

E-Rated Power Fuses



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**CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses**

**Product Description**

Eaton offers a wide range of interrupting ratings in single barrel designs with ratings extended to higher currents in double, triple and quad barrel designs. E-rated fuses are available in both long (CLE), intermediate (LHLE) and short (HLE) clip center designs.

CLE fuses conform to dimensional standards established in the past by Westinghouse when the original BAL current limiting power fuses for transformer and general feeder applications were introduced.

HLE fuses conform to later, shorter dimensional standards.

BHLE fuses are identical to HLE fuses with the addition of "bolt-in" mounting blades.

HCL fuses are special dimension fuses for "bolt-in" and "clip-lock" mounting blades.

**Applications**

Helix type (helical element configuration, current limiting) and Heritage CLE type medium voltage fuses are general purpose, indoor fuses designed to provide both high and low level fault protection. Helix fuses may be applied wherever it is necessary to limit short-circuit currents on high capacity systems.

Because of their general purpose, current limiting characteristics, these types of fuses are well suited for a wide variety of distribution systems and consumer applications. Some of the more frequent possibilities are:

- Power transformer protection
- Fused switches
- Feeder circuit sectionalization

**Features**

**Helix Type Fuses**

Helix type current limiting fuses, designed for indoor and outdoor applications, are replaceable fuse units with automatic blown fuse indication provided by a striker pin. In addition to giving local indication of fuse condition, the striker pin can be used to trigger an external tripping device. The powerful striker pin delivers approximately three joules of energy over a 5/8-inch travel distance, more than sufficient for mechanical operation of trip-all-phase devices or micro-switches. HLE and CLE type fuses can be mounted in disconnect or non-disconnect mounting configurations. BHLE type fuses can be directly "bolted-in" onto switchgear bus bars. HCL type fuse units are mounted in cam action clip-lock clips for easy installation and replacement.

Helix fuses have a semi-coreless design, enclosed in high strength, filament wound glass and epoxy tubes. They are filled with high purity silica sand of controlled grain size. Fuse elements are pure silver in a double helix configuration to optimize performance by maximizing the number of elements.

The double helix design delivers:

- Higher current ratings
- Cooler operation
- Improved time-current characteristics
- Reduced 12t let-through
- Shorter length

Single, double and triple barrel designs are available to cover a wide range of current, voltage and interrupting ratings. For their sizes, Eaton's helix type fuses offer the highest available E-ratings.

In addition, Eaton's 3-inch diameter fuses will directly replace other manufacturer's fuses.

**Heritage Type Fuses**

Certain “Heritage” Westinghouse fuse types have been retained where there are no suitable helix type fuses to replace them. These fuses are normally only supplied for replacement purposes. The major items here are the shorter 2-inch diameter 2.75 kV CLE fuses from 15E to 25E and 15.5 kV fuses where the older designs used more parallel barrels than the current Helix design.

The Heritage fuse designs are suitable for indoor use only.

**CLE and HLE Features**

Helix type current limiting fuses offer a number of advantages over competing current limiting designs. During the selection process, consider the following:

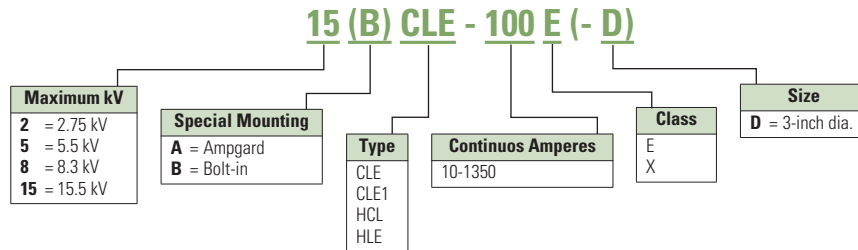
- **Optimized Energy Exchange:** The double concentric helix configuration (inner and outer) optimizes energy exchange by making more efficient use of the sand filler
  - **Improved Arc Control:** The double helix design has more elements for more surface area permitting better arc control
  - **Lower Temperature Rise:** Heat radiation with the HLE design is excellent resulting in lower normal operating temperatures
  - **Promotes Faster Melting:** Under overload conditions, thermal transfer from the inner helix is reduced by a modified temperature gradient leading to faster melting
  - **Blown Fuse Indication:** Blown fuse striker pin will protrude from the top of the fuse providing a visual indication of operation, as well as a triggering means for external devices
  - **Interchangeability:** Helix type fuses are mechanically interchangeable and in many cases have higher maximum current ratings than competing current limiting fuses
  - **Limited Arc Voltage:** Improved limited arc voltage on 40E and higher current rating fuses permits 15.5 kV fuses to be used on 8.3 kV circuits and 8.3 kV fuses to be used on 5.5 kV circuits
- Helix type current limiting fuses also offer additional advantages over other types of fuse designs:
- **Quiet and Safe Operation:** Helix type fuses are sealed static units eliminating the need for externally mounted exhaust control devices
  - **Limits Fault Current:** By design, helix type fuses interrupt high fault currents before the first loop of fault current reaches its natural crest value. The double helix design delivers lower  $I^2t$
  - **Higher Interrupting Capabilities:** Helix type fuses have higher interrupting ratings than expulsion fuses because of their current limiting capabilities
  - **Indoor/Outdoor Application:** Helix type fuse end caps are magneformed to the tube and sealed with resilient RTV sealant

**Mounting Hardware**

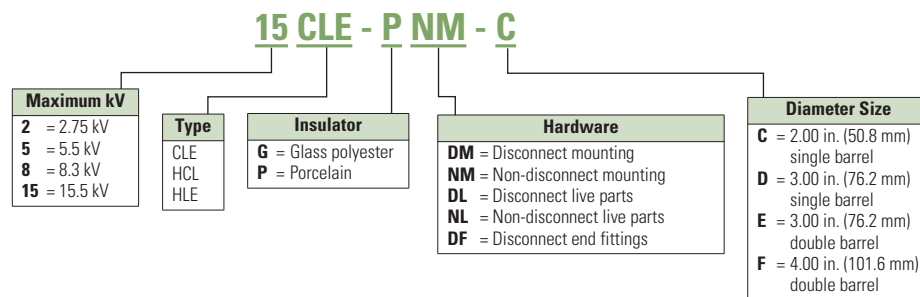
- CLE type and HLE helix type current limiting fuses are designed to be used in either disconnect or non-disconnect mountings
- All CLE and HLE fuse units can be mounted, as supplied, in appropriate non-disconnect mountings. Adding disconnect fuse end fittings to a CLE or HLE fuse unit permits it to be mounted in an appropriate disconnect mounting
- Most HCL current limiting fuse units have blades to enable the fuse to be mounted in cam locking clips
- HCL5-900E and 750E, and BHLE fuses have end blades for direct bolting to custom bus bars or mountings
- AHLE and certain Heritage designs are specifically equipped for mounting in Eaton’s Ampgard motor starter equipment
- Disconnect and non-disconnect live parts above the insulator are available for CLE, HLE and HCL clip-lock fuses

## Catalog Number Selection

### Helix Fuse Units



### Helix Fuse Mounting



## Ratings and Selection

When a decision has been made to use current limiting fuses, the minimum amount of information required to make the proper selection is:

- Voltage rating
- Current rating
- Interrupting rating
- Mounting method:
  - Non-disconnect mounting
  - Disconnect mounting
  - Clip-lock mounting
  - Direct bolt-in mounting
  - Live parts only
  - No required mounting

Refer to tables on **Pages V14-T3-22 to V14-T3-41** for assistance in selecting the correct fuse catalog number.

These types of fuses commonly provide protection for transformer primaries. There are specific rules governing the selection of the required fuse continuous rating. The current limiting fuse application notes earlier in this publication offer suggested minimum current limiting fuse current ratings for self-cooled transformers. The suggested ratings are intended as general guidelines only.

When selecting the appropriate fuse for a new installation, keep in mind that one fuse unit and one compatible mounting is required for each phase.

# 3.4

## Current Limiting Fuses

CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses

### Suggested Minimum Current Limiting Fuse Current Ratings for Self-Cooled 2.4–15.5 kV Transformer Applications—E-Rated Fuses

System Nominal kV	2.4		4.16		4.8		7.2		12.0		13.2		13.8		14.4	
	Fuse Maximum kV	2.75	5.5	5.5	8.3	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
Transformer kVA Rating Self-Cooled	Full Load Current Amps	Fuse Rating Amps E	Full Load Current Amps	Fuse Rating Amps E	Full Load Current Amps	Fuse Rating Amps E	Full Load Current Amps	Fuse Rating Amps E	Full Load Current Amps	Fuse Rating Amps E	Full Load Current Amps	Fuse Rating Amps E	Full Load Current Amps	Fuse Rating Amps E	Full Load Current Amps	Fuse Rating Amps E
<b>Three-Phase Transformer</b>																
9	2.2	5E <sup>①</sup>	1.3	3E <sup>①</sup>	1.1	3E <sup>①</sup>	0.7	3E <sup>①</sup>	0.4	1E <sup>①</sup>	0.4	1E <sup>①</sup>	0.4	1E <sup>①</sup>	0.4	1E <sup>①</sup>
15	3.6	10E <sup>①</sup>	2.1	3E <sup>①</sup>	1.8	3E <sup>①</sup>	1.2	3E <sup>①</sup>	0.7	1.5E <sup>①</sup>	0.7	1E <sup>①</sup>	0.6	1E <sup>①</sup>	0.6	1E <sup>①</sup>
30	7.2	15E	4.2	10E	3.6	10E	2.4	5E <sup>①</sup>	1.4	3E <sup>①</sup>	1.3	3E <sup>①</sup>	1.3	3E <sup>①</sup>	1.2	3E <sup>①</sup>
45	10.8	20E	6.2	10E	5.4	10E	3.6	10E	2.2	5E <sup>①</sup>	2.0	3E <sup>①</sup>	1.9	3E <sup>①</sup>	1.8	3E <sup>①</sup>
75	18.0	30E	10.4	15E	9.0	15E	6.0	10E	3.6	10E	3.3	5E <sup>①</sup>	3.1	5E <sup>①</sup>	3.0	5E <sup>①</sup>
112.5	27.1	50E	15.6	25E	13.5	20E	9.0	15E	5.4	10E	4.9	10E	4.7	10E	4.5	10E
150	36.1	65E	20.8	30E	18.0	30E	12.0	20E	7.2	15E	6.6	10E	6.3	10E	6.0	10E
225	54.1	80E	31.2	50E	27.1	50E	18.0	30E	10.8	20E	9.8	15E	9.4	15E	9.0	15E
300	72.2	125E	41.6	80E	36.1	65E	24.1	40E	14.4	25E	13.1	20E	12.6	20E	12.0	20E
500	120.3	200E	69.4	125E	60.1	100E	40.1	65E	24.1	50E	21.9	40E	20.9	40E	20.0	40E
750	180.4	300E	104.1	150E	90.2	150E	60.1	100E	36.1	65E	32.8	65E	31.4	65E	30.1	65E
1000	240.6	350E	138.8	200E	120.3	175E	80.2	125E	48.1	80E	43.7	80E	41.8	80E	40.1	80E
1500	360.8	600E <sup>②③</sup>	208.2	300E	180.4	300E	120.3	175E	72.2	125E	65.6	100E	62.8	100E	60.1	100E
2000	481.1	750E <sup>②③</sup>	277.6	400E	240.6	350E	160.4	250E	96.2	150E	87.5	150E	83.7	150E	80.2	125E
2500	601.4	1100E <sup>②③</sup>	347.0	600E <sup>③</sup>	300.7	450E	200.5	300E	120.3	200E	109.3	175E	104.6	175E	100.2	175E
<b>Single-Phase Transformer</b>																
5	2.08	3E <sup>①</sup>	1.20	3E <sup>①</sup>	1.04	1.5E <sup>①</sup>	0.69	3E <sup>①</sup>	0.42	1E <sup>①</sup>	0.38	1E <sup>①</sup>	0.36	1E <sup>①</sup>	0.35	1E <sup>①</sup>
10	4.17	10E	2.40	5E <sup>①</sup>	2.08	3E <sup>①</sup>	1.39	3E <sup>①</sup>	0.83	1.5E <sup>①</sup>	0.76	1.5E <sup>①</sup>	0.72	1.5E <sup>①</sup>	0.69	1.5E <sup>①</sup>
15	6.25	10E	3.61	10E	3.13	5E <sup>①</sup>	2.08	3E <sup>①</sup>	1.25	3E <sup>①</sup>	1.14	3E <sup>①</sup>	1.09	3E <sup>①</sup>	1.04	3E <sup>①</sup>
25	10.42	15E	6.01	10E	5.21	10E	3.47	5Ev	2.08	5E <sup>①</sup>	1.89	3E <sup>①</sup>	1.81	3E <sup>①</sup>	1.74	3E <sup>①</sup>
37.5	15.63	25E	9.01	15E	7.81	15E	5.21	10E	3.13	5E	2.84	5E <sup>①</sup>	2.72	5E <sup>①</sup>	2.60	5E <sup>①</sup>
50	20.83	40E	12.02	20E	10.42	15E	6.94	10E	4.17	10E	3.79	10E	3.62	10E	3.47	10E
75	31.25	50E	18.03	30E	15.63	25E	10.42	15E	6.25	10E	5.68	10E	5.43	10E	5.21	10E
100	41.67	65E	24.04	50E	20.83	30E	13.89	20E	8.33	15E	7.58	15E	7.25	15E	6.94	15E
167	69.58	100E	40.14	80E	34.79	65E	23.19	40E	13.92	25E	12.65	20E	12.10	20E	11.60	20E
250	104.17	150E	60.10	125E	52.08	100E	34.72	65E	20.83	40E	18.94	30E	18.12	30E	17.36	30E
333	138.75	200E	80.05	150E	69.38	125E	46.25	80E	27.75	50E	25.23	50E	24.13	40E	23.13	40E
500	208.33	300E	120.19	175E	104.17	150E	69.44	125E	41.67	80E	37.88	65E	36.23	65E	34.72	65E
667	277.92	400E	160.34	250E	138.96	200E	92.64	150E	55.58	100E	50.53	80E	48.33	80E	46.32	80E
883	367.92	600E <sup>②③</sup>	212.26	300E	183.96	300E	122.64	175E	73.58	125E	66.89	125E	63.99	100E	61.32	100E
1250	520.83	750E <sup>②③</sup>	300.48	450E	260.42	400E	173.61	250E	104.17	175E	94.70	150E	90.58	150E	86.81	150E

#### Notes

- ① CLPT fuses.
- ② 5CLE fuses.
- ③ Not FM compliant for less flammable transformer liquids.

### Eaton Helix Fuse I<sup>2</sup>t Values

Ampere Rating	Min. Melt	5.5 kV		Min. Melt	8.3 kV		Min. Melt	15.5 kV		Min. Melt	Max. Clear
		CLE 63 kA Max. Clear	HLE		CLE 50 kA Max. Clear	HLE		CLE 63 kA Max. Clear	HLE		
10E	720	9000	9000	720	9000	9000	720	9000	720	9000	9000
15E	1600	13,500	13,500	1600	13,500	13,500	1600	13,500	1600	13,500	13,500
20E	3000	20,000	20,000	3000	20,000	20,000	3000	20,000	3000	20,000	20,000
25E	4500	27,000	27,000	4500	27,000	27,000	4500	27,000	4500	27,000	27,000
30E	6500	36,000	36,000	6500	36,000	36,000	6500	36,000	6500	36,000	36,000
40E	1000	20,000	20,000	1000	20,000	20,000	1000	20,000	1000	20,000	20,000
50E	1500	40,000	40,000	1500	40,000	40,000	1500	40,000	1500	40,000	40,000
65E	2600	65,000	65,000	3000	65,000	65,000	2600	65,000	2600	65,000	65,000
80E	4300	120,000	120,000	5000	140,000	140,000	5000	140,000	5000	140,000	140,000
100E	6400	160,000	160,000	8500	225,000	225,000	8500	225,000	8500	225,000	225,000
125E	10,000	200,000	200,000	22,500	275,000	275,000	22,500	270,000	22,500	270,000	270,000
150E	36,000	230,000	245,000	30,000	325,000	325,000	42,000	450,000	—	—	—
175E	53,000	575,000	625,000	48,000	400,000	400,000	—	—	—	—	—
200E	74,000	600,000	630,000	—	—	—	—	—	—	—	—
250E	11,500	700,000	900,000	—	—	—	—	—	—	—	—
150E	—	—	—	—	—	—	—	—	20,000	—	450,000
175E	—	—	—	—	—	—	22,000	750,000	25,000	—	750,000
200E	—	—	—	25,000	900,000	900,000	35,000	900,000	34,000	—	900,000
250E	—	—	—	90,000	1,100,000	1,100,000	100,000	1,000,000	65,000	—	1,100,000
300E	18,500	1,600,000	1,700,000	145,000	1,300,000	1,300,000	170,000	1,700,000	—	—	—
350E	225,000	2,000,000	2,100,000	190,000	1,600,000	1,600,000	—	—	—	—	—
400E	300,000	2,300,000	2,500,000	—	—	—	—	—	—	—	—
450E	465,000	2,800,000	3,000,000	—	—	—	—	—	—	—	—

# 3.4

## Current Limiting Fuses

CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses


### Product Selection

#### CLE Type

3

#### CLE Type

#### CLE Type Current Limiting Fuses 2.75 kV Maximum (2.4 kV Nominal)



Current Rating (Amperes)	Barrel Number	Interrupting Rating rms (kA Sym.)	Heritage Product	Indoor/Outdoor	Performance Curves			Catalog Number
					Minimum Melting Time	Total Clearing Time	Peak Let-Through Current	
15E	1	50	H	Indoor	TC56353202	TC56353302	TC63931702	2CLE-15E
20E	1	50	H	Indoor	TC56353202	TC56353302	TC63931702	2CLE-20E
25E	1	50	H	Indoor	TC56353202	TC56353302	TC63931702	2CLE-25E
10E	1	50	H	Indoor	TC53686104	TC53686204	TC63931704	2CLE-10E
30E	1	50	H	Indoor	TC53686104	TC53686204	TC63931704	2CLE-30E
40E	1	50	H	Indoor	TC53686104	TC53686204	TC63931704	2CLE-40E
50E	1	50	H	Indoor	TC53686104	TC53686204	TC63931704	2CLE-50E
65E	1	50	H	Indoor	TC53686104	TC53686204	TC63931704	2CLE-65E
80E	1	50	H	Indoor	TC53686104	TC53686204	TC63931704	2CLE-80E
100E	1	50	H	Indoor	TC53686104	TC53686204	TC63931704	2CLE-100E
125E	1	50	H	Indoor	TC53686104	TC53686204	TC63931704	2CLE-125E
150E	1	50	H	Indoor	TC53686104	TC53686204	TC63931704	2CLE-150E
200E	1	50	H	Indoor	TC53686104	TC53686204	TC63931704	2CLE-200E
225E	1	50	H	Indoor	TC53686104	TC53686204	TC63931704	2CLE-225E
250E	2	50	H	Indoor	TC53690002	TC53690102	TC63931802	2CLE-250E
300E	2	50	H	Indoor	TC53690002	TC53690102	TC63931802	2CLE-300E
350X	2	50	H	Indoor	TC53690002	TC53690102	TC63931802	2CLE-350X
400X	2	50	H	Indoor	TC53690002	TC53690102	TC63931802	2CLE-400X
450X	2	50	H	Indoor	TC53690002	TC53690102	TC63931802	2CLE-450X

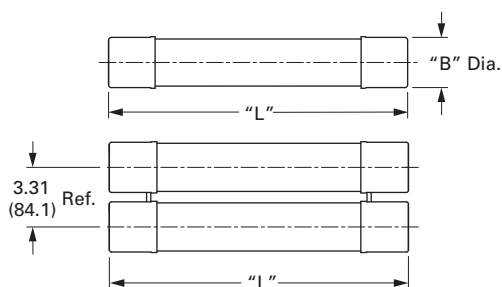
#### CLE Type Mountings and Hardware 2.75 kV Maximum (2.4 kV Nominal)

Ampere Rating	Fuse Mounting Type ①	Voltage BIL (kV)	Diameter	Clip Center	Length	Approximate Shipping Weight Lbs (kg)	Mounting (Including Live Parts, End Fittings) ②		Live Parts (Including End Fittings) ②	End Fittings (Disconnect Only)
							Porcelain Insulator Catalog Number	Glass-Polyester Insulator Catalog Number	Catalog Number	Catalog Number
15E–25E	Non-disconnect	60	2.00 (50.8)	8.13 (206.5)	9.50 (241.3)	2 (0.91)	2CLE-PNM-C	2CLE-GNM-C	CLE-NL-C	—
	Disconnect	60					2CLE-PDM-C	2CLE-GDM-C	CLE-DL-C	CLE-DF-C
10E–250E	Non-disconnect	60	3.00 (76.2)	7.00 (177.8)	10.90 (276.9)	7 (3.18)	2CLE-PNM-D	2CLE-GNM-D	CLE-NL-D	—
	Disconnect	60					2CLE-PDM-D	2CLE-GDM-D	CLE-DL-D	CLE-DF-D
300E–450E	Non-disconnect	60	3.00 (76.2)	7.00 (177.8)	10.90 (276.9)	15 (6.81)	2CLE-PNM-E	2CLE-GNM-E	CLE-NL-E	—
	Disconnect	60					2CLE-PDM-E	2CLE-GDM-E	CLE-DL-E	CLE-DF-E

#### Fuse Dimensional Details

Approximate Dimensions in Inches (mm)

#### CLE Type Fuse



CLE kV	"L"	"B" Dia.
15E–25E	9.50 (241.3)	2.00 (50.8)
10E–450E	10.90 (276.9)	3.00 (76.2)

#### Notes

- ① See Page V14-T3-38 for diagram of typical mounting.
- ② End fittings supplied only when required.

CLE Type

CLE Type Current Limiting Fuses 5.5 kV Maximum (4.8 kV Nominal)



Current Rating (Amperes)	Barrel Number	Interrupting Rating rms (kA Sym.)	Heritage Product	Indoor/Outdoor	Performance Curves			Catalog Number
					Minimum Melting Time	Total Clearing Time	Peak Let-Through Current	
15E	1	50	H	Indoor	TC56353204	TC56353304	TC63931702	5CLE-15E
20E	1	50	H	Indoor	TC56353204	TC56353304	TC63931702	5CLE-20E
25E	1	50	H	Indoor	TC56353204	TC56353304	TC63931702	5CLE-25E
10E	1	63	—	Indoor/outdoor	TC70548501	TC70548601	TC70548701	5CLE-10E-D
15E	1	63	—	Indoor/outdoor	TC70548501	TC70548601	TC70548701	5CLE-15E-D
20E	1	63	—	Indoor/outdoor	TC70548501	TC70548601	TC70548701	5CLE-20E-D
25E	1	63	—	Indoor/outdoor	TC70548501	TC70548601	TC70548701	5CLE-25E-D
30E	1	63	—	Indoor/outdoor	TC70548501	TC70548601	TC70548701	5CLE-30E
40E	1	50	—	Indoor/outdoor	TC70545801	TC70545901	TC70546701	5CLE-40E
50E	1	50	—	Indoor/outdoor	TC70545801	TC70545901	TC70546701	5CLE-50E
65E	1	50	—	Indoor/outdoor	TC70545801	TC70545901	TC70546701	5CLE-65E
80E	1	50	—	Indoor/outdoor	TC70545801	TC70545901	TC70546701	5CLE-80E
100E	1	50	—	Indoor/outdoor	TC70545801	TC70545901	TC70546701	5CLE-100E
125E	1	50	—	Indoor/outdoor	TC70545801	TC70545901	TC70546701	5CLE-125E
150E	1	63	—	Indoor/outdoor	TC70545801	TC70545901	TC70547601	5CLE-150E
175E	1	63	—	Indoor/outdoor	TC70545801	TC70545901	TC70547601	5CLE-175E
200E	1	63	—	Indoor/outdoor	TC70545801	TC70545901	TC70547601	5CLE-200E
250E	1	63	—	Indoor/outdoor	TC70545801	TC70545901	TC70547601	5CLE-250E
300E	2	63	—	Indoor/outdoor	TC70546001	TC70546101	TC70547601	5CLE-300E
350E	2	63	—	Indoor/outdoor	TC70546001	TC70546101	TC70547601	5CLE-350E
400E	2	63	—	Indoor/outdoor	TC70546001	TC70546101	TC70547601	5CLE-400E
450E	2	63	—	Indoor/outdoor	TC70546001	TC70546101	TC70547601	5CLE-450E
600E	2	40	—	Indoor	TC62908902	TC62908903	TC62908904	5CLE-600E
750E	2	40	—	Indoor	TC62908902	TC62908903	TC62908904	5CLE-750E
1100E	4	31	—	Indoor	TC62908902	TC62908903	TC62908904	5CLE-1100E
1350E	4	31	—	Indoor	TC62908902	TC62908903	TC62908904	5CLE-1350E

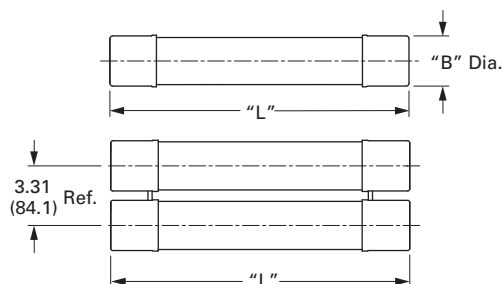
CLE Type Mountings and Hardware 5.5 kV Maximum (4.8 kV Nominal)

Ampere Rating	Fuse Mounting Type ①	Voltage BIL (kV)	Diameter Approx. Dimensions in Inches (mm)	Clip Center	Length	Approximate Shipping Weight Lbs (kg)	Mounting (Including Live Parts, End Fittings) ②		Live Parts (Including End Fittings) ②	End Fittings (Disconnect Only)
							Porcelain Insulator Catalog Number	Glass-Polyester Insulator Catalog Number		
10E-D-25E-D	Non-disconnect	60	3.00 (76.2)	14.00 (355.6)	17.90 (454.7)	9 (4.09)	5CLE-PNM-D	5CLE-GNM-D	CLE-NL-D	—
30E-250E	Disconnect	60	—	—	—	—	5CLE-PDM-D	5CLE-GDM-D	CLE-DL-D	CLE-DF-D
15E-25E	Non-disconnect	60	2.00 (50.8)	11.50 (292.1)	12.90 (327.7)	3 (1.36)	5CLE-PNM-C	5CLE-GNM-C	CLE-NL-C	—
	Disconnect	60	—	—	—	—	5CLE-PDM-C	5CLE-GDM-C	CLE-DL-C	CLE-DF-C
300E-450E	Non-disconnect	60	3.00 (76.2)	14.00 (355.6)	17.90 (454.7)	19 (8.63)	5CLE-PNM-E	5CLE-GNM-E	CLE-NL-E	—
	Disconnect	60	—	—	—	—	5CLE-PDM-E	5CLE-GDM-E	CLE-DL-E	CLE-DF-E
600E and 750E	Consult factory	60	4.00 (101.6)	N/A	N/A	40 (18.16)	—	—	—	—
1100E and 1350E	Consult factory	—	4.00 (101.6)	N/A	N/A	80 (36.32)	—	—	—	—

Fuse Dimensional Details

Approximate Dimensions in Inches (mm)

CLE Type Fuse



CLE kV	"L"	"B" Dia.
15E-25E	12.90 (327.7)	2.00 (50.8)
10E-450E	17.90 (454.7)	3.00 (76.2)

Notes

- ① See Page V14-T3-38 for diagram of typical mounting.
- ② End fittings supplied only when required.

# 3.4

## Current Limiting Fuses

CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses

### CLE Type



3

### CLE Type Current Limiting Fuses 8.3 kV Maximum (7.2 kV Nominal)

Current Rating (Amperes)	Barrel Number	Interrupting Rating rms (kA Sym.)	Heritage Product	Indoor/Outdoor	Performance Curves			Catalog Number
					Minimum Melting Time	Total Clearing Time	Peak Let-Through Current	
15E	1	50	H	Indoor	TC56353204	TC56353304	TC63931703	8CLE-15E
20E	1	50	H	Indoor	TC56353204	TC56353304	TC63931703	8CLE-20E
25E	1	50	H	Indoor	TC56353204	TC56353304	TC63931703	8CLE-25E
10E	1	50	—	Indoor/outdoor	TC70548501	TC70548601	TC70548801	8CLE-10E-D
15E	1	50	—	Indoor/outdoor	TC70548501	TC70548601	TC70548801	8CLE-15E-D
20E	1	50	—	Indoor/outdoor	TC70548501	TC70548601	TC70548801	8CLE-20E-D
25E	1	50	—	Indoor/outdoor	TC70548501	TC70548601	TC70548801	8CLE-25E-D
30E	1	50	—	Indoor/outdoor	TC70548501	TC70548601	TC70548801	8CLE-30E
40E	1	50	—	Indoor/outdoor	TC70546201	TC70546301	TC70547301	8CLE-40E
50E	1	50	—	Indoor/outdoor	TC70546201	TC70546301	TC70547301	8CLE-50E
65E	1	50	—	Indoor/outdoor	TC70546201	TC70546301	TC70547301	8CLE-65E
80E	1	50	—	Indoor/outdoor	TC70546201	TC70546301	TC70547301	8CLE-80E
100E	1	50	—	Indoor/outdoor	TC70546201	TC70546301	TC70547301	8CLE-100E
125E	1	50	—	Indoor/outdoor	TC70546201	TC70546301	TC70547301	8CLE-125E
150E	1	50	—	Indoor/outdoor	TC70546201	TC70546301	TC70547301	8CLE-150E
175E	1	50	—	Indoor/outdoor	TC70546201	TC70546301	TC70547301	8CLE-175E
200E	2	50	—	Indoor/outdoor	TC70546401	TC70546501	TC70547301	8CLE-200E
250E	2	50	—	Indoor/outdoor	TC70546401	TC70546501	TC70547301	8CLE-250E
300E	2	50	—	Indoor/outdoor	TC70546401	TC70546501	TC70547301	8CLE-300E
350E	2	50	—	Indoor/outdoor	TC70546401	TC70546501	TC70547301	8CLE-350E

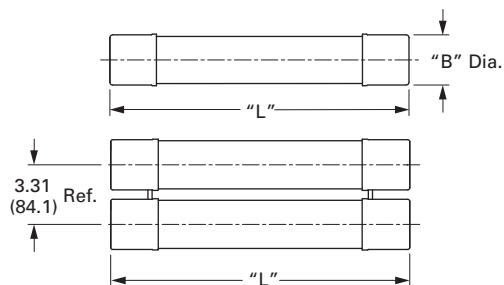
### CLE Type Mountings and Hardware 8.3 kV Maximum (7.2 kV Nominal)

Ampere Rating	Fuse Mounting Type ①	Voltage BIL (kV)	Diameter Approx. Dimensions in Inches (mm)	Clip Center Length	Approximate Shipping Weight Lbs (kg)	Mounting (Including Live Parts, End Fittings) ②		Live Parts (Including End Fittings) ②	End Fittings (Disconnect Only)	
						Porcelain Insulator Catalog Number	Glass-Polyester Insulator Catalog Number	Catalog Number	Catalog Number	
15E-25E	Non-disconnect	75	2.00 (50.8)	14.00 (355.6)	15.50 (393.7)	3 (1.36)	8CLE-PNM-C	8CLE-GNM-C	CLE-NL-C	—
	Disconnect	75					8CLE-PDM-C	8CLE-GDM-C	CLE-DL-C	CLE-DF-C
10E-D-25E-D 30E-175E	Non-disconnect	75	3.00 (76.2)	14.00 (355.6)	17.90 (454.7)	9 (4.09)	8CLE-PNM-D	8CLE-GNM-D	CLE-NL-D	—
	Disconnect	75					8CLE-PDM-D	8CLE-GDM-D	CLE-DL-D	CLE-DF-D
200E-350E	Non-disconnect	75	3.00 (76.2)	14.00 (355.6)	17.90 (454.7)	19 (8.63)	8CLE-PNM-E	8CLE-GNM-E	CLE-NL-E	—
	Disconnect	75					8CLE-PDM-E	8CLE-GDM-E	CLE-DL-E	CLE-DF-E

### Fuse Dimensional Details

Approximate Dimensions in Inches (mm)

### CLE Type Fuse



CLE kV	"L"	"B" Dia.
15E-25E	15.50 (393.7)	2.00 (50.8)
10E-350E	17.90 (454.7)	3.00 (76.2)

### Notes

- ① See Page V14-T3-38 for diagram of typical mounting.
- ② End fittings supplied only when required.

CLE Type

CLE Type Current Limiting Fuses 15.5 kV Maximum (14.4 kV Nominal)



Current Rating (Amperes)	Barrel Number	Interrupting Rating rms (kA Sym.)	Heritage Product	Indoor/Outdoor	Performance Curves			Catalog Number
					Minimum Melting Time	Total Clearing Time	Peak Let-Through Current	
15E	1	31.5	H	Indoor	TC56353204	TC56353304	TC63931703	15CLE-15E
20E	1	31.5	H	Indoor	TC56353204	TC56353304	TC63931703	15CLE-20E
25E	1	31.5	H	Indoor	TC56353204	TC56353304	TC63931703	15CLE-25E
10E	1	63	—	Indoor/outdoor	TC70548501	TC70548601	TC70548802	15CLE-10E-D
15E	1	63	—	Indoor/outdoor	TC70548501	TC70548601	TC70548802	15CLE-15E-D
20E	1	63	—	Indoor/outdoor	TC70548501	TC70548601	TC70548802	15CLE-20E-D
25E	1	63	—	Indoor/outdoor	TC70548501	TC70548601	TC70548802	15CLE-25E-D
30E	1	63	—	Indoor/outdoor	TC70548501	TC70548601	TC70548802	15CLE-30E
40E	1	63	—	Indoor/outdoor	TC70546801	TC70546901	TC70547501	15CLE-40E
50E	1	63	—	Indoor/outdoor	TC70546801	TC70546901	TC70547501	15CLE-50E
65E	1	63	—	Indoor/outdoor	TC70546801	TC70546901	TC70547501	15CLE-65E
80E	1	63	⓪	Indoor/outdoor	TC70546801	TC70546901	TC70547501	15CLE-80E
100E	1	63	⓪	Indoor/outdoor	TC70546801	TC70546901	TC70547501	15CLE-100E
125E	1	63	⓪	Indoor/outdoor	TC70546801	TC70546901	TC70547501	15CLE-125E
150E	1	63	⓪	Indoor/outdoor	TC70546801	TC70546901	TC70547501	15CLE-150E
175E	2	63	⓪	Indoor/outdoor	TC70547001	TC70547101	TC70547501	15CLE-175E
200E	2	63	⓪	Indoor/outdoor	TC70547001	TC70547101	TC70547501	15CLE-200E
250E	2	63	⓪	Indoor/outdoor	TC70547001	TC70547101	TC70547501	15CLE-250E
300E	2	63	⓪	Indoor/outdoor	TC70547001	TC70547101	TC70547501	15CLE-300E
80E	2	85	H ⓪	Indoor	TC59878302	TC59878402	TC63931604	15CLE2-80E
100E	2	85	H ⓪	Indoor	TC59878302	TC59878402	TC63931604	15CLE2-100E
125X	2	85	H ⓪	Indoor	TC59878302	TC59878402	TC63931604	15CLE2-125X
150E	3	50	H ⓪	Indoor	TC59878302	TC59878402	TC63931604	15CLE3-150E
175E/200X	3	50	H ⓪	Indoor	TC59878302	TC59878402	TC63931604	15CLE3-175E/200X

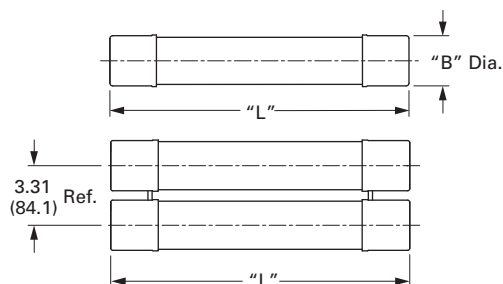
CLE Type Mountings and Hardware 15.5 kV Maximum (14.4 kV Nominal)

Ampere Rating	Fuse Mounting Type ②	Voltage BIL (kV)	Diameter Approx. Dimensions in Inches (mm)	Clip Center	Length	Approximate Shipping Weight Lbs (kg)	Mounting (Including Live Parts, End Fittings) ②		Live Parts (Including End Fittings) ②	End Fittings (Disconnect Only)
							Porcelain Insulator Catalog Number	Glass-Polyester Insulator Catalog Number	Catalog Number	Catalog Number
15E-25E	Non-disconnect	95	2.00 (50.8)	20.00 (508.0)	21.50 (546.1)	4.5 (2.04)	15CLE-PNM-C	15CLE-GNM-C	CLE-NL-D	—
		110	—	—	—	—	15CLE-HPNM-C	—	—	—
	Disconnect	95	—	—	—	—	15CLE-PDM-C	15CLE-GDM-C	CLE-DL-C	CLE-DF-C
		110	—	—	—	—	15CLE-HPDM-C	—	—	—
10E-D-25E-D 30E-150E	Non-disconnect	95	3.00 (76.2)	20.00 (508.0)	23.90 (607.1)	11 (4.99)	15CLE-PNM-D	15CLE-GNM-D	CLE-NL-D	—
		110	—	—	—	—	15CLE-HPM-D	—	—	—
	Disconnect	95	—	—	—	—	15CLE-PDM-D	15CLE-GNM-D	CLE-DL-D	CLE-DF-D
		110	—	—	—	—	15CLE-HPDM-D	—	—	—
175E-300E	Non-disconnect	110	3.00 (76.2)	20.00 (508.0)	23.90 (607.1)	23 (10.44)	15CLE-PNM-E	—	CLE-DL-E	CLE-DF-E
	Disconnect	110	—	—	—	—	15CLE-PDM-E	—	—	—

Fuse Dimensional Details

Approximate Dimensions in Inches (mm)

CLE Type Fuse



CLE kV	"L"	"B" Dia.
15E-25E	21.50 (546.1)	2.00 (50.8)
10E-300E	23.90 (607.1)	3.00 (76.2)

Notes

- ① For mountings, consult factory.
- ② See Page V14-T3-38 for diagram of typical mounting.
- ③ End fittings supplied only when required.

# 3.4

## Current Limiting Fuses

CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses

### HLE Type

HLE Type

3



### HLE Type Current Limiting Fuses 5.5 kV Maximum (4.8 kV Nominal) Interrupting Rating 63 (kA rms Sym.)

Current Rating (Amperes)	Barrel Number	Indoor/Outdoor	Performance Curves			Catalog Number
			Minimum Melting Time	Total Clearing Time	Peak Let-Through Current	
10E	1	Indoor/outdoor	TC70548507	TC70548607	TC70548703	5HLE-10E
15E	1	Indoor/outdoor	TC70548507	TC70548607	TC70548703	5HLE-15E
20E	1	Indoor/outdoor	TC70548507	TC70548607	TC70548703	5HLE-20E
25E	1	Indoor/outdoor	TC70548507	TC70548607	TC70548703	5HLE-25E
30E	1	Indoor/outdoor	TC70548507	TC70548607	TC70548703	5HLE-30E
40E	1	Indoor/outdoor	TC70545805	TC70545905	TC70547603	5HLE-40E
50E	1	Indoor/outdoor	TC70545805	TC70545905	TC70547603	5HLE-50E
65E	1	Indoor/outdoor	TC70545805	TC70545905	TC70547603	5HLE-65E
80E	1	Indoor/outdoor	TC70545805	TC70545905	TC70547603	5HLE-80E
100E	1	Indoor/outdoor	TC70545805	TC70545905	TC70547603	5HLE-100E
125E	1	Indoor/outdoor	TC70545805	TC70545905	TC70547603	5HLE-125E
150E	1	Indoor/outdoor	TC70545805	TC70545905	TC70547603	5HLE-150E
175E	1	Indoor/outdoor	TC70545805	TC70545905	TC70547603	5HLE-175E
200E	1	Indoor/outdoor	TC70545805	TC70545905	TC70547603	5HLE-200E
250E	1	Indoor/outdoor	TC70545805	TC70545905	TC70547603	5HLE-250E
300E	2	Indoor/outdoor	TC70546005	TC70546105	TC70547603	5HLE-300E
350E	2	Indoor/outdoor	TC70546005	TC70546105	TC70547603	5HLE-350E
400E	2	Indoor/outdoor	TC70546005	TC70546105	TC70547603	5HLE-400E
450E	2	Indoor/outdoor	TC70546005	TC70546105	TC70547603	5HLE-450E

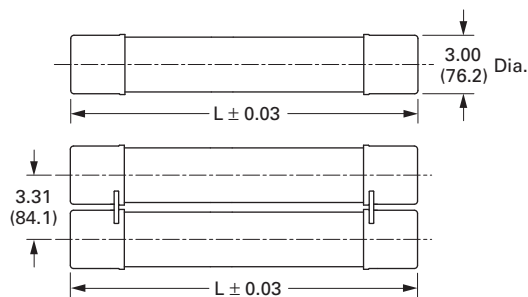
### HLE Type Mountings and Hardware 5.5 kV Maximum (4.8 kV Nominal)

Ampere Rating	Fuse Mounting Type ①	Voltage BIL (kV)	Diameter Approx. Dimensions in Inches (mm)	Clip Center Length Approx. Dimensions in Inches (mm)	Approximate Shipping Weight Lbs (kg)	Mounting (Including Live Parts, End Fittings) ②		Live Parts (Including End Fittings) ②	End Fittings (Disconnect Only)	
						Porcelain Insulator Catalog Number	Glass-Polyester Insulator Catalog Number	Catalog Number	Catalog Number	
10E–250E	Non-disconnect	60	3.00 (76.2)	12.00 (304.8)	15.90 (403.9)	8 (3.63)	5HLE-PNM-D	5HLE-GNM-D	CLE-NL-D	—
	Disconnect	60					5HLE-PDM-D	5HLE-GDM-D	CLE-DL-D	CLE-DF-D
300E–450E	Non-disconnect	60	3.00 (76.2)	12.00 (304.8)	15.90 (403.9)	17 (7.72)	5HLE-PNM-E	5HLE-GNM-E	CLE-NL-E	—
	Disconnect	60					5HLE-PDM-E	5HLE-GDM-E	CLE-DL-E	CLE-DF-D

### Fuse Dimensional Details

Approximate Dimensions in Inches (mm)

#### HLE Type Fuse



HLE kV	L ± 0.03
5.5	15.88 (403.4)

#### Notes

- ① See Page V14-T3-38 for diagram of typical mounting.
- ② End fittings supplied only when required.

HLE Type



HLE Type Current Limiting Fuses 8.3 kV Maximum (7.2 kV Nominal) Interrupting Rating 50 (kA Sym.)

Current Rating (Amperes)	Barrel Number	Indoor/Outdoor	Performance Curves			Catalog Number
			Minimum Melting Time	Total Clearing Time	Peak Let-Through Current	
10E	1	Indoor/outdoor	TC70548507	TC70548607	TC70548804	8HLE-10E
15E	1	Indoor/outdoor	TC70548507	TC70548607	TC70548804	8HLE-15E
20E	1	Indoor/outdoor	TC70548507	TC70548607	TC70548804	8HLE-20E
25E	1	Indoor/outdoor	TC70548507	TC70548607	TC70548804	8HLE-25E
30E	1	Indoor/outdoor	TC70548507	TC70548607	TC70548804	8HLE-30E
40E	1	Indoor/outdoor	TC70546203	TC70546303	TC70547201	8HLE-40E
50E	1	Indoor/outdoor	TC70546203	TC70546303	TC70547201	8HLE-50E
65E	1	Indoor/outdoor	TC70546203	TC70546303	TC70547201	8HLE-65E
80E	1	Indoor/outdoor	TC70546203	TC70546303	TC70547201	8HLE-80E
100E	1	Indoor/outdoor	TC70546203	TC70546303	TC70547201	8HLE-100E
125E	1	Indoor/outdoor	TC70546203	TC70546303	TC70547201	8HLE-125E
150E	1	Indoor/outdoor	TC70546203	TC70546303	TC70547201	8HLE-150E
175E	1	Indoor/outdoor	TC70546203	TC70546303	TC70547201	8HLE-175E
200E	2	Indoor/outdoor	TC70546403	TC70546503	TC70547201	8HLE-200E
250E	2	Indoor/outdoor	TC70546403	TC70546503	TC70547201	8HLE-250E
300E	2	Indoor/outdoor	TC70546403	TC70546503	TC70547201	8HLE-300E
350E	2	Indoor/outdoor	TC70546403	TC70546503	TC70547201	8HLE-350E

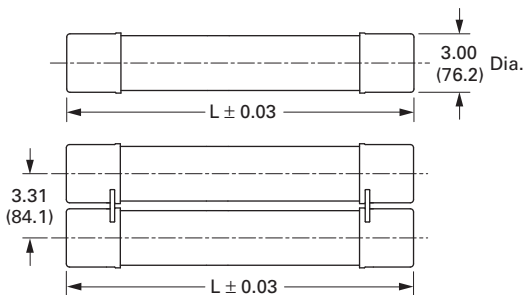
HLE Type Mountings and Hardware 8.3 kV Maximum (7.2 kV Nominal)

Ampere Rating	Fuse Mounting Type ①	Voltage BIL (kV)	Diameter Approx. Dimensions in Inches (mm)	Clip Center Length	Approximate Shipping Weight Lbs (kg)	Mounting (Including Live Parts, End Fittings) ②		Live Parts (Including End Fittings) ②	End Fittings (Disconnect Only)	
						Porcelain Insulator Catalog Number	Glass-Polyester Insulator Catalog Number	Catalog Number	Catalog Number	
10E–175E	Non-disconnect	75	3.00 (76.2)	12.00 (304.8)	15.90 (403.9)	8 (3.63)	8HLE-PNM-D	8HLE-GNM-D	CLE-NL-D	—
	Disconnect	75					8HLE-PDM-D	8HLE-GDM-D	CLE-DL-D	CLE-DF-D
200E–350E	Non-disconnect	75					8HLE-PNM-E	8HLE-GNM-E	CLE-NL-E	—
	Disconnect	75					8HLE-PDM-E	8HLE-GDM-E	CLE-DL-E	CLE-DF-E

Fuse Dimensional Details

Approximate Dimensions in Inches (mm)

HLE Type Fuse



HLE kV	L ± 0.03
8.3	15.88 (403.4)

Notes

- ① See Page V14-T3-38 for diagram of typical mounting.
- ② End fittings supplied only when required.

# 3.4

## Current Limiting Fuses

CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses

### HLE Type



3

### HLE Type Current Limiting Fuses 15.5 kV Maximum (14.4 kV Nominal)

Current Rating (Amperes)	Barrel Number	Interrupting Rating rms (kA Sym.)	Indoor/Outdoor	Performance Curves			Catalog Number
				Minimum Melting Time	Total Clearing Time	Peak Let-Through Current	
10E	1	63	Indoor/outdoor	TC70548507	TC70548607	TC70548805	15HLE-10E
15E	1	63	Indoor/outdoor	TC70548507	TC70548607	TC70548805	15HLE-15E
20E	1	63	Indoor/outdoor	TC70548507	TC70548607	TC70548805	15HLE-20E
25E	1	63	Indoor/outdoor	TC70548507	TC70548607	TC70548805	15HLE-25E
30E	1	63	Indoor/outdoor	TC70548507	TC70548607	TC70548805	15HLE-30E
40E	1	63	Indoor/outdoor	TC70546601	TC70546701	TC70547401	15HLE-40E
50E	1	63	Indoor/outdoor	TC70546601	TC70546701	TC70547401	15HLE-50E
65E	1	63	Indoor/outdoor	TC70546601	TC70546701	TC70547401	15HLE-65E
80E	1	63	Indoor/outdoor	TC70546601	TC70546701	TC70547401	15HLE-80E
100E	1	63	Indoor/outdoor	TC70546601	TC70546701	TC70547401	15HLE-100E
125E	1	63	Indoor/outdoor	TC70546601	TC70546701	TC70547401	15HLE-125E
150E	2	63	Indoor/outdoor	TC70546601	TC70546701	TC70547401	15HLE-150E
175E	2	63	Indoor/outdoor	TC70546601	TC70546701	TC70547401	15HLE-175E
200E	2	63	Indoor/outdoor	TC70546601	TC70546701	TC70547401	15HLE-200E
250E	2	63	Indoor/outdoor	TC70546601	TC70546701	TC70547401	15HLE-250E

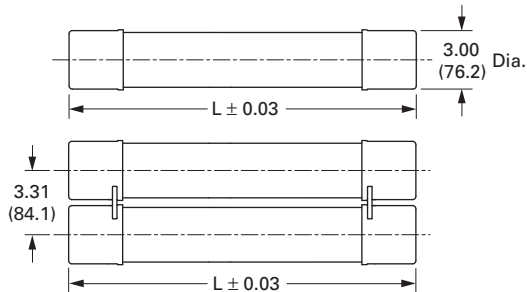
### HLE Type Mountings and Hardware 15.5 kV Maximum (14.4 kV Nominal)

Ampere Rating	Fuse Mounting Type ①	Voltage BIL (kV)	Diameter Approx. Dimensions in Inches (mm)	Clip Center Approx. Dimensions in Inches (mm)	Length Approx. Dimensions in Inches (mm)	Approximate Shipping Weight Lbs (kg)	Mounting (Including Live Parts, End Fittings) ②		Live Parts (Including End Fittings) ②	End Fittings (Disconnect Only)
							Porcelain Insulator Catalog Number	Glass-Polyester Insulator Catalog Number	Catalog Number	Catalog Number
10E–175E	Non-disconnect	95	3.00 (76.2)	15.00 (381.0)	18.90 (480.1)	10 (4.54)	15HLE-PNM-D	15HLE-GNM-D	CLE-NL-D	—
	Disconnect	95					15HLE-PDM-D	15HLE-GDM-D	CLE-DL-D	CLE-DF-D
150E–250E	Non-disconnect	95	3.00 (76.2)	15.00 (381.0)	18.90 (480.1)	21 (9.53)	15HLE-PNM-E	—	CLE-NL-E	—
	Disconnect	95					15HLE-PDM-E	—	CLE-DL-E	CLE-DF-E

### Fuse Dimensional Details

Approximate Dimensions in Inches (mm)

#### HLE Type Fuse



HLE kV	L ± 0.03
15.5	18.88 (479.6)

#### Notes

- ① See Page V14-T3-38 for diagram of typical mounting.
- ② End fittings supplied only when required.

**LHLE Type**

**LHLE Type**

**LHLE Type Current Limiting Fuses 15.5 kV Maximum (14.4 kV Nominal) Indoor/Outdoor.**



Current Rating (Amperes)	Barrel Number	Approximate Dimensions in Inches (mm)		Approximate Shipping Weight Lbs (kg)	Performance Curves			Catalog Number
		Diameter	Length		Minimum Melting Time	Total Clearing Time	Peak Let-Through Current	
65E	1	3.00 (76.2)	20.53 (521.5)	10.5 (4.80)	TC66703203	TC66703303	TC70547404	15LHLE-65E
80E	1	3.00 (76.2)	20.53 (521.5)	10.5 (4.80)	TC66703203	TC66703303	TC70547404	15LHLE-80E
100E	1	3.00 (76.2)	20.53 (521.5)	10.5 (4.80)	TC66703203	TC66703303	TC70547404	15LHLE-100E
125E	1	3.00 (76.2)	20.53 (521.5)	10.5 (4.80)	TC66703203	TC66703303	TC70547404	15LHLE-125E
150E	1	3.00 (76.2)	20.53 (521.5)	10.5 (4.80)	TC66703203	TC66703303	TC70547404	15LHLE-150E
125E	2	3.00 (76.2)	20.53 (521.5)	21.0 (9.50)	TC66703203	TC66703303	TC70547404	15LHLE2-125E
150E	2	3.00 (76.2)	20.53 (521.5)	21.0 (9.50)	TC66703203	TC66703303	TC70547404	15LHLE2-150E
175E	2	3.00 (76.2)	20.53 (521.5)	21.0 (9.50)	TC66703203	TC66703303	TC70547404	15LHLE-175E
200E	2	3.00 (76.2)	20.53 (521.5)	21.0 (9.50)	TC66703203	TC66703303	TC70547404	15LHLE-200E
250E	2	3.00 (76.2)	20.53 (521.5)	21.0 (9.50)	TC66703203	TC66703303	TC70547404	15LHLE-250E
300E	2	3.00 (76.2)	20.53 (521.5)	21.0 (9.50)	TC66703203	TC66703303	TC70547404	15LHLE-300E

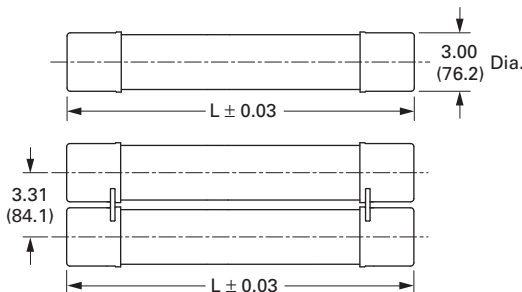
**LHLE Type Mountings and Hardware 15.5 kV Maximum (14.4 kV Nominal)**

Ampere Rating	Fuse Mounting Type	Diameter Approximate Dimensions in Inches (mm)	Clip Center	Length	Live Parts (Including End Fittings)	End Fittings (Disconnect Only)
					Catalog Number	Catalog Number
65E–150E Single barrel	Non-disconnect	3.00 (76.2)	18.00 (457.0)	20.53 (521.5)	CLE-NL-D	—
	Disconnect				CLE-DL-D	CLE-DF-D
125E–300E Double barrel	Non-disconnect	3.00 (76.2)	18.00 (457.0)	20.53 (521.5)	CLE-NL-E	—
	Disconnect				CLE-DL-E	CLE-DF-E

**Fuse Dimensional Details**

Approximate Dimensions in Inches (mm)

**LHLE Type Fuse**



LHLE kV	L ± 0.03
15.5	20.53 (521.5)

# 3.4

## Current Limiting Fuses

CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses

### AHLE Type

#### 5AHLE Type Current-Limiting Fuse Units 5.5 kV Maximum (4.8 kV Nominal)

Current Rating (Amperes)	Barrel Number	Interrupting Rating rms (kA Sym.)	Approximate Shipping Weight Lbs (kg)	Performance Curves			Catalog Number
				Minimum Melting Time	Total Clearing Time	Peak Let-Through Current	
10E	1	63	8 (3.6)	TC70548507	TC70548607	TC70548703	5AHLE-10E
15E	1	63	8 (3.6)	TC70548507	TC70548607	TC70548703	5AHLE-15E
20E	1	63	8 (3.6)	TC70548507	TC70548607	TC70548703	5AHLE-20E
25E	1	63	8 (3.6)	TC70548507	TC70548607	TC70548703	5AHLE-25E
30E	1	63	8 (3.6)	TC70548507	TC70548607	TC70548703	5AHLE-30E
40E	1	63	8 (3.6)	TC70545805	TC70545905	TC70547603	5AHLE-40E
50E	1	63	8 (3.6)	TC70545805	TC70545905	TC70547603	5AHLE-50E
65E	1	63	8 (3.6)	TC70545805	TC70545905	TC70547603	5AHLE-65E
80E	1	63	8 (3.6)	TC70545805	TC70545905	TC70547603	5AHLE-80E
100E	1	63	8 (3.6)	TC70545805	TC70545905	TC70547603	5AHLE-100E
125E	1	63	8 (3.6)	TC70545805	TC70545905	TC70547603	5AHLE-125E
150E	1	63	8 (3.6)	TC70545805	TC70545905	TC70547603	5AHLE-150E
175E	1	63	8 (3.6)	TC70545805	TC70545905	TC70547603	5AHLE-175E
200E	1	63	8 (3.6)	TC70545805	TC70545905	TC70547603	5AHLE-200E
250E	1	63	8 (3.6)	TC70545805	TC70545905	TC70547603	5AHLE-250E
300E	2	63	17 (7.8)	TC70546005	TC70546105	TC70547603	5AHLE-300E
350E	2	63	17 (7.8)	TC70546005	TC70546105	TC70547603	5AHLE-350E
400E	2	63	17 (7.8)	TC70546005	TC70546105	TC70547603	5AHLE-400E
450E	2	63	17 (7.8)	TC70546005	TC70546105	TC70547603	5AHLE-450E

#### 8AHLE Type Current-Limiting Fuse Units 8.3 kV Maximum (7.2 kV Nominal)

Current Rating (Amperes)	Barrel Number	Interrupting Rating rms (kA Sym.)	Approximate Shipping Weight Lbs (kg)	Performance Curves			Catalog Number
				Minimum Melting Time	Total Clearing Time	Peak Let-Through Current	
10E	1	50	8 (3.6)	TC70548507	TC70548607	TC70548804	8AHLE-10E
15E	1	50	8 (3.6)	TC70548507	TC70548607	TC70548804	8AHLE-15E
20E	1	50	8 (3.6)	TC70548507	TC70548607	TC70548804	8AHLE-20E
25E	1	50	8 (3.6)	TC70548507	TC70548607	TC70548804	8AHLE-25E
30E	1	50	8 (3.6)	TC70548507	TC70548607	TC70548804	8AHLE-30E
40E	1	50	8 (3.6)	TC70546203	TC70546303	TC70547201	8AHLE-40E
50E	1	50	8 (3.6)	TC70546203	TC70546303	TC70547201	8AHLE-50E
65E	1	50	8 (3.6)	TC70546203	TC70546303	TC70547201	8AHLE-65E
80E	1	50	8 (3.6)	TC70546203	TC70546303	TC70547201	8AHLE-80E
100E	1	50	8 (3.6)	TC70546203	TC70546303	TC70547201	8AHLE-100E
125E	1	50	8 (3.6)	TC70546203	TC70546303	TC70547201	8AHLE-125E
150E	1	50	8 (3.6)	TC70546203	TC70546303	TC70547201	8AHLE-150E
175E	1	50	8 (3.6)	TC70546203	TC70546303	TC70547201	8AHLE-175E
200E	2	50	17 (7.8)	TC70546403	TC70546503	TC70547201	8AHLE-200E
250E	2	50	17 (7.8)	TC70546403	TC70546503	TC70547201	8AHLE-250E
300E	2	50	17 (7.8)	TC70546403	TC70546503	TC70547201	8AHLE-300E
350E	2	50	17 (7.8)	TC70546403	TC70546503	TC70547201	8AHLE-350E

**Note:** These fuses are equipped for mounting in Eaton Ampgard motor starting assemblies.

**BHLE Type**

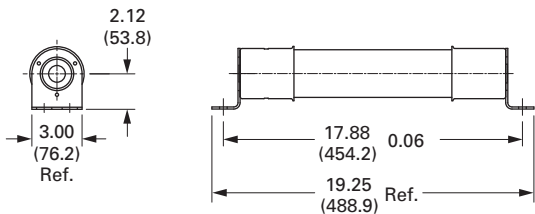
**BHLE Type Current Limiting Fuses 5.5 kV Maximum (4.8 kV Nominal), Indoor, Bolt-In**

Current Rating (Amperes)	Barrel Number	Interrupting Rating rms (kA Sym.)	Diameter Approximate Dimensions in Inches (mm)	Length	Approximate Shipping Weight Lbs (kg)	Performance Curves		Peak Let-Through Current	Catalog Number
						Minimum Melting Time	Total Clearing Time		
10E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70548507	TC70548607	TC70548703	5BHLE-10E
15E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70548507	TC70548607	TC70548703	5BHLE-15E
20E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70548507	TC70548607	TC70548703	5BHLE-20E
25E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70548507	TC70548607	TC70548703	5BHLE-25E
30E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70548507	TC70548607	TC70548703	5BHLE-30E
40E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70545805	TC70545905	TC70547603	5BHLE-40E
50E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70545805	TC70545905	TC70547603	5BHLE-50E
65E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70545805	TC70545905	TC70547603	5BHLE-65E
80E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70545805	TC70545905	TC70547603	5BHLE-80E
100E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70545805	TC70545905	TC70547603	5BHLE-100E
125E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70545805	TC70545905	TC70547603	5BHLE-125E
150E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70545805	TC70545905	TC70547603	5BHLE-150E
175E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70545805	TC70545905	TC70547603	5BHLE-175E
200E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70545805	TC70545905	TC70547603	5BHLE-200E
250E	1	63	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70545805	TC70545905	TC70547603	5BHLE-250E
300E	2	63	3.00 (76.2)	15.90 (403.9)	17 (7.72)	TC70546005	TC70546105	TC70547603	5BHLE-300E
350E	2	63	3.00 (76.2)	15.90 (403.9)	17 (7.72)	TC70546005	TC70546105	TC70547603	5BHLE-350E
400E	2	63	3.00 (76.2)	15.90 (403.9)	17 (7.72)	TC70546005	TC70546105	TC70547603	5BHLE-400E
450E	2	63	3.00 (76.2)	15.90 (403.9)	17 (7.72)	TC70546005	TC70546105	TC70547603	5BHLE-450E

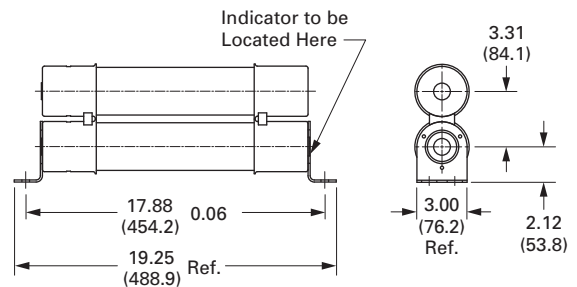
**Fuse Dimensional Details**

Approximate Dimensions in Inches (mm)

**5BHLE Type Fuse—Single Barrel**



**5BHLE Type Fuse—Double Barrel**



# 3.4

## Current Limiting Fuses

CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses

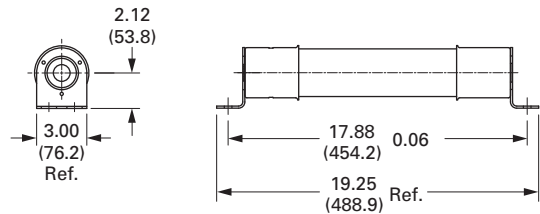
### BHLE Type Current Limiting Fuses 8.3 kV Maximum (7.2 kV Nominal), Indoor, Bolt-In

Current Rating (Amperes)	Barrel Number	Interrupting Rating rms (kA Sym.)	Diameter Approximate Dimensions in Inches (mm)	Length Approximate Dimensions in Inches (mm)	Approximate Shipping Weight Lbs (kg)	Performance Curves Minimum Melting Time	Performance Curves Total Clearing Time	Peak Let-Through Current	Catalog Number
10E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70548507	TC70548607	TC70548804	8BHLE-10E
15E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70548507	TC70548607	TC70548804	8BHLE-15E
20E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70548507	TC70548607	TC70548804	8BHLE-20E
25E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70548507	TC70548607	TC70548804	8BHLE-25E
30E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70548507	TC70548607	TC70548804	8BHLE-30E
40E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70546203	TC70546303	TC70547201	8BHLE-40E
50E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70546203	TC70546303	TC70547201	8BHLE-50E
65E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70546203	TC70546303	TC70547201	8BHLE-65E
80E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70546203	TC70546303	TC70547201	8BHLE-80E
100E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70546203	TC70546303	TC70547201	8BHLE-100E
125E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70546203	TC70546303	TC70547201	8BHLE-125E
150E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70546203	TC70546303	TC70547201	8BHLE-150E
175E	1	50	3.00 (76.2)	15.90 (403.9)	8 (3.63)	TC70546203	TC70546303	TC70547201	8BHLE-175E
200E	2	50	3.00 (76.2)	15.90 (403.9)	17 (7.72)	TC70546403	TC70546503	TC70547201	8BHLE-200E
250E	2	50	3.00 (76.2)	15.90 (403.9)	17 (7.72)	TC70546403	TC70546503	TC70547201	8BHLE-250E
300E	2	50	3.00 (76.2)	15.90 (403.9)	17 (7.72)	TC70546403	TC70546503	TC70547201	8BHLE-300E
350E	2	50	3.00 (76.2)	15.90 (403.9)	17 (7.72)	TC70546403	TC70546503	TC70547201	8BHLE-350E

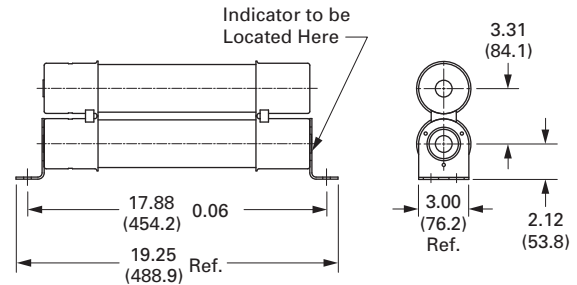
#### Fuse Dimensional Details

Approximate Dimensions in Inches (mm)

#### 8BHLE Type Fuse—Single Barrel



#### 8BHLE Type Fuse—Double Barrel



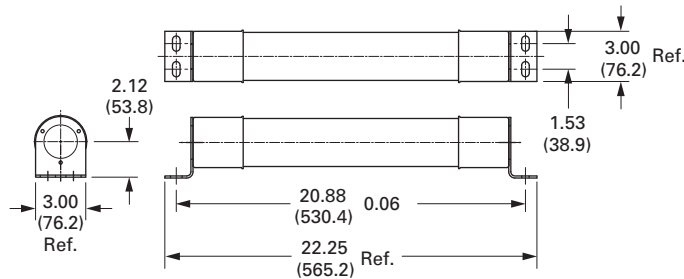
**BHLE Type Current Limiting Fuses 15.5 kV Maximum (14.4 kV Nominal), Indoor/Outdoor, Bolt-In**

Current Rating (Amperes)	Barrel Number	Interrupting Rating rms (kA Sym.)	Diameter Approximate Dimensions in Inches (mm)	Length Approximate Dimensions in Inches (mm)	Approximate Shipping Weight Lbs (kg)	Performance Curves Minimum Melting Time	Performance Curves Total Clearing Time	Performance Curves Peak Let-Through Current	Catalog Number
10E	1	63	3.00 (76.2)	18.90 (480.1)	10 (4.54)	TC70548507	TC70548607	TC70548805	15BHLE-10E
15E	1	63	3.00 (76.2)	18.90 (480.1)	10 (4.54)	TC70548507	TC70548607	TC70548805	15BHLE-15E
20E	1	63	3.00 (76.2)	18.90 (480.1)	10 (4.54)	TC70548507	TC70548607	TC70548805	15BHLE-20E
25E	1	63	3.00 (76.2)	18.90 (480.1)	10 (4.54)	TC70548507	TC70548607	TC70548805	15BHLE-25E
30E	1	63	3.00 (76.2)	18.90 (480.1)	10 (4.54)	TC70548507	TC70548607	TC70548805	15BHLE-30E
40E	1	63	3.00 (76.2)	18.90 (480.1)	10 (4.54)	TC70546601	TC70546701	TC70547401	15BHLE-40E
50E	1	63	3.00 (76.2)	18.90 (480.1)	10 (4.54)	TC70546601	TC70546701	TC70547401	15BHLE-50E
65E	1	63	3.00 (76.2)	18.90 (480.1)	10 (4.54)	TC70546601	TC70546701	TC70547401	15BHLE-65E
80E	1	63	3.00 (76.2)	18.90 (480.1)	10 (4.54)	TC70546601	TC70546701	TC70547401	15BHLE-80E
100E	1	63	3.00 (76.2)	18.90 (480.1)	10 (4.54)	TC70546601	TC70546701	TC70547401	15BHLE-100E
125E	1	63	3.00 (76.2)	18.90 (480.1)	10 (4.54)	TC70546601	TC70546701	TC70547401	15BHLE-125E
150E	2	63	3.00 (76.2)	18.90 (480.1)	21 (9.53)	TC70546601	TC70546701	TC70547401	15BHLE-150E
175E	2	63	3.00 (76.2)	18.90 (480.1)	21 (9.53)	TC70546601	TC70546701	TC70547401	15BHLE-175E
200E	2	63	3.00 (76.2)	18.90 (480.1)	21 (9.53)	TC70546601	TC70546701	TC70547401	15BHLE-200E
250E	2	63	3.00 (76.2)	18.90 (480.1)	21 (9.53)	TC70546601	TC70546701	TC70547401	15BHLE-250E

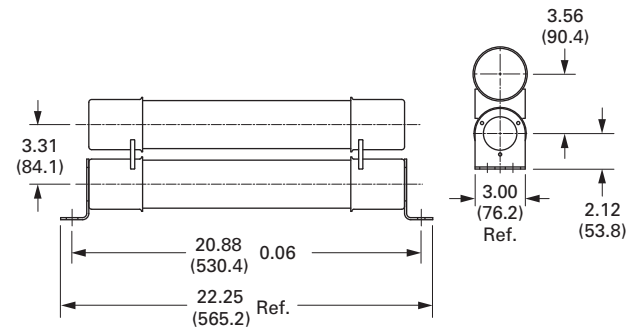
**Fuse Dimensional Details**

Approximate Dimensions in Inches (mm)

**15BHLE Type Fuse—Single Barrel**



**15BHLE Type Fuse—Double Barrel**



# 3.4

## Current Limiting Fuses

CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses

### HCL Type

#### HCL Type Current Limiting Fuses 5.5 kV Maximum (4.8 kV Nominal), Indoor

Current Rating (Amperes)	Barrel Number	Interrupting Rating rms (kA Sym.)	Approximate Diameter in Inches (mm)	Clip Center	Approximate Shipping Weight Lbs (kg)	Mounting Type	Live Parts (Includes End Fittings) Catalog Number	Performance Curves			Catalog Number
								Minimum Melting Time	Total Clearing Time	Peak Let-Through Current	
10E	1	63	3.00 (76.2)	Clip-lock	9 (4.09)	Non-disconnect	HCL-NL-1	TC70548505	TC70548605	TC70548702	5HCL-10E
15E	1	63	3.00 (76.2)	Clip-lock	9 (4.09)	Non-disconnect	HCL-NL-1	TC70548505	TC70548605	TC70548702	5HCL-15E
20E	1	63	3.00 (76.2)	Clip-lock	9 (4.09)	Non-disconnect	HCL-NL-1	TC70548505	TC70548605	TC70548702	5HCL-20E
25E	1	63	3.00 (76.2)	Clip-lock	9 (4.09)	Non-disconnect	HCL-NL-1	TC70548505	TC70548605	TC70548702	5HCL-25E
30E	1	63	3.00 (76.2)	Clip-lock	9 (4.09)	Non-disconnect	HCL-NL-1	TC70548505	TC70548605	TC70548702	5HCL-30E
40E	1	63	3.00 (76.2)	Clip-lock	9 (4.09)	Non-disconnect	HCL-NL-1	TC70545803	TC70545903	TC70547602	5HCL-40E
50E	1	63	3.00 (76.2)	Clip-lock	9 (4.09)	Non-disconnect	HCL-NL-1	TC70545803	TC70545903	TC70547602	5HCL-50E
65E	1	63	3.00 (76.2)	Clip-lock	9 (4.09)	Non-disconnect	HCL-NL-1	TC70545803	TC70545903	TC70547602	5HCL-65E
80E	1	63	3.00 (76.2)	Clip-lock	9 (4.09)	Non-disconnect	HCL-NL-1	TC70545803	TC70545903	TC70547602	5HCL-80E
100E	1	63	3.00 (76.2)	Clip-lock	9 (4.09)	Non-disconnect	HCL-NL-1	TC70545803	TC70545903	TC70547602	5HCL-100E
125E	1	63	3.00 (76.2)	Clip-lock	9 (4.09)	Non-disconnect	HCL-NL-1	TC70545803	TC70545903	TC70547602	5HCL-125E
150E	1	63	3.00 (76.2)	Clip-lock	9 (4.09)	Non-disconnect	HCL-NL-1	TC70545803	TC70545903	TC70547602	5HCL-150E
200E	1	63	3.00 (76.2)	Clip-lock	10 (4.54)	Non-disconnect	HCL-NL-1	TC70545803	TC70545903	TC70547602	5HCL-200E
250E	1	63	3.00 (76.2)	Clip-lock	10 (4.54)	Non-disconnect	HCL-NL-1	TC70545803	TC70545903	TC70547602	5HCL-250E
300E	2	63	3.00 (76.2)	Clip-lock	20 (9.08)	Non-disconnect	HCL-NL-1	TC70546003	TC70516103	TC70547602	5HCL-300E
400E	2	63	3.00 (76.2)	Clip-lock	20 (9.08)	Non-disconnect	HCL-NL-1	TC70546003	TC70516103	TC70547602	5HCL-400E
450E	2	63	3.00 (76.2)	Clip-lock	20 (9.08)	Non-disconnect	HCL-NL-1	TC70546003	TC70516103	TC70547602	5HCL-450E
500E	2	63	3.00 (76.2)	Clip-lock	20 (9.08)	Non-disconnect	HCL-NL-1	TC66703401	TC66703501	TC66703701	5HCL-500E
600E	2	63	3.00 (76.2)	Clip-lock	20 (9.08)	Non-disconnect	HCL-NL-1	TC66703401	TC66703501	TC66703701	5HCL-600E
750E	3	63	3.00 (76.2)	Bolt-in	30 (13.62)	—	—	TC66703401	TC66703501	TC66703701	5HCL-750E
	3	63	3.00 (76.2)	Bolt-in	30 (13.62)	—	—	TC66703401	TC66703501	TC66703701	5BHCL-750E
900E	3	63	3.00 (76.2)	Bolt-in	30 (13.62)	—	—	TC66703401	TC66703501	TC66703701	5HCL-900E
	3	63	3.00 (76.2)	Bolt-in	30 (13.62)	—	—	TC66703401	TC66703501	TC66703701	5BHCL-900E

#### HCL Type Current Limiting Fuses (15.5 kV Maximum, 14.4 kV Nominal), Indoor

Current Rating (Amperes)	Barrel Number	Interrupting Rating rms (kA Sym.)	Approximate Diameter in Inches (mm)	Clip Center	Approximate Shipping Weight Lbs (kg)	Mounting Type	Live Parts (Includes End Fittings) Catalog Number	Performance Curves			Catalog Number
								Minimum Melting Time	Total Clearing Time	Peak Let-Through Current	
10E	1	63	3.00 (76.2)	Clip-lock	10 (4.54)	Non-disconnect	HCL-NL-1	TC70548503	TC70548603	TC70548803	15HCL-10E
15E	1	63	3.00 (76.2)	Clip-lock	10 (4.54)	Non-disconnect	HCL-NL-1	TC70548503	TC70548603	TC70548803	15HCL-15E
20E	1	63	3.00 (76.2)	Clip-lock	10 (4.54)	Non-disconnect	HCL-NL-1	TC70548503	TC70548603	TC70548803	15HCL-20E
25E	1	63	3.00 (76.2)	Clip-lock	10 (4.54)	Non-disconnect	HCL-NL-1	TC70548503	TC70548603	TC70548803	15HCL-25E
30E	1	63	3.00 (76.2)	Clip-lock	10 (4.54)	Non-disconnect	HCL-NL-1	TC70548503	TC70548603	TC70548803	15HCL-30E
40E	1	63	3.00 (76.2)	Clip-lock	10 (4.54)	Non-disconnect	HCL-NL-1	TC66703201	TC66703301	TC70547402	15HCL-40E
50E	1	63	3.00 (76.2)	Clip-lock	10 (4.54)	Non-disconnect	HCL-NL-1	TC66703201	TC66703301	TC70547402	15HCL-50E
65E	1	50	3.00 (76.2)	Clip-lock	12 (5.45)	Non-disconnect	HCL-NL-1	TC66703201	TC66703301	TC70547402	15HCL-65E
80E	1	50	3.00 (76.2)	Clip-lock	12 (5.45)	Non-disconnect	HCL-NL-1	TC66703201	TC66703301	TC70547402	15HCL-80E
100E	1	50	3.00 (76.2)	Clip-lock	12 (5.45)	Non-disconnect	HCL-NL-1	TC66703201	TC66703301	TC70547402	15HCL-100E
125E	1	50	3.00 (76.2)	Clip-lock	12 (5.45)	Non-disconnect	HCL-NL-1	TC66703201	TC66703301	TC70547402	15HCL-125E
150E	2	50	3.00 (76.2)	Clip-lock	24 (10.90)	Non-disconnect	HCL-NL-1	TC66703201	TC66703301	TC70547402	15HCL-150E
200E	2	50	3.00 (76.2)	Clip-lock	24 (10.90)	Non-disconnect	HCL-NL-1	TC66703201	TC66703301	TC70547402	15HCL-200E
250E	2	50	3.00 (76.2)	Clip-lock	24 (10.90)	Non-disconnect	HCL-NL-1	TC66703201	TC66703301	TC70547402	15HCL-250E
300E	2	50	3.00 (76.2)	Clip-lock	24 (10.90)	Non-disconnect	HCL-NL-1	TC66703201	TC66703301	TC70547402	15HCL-300E

**Fuse Dimensional Details**

Approximate Dimensions in Inches (mm)

**5.5 and 15.5 kV Clip Lock Mounted**

Ampere Rating	Number of Barrels	Figure Number	A	B	C	Interrupting Rating rms (kA Sym.)
<b>5.5 kV Maximum—Clip Lock Style—15.25-Inch (387.4 mm) Clip Centers—3.00-Inch (76.2 mm) Barrel Diameter</b>						
10E–150E	1	A	16.81 (427.0)	16.12 (409.4)	①	63
<b>5.5 kV Maximum—Clip Lock Style—21.25-Inch (539.8 mm) Clip Centers—3.00-Inch (76.2 mm) Barrel Diameter</b>						
200E–600E	1	A	22.81 (579.4)	22.12 (561.8)	①	63

**15.5 kV Clip Lock Mounted**

Ampere Rating	Number of Barrels	Figure Number	A	B	C	Interrupting Rating rms (kA Sym.)
<b>15.5 kV Maximum—Clip Lock Style—21.25-Inch (539.8 mm) Clip Centers—3.00-Inch (76.2 mm) Barrel Diameter</b>						
65E–125E	1	A	22.81 (579.4)	22.12 (561.8)	①	63
150E–300E	2	B	22.81 (579.4)	22.12 (561.8)	①	50
<b>15.5 kV Maximum—Clip Lock Style—18.25-Inch (463.6 mm) Clip Centers—3.00-Inch (76.2 mm) Barrel Diameter</b>						
10E–50E	1	A	19.81 (503.2)	19.12 (485.6)	①	63

**Bolt-In Series—5.5 kV**

Ampere Rating	Number of Barrels	Figure Number	A	B	C	D	Interrupting Rating rms (kA Sym.)
<b>5.5 kV Maximum—Bolt-in Style—23.73-Inch (602.7 mm) Hole Centers—3.00-Inch (76.2 mm) Barrel Diameter</b>							
750E, 900E	3	C	25.11 (637.8)	22.37 (568.2)	23.73 (602.7)	①	63

**HCL-14 Type Fuse**

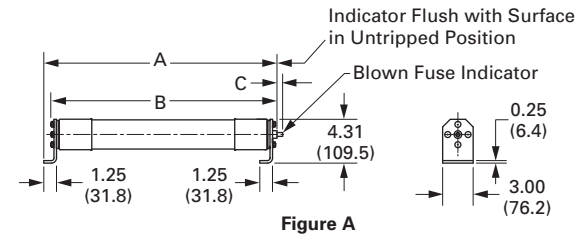


Figure A

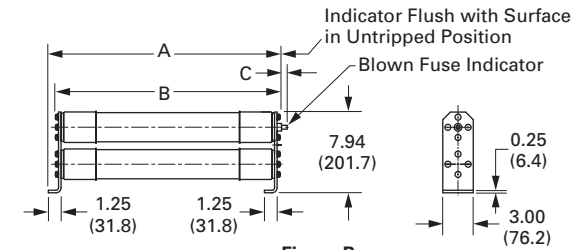


Figure B

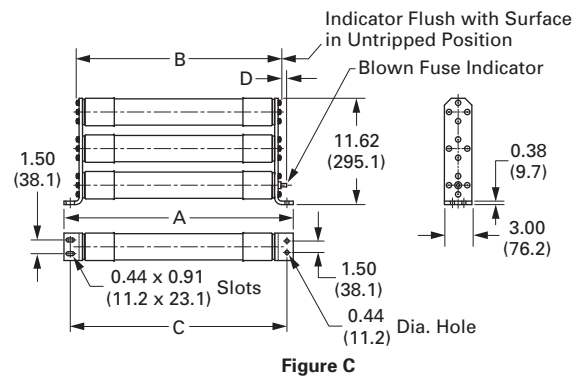
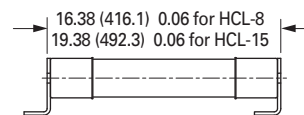


Figure C

**HCL Type Fuse**



**Note**

① 0.5 (12.7) tripped force 2 lb (0.9 kg).

# 3.4

## Current Limiting Fuses

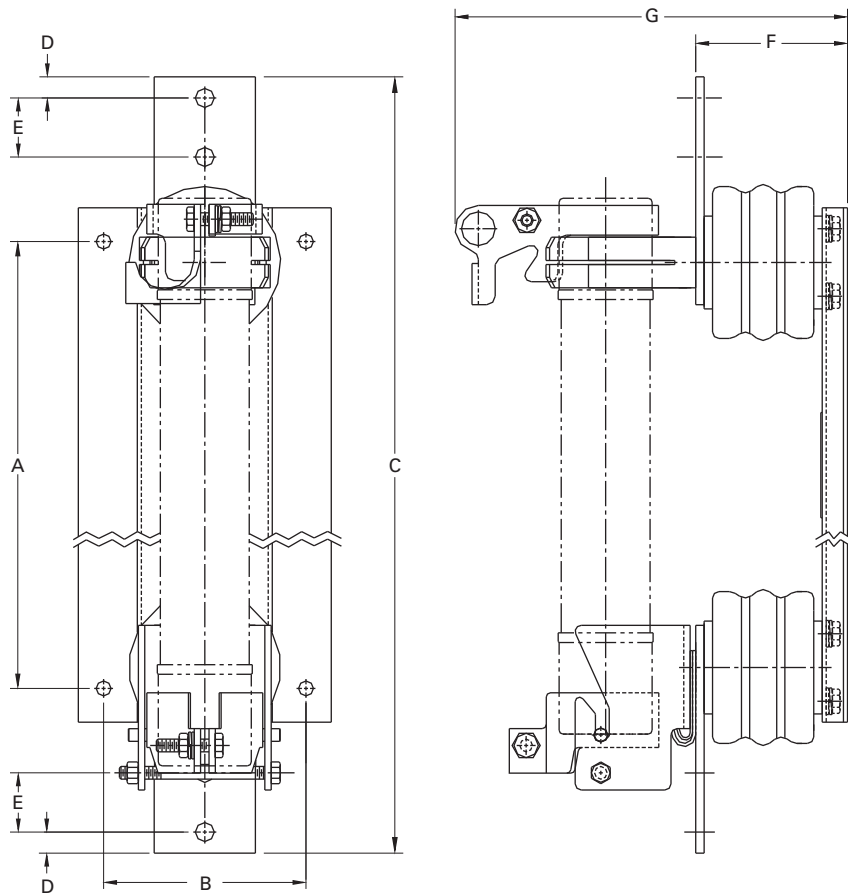
CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses

### Mounting Details

Approximate Dimensions in Inches (mm)

#### CLE and HLE Type Disconnect Type Mountings

3



## CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses

Approximate Dimensions in Inches (mm)

## CLE and HLE Type Disconnect Mounting—Single

Catalog Number	Hole Centers A	Hole Centers B	Overall Length C	Hole Inset D	Hole Centers E	Contact Height F	Overall Height G	BIL Rating
2CLE-GDM-C	9.37 (238.0)	6.00 (152.4)	22.13 (562.1)	0.75 (19.0)	1.75 (44.4)	4.50 (114.3)	9.75 (247.6)	60
2CLE-GDM-D	8.24 (209.3)	6.00 (152.4)	18.00 (457.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	11.72 (297.7)	60
2CLE-PDM-C	9.37 (238.0)	6.00 (152.4)	22.13 (562.1)	0.75 (19.0)	1.75 (44.4)	4.50 (114.3)	9.75 (247.6)	60
2CLE-PDM-D	8.24 (209.3)	6.00 (152.4)	18.00 (457.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	11.72 (297.7)	60
5CLE-GDM-C	12.74 (323.6)	6.00 (152.4)	25.50 (647.7)	0.75 (19.0)	1.75 (44.4)	4.50 (114.3)	9.75 (247.6)	60
5CLE-PDM-C	12.74 (323.6)	6.00 (152.4)	25.50 (647.7)	0.75 (19.0)	1.75 (44.4)	4.50 (114.3)	9.75 (247.6)	60
5CLE-GDM-D	15.24 (387.1)	6.00 (152.4)	25.00 (647.7)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	11.72 (297.7)	60
5CLE-PDM-D	15.24 (387.1)	6.00 (152.4)	25.00 (647.7)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	11.72 (297.7)	60
5HLE-GDM-D	16.25 (412.8)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	11.72 (297.7)	60
5HLE-PDM-D	16.25 (412.8)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	11.72 (297.7)	60
8CLE-GDM-C	15.24 (387.1)	6.00 (152.4)	28.00 (711.2)	0.75 (19.0)	1.75 (44.4)	7.00 (177.8)	12.37 (314.2)	75
8CLE-GDM-D	15.24 (387.1)	6.00 (152.4)	25.00 (647.7)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	14.22 (361.2)	75
8CLE-PDM-C	15.24 (387.1)	6.00 (152.4)	28.00 (711.2)	0.75 (19.0)	1.75 (44.4)	7.00 (177.8)	12.37 (314.2)	75
8CLE-PDM-D	15.24 (387.1)	6.00 (152.4)	25.00 (647.7)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	14.22 (361.2)	75
8HLE-GDM-D	16.25 (412.8)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	11.72 (297.7)	75
8HLE-PDM-D	16.25 (412.8)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	11.72 (297.7)	75
15CLE-GDM-C	21.24 (539.5)	6.00 (152.4)	34.00 (863.6)	0.75 (19.0)	1.75 (44.4)	7.00 (177.8)	12.37 (314.2)	95
15CLE-GDM-D	21.15 (537.2)	6.00 (152.4)	31.00 (787.4)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	14.22 (361.2)	95
15CLE-PDM-C	21.24 (539.5)	6.00 (152.4)	34.00 (863.6)	0.75 (19.0)	1.75 (44.4)	7.00 (177.8)	12.37 (314.2)	95
15CLE-PDM-D	21.15 (537.2)	6.00 (152.4)	31.00 (787.4)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	14.22 (361.2)	95
15CLE-HPDM-C	21.24 (539.5)	6.00 (152.4)	34.00 (863.6)	0.75 (19.0)	1.75 (44.4)	8.50 (215.9)	13.87 (352.3)	110
15CLE-HPDM-D	21.15 (537.2)	6.00 (152.4)	31.00 (787.4)	0.62 (15.7)	1.75 (44.4)	8.50 (215.9)	13.87 (352.3)	110
15HLE-GDM-D	16.25 (412.8)	6.00 (152.4)	25.00 (647.7)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	14.22 (361.2)	95
15HLE-PDM-D	16.25 (412.8)	6.00 (152.4)	25.00 (647.7)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	14.22 (361.2)	95

## CLE and HLE Type Non-Disconnect Mounting—Double

Catalog Number	Hole Centers A	Hole Centers B	Overall Length C	Hole Inset D	Hole Centers E	Contact Height F	Overall Height G	BIL Rating
2CLE-GDM-E	8.24 (209.3)	6.00 (152.4)	18.00 (457.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	15.28 (388.1)	60
2CLE-PDM-E	8.24 (209.3)	6.00 (152.4)	18.00 (457.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	15.28 (388.1)	60
5CLE-GDM-E	15.24 (387.1)	6.00 (152.4)	25.00 (647.7)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	15.28 (388.1)	60
5CLS-PDM-E	15.24 (387.1)	6.00 (152.4)	25.00 (647.7)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	15.28 (388.1)	60
5HLE-GDM-E	16.25 (412.8)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	15.28 (388.1)	60
5HLE-PDM-E	16.25 (412.8)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	15.28 (388.1)	60
8CLE-GDM-E	15.24 (387.1)	6.00 (152.4)	25.00 (647.7)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	17.78 (451.6)	75
8CLE-PDM-E	15.24 (387.1)	6.00 (152.4)	25.00 (647.7)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	17.78 (451.6)	75
8HLE-GDM-E	16.25 (412.8)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	17.78 (451.6)	75
8HLE-PDM-E	16.25 (412.8)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	17.78 (451.6)	75
15CLE-PDM-E	21.15 (537.2)	6.00 (152.4)	31.00 (787.4)	0.62 (15.7)	1.75 (44.4)	8.50 (215.9)	19.28 (489.7)	95
15HLE-GDM-E	16.25 (412.8)	6.00 (152.4)	26.00 (660.4)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	17.78 (451.6)	95
15HLE-PDM-E	16.25 (412.8)	6.00 (152.4)	26.00 (660.4)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	17.78 (451.6)	95

# 3.4

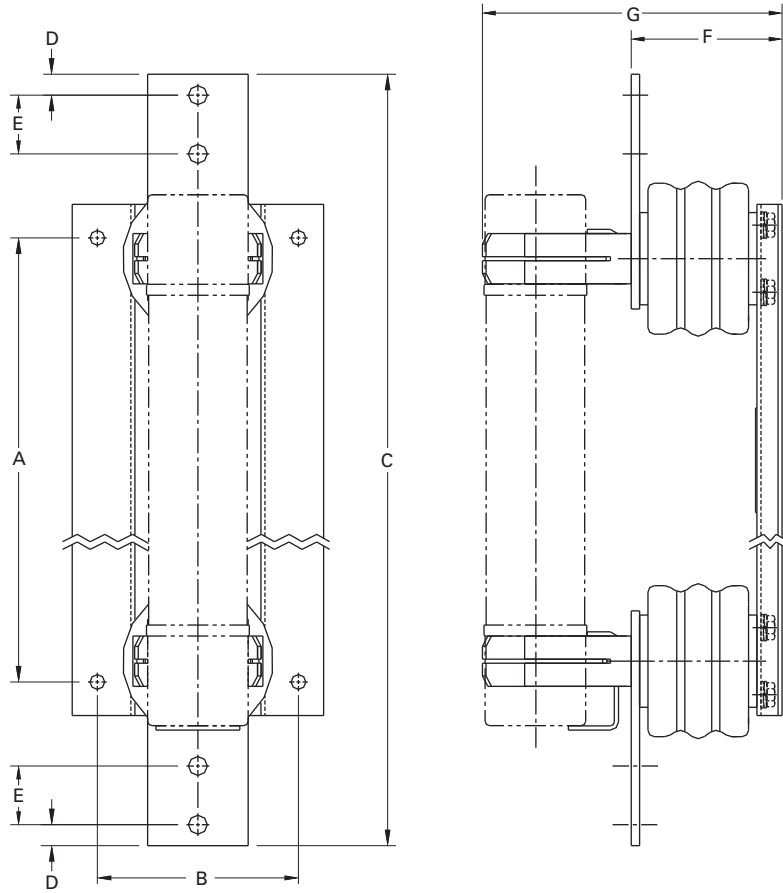
## Current Limiting Fuses

CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses

Approximate Dimensions in Inches (mm)

### CLE and HLE Type Non-Disconnect Mountings

3



## CLE, HLE, LHLE, AHLE, BHLE, HCL and BHCL Type Fuses

Approximate Dimensions in Inches (mm)

## CLE and HLE Type Non-Disconnect Mounting—Single

Catalog Number	Hole Centers A	Hole Centers B	Overall Length C	Hole Inset D	Hole Centers E	Contact Height F	Overall Height G	BIL Rating
2CLE-GNM-C	9.37 (238.0)	6.00 (152.4)	18.63 (473.2)	0.75 (19.0)	1.75 (44.4)	4.50 (114.3)	7.25 (184.1)	60
2CLE-PNM-C	9.37 (238.0)	6.00 (152.4)	18.63 (473.2)	0.75 (19.0)	1.75 (44.4)	4.50 (114.3)	7.25 (184.1)	60
2CLE-GNM-D	8.24 (209.3)	6.00 (152.4)	18.00 (457.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	8.79 (223.3)	60
2CLE-PNM-D	8.24 (209.3)	6.00 (152.4)	18.00 (457.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	8.79 (223.3)	60
5CLE-GNM-C	12.75 (323.8)	6.00 (152.4)	22.00 (558.8)	0.75 (19.0)	1.75 (44.4)	4.50 (114.3)	7.25 (184.1)	60
5CLE-PNM-C	12.75 (323.8)	6.00 (152.4)	22.00 (558.8)	0.75 (19.0)	1.75 (44.4)	4.50 (114.3)	7.25 (184.1)	60
5CLE-GNM-D	15.24 (387.1)	6.00 (152.4)	25.00 (635.0)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	8.79 (223.3)	60
5CLE-PNM-D	15.24 (387.1)	6.00 (152.4)	25.00 (635.0)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	8.79 (223.3)	60
5HLE-GNM-D	16.25 (412.7)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	8.79 (223.3)	60
15HLE-PNM-D	16.25 (412.7)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	8.79 (223.3)	60
8CLE-GNM-C	15.25 (387.3)	6.00 (152.4)	24.50 (622.3)	0.75 (19.0)	1.75 (44.4)	7.00 (177.8)	9.75 (247.6)	75
8CLE-PNM-C	15.25 (387.3)	6.00 (152.4)	24.50 (622.3)	0.75 (19.0)	1.75 (44.4)	7.00 (177.8)	9.75 (247.6)	75
8CLE-PNM-D	15.25 (387.3)	6.00 (152.4)	25.00 (635.0)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	11.29 (286.7)	75
8CLE-PNM-D	15.25 (387.3)	6.00 (152.4)	25.00 (635.0)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	11.29 (286.7)	75
8HLE-GNM-D	16.25 (412.7)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	11.29 (286.7)	75
8HLE-PNM-D	16.25 (412.7)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	11.29 (286.7)	75
15CLE-GNM-C	21.25 (539.7)	6.00 (152.4)	30.50 (774.7)	0.75 (19.0)	1.75 (44.4)	7.00 (177.8)	9.75 (247.6)	95
15CLE-PNM-C	21.25 (539.7)	6.00 (152.4)	30.50 (774.7)	0.75 (19.0)	1.75 (44.4)	7.00 (177.8)	9.75 (247.6)	95
15CLE-HPMN-C	21.25 (539.7)	6.00 (152.4)	30.50 (774.7)	0.75 (19.0)	1.75 (44.4)	8.50 (215.9)	11.25 (285.7)	110
15CLE-GNM-D	21.15 (539.7)	6.00 (152.4)	31.00 (787.4)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	11.29 (286.7)	95
15CLE-PNM-D	21.15 (539.7)	6.00 (152.4)	31.00 (787.4)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	11.29 (286.7)	95
15CLE-HPNM-D	21.15 (539.7)	6.00 (152.4)	31.00 (787.4)	0.62 (15.7)	1.75 (44.4)	8.50 (215.9)	12.79 (286.7)	110
15HLE-GNM-D	16.25 (412.7)	6.00 (152.4)	26.00 (660.4)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	11.29 (286.7)	95
15HLE-PNM-D	16.25 (412.7)	6.00 (152.4)	26.00 (660.4)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	11.29 (286.7)	95

## CLE and HLE Type Non-Disconnect Mounting—Double

Catalog Number	Hole Centers A	Hole Centers B	Overall Length C	Hole Inset D	Hole Centers E	Contact Height F	Overall Height G	BIL Rating
2CLE-GNM-E	8.24 (209.3)	6.00 (152.4)	18.00 (457.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	12.48 (317.0)	60
2CLE-PNM-E	8.24 (209.3)	6.00 (152.4)	18.00 (457.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	12.48 (317.0)	60
5CLE-GNM-E	15.24 (387.1)	6.00 (152.4)	25.00 (635.0)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	12.48 (317.0)	60
5HLE-PNM-E	15.24 (387.1)	6.00 (152.4)	25.00 (635.0)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	12.48 (317.0)	60
5HLE-GNM-E	16.25 (412.7)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	12.48 (317.0)	60
5HLE-PNM-E	16.25 (412.7)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	4.50 (114.3)	12.48 (317.0)	60
8CLE-GNM-E	15.24 (387.1)	6.00 (152.4)	25.00 (635.0)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	14.98 (380.5)	75
8CLE-PNM-E	15.24 (387.1)	6.00 (152.4)	25.00 (635.0)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	14.98 (380.5)	75
8HLE-GNM-E	16.25 (412.7)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	14.98 (380.5)	75
8HLE-PNM-E	16.25 (412.7)	6.00 (152.4)	23.00 (584.2)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	14.98 (380.5)	75
15CLE-PNM-E	21.15 (539.7)	6.00 (152.4)	31.00 (787.4)	0.62 (15.7)	1.75 (44.4)	8.50 (215.9)	16.48 (418.5)	95
15HLE-GNM-E	16.25 (412.7)	6.00 (152.4)	26.00 (660.4)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	14.98 (380.5)	95
15HLE-PNM-E	16.25 (412.7)	6.00 (152.4)	26.00 (660.4)	0.62 (15.7)	1.75 (44.4)	7.00 (177.8)	14.98 (380.5)	95