoor	2CLE-350X
400**	10.9 (277)	3 (76)	7 (178)	50	2	Indoor	2CLE-400X
450**	10.9 (277)	3 (76)	7 (178)	50	2	Indoor	2CLE-450X

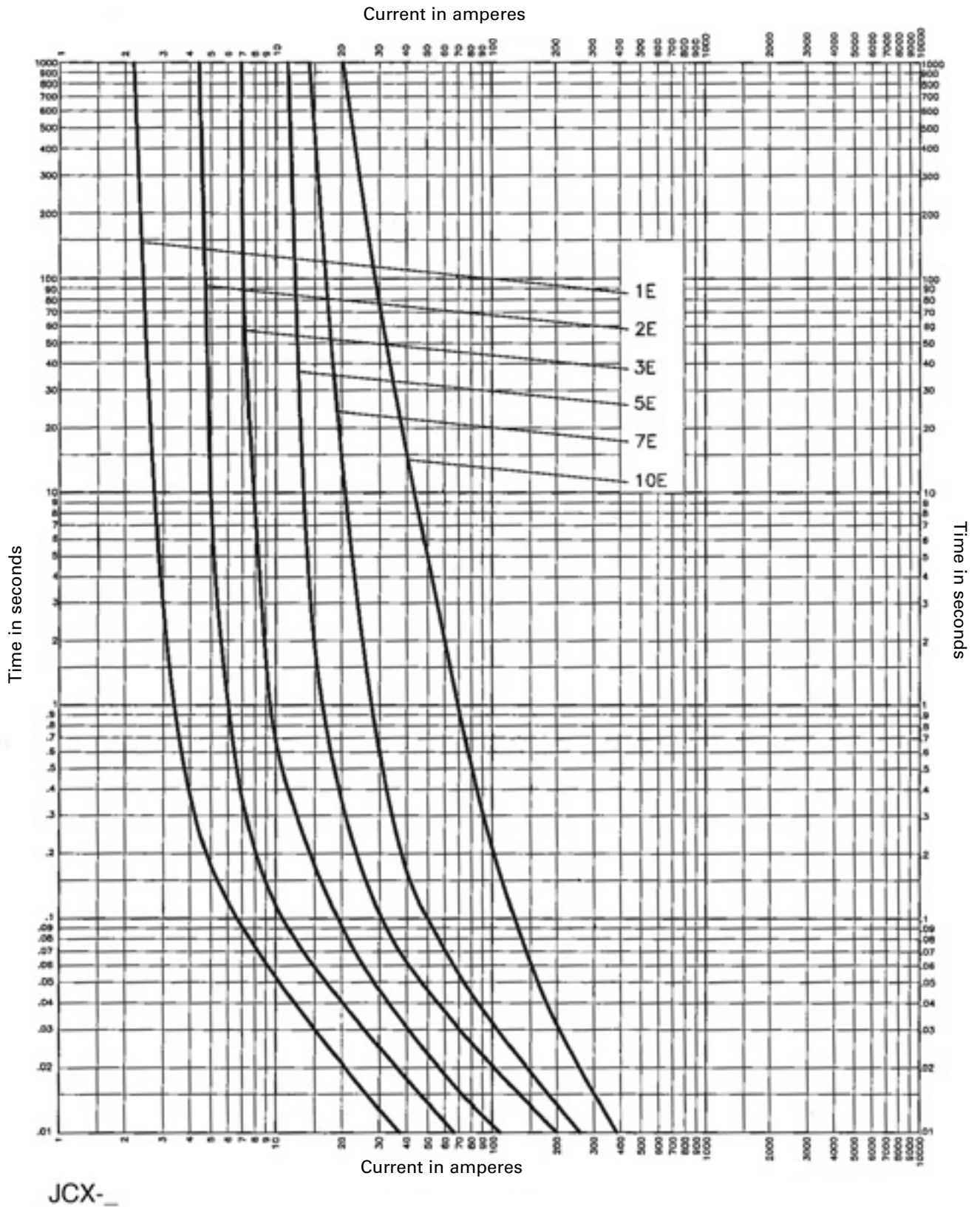
* 250A and 300A ratings may also be applied at 280 and 325 amps respectively, but fuses will no longer be complaint with ANSI E rating criteria.

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

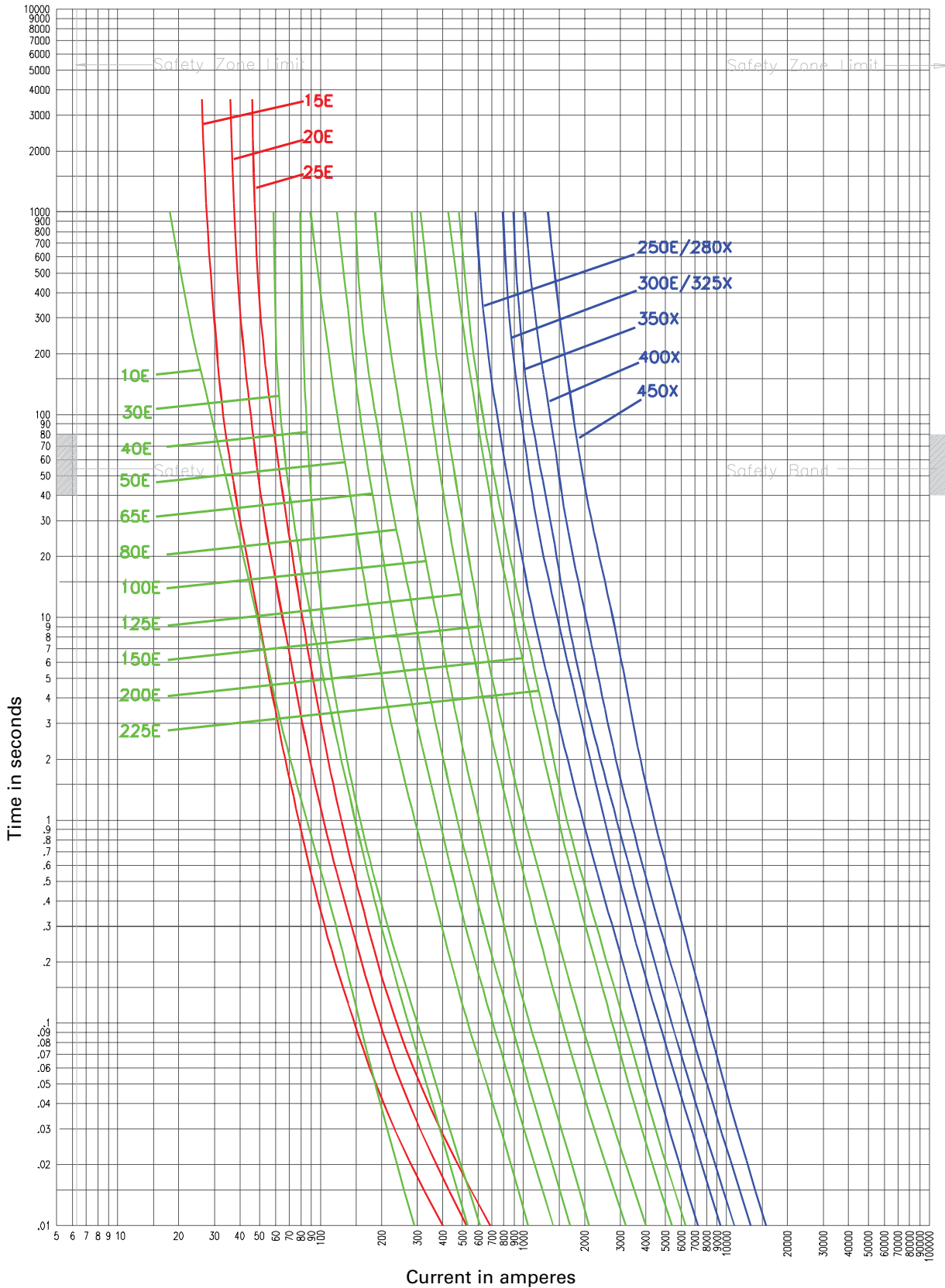
2.75kV time-current curves — minimum melt for JCX-_E



2.75kV time-current curves — total clear for JCX-E



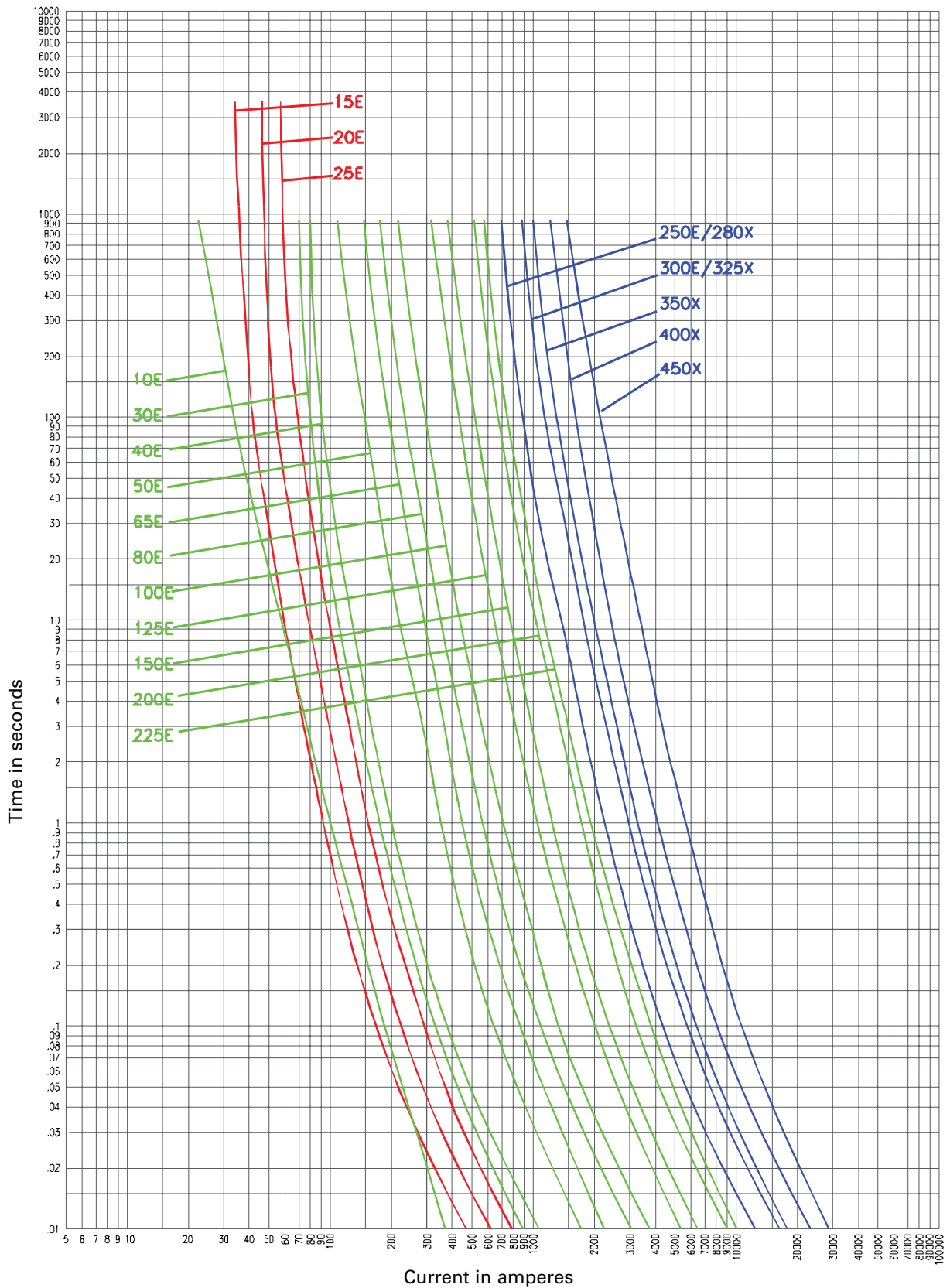
2.75kV time-current curves — minimum melt for 2CLE- E and 2CLE- X



2CLE- _

Curve 53653202	Curve 53686104	Curve 53690002
July 2001	July 2001	July 2001
Reference # 563532	Reference # 536861	Reference # 536900

2.75kV time-current curves — total clear for 2CLE-_E and 2CLE-_X



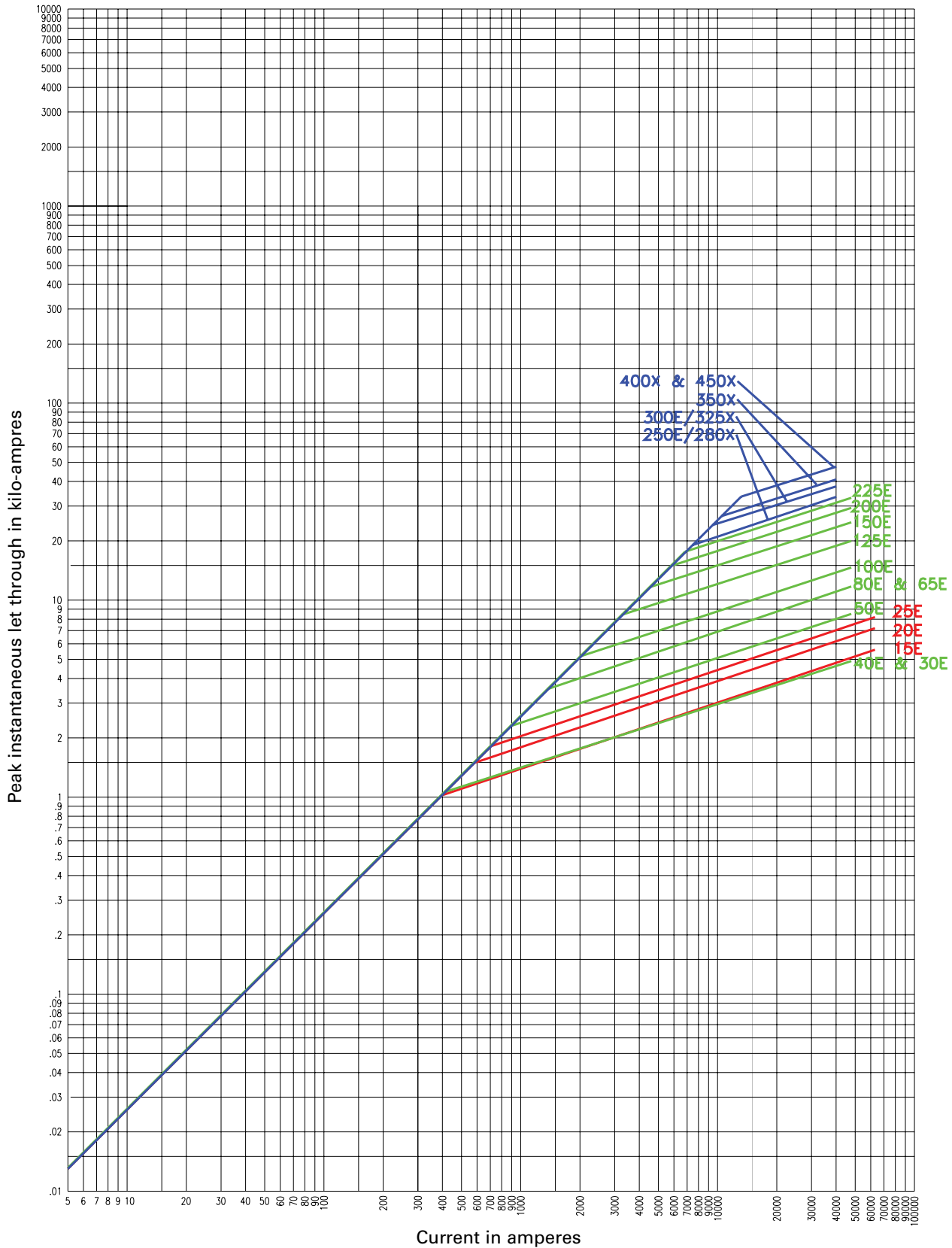
2CLE-_

Curve 56353302
July 2001
Reference # 563533

Curve 53686204
July 2001
Reference # 536862

Curve 53690102
July 2001
Reference # 536901

2.75kV peak let-through for 2CLE-E and 2CLE-X



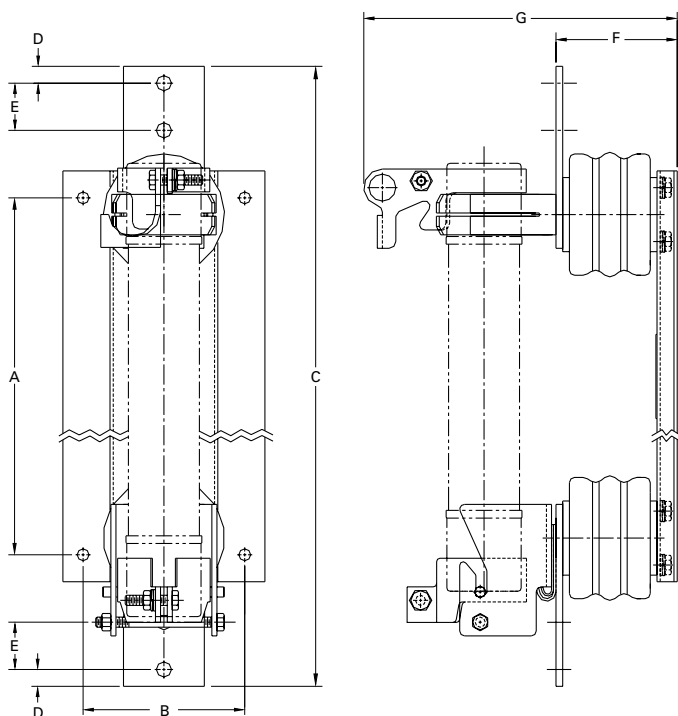
Curve 63931702	Curve 63931704	Curve 63931802
July 2001	May 2002	July 2001
Reference # 639317	Reference # 639317	Reference # 639318

2CLE-

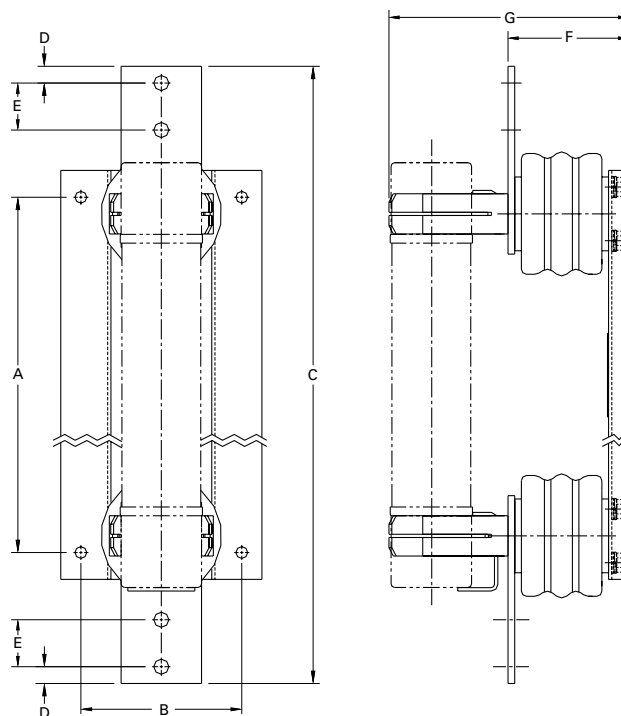
CLE type mountings - in (mm)

Catalog number	Hole centers		Overall length C	Hole Inset D	Hole centers		Contact height F	Overall height G	BIL kV
	A	B			E				
Disconnect single barrel†									
2CLE-GDM-C	9.37 (238.0)	6 (152.4)	22.13 (562.1)	0.75 (19.0)	1.75 (44.4)	4.5 (114.3)	9.75 (247.6)	60	
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-C	9.37 (238.0)	6 (152.4)	22.13 (562.1)	0.75 (19.0)	1.75 (44.4)	4.5 (114.3)	9.75 (247.6)	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-C	9.37 (238.0)	6 (152.4)	18.63 (473.2)	0.75 (19.0)	1.75 (44.4)	4.5 (114.3)	7.25 (184.1)	60	
2CLE-PNM-C	9.37 (238.0)	6 (152.4)	18.63 (473.2)	0.75 (19.0)	1.75 (44.4)	4.5 (114.3)	7.25 (184.1)	60	
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	

CLE type disconnect mounting†



CLE type 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.

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