

COMPRESSION CONNECTORS, ALL-ALUMINUM TYPE



1. Scope

This material standard covers the requirements for all-aluminum type compression connectors.

The requirements for bi-metallic compression connectors, intended for use with 200 A separable connectors, are specified in 6864.00. The requirements for all-copper compression connectors, intended for use with 900 A separable connectors, are specified in 6863.30.

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

Stock Number	Conductor
686375	#1 AWG compressed, 1/0 AWG solid
686377	2/0 AWG compact
686376	2/0 AWG compressed
686378	3/0 AWG compressed
686369	4/0 AWG compressed
686366	350 kcmil compact
686351	350 kcmil compressed
686362	500 kcmil compact
010135	500 kcmil compressed
686349	750 kcmil compact
686359	750 kcmil compressed
686398	1000 kcmil compact
010136	1000 kcmil compressed

2. Application

All-aluminum compression connectors are used to make up 600 A, 125 kV and 150 kV BIL, deadbreak separable connectors, utilizing the dielectric components specified in Material Standards 6863.15 and 6863.25, respectively.

2. Application, continued

All-aluminum compression connectors can be used with either aluminum or copper conductor cable.

For cable technical data, refer to E6-1.0/NGE-70.

3. Industry Standards

Compression connectors shall meet the applicable requirements of the following industry standard:

ANSI C119.4-2004 – American National Standard for Electric Connectors – Connectors for Use Between Aluminum-to-Aluminum or Aluminum-to-Copper Conductors

4. Detailed Requirements

Compression connectors shall be designed and fabricated for use with the 125 kV and 150 kV BIL, deadbreak separable connector dielectric components specified in Material Standards 6863.15 and 6863.25 respectively.

Compression connectors shall accommodate conductor according to Section 9, below.

Compression connectors shall be all-aluminum, and tin-plated.


Compression connectors shall be current Class A, as defined in ANSI C119.4.

Compression connectors shall be tensile strength Class 3, minimum tension (or better), as defined in ANSI C119.4.

Compression connector shall be highly conductive aluminum.

Compression connector barrel shall be pre-filled with oxide inhibitor.

Compression connector barrel ends shall be capped or sealed to protect the oxide inhibitor from contamination.

standards coordinator	standards supervisor	unit director
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MATERIAL STANDARD**4. Detailed Requirements, continued**

Each compression connector shall be provided with tool type, die number, and number of crimps information for:

- Burndy
- Kearney
- Alcoa
- Thomas & Betts (T&B)
- EEI reference

5. Marking

Each compression connector shall be permanently marked with:

- Manufacturer's name
- Manufacturer's catalog number
- Conductor types and sizes (ranges)
- Die number

6. Packaging

Compression connectors shall be packaged to prevent damage during shipping.

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

Shipping container weight shall not exceed 50 pounds.

7. Issuance

EA

8. Approved Manufacturers

Stock Number	Manufacturers' Catalog Numbers			Conductor
	Cooper Power Systems	Richards Manufacturing Co.	Thomas & Betts (Elastimold)	
686375	CC6A12U	P6AL-8	03700230	#1 AWG compressed 1/0 AWG solid
686377	CC6A13U	P6AL-9	03700240	2/0 AWG compact
686376	CC6A14U	P6AL-10	03700250	2/0 AWG compressed
686378	CC6A15U	P6AL-11	03700260	3/0 AWG compressed
686369	CC6A16U	P6AL-12	03700270	4/0 AWG compressed
686366	CC6A18U	P6AL-14	03700290	350 kcmil compact
686351	CC6A19U	P6AL-15	03700300	350 kcmil compressed
686362	CC6A21U	P6AL-17	03700320	500 kcmil compact
010135	CC6A22U	P6AL-18	03700330	500 kcmil compressed
686349	CC6A24U	P6AL-21	03700360	750 kcmil compact
686359	CC6A25U	P6AL-23	03700380	750 kcmil compressed
686398	CC6A26U	P6AL-26	03700400	1000 kcmil compact
010136	CC6A27U	P6AL-28	03700410	1000 kcmil compressed

9. References

6863.15; "Separable Connector Dielectric Components, 125 kV BIL, Deadbreak"; *Material Standards*; SCL

6863.25; "Separable Connector Dielectric Components, 150 kV BIL, Deadbreak"; *Material Standards*; SCL

6863.30; "Compression Connectors, All-Copper Type"; *Material Standards*; SCL

6864.00; "Compression Connectors, Bi-Metallic Type, for 200 A Elbows"; *Material Standards*; SCL

B100-02024; *Components Master Catalog, 5 kV-35 kV Electrical Distribution Systems, Specifiers Guide*, Cooper Power Systems

E6-1.0/NGE-70; "Properties of Medium Voltage Cables; *Construction Guidelines*"; SCL

PG-CA-0506; *Cable Accessories for 5 kV-35 kV Distribution Systems, Product Selection Guide*; Elastimold

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