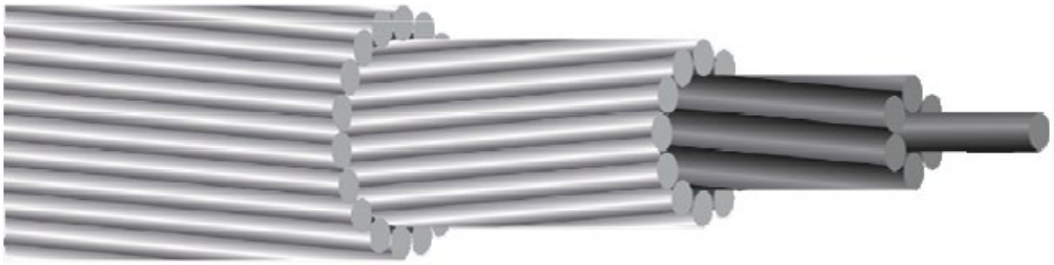
Wire, ACSS, Bare



1. Scope

This standard covers the requirements for bare, concentric-lay stranded aluminum conductor, steel supported wire (ACSS).

Steel strands form the central core of the conductor with one or more layers of 63% minimum average conductivity aluminum 1350-0 wire stranded around it. The steel core carries most or all of the mechanical load of the conductor due to the "0" (fully annealed or soft) temper aluminum.

Typical 300 kcmil ACSS conductor is known as Ostrich and has 26/7 stranding. The ACSS conductor SCL uses, however, is custom made with a 22/7 stranding to match what is currently installed in our system so we can make repairs.

This custom order requires a minimum order of 10,000 feet.

This standard applies to Seattle City Light (SCL) Stock No. 015163.

2. Application

ACSS bare wire is used as an overhead transmission conductor.

ACSS is used in long-span applications due to its lower sag properties at higher temperatures.

3. Industry Standards

ACSS wire shall meet the applicable requirements of the following industry standards:

ASTM B500; Metallic Coated Stranded Steel Core for Aluminum Conductors, Steel Reinforced.

ASTM B609 Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes

ASTM B802 Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced.

ASTM B803 High-Strength Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum and Aluminum-Alloy Conductors, Steel Reinforced.

ASTM B856 Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Supported (ACSS).

NEMA WC-26-2000; Binational Wire and Cable Packaging Standard

4. Conflict

Where conflict exists, the following order of precedence shall apply:

1. SCL purchase order
2. This SCL standard
3. ASTM standards
4. Other industry standards

5. Requirements

Size (kcmil)	300
Stranding, aluminum/steel	22/7
Type	ACSS/MA2
Diameter, nominal (mm)	16.8
Minimum rated strength (lb)	6789

6. Packaging Requirements

Wire shall be packaged on reels according to the requirements of WC 26 and in this section or as specified otherwise on the request for quote or purchase order.

Size (kcmil)	300
Reel type	Steel RM
Maximum outside flange diameter (in)	68
Drum diameter, nominal (in)	36
Length per reel ± 10%, (ft)	5000[1]
Weight per 100 ft (lb), nominal	36.1
Reel gross weight, maximum (lb)	16,000

[1] Actual quantity per reel may vary from the quantity stated on the purchase order by plus or minus 10%.

Reels shall be returnable, with fluted or corrugated flange and flat bar tires according to WC 26, Section 2.1.2.

Reels shall be protected for shipment with coverings consistent with the recommendations of NEMA WC 26, Section 4.

The inner end shall not be brought out through the reel arbor.

The outer end shall be securely fastened to the inner side of the flange.

Each reel shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- Shipping length of wire on reel
- Gross weight
- Tare weight
- Net weight
- Date of manufacture
- Reel identification according to NEMA WC 26, Section 5
- SCL purchase order number
- SCL stock number

7. Shipping

Reels shall be shipped and delivered in the upright position (on the flange edges) on open flatbed trucks suitable for side unloading by forklift.

Reels shall not be strapped or palleted.

Wire shall be shipped to the address specified on the purchase order.

8. Issuance

Stock unit: FT

9. Approved Manufacturers

Southwire

10. Sources

Lu, Curtis; SCL Standards Engineer, originator, and subject matter expert for 6000.09