

Type L Cutouts

Electrical Apparatus

327-30

UltraSIL™ Polymer-Insulated and Porcelain Type L Open Distribution Cutout

DESCRIPTION

Cooper Power Systems has set a new standard of excellence for polymer distribution cutouts with the introduction of UltraSIL™ polymer-insulated interchangeable cutouts. Our premium UltraSIL polymer-insulated cutout incorporates an industry recognized silicone rubber insulating material with superior hydrophobic qualities. Cooper Power Systems offers Type L cutouts in both polymer and porcelain designs, which provide reliable overcurrent protection for primary distribution circuits. Overcurrent protection safeguards an electric system from excessive currents produced by abnormal conditions such as faults, line or equipment overloads, or equipment failures. Polymer and porcelain Type L cutouts are ruggedly constructed and will provide full-range overcurrent protection from minimum melt of a given fuse link to the maximum nameplate interrupting current rating of the cutout.

Polymer and porcelain Type L cutouts are available in 15.5 kV and 27 kV voltage ratings. Both polymer and porcelain Type L cutouts are available with a 100 A or 200 A fuse holder or with a 300 A disconnect blade.

INTERCHANGEABILITY

The key for both polymer and porcelain Type L cutout designs is fuseholder interchangeability. Polymer and porcelain Type L cutouts eliminate the need to stock fuse holders from each manufacturer and are designed to be fuseholder interchangeable with polymer and porcelain cutouts manufactured by S & C Electric Co. (Type XS), A.B. Chance Co. (Type C) and ABB (Type ICX).

Fuseholder interchangeability reduces the time required to re-fuse a cutout during an outage by eliminating the need to determine which manufacturer's cutout is on the pole. Re-fusing of the spare fuseholder can be done even before the lineman leaves the truck. Interchangeability also significantly reduces inventory.



Figure 1.
UltraSIL Polymer-Insulated and Porcelain Type L Open Distribution Cutouts.

DESIGN FEATURES

The backbone of the UltraSIL polymer-insulated Type L cutout is comprised of an E-glass fiberglass rod with crimped-on galvanized steel hanger and end fittings. The crimping process results in a robust design capable of withstanding numerous opening and closing operations and the severe forces present during fault current interruptions. The frame is over molded with the industry leading, track resistant, UltraSIL silicone rubber polymer-housing. Independent laboratory tests have verified the superiority of silicone rubber in terms of resistance to UV degradation, surface tracking/performance in contaminated environments and other important insulating properties. The complete cutout assembly works together as a system and will stand up to years of exposure to environmental extremes.

The porcelain Type L cutout is designed with a solid core, birdproof, one piece porcelain frame with uniform shed configuration. Sulfur

cemented studs provide high strength connections.

The fuseholder is constructed of an epoxy impregnated glass filament wound tube over an arc-quenching inner liner material. A large bronze cast pull ring is utilized for ease of installation and re-fusing. The bronze trunnion, with lifting ring having both front and side accessibility, is silver plated for minimum contact resistance. The grooved flipper assembly controls link tension, assures low fault current interruption and prevents link breakage on "close-in."

The cast bronze lower hinge assembly has deep pockets for the trunnion to pivot to minimize accidental fuse removal. The rugged design with wide opening means easy fuseholder installation and removal. The lower contact assembly utilizes stainless steel backup springs and silver-to-silver contacts to minimize contact resistance and assure excellent continuous contact throughout the life of the cutout. The contacts are

designed to carry 300 A continuous. Silver-to-silver top contacts are again used to minimize contact resistance. Type L cutout design develops high contact pressure to assure excellent contact for operating currents and until fault interruption is completed.

Loadbreak hooks, for use with a loadbreak tool, are standard and serve as a “close-in” guide to assure positive make.

Lubricant is applied to all separable connector interchanges. All hardware is designed to interlock during assembly to assure correct alignment. The rugged design assures smooth operation and long life.

APPLICATION

Proper cutout application requires several major system considerations: system operating voltage, insulation level, type of system grounding, maximum available fault current the cutout may be subjected to and anticipated maximum continuous load current.

The polymer and porcelain Type L cutout voltage rating is the maximum design voltage of the cutout. It can be applied, without restrictions, on any three-phase system that has system line-to-line voltage less than or equal to the cutout rating. Type L cutouts can also be applied on single-phase or three-phase solidly grounded wye connected circuits. The circuit can have line-to-neutral voltages up to the voltage rating of the cutout as long as the maximum recovery voltage does not exceed the cutout's rating.

The Basic Impulse Insulation Level (BIL) of a cutout should be coordinated with the insulation of other connected apparatus. The interrupting rating of a cutout should be greater than or equal to the maximum available system fault current unless used in conjunction with current-limiting fuses such as the Companion™ II backup fuse or the ELF™ full-range fuse. The cutout selected should have a continuous current rating sufficient to handle the expected load. The 100 A rated fuseholder accepts fuse links from a fraction of 1 A to 100 A. The 200 A fuseholder will accept fuse links with ratings above 100 A to 200 A.

For areas with a high probability of lightning, a Dual Element Link (D-Link) from Cooper Power Systems can be used in the Type L open cutout. The cutout-mounted D-Link provides a high surge withstand capability which reduces the probability of damage to the link as a result of lightning surges, and thus reduces nuisance fuse blowing. These D-Link characteristics make it possible to place the primary arrester on the transformer tank, eliminating excess lead lengths, thus, providing the best surge protection possible to the transformer. Refer to catalog section K-SEC 100 for ordering information about the D-link, and other Cooper Power Systems fuse links as well as catalog section 327-40 for all Kearney™ links.

When selecting a cutout or fuse, it is important to consider future load growth and other planned system expansion.

Cooper Power Systems offers full-range current-limiting fuses for applications where system fault current exceeds the maximum interrupting rating of an expulsion fuse. ELF full-range current-limiting fuses and Tandem ELF fuses are designed to be mounted directly in a polymer or porcelain Type L cutout replacing the cutout expulsion fuse holder. The ELF fuse's versatile designs allow for safe capacitor protection and reduces the installation costs associated with bolted connections. See catalog sections 240-66 and 240-67 or consult your local representative from Cooper Power Systems for further information.

FUSEHOLDERS AND BLADES

100 A Fuseholder

The UltraSIL polymer-insulated and porcelain Type L cutouts accommodate standard IEEE® and NEMA® universal type fuse links. This fuseholder can handle universal links up to 100 A.

An arc shortening rod can be used to obtain the higher interrupting current ratings. The arc shortening rod is made of silver-plated, high conductivity copper and is mechanically attached to the fuse cap. Removable buttonhead fuse links must be used with arc shortening rods.

The 100 A fuseholder features a spring assist which helps clear the fuseholder under low current operations. It also comes standard with a 9/16" bolt for easy leader installation.



Figure 2.
100 A fuseholder.

200 A Fuseholder

This fuseholder can handle universal links above 100 A up to 200 A and is fully rated for 15.5 kV or 27 kV voltage ratings.

The 200 A door comes standard with an arc shortening rod. The arc shortening rod is made of silver-plated, high conductivity copper and is mechanically attached to the fuse cap. Removable buttonhead fuse links must be used with arc shortening rods. The 200 A fuseholder features a spring assist which helps clear the fuseholder under lower current operations. It also comes standard with a 9/16" bolt and captive washer for easy leader installation and capturing.



Figure 3.
200 A fuseholder.

300 A Disconnect Blade

UltraSIL polymer-insulated and porcelain Type L 300 A disconnect blades (refer to Figure 4) are constructed of a high conductivity copper tube. 300 A fuse caps are threaded directly onto the copper tube, reducing the number of current interchanges on the blade to only two.



Figure 4.
300 A disconnect blade.

CONNECTORS/ BRACKETS

UltraSIL polymer-insulated and porcelain Type L cutouts include a tin-plated bronze parallel-groove connector as standard. The parallel-groove connector fits a conductor range of #8 solid (.128" diameter) to 250 MCM (.575" diameter). Tin plated bronze eyebolt and large eyebolt connector options are also available. The eyebolt connector fits a conductor range of #8 solid (.128" diameter) to 2/0 stranded

(.419" diameter) and the large eyebolt connector fits a conductor range of #6 solid (.162" diameter) to 250 MCM (.575" diameter).

UltraSIL polymer-insulated and porcelain Type L cutout crossarm mounting includes a heavy-duty NEMA® Type B crossarm mounting bracket to withstand the mechanical forces generated during fault current interruptions when using an expulsion fuse link. An extended crossarm mounting bracket option is also available. Type L cutouts are also available without crossarm

mounting brackets. See Table 6 for all connector and bracket options.

ELECTRICAL RATINGS

Electrical insulation ratings for the polymer and porcelain Type L cutouts are shown in Table 1.

All cutouts have been tested in accordance with IEEE Std C37.40™-2003, IEEE Std C37.41™-2008 and IEEE Std C37.42™-2009 standards.

TABLE 1
Polymer-Insulated and Porcelain Type L Electrical Ratings

| Maximum Design Rating (kV) | Impulse Withstand Voltage (BIL) on 1.2x50 μ S Wave kV, crest* | Minimum 60 Hz 1 min. Dry Withstand Value kV, rms* | Minimum 60 Hz 10 sec Wet Withstand Value kV, rms* | Creepage Distance Inches (mm) | |
|----------------------------|---|---|---|-------------------------------|------------|
| | | | | Polymer | Porcelain |
| 15.5 | 110 | 35 | 30 | 14.2 (362) | 8.5 (216) |
| 27** | 125 | 42 | 36 | — | 11.0 (279) |
| 27 | 150 | 70 | 60 | 22.3 (566) | 17.0 (432) |

Notes:

* In accordance with IEEE Std C37.42™-2009 standard.

** Electrical ratings apply to 27 kV, 125 kV BIL Porcelain Type L cutouts only.

TABLE 2
15.5 kV, 110 kV BIL Polymer-Insulated and Porcelain Type L Interchangeable Cutout with Fuseholder or Disconnect Blade

| Base Catalog Number Type L Cutout* | | Maximum Design Voltage (kV) | Continuous Current A (rms) | Interrupting Rating A (rms) | | Approximate Weight lbs. (kg) | |
|------------------------------------|-----------|-----------------------------|----------------------------|-----------------------------|--------------|------------------------------|------------|
| Polymer | Porcelain | | | Symmetrical | Asymmetrical | Polymer | Porcelain |
| S4B1 | L4B1 | 15.5 | 100 | 7,100 | 10,000 | 8.2 (3.7) | 14.5 (6.5) |
| S4BA** | L4BA** | | 100 | 10,600 | 16,000 | 8.3 (3.8) | 14.6 (6.6) |
| S4B2** | L4B2** | | 200 | 8,000 | 12,000 | 8.7 (3.9) | 15.0 (6.8) |
| S4B3 | L4B3 | | 300 | Disconnect† | Disconnect† | 7.7 (3.5) | 14.0 (6.4) |

Notes:

* Base catalog number for standard Polymer-insulated and Porcelain Type L unit. See Table 6 for optional connectors and brackets

** These units include an arc shortening rod and must be used with removable buttonhead fuse links.

† 300 A disconnect short time current ratings: 12 kA (Asym) momentary, 8.6 kA (Sym) 15-cycle and 1.6 kA 3 sec.

TABLE 3
27 kV, 125 kV BIL Porcelain Type L Interchangeable Cutout with Fuseholder or Disconnect Blade

| Base Catalog Number* Type L Cutout | Maximum Design Voltage (kV) | Continuous Current A (rms) | Interrupting Rating A (rms) | | Approximate Weight lbs. (kg) |
|------------------------------------|-----------------------------|----------------------------|-----------------------------|--------------|------------------------------|
| | | | Symmetrical | Asymmetrical | |
| L9C1 | 27 | 100 | 5,300 | 8,000 | 16.7 (7.5) |
| L9CA** | 27 | 100 | 8,000 | 12,000 | 16.8 (7.6) |
| L9C2** | 27 | 200 | 7,100 | 10,000 | 17.2 (7.8) |
| L9C3 | 27 | 300 | Disconnect† | Disconnect† | 16.2 (7.3) |

Notes:

* Standard Porcelain Type L unit. See Table 6 for optional connectors and brackets

** These units include an arc shortening rod and must be used with removable buttonhead fuse links.

† 300 A disconnect short time current ratings: 12 kA (Asym) momentary, 8.6 kA (Sym) 15-Cycle and 1.6 kA 3 sec.

TABLE 4
27 kV, 150 kV BIL Polymer-Insulated and Porcelain Type L Interchangeable Cutout with Fuseholder or Disconnect Blade

| Base Catalog Number Type L Cutout* | | Maximum Design Voltage (kV) | Continuous Current A (rms) | Interrupting Rating A (rms) | | Approximate Weight lbs. (kg) | |
|------------------------------------|-----------|-----------------------------|----------------------------|-----------------------------|--------------|------------------------------|-------------|
| Polymer | Porcelain | | | Symmetrical | Asymmetrical | Polymer | Porcelain |
| S9D1 | L9D1 | 27 | 100 | 5,300 | 8,000 | 10.2 (4.6) | 22.5 (10.2) |
| S9DA** | L9DA** | 27 | 100 | 8,000 | 12,000 | 10.3 (4.7) | 22.6 (10.3) |
| S9D2** | L9D2** | 27 | 200 | 7,100 | 10,000 | 10.7 (4.9) | 23.0 (10.4) |
| S9D3 | L9D3 | 27 | 300 | Disconnect† | Disconnect† | 9.7 (4.4) | 22.0 (10.0) |

Notes:

* Standard Polymer-insulated and Porcelain Type L unit. See Table 6 for optional connectors and brackets

** These units include an arc shortening rod and must be used with removable buttonhead fuse links.

† 300 A disconnect short time current ratings: 12 kA (Asym) momentary, 8.6 kA (Sym) 15-Cycle and 1.6 kA 3 sec.

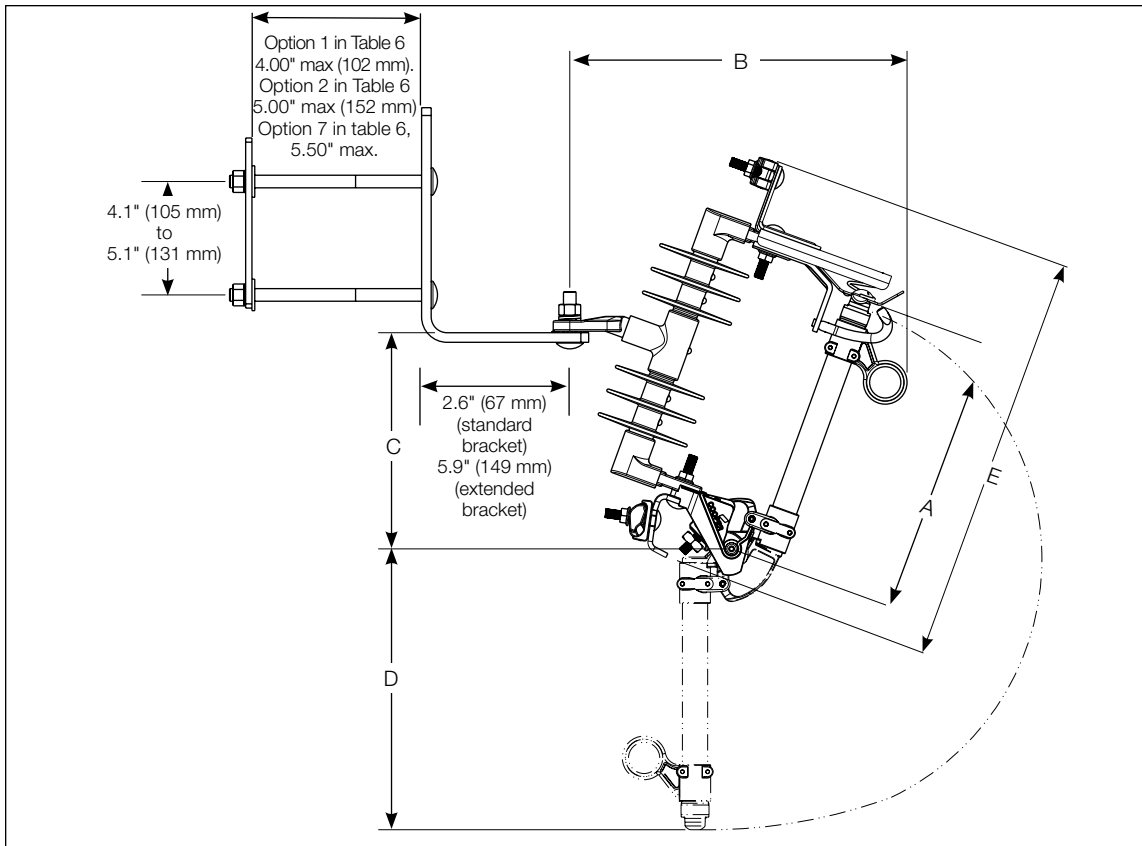


Figure 4. Polymer-insulated Type L cutout assembly shown. Dimensions apply to both polymer-insulated and porcelain Type L cutouts.

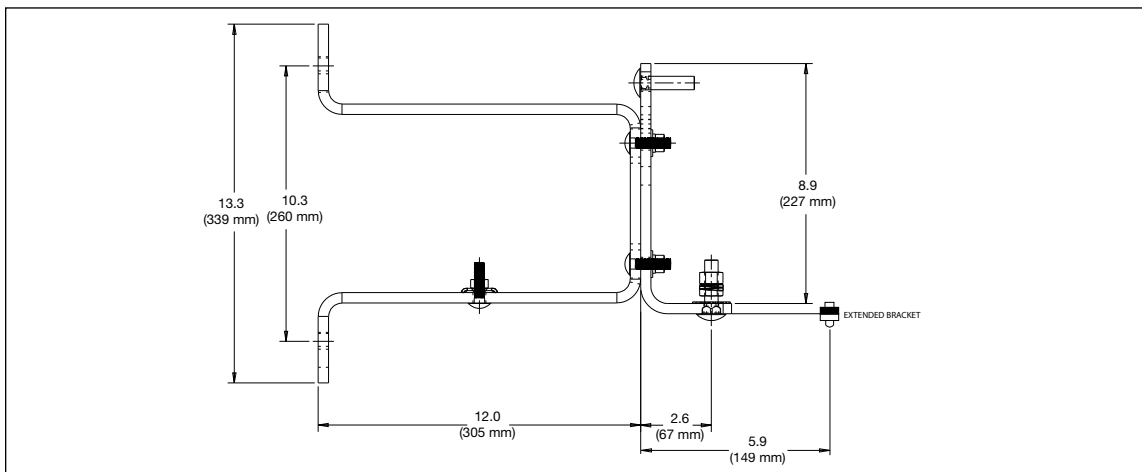


Figure 5. NEMA® "D" Pole mounting bracket (Option 8) and extended bracket (Option 4) in Table 6.

TABLE 5
Polymer-Insulated and Porcelain Type L Cutouts Dimensional Data (refer to Figure 4)

| Voltage Rating kV | BIL kV | Dimensions inches (mm) | | | | | Creepage Distance inches (mm) | |
|-------------------|--------|------------------------|------------|------------|------------|------------|-------------------------------|------------|
| | | A | B | C | D | E | Polymer | Porcelain |
| 15.5 | 110 | 11.3 (288) | 13.5 (343) | 8.1 (207) | 11.5 (292) | 16.3 (414) | 14.2 (362) | 8.5 (216) |
| 27 | 125* | 14.7 (374) | 14.0 (358) | 10.1 (257) | 14.9 (379) | 19.6 (498) | — | 11.0 (279) |
| | 150 | | 14.2 (363) | | | | 22.3 (566) | 17.0 (432) |

* Electrical and dimensional information applies to porcelain cutouts only.

ORDERING INFORMATION

To order a complete Type L cutout with a fuseholder or disconnect blade choose the appropriate part number from Table below.

To order an individual fuseholder, disconnect blade or the cutout mounting frame, refer to Tables 11 or 12.

TABLE 6
Polymer-Insulated and Porcelain Type L Cutout Combination Numbering System

| | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| S | 4 | B | 1 | E | 1 | A | | |

8 & 9. Combo Info:

| |
|--|
| W/Standard Configuration - Leave blank* |
| W/ELF - Refer to Table 7 (15 kV) or Table 8 (27 kV) for ELF code** |
| W/Tandem ELF - Refer to Table 9 (15 kV) or Table 10 (27 kV) for Tandem ELF code*** |

* If E or T is selected for Digit 4, digits for 8 & 9 must be selected

** Refer to ELF fuse catalog section 240-66 for further detail

*** Refer to Tandem™ ELF fuse catalog section 240-67 for further detail

7. Packaging

| |
|--------------------|
| A=INDIVIDUAL (STD) |
|--------------------|

6. Bracket/Hardware Options:

| | |
|---|--|
| 0 = No Bracket | 5 = SAME AS OPTION 1 WITH ADDITIONAL ARRESTER MOUNTING HARDWARE (Figure 8) |
| 1 = NEMA "B" BKT, BACK STRAP & HARDWARE KIT (5" BOLTS) (Figure 4) | 6 = SAME AS OPTION 3 WITH ADDITIONAL ARRESTER MOUNTING HARDWARE (Figure 8) |
| 2 = NEMA "B" BKT, BACK STRAP & HARDWARE KIT (6" BOLTS) (Figure 4) | 7 = NEMA "B" BKT, BACK STRAP & HARDWARE KIT (6.5" BOLTS) (Figure 4) |
| 3 = EXTENDED BKT, BACK STRAP & HARDWARE KIT (5" BOLTS) (Figure 4) | 8 = NEMA "D" POLE MOUNTING BKT AND STANDARD "L" BKT (Figure 5) |
| 4 = NEMA "D" POLE MOUNTING BKT and EXTENDED "L" BKT (Figure 5) | |

5. Term. Option:

| |
|---|
| E = EYEBOLT CONNECTORS #8 SOLID (.128" DIA) TO 2/0 STR (.419" DIA) (FIGURE 7) |
| L = LARGE EYEBOLT CONNECTORS #6 SOLID (.162 DIA) to 250 MCM (.575" DIA) |
| P = PARALLEL GROOVE CONNECTORS (TOP CONNECTOR VERTICAL CABLE ENTRY BOTTOM CONNECTOR HORIZONTAL CABLE ENTRY) #8 SOLID (.128 DIA) to 250 MCM (.575 DIA) (FIGURE 6) |
| R = BOTTOM PARALLEL GROOVE CONNECTOR ROTATED 90 DEGREES (TOP CONNECTOR VERTICAL CABLE ENTRY BOTTOM CONNECTOR VERTICAL CABLE ENTRY) |

4. Fuse Holder:

| | |
|----------------------------|-----------------------------|
| 0 = NONE | A=100 A HIGH INTERRUPTING † |
| 1 = 100 A STD INTERRUPTING | E = ELF FUSE |
| 2 = 200 A † | T = TANDEM ELF FUSE |
| 3 = 300 A DISCONNECT | |

† Fuse holders include an arc shortening rod and must be used with removable buttonhead fuse links.

2 & 3. Voltage and Insulation Ratings

| |
|--------------------------|
| 4B = 15.5 kV, 110 kV BIL |
| 9C = 27 kV, 125 kV BIL * |
| 9D = 27 kV, 150 kV BIL |

* Only available in porcelain Type L cutout.

1. Polymer or Porcelain Type L Cutout

| |
|-----------------------------|
| S = POLYMER TYPE L CUTOUT |
| L = PORCELAIN TYPE L CUTOUT |

TABLE 7
ELF Fuse Ratings for 15 kV UltraSIL Polymer-Insulated and Porcelain Type L Fuse Cutout Mountings

| ELF Fuse Rating Code* | | ELF Fuse Ratings | | Continuous Current Ratings A ^a | | | Maximum Interrupting Current A rms symmetrical |
|-----------------------|---------|------------------|-----------|---|-------|-------|---|
| Digit 8 | Digit 9 | Voltage kV | Current A | 25 °C | 40 °C | 55 °C | |
| 3 | A | 8.3 | 6 | 8 | 7 | 6 | 31000 |
| | B | | 8 | 12 | 11 | 11 | |
| | C | | 12 | 18 | 17 | 16 | |
| | D | | 18 | 25 | 24 | 23 | |
| | E | | 20 | 27 | 26 | 25 | |
| | F | | 25 | 34 | 33 | 31 | |
| | G | | 30 | 43 | 41 | 39 | |
| | H | | 40 | 50 | 48 | 46 | |
| | J | | 50** | 68 | 65 | 62 | |
| | K | | 65** | 78 | 75 | 71 | |
| | L | | 80** | 95 | 91 | 87 | |
| M | 100*** | 120 | 114 | 109 | | | |
| 4 | A | 15.0 | 6 | 8 | 7 | 6 | 20000 |
| | B | | 8 | 12 | 11 | 11 | |
| | C | | 12 | 18 | 17 | 16 | |
| | D | | 18 | 25 | 24 | 23 | |
| | E | | 20 | 27 | 26 | 25 | |

^a For temperatures other than listed, a deration factor of 0.26% per °C can be applied.

* Replace digits 8 and 9 of the catalog number with the correct ELF fuse rating codes.

** Double-barrel design

*** Triple-barrel design

Note: For more information regarding the ELF fuse, refer to catalog section 240-66.

TABLE 8
ELF Fuse Ratings for 27 kV UltraSIL Polymer-Insulated and Porcelain Type L Fuse Cutouts

| ELF Fuse Rating Code* | | ELF Fuse Ratings | | Continuous Current Ratings A ^a | | | Maximum Interrupting Current A rms symmetrical |
|-----------------------|---------|-------------------|-----------|---|-------|-------|---|
| Digit 8 | Digit 9 | Voltage kV | Current A | 25 °C | 40 °C | 55 °C | |
| 3 | A | 8.3 | 6 | 8 | 7 | 6 | 31000 |
| | B | | 8 | 12 | 11 | 11 | |
| | C | | 12 | 18 | 17 | 16 | |
| | D | | 18 | 25 | 24 | 23 | |
| | E | | 20 | 27 | 26 | 25 | |
| | F | | 25 | 34 | 33 | 31 | |
| | G | | 30 | 43 | 41 | 39 | |
| | H | | 40 | 50 | 48 | 46 | |
| | J | | 50** | 68 | 65 | 62 | |
| | K | | 65** | 78 | 75 | 71 | |
| | L | | 80** | 95 | 91 | 87 | |
| M | 100*** | 120 | 114 | 109 | | | |
| 4 | A | 15.0 [†] | 6 | 8 | 7 | 6 | 43000 |
| | B | | 8 | 12 | 11 | 11 | |
| | C | | 12 | 18 | 17 | 16 | |
| | D | | 18 | 25 | 24 | 23 | |
| | E | | 20 | 27 | 26 | 25 | |
| | F | | 25 | 34 | 33 | 31 | |
| | G | | 30** | 43 | 41 | 39 | |
| | H | | 40** | 50 | 48 | 46 | |
| J | 50** | 68 | 65 | 62 | | | |
| 5 | A | 23.0 | 6 | 8 | 7 | 6 | 31000 |
| | B | | 8 | 12 | 11 | 11 | |
| | C | | 12 | 18 | 17 | 16 | |
| | D | | 18 | 25 | 24 | 23 | |
| | E | | 20 | 27 | 26 | 25 | |
| | F | | 25** | 34 | 33 | 31 | |
| | G | | 30** | 43 | 41 | 39 | |

^a For temperatures other than listed, a deration factor of 0.26% per °C can be applied.

* Replace digits 8 and 9 of the catalog number with the correct ELF fuse rating codes.

** Double-barrel design

*** Triple-barrel design

[†] These ELF fuses have been tested and approved for a 17.2 kV application.

Note: For more information regarding the ELF fuse, refer to catalog section 240-66.

TABLE 9
Tandem ELF Fuse Ratings for 15 kV UltraSIL Polymer-Insulated or Porcelain Type L Cutouts

| Tandem ELF Fuse Rating Code* | | Companion II Fuse Ratings** | | Fuse Link Current Ratings*** (A) | Maximum Interrupting Current A rms Symmetrical |
|------------------------------|---------|-----------------------------|-------------|-------------------------------------|--|
| Digit 8 | Digit 9 | Voltage (kV) | Current (A) | | |
| 2 | 0 | 8.3 | 25 | None | 50,000 |
| | A | | | 0.33 | |
| | B | | | 0.50 | |
| | C | | | 0.75 | |
| | D | | | 1 | |
| | E | | | 1.25 | |
| | F | | | 1.50 | |
| | G | | | 2 | |
| | H | | | 3 | |
| | J | | | 4 | |
| | K | | | 5 | |
| | L | | | 7 | |
| | M | | | 10 | |
| | N | | | 15 | |
| P | 20 | | | | |

* Replace digits 8 & 9 of the catalog number with the correct Tandem ELF fuse rating codes.

** Digit 8 defines the Tandem ELF fuse voltage rating with the Companion II fuse current rating.

*** Digit 9 defines the Tandem ELF fuse link current rating. X-Link=1/3-2A, D-Link=3-20A.

Note: For more information regarding Tandem ELF fuse refer to catalog section 240-67.

TABLE 10
Tandem ELF Fuse Ratings for 27 kV UltraSIL Polymer-Insulated or Porcelain Type L Cutouts

| Tandem ELF Fuse Rating Code* | | Companion Fuse Ratings** | | Fuse Link Current Ratings*** (A) | Maximum Interrupting Current A rms Symmetrical |
|------------------------------|---------|--------------------------|-------------|----------------------------------|--|
| Digit 8 | Digit 9 | Voltage (kV) | Current (A) | | |
| 2 | 0 | 8.3 | 25 | None | 50,000 |
| | A | | | | |
| | B | | | | |
| | C | | | | |
| | D | | | | |
| | E | | | | |
| | F | | | | |
| | G | | | | |
| | H | | | | |
| | J | | | | |
| | K | | | | |
| | L | | | | |
| | M | | | | |
| | N | | | | |
| P | | | | | |
| 5 | 0 | 15.0† | 25 | None | 43,000 |
| | A | | | | |
| | B | | | | |
| | C | | | | |
| | D | | | | |
| | E | | | | |
| | F | | | | |
| | G | | | | |
| | H | | | | |
| | J | | | | |
| | K | | | | |
| | L | | | | |
| | M | | | | |
| | N | | | | |
| P | | | | | |

* Replace digits 8 & 9 of the catalog number with the correct Tandem ELF fuse rating codes.
 ** Digit 8 defines the Tandem ELF fuse voltage rating with the Companion II fuse current rating.
 *** Digit 9 defines the Tandem ELF fuse link current rating. X-Link=1/3-2A, D-Link=3-20A.
 † 15 kV Companion II fuses have been tested and are approved for 17.2 kV applications.
Note: For more information regarding Tandem ELF fuse refer to catalog section 240-67.

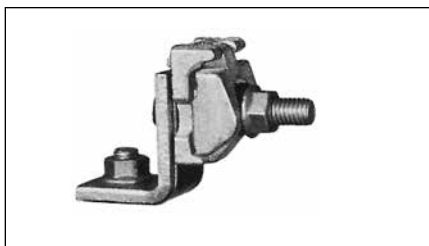


Figure 6.
Parallel-groove connector.



Figure 7.
Eyebolt connector.



Figure 8.
Additional Arrester Mounting
Hardware (bagged) included for
Options 5 and 6.

TABLE 11
Polymer-Insulated and Porcelain Type L Fuseholders, Disconnect Blades, and Replacement Caps

| Catalog Number | Maximum Design Voltage kV | Continuous Current A-rms | Interrupting Rating A-rms Asym | Approximate Fuseholder Length Inches (mm) | Approximate Weight lbs. (kg) | Replacement Caps |
|--|---------------------------|--------------------------|--------------------------------|---|------------------------------|------------------|
| For 15.5 kV, 110 kV BIL Cutouts | | | | | | |
| LDB100A | 15.5 | 100 | 10,000 | 11.32 (288) | 1.9 (.86) | LDB100CAP |
| LDBA00A† | | 100 | 16,000 | | 2.0 (.91) | LDBA00CAP |
| LDB200B† | | 200 | 12,000 | | 2.4 (1.1) | LDB20BCAP |
| LDB300A | | 300 | Disconnect** | | 1.4 (.64) | LC12X1 |
| For 27 kV, 125 kV BIL Cutouts | | | | | | |
| LDC100A | 27 | 100 | 8,000 | 14.74 (374) | 2.1 (.95) | LDB100CAP |
| LDCA00A† | | 100 | 12,000 | | 2.2 (1.0) | LDCA00CAP |
| LDC200B† | | 200 | 10,000 | | 2.6 (1.2) | LDC20BCAP |
| LDC300A | | 300 | Disconnect** | | 1.6 (.73) | LC12X1 |
| For 27 kV, 150 kV BIL Cutouts | | | | | | |
| LDC100A | 27 | 100 | 8,000 | 14.74 (374) | 2.1 (.95) | LDB100CAP |
| LDCA00A† | | 100 | 12,000 | | 2.2 (1.0) | LDCA00CAP |
| LDC200B† | | 200 | 10,000 | | 2.6 (1.2) | LDC20BCAP |
| LDC300A | | 300 | Disconnect** | | 1.6 (.73) | LC12X1 |

Notes:

† These fuseholders include an arc shortening rod and must be used with removable buttonhead fuse links.

** 300 A disconnect short time current ratings: 12 kA (Asym) momentary, 8.6 kA (Sym) 15-Cycle and 1.6 kA 3 sec.

TABLE 12
Polymer-Insulated and Porcelain Type L Open Cutout Mounting Frames Only (Without Fuseholder or Disconnect Blade)

| Base Catalog Number* Type L Cutout | | Maximum Design Voltage (kV) | BIL (kV) | Creepage Distance Inches (mm) | | Approximate Weight lbs. (kg) | |
|---------------------------------------|-----------|--------------------------------|----------|----------------------------------|------------|---------------------------------|------------|
| Polymer | Porcelain | | | Polymer | Porcelain | Polymer | Porcelain |
| S4B0 | L4B0 | 15.5 | 110 | 14.2 (362) | 8.5 (216) | 6.6 (3.0) | 12.6 (5.7) |
| - | L9C0 | 27 | 125** | - | 11.0 (279) | - | 14.6 (6.6) |
| S9D0 | L9D0 | | 150 | 22.3 (566) | 17.0 (432) | 10.3 (4.7) | 20.4 (9.3) |

Notes:

* See Table 6 for optional connectors and brackets.

** Electrical and dimensional information applies to 27 kV 125 kV BIL porcelain Type L cutouts only.

ADDITIONAL INFORMATION

Refer to the following reference literature for more information:

- S327-30-1 Type L Open Distribution Cutout Installation Instructions
- 235-26 Surge Arrester/Type L Fuse Cutout Combination Catalog
- CP-9618 Type L Open Distribution Cutout Certified Test Report
- K-SEC 100 Edison™ Links Catalog
- 327-40 Kearney Fuse Links Catalog
- 240-66 ELF Current-Limiting Drop Out fuse Catalog
- 240-67 Tandem ELF Fuse Catalog
- S235-26-1 Surge Arrester/Type L Fuse Cutout Combination Installation Instructions
- B327-11011 Type L Cutout Product Improvements

Contact your Cooper Power Systems representative for further information.

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One Cooper | www.cooperpower.com | Online



2300 Badger Drive
Waukesha, WI 53188 USA