

**ACCESSORIES, SEPARABLE CONNECTOR,  
 600 A, 150 kV BIL, DEADBREAK**



**1. Scope**

This standard covers the requirements for 600 A, 150 kV BIL, deadbreak, separable connector accessories, such as connecting and insulating plugs and caps. 150 kV BIL, multi-way junction boxes (J-boxes) are non-stock items.

The requirements for 150 kV BIL, deadbreak, separable connector dielectric components are specified in SCL 6863.25.

The requirements for 600 A, 125 kV BIL, deadbreak, separable connector accessories are specified in SCL 6863.17.

This standard applies to the following Seattle City Light Stock Numbers:

| Stock Number | Description   |
|--------------|---|
| 687260       | Connecting plug with one stud                         |
| 687270       | Insulated plug with test point cap                    |
| 687280       | Insulated plug with test point cap and one loose stud |
| 687340       | Insulated cap   |

**2. Application**

The cable accessories specified in this standard are intended to be used in conjunction with 150 kV BIL, deadbreak separable connector dielectric components (T-bodies and cable adapters), SCL 6863.25, to construct complete connector systems.

**3. Industry Standards**

150 kV BIL T-bodies and cable adapters **cannot** be used interchangeably with 125 kV BIL dielectric components. New construction should utilize 125 kV BIL material, except in cases where the equipment being connected to has 150 kV BIL bushings.

Separable connectors (elbows) shall meet the applicable requirements of the following industry standard:

**IEEE 386-2006** – Standard for Separable Insulated Connector Systems for Power Distribution Systems Above 600 V

**4. General Requirements**

**600 A interfaces** shall have the following electrical ratings and attributes:

|                               |                        |
|-------------------------------|------------------------|
| voltage class                 | 35 kV                  |
| maximum voltage rating (ph-g) | 21.1 kV RMS            |
| BIL                           | 150 kV crest           |
| continuous current rating     | 600 A RMS              |
| short-time current rating     | 25 kA RMS, symmetrical |
| IEEE 386 interface            | Figure 13              |

Insulated caps shall be provided with grounding tab for the purpose of attaching a drain wire lead.

**5. Testing**

Separable connector (elbow) accessories shall be tested according to the requirements of IEEE 386, Section 7.

**6. Design Changes**

Manufacturer shall inform Seattle City Light in writing of all design changes that could affect the product's understood or published capabilities.

**7. Marking**

Separable connector (elbow) accessories shall be marked according to the requirements of IEEE 386, Section 6.1.

**8. Packaging**

Separable connector (elbow) accessories shall be individually packaged in heavy duty, clear plastic bags or cardboard boxes, as appropriate for their size and weight, to prevent damage and/or contamination during shipping, handling, and storage.

**8. Packaging, continued**

Each individual package shall be marked with the following information:

- Manufacturer's identification
- Product description

Each shipping container shall be legibly marked with the following information:

- Manufacturer's identification
- Product description
- Quantity contained
- Seattle City Light's Purchase Order Number
- Seattle City Light's Stock Number

**9. Issuance**

EA

**10. Approved Manufacturers**

|                             |   |
|-----------------------------|---|
| <b>Stock Number:</b>        | <b>687260</b>   |
| <b>Description:</b>         | <b>Connecting plug with one stud</b>                      |
| <b>Application:</b>         | A connector that provides two in-line bushing interfaces. |
| Cooper Power Systems        | DCP635AS  |
| Richards Manufacturing Co.  | P635CP-LS   |
| Thomas & Betts (Elastimold) | 750CPS  |



|                             |  |
|-----------------------------|--|
| <b>Stock Number:</b>        | <b>687270</b>  |
| <b>Description:</b>         | <b>Insulated plug with test point cap</b>  |
| <b>Application:</b>         | An accessory device designed to electrically insulate, electrically shield, and mechanically seal an elbow interface. Test point cap is removable to allow access to capacitive test point. Requires stud. |
| Cooper Power Systems        | DIP635A  |
| Richards Manufacturing Co.  | P635HIP  |
| Thomas & Betts (Elastimold) | 750BIP   |



**10. Approved Manufacturers, continued**

|  |   |
|--|---|
| <b>Stock Number:</b>                           | <b>687280</b>   |
| <b>Description:</b>                            | <b>Insulated plug</b> with test point cap and one loose stud  |
| <b>Application:</b>                            | An accessory device designed to electrically insulate, electrically shield, and mechanically seal an elbow interface. Test point cap is removable to allow access to capacitive test point. |
| Cooper Power Systems (formerly Patton & Cooke) | DIP635AS  |
| Richards Manufacturing Co.                     | P635HIP-S   |
| Thomas & Betts (Elastimold)                    | 750BIPS   |



|  |   |
|--|---|
| <b>Stock Number:</b>                           | <b>687340</b> (no longer available for purchase)  |
| <b>Description:</b>                            | <b>Insulated cap</b>  |
| <b>Application:</b>                            | An accessory device designed to electrically insulate, electrically shield, and mechanically seal a bushing insert or integral bushing. For 35 kV loadbreak, transformer and junction box bushings. |
| Cooper Power Systems (formerly Patton & Cooke) | -   |
| Richards Manufacturing Co.                     | -   |
| Thomas & Betts (Elastimold)                    | -   |



**11. References**

- SCL Material Standard 6863.25**; "Separable Connector, Deadbreak, Dielectric Components, 150 kV BIL"
- SCL Material Standard 6864.17**; "Accessories, Separable Connector (Elbow), 200 A, 125 kV BIL, Deadbreak"

**12. Sources**

- B100-02024**; Components Master Catalog; 5 kV-35 kV Electrical Distribution Systems, Specifiers Guide; Cooper Power Systems
- Components & Protective Equipment UD (Underground Distribution) Manual**; Cooper Power Systems; 1993
- PG-CA-0506**; Cable Accessories for 5 kV-35 kV Distribution Systems, Product Selection Guide; Elastimold
- Shipek, John**; SCL Standards Engineer, subject matter expert and originator of 6863.27 (john.shipek@seattle.gov)