

Connectors, Terminal, Compression, Aluminum



1. Scope

This standard covers the requirements for aluminum, compression, terminal connectors. This standard applies to Seattle City Light (SCL) Stock No. 650267.

2. Application

Compression terminal connectors are intended for terminating aluminum or copper cables to an aluminum or copper surface. Compression terminal connectors are used to connect jumpers to primary switches.

Compression terminals are used with the following conductor sizes:

- 4/0—477 ACSR (18/1)
- 4/0—500 AAC
- 500 AAC copper

Compression terminal connectors are installed with an Anderson VC6 tool and die.

3. Industry Standards

Compression terminal connectors shall meet the applicable requirements of the latest revision of the following industry standards:

ANSI C119.4; American National Standard for Electric Connectors— Connectors for Use between Aluminum-to-Aluminum and Aluminum-to-Copper Conductors Designed for Normal Operation at or Below 93°C and Copper-to-Copper Conductors Designed for Normal Operation at or Below 100°C

ANSI/NEMA CC1; Electric Power Connection for Substations

4. Requirements

Compression terminal connectors shall have the following attributes:

- Aluminum body
- Tin-plated
- Physical design and dimensions as shown in Table 4 and Figure 4a.
- Two-hole NEMA pad
- Barrels factory-filled with a measured amount of high-voltage oxide-inhibiting compound
- Sealed terminal ends to prevent leakage or contamination of the inhibitor

Compression terminal connectors shall include a separate bi-metallic (copper-aluminum) plate as shown in Figure 4b.

The bi-metallic plate shall have the following attributes:

- One side copper and one side aluminum
- Physical dimensions: 2.5 inches long, 1.5 inches wide, and 0.067 inches thick
- Two-hole NEMA pad

Figure 4a. Compression Terminal Connector Dimensions

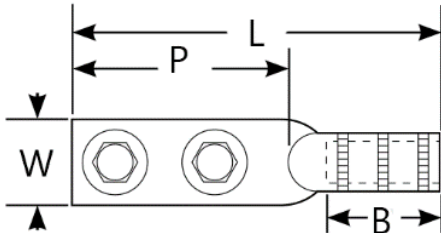


Figure 4b. Bi-Metallic Plate, Front and Back

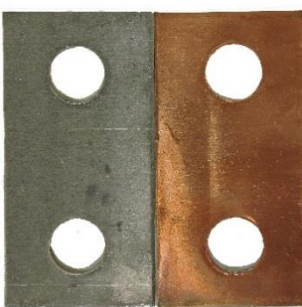


Table 4. Compression Terminal Connector Dimensions

Cable Diameter Range (in)	L	B	P	W (Pad Width)	Stud Size
0.520—0.814	6.18	2.88	3	1.50	0.5

5. Markings

Compression terminal connectors shall be legibly and permanently marked with the following:

- Manufacturer name or trademark
- Catalog number
- Conductor size
- Die number

6. Packaging

Terminal connectors shall be packaged to prevent damage during shipping, handling, and storage.

Package shall be legibly marked with the following information:

- Manufacturer identification
- Product catalog part number
- Product description
- SCL stock number

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

- Seattle City Light purchase order number

7. Issuance

EA

8. Approved Manufacturers

Manufacturer	Catalog No.
Hubbell Power Systems	VAUL50012BN-TP-B

9. Sources

SCL Material Standard 6774.12; Connectors, Terminal, Aluminum Compression, Stacking and Non-Stacking”

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