Connectors, Compression, Pigtail Adapter

1. Scope

This standard covers the requirements for pigtail adapter-type compression connectors with tin plated, copper pins.

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

686076

686056

650578

650579

686075

010320

2. Application

Pigtail adapters are used to:

- Join aluminum conductor to equipment terminals designed for copper conductor.
- Terminate and seal stranded primary cable when used in conjunction with primary terminations.
- Simplify work by allowing more flexibility when terminating cable in equipment in straight-on (or slight angle) situations, such as padmount switchgear.

Pigtail adapters are appropriate for secondary or primary voltage application and may be installed on aluminum or copper conductor.

3. Industry Standards

Pigtail adapters shall meet the applicable requirements of the following industry standards:

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

4. Construction

Pigtail adapters shall be current Class A, as defined in ANSI C119.4.

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

Compression sleeves shall be highly conductive aluminum.

Compression sleeves shall be pre-filled with oxide inhibitor.

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

Pigtail adapter pins shall be tin-plated, solid, annealed copper.

Pigtail adapter pins shall meet the nominal requirements of **Table 1**.

Pigtail adapters shall accommodate conductors according to **Table 1**.

4. Construction, continued

Table 1

Stock No.	Pin Diameter, AWG (in)	Pin Length (in)	Compression Sleeve Outer Diameter, minimum (in)	Conductor
686076	#4	2-1/4 +/- 1/2	0.64	#8 AWG compressed
686056	#2	6-1/2 +/- 1	0.90	#1 AWG compressed
				1/0 AWG solid
650578	4/0	6-1/2 +/- 1	1.10	350 kcmil compact
				350 kcmil compressed
650579	5/8	6-1/2 +/- 1	1.10	500 kcmil compact
				500 kcmil compressed
686075	5/8 to 3/4	6-1/2 +/- 1	1.25	750 kcmil compact
010320	5/8 to 3/4	6-1/2 +/- 1	1.50	1000 kcmil compact
				1000 kcmil compressed

5. Tests and Test Reports

Pigtail adapter data that establishes compliance with the requirements of ANSI C119.4 and this material standard shall be provided upon request.

6. Marking

Pigtail adapters shall be permanently marked with:

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

7. Packaging

Pigtail adapters shall be packaged to prevent damage during shipping, storage, and casual handling prior to installation; clear plastic bagging shall count as acceptable packaging.

Each package shall be marked with Seattle City Light's Stock Number.

8. Issuance

EA

9. Approved Manufacturers

Stock No.	Hubbell (Burndy)	ABB (Homac)	Hubbell (Anderson)	Richards Mfg. Co.	ABB (Blackburn)	Conductor
686076	–	U5U8	PT-84-2.5	APT2-SCL	–	#8 AWG compressed
686056	–	–	PT-24-6SCL	APT9-SCL	PKL 31-1	#1 AWG compressed
						1/0 AWG solid
650578	YE32R-60	PTB-350-6	PT-35050-6	APT15-SCL	PRS 30N	350 kcmil compact
						350 kcmil compressed
650579	–	–	PT-45062-6	APT18-SCL	PRS 40N	500 kcmil compact
						500 kcmil compressed
686075	YE43R-70	–	–	APT23-SCL	–	750 kcmil compact
010320	–	PTL-1000	–	APT28-SCL	–	1000 kcmil compact
						1000 kcmil compressed

10. Sources

SCL Material Standard 6772.0 (renumbered to 6772.00); "Connectors, Compression (Pigtail Adapters, Al to Cu)";

Shipek, John; SCL Standards Supervisor and subject matter expert for 6772.00

www.abb.com

www.hubbell.com

www.richards-mfg.com