

**COMPRESSION CONNECTORS, ALL-COPPER TYPE**



**1. Scope**

This material standard covers the requirements for all copper-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-aluminum compression connectors, intended for use with 600 A separable connectors, are specified in 6863.10.

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

Stock Number	Conductor
686913	#1 AWG compressed
686914	3/0 AWG compressed
686916	350 kcmil compact
686917	500 kcmil compact
686918	500 kcmil compressed
686919	750 kcmil compact
686920	1000 kcmil compact
012128	1000 kcmil compressed

**2. Application**

All-copper compression connectors are used to make up 900 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-copper compression connectors can only be used with copper conductor cable; all-copper compression connectors shall not be used with aluminum conductor cable.

For cable technical data, refer to 9660.04.

**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 8, below.

Compression connectors shall be all-copper 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.

standards coordinator	standards manager	unit director
 John Shipek	 John Shipek	 Pam S. Johnson

**MATERIAL STANDARD**

Compression Connectors, All-Copper Type

standard number: **6863.30**

superseding: January 25, 2008

effective date: May 14, 2010

page: 2 of 2

**4. Detailed Requirements, continued**

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

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

**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)	
686913	CC6C62U	P9CU-8	03702-230	#1 AWG compressed
686914	CC6C65U	P9CU-11	03702-260	3/0 AWG compressed
686916	CC6C68U	P9CU-14	03702-290	350 kcmil compact
686917	CC6C71U	P9CU-17	03702-320	500 kcmil compact
686918	CC6C72U	P9CU-18	03702-330	500 kcmil compressed
686919	CC6C74U	P9CU-21	03702-360	750 kcmil compact
686920	CC6C76U	P9CU-26	03702-400	1000 kcmil compact
012128	CC6C77U	P9CU-28	03702-410	1000 kcmil compressed

**9. References**

**6863.10**; "Compression Connectors All-Aluminum Type"; Material Standard; SCL

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

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

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

**9660.04**; "Properties of Medium Voltage Cables; Design Standard; SCL

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

**RMC-HVC-0708**; *High Voltage Product Catalog*; Richards Manufacturing Co.

**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 6863.30 (john.shipek@seattle.gov)