

Connectors, Multiple, Insulated Submersible, 650 A and Accessories



1. Scope

This standard covers the requirements for 650 A insulated submersible multiple connectors.

This standard applies to the following Seattle City Light (SCL) stock numbers:

Stock No.	Description
678760	4-position connector
678761	6-position connector
678763	8-position connector
678630	Insulating sleeve

550 A insulated submersible multiple connectors are outside the scope of this standard. See SCL 6780.05.

Two-sided, 1000 A insulated submersible multiple connectors are outside the scope of this standard. See SCL 6780.30

2. Application

Connectors are designed for use in pedestal, vault, and handhole or direct-bury applications.

Ampacity of the connector cited is based on the nominal rating ampacity of the crossbar at 75 degrees C. Ultimate ampacity can vary as a result of many factors, including loading of the cable, what the connector or bus is connected to, and the connection sequence of the cables.

3. Industry Standards

Connectors shall meet the applicable requirements of the following industry standard:

ANSI C119.4, "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"

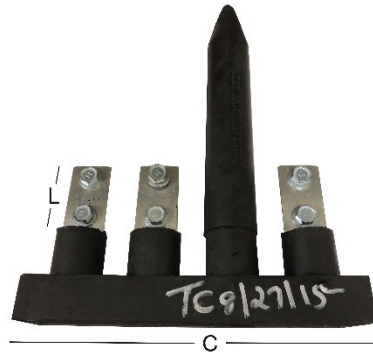
4. Requirements

4.1 Material

Connectors shall be made of extruded, high conductivity electrolytic aluminum.

Insulating sleeve for terminals shall be made of shall be made of ethylene propylene diene monomer (EPDM) rubber.

Figure 4.1. 4-Position Connector with Insulating Sleeve



4.2 Dimensions

Table 4.2. Connector Dimensions

Stock No.	Positions	Connector Length (C), (in)	Outlet Length (L), min (in)
678760	4	12	3
678761	6	18	3
678763	8	24	3

4.3 Bus Terminals

Bus terminals shall be supplied with 1/2-13 UNC assembled hex head screws and a captive Belleville washer.

4.4 Insulating Sleeves

Insulating sleeves shall have a nominal length of 13 inches.

Figure 4.4. Insulating Sleeve



5. Packaging

Each standard package shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- Seattle City Light stock number
- Quantity

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

- Manufacturer identification
 - Product description
 - Seattle City Light purchase order number
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6. Issuance

Stock Unit: EA

7. Approved Manufacturers

Stock No.	Description	ABB/ Thomas & Betts/ Homac	Hubbell Power Systems/ CMC/ESP
678760	4-position connector	FS175-4	UCD-40
678761	6-position connector	FS175-6	UCD-60
678763	8-position connector	FS175-8	UCD-80
678630	Insulating sleeve	FS1175	–

8. References

SCL Material Standard 6780.05; "Connectors, Multiple, Insulated Submersible, 550 A and Accessories"

SCL Material Standard 6780.30, "Connectors, Multiple, Insulated Submersible, 1000A, Two-Sided"

9. Sources

Chao, Yaochiem, SCL Electrical Engineer and subject matter expert for 6780.20

www.abb.com

www.hubbell.com