

Connectors, Multiple, Insulated Submersible, 550 A and Accessories



1. Scope

This standard covers the requirements for 550 A insulated submersible multiple connectors. This standard applies to the following Seattle City Light (SCL) stock numbers:

Stock No.	Description
678800	3-position connector without streetlight tap, small bolt terminals
678703	3-position connector without streetlight tap, large bolt terminals
678707	4-position connector with streetlight tap
678713	6-position connector with streetlight tap
678715	8-position connector with streetlight tap
678620	Insulating sleeve
678663	Streetlight tap cover

650 A insulated submersible multiple connectors are outside the scope of this standard. See SCL 6780.20.

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.

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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"

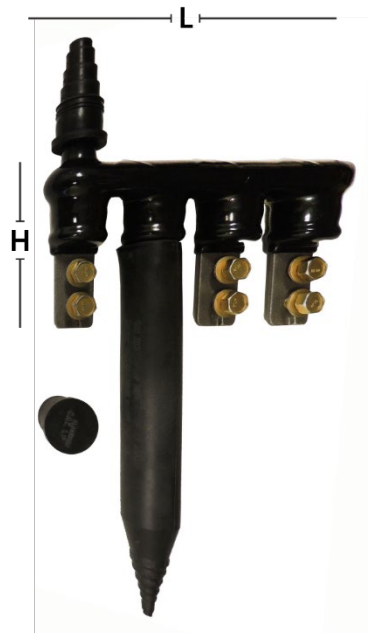
4. Requirements

4.1 Material

Connectors shall be made of cast aluminum and insulated with cross-linked polyethylene (XLP), or with polyvinyl chloride (PVC) with a minimum insulation thickness of 80 mils.

Accessories (insulating sleeve, plug sleeve, tap cover) shall be made of ethylene propylene diene monomer (EPDM) rubber.

Figure 4.1. Connector with Accessories



4.2 Dimensions

Table 4.2. Connector Dimensions

Stock No.	Positions	Length, max (in)	Height, min (in)
678800	3	9.4	4.3
678703	3	6.5	5.2
678707	4	8.8	4.3
678713	6	12.4	4.3
678715	8	16.6	4.3

4.3 Bus Terminals

Bus terminals shall be supplied with 3/8-in diameter hex head cap screws and a captive Belleville washer.

4.4 Insulating Sleeves

Insulating sleeves shall have a nominal length of 10-1/2 inches.

Figure 4.4. Insulating Sleeve



4.5 Streetlight Tap Covers

Streetlight tap covers shall have a nominal height of 2-1/2 inches.

Figure 4.5. Streetlight Tap Cover



5. Packaging

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

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

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

- Manufacturer identification
- Product description
- Seattle City Light purchase order number

6. Issuance

Stock Unit: EA

7. Approved Manufacturers

Stock No.	Description	ABB / Thomas & Betts (Blackburn)	ABB / Thomas & Betts (Homac)	Hubbell Power Systems (CMC/ESP)
678703	3-position connector without streetlight tap, small-bolt terminals	USL30	–	–
678800	3-position connector without streetlight tap, large-bolt terminals	UPC33	–	UC33
678707	4-position connector with streetlight tap	UPC44SL	–	UC-44SL
678713	6-position connector with streetlight tap	UPC66SL	–	UC-66-SL
678715	8-position connector with streetlight tap	UPC88SL	–	UC-88-SL
678620	Insulating sleeve	–	CSN2011	T-L
678663	Streetlight tap cover	–	–	Cap-1

Note: "SL" in the manufacturer catalog number indicates that the product includes a streetlight tap.

8. References

SCL Material Standard 6780.20; "Connectors, Multiple, Insulated Submersible, 650 A and Accessories

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

9. Sources

Chao, Yao, SCL Electrical Engineer and subject matter expert for 6780.05.

SCL Material Standard 6786.2 (canceled); "Insulating Sleeves, Covers, and Plugs for Submersible Multiple Connectors"

SCL Material Standard 6780.0 (canceled); "Connectors, Multiple, Insulated, Submersible, Rated 1000 Amp"

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