

1.0 SCOPE

This specification covers the minimum requirements covered aluminum conductors to be used in overhead secondary voltage distribution, 600 V maximum. All conductors, unless otherwise stated, are Class A or B standard concentric round stranded.

2.0 APPLICABLE PUBLICATIONS AND STANDARDS

Conductor supplied under this specification shall comply with the latest edition of the following standards, as applicable:

- 2.1. ASTM B230 – Standard Specification for Aluminum Conductors, 1350-H19 for Electrical Purposes
- 2.2. ASTM B231 – Standard Specification for Aluminum Conductors, Concentric-Lay-Stranded 1350 Conductors
- 2.3. ASTM B232 – Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR)
- 2.4. ASTM B399 – Standard Specification for Concentric-Lay-Stranded Aluminum-Alloy 6201-T81 Conductors
- 2.5. ASTM B-901 – Standard Specification for Compressed Round Stranded Aluminum Conductors Using Single Input Wire Construction
- 2.6. ANSI/ICEA S-76-474 – Neutral-Supported Power Cable Assemblies with Weather-Resistant Extruded Insulation Rated 600 Volts
- 2.7. ANSI/NEMA WC 70 – Power Cables Rated 2000 Volts Or Less for the Distribution of Electrical Energy

3.0 PRODUCT REQUIREMENTS

3.1. Purpose

This conductor is used to supply power, usually from a pole-mounted transformer, to the customer's service head where connection to the service entrance cable is made. It may also be used for street lighting purposes. It is to be used at voltages of 600 Volts phase-to-phase or less and at conductor temperatures not to exceed 90°C with crosslinked polyethylene (XLP) insulated conductors.

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3.2. **Product Description**

Conductor shall be concentrically stranded, compressed 1350-H19 aluminum and insulated with crosslinked polyethylene (XLP). Neutral messengers shall be fully-sized, concentrically stranded ACSR.

3.3. **Standard Conductor Sizes**

Conductor supplied under this category shall be sized per the table below:

Code Name	Config.	Size	Stranding	Approx. Weight (lbs/1000')	Breaking Strength (lbs)	Division ID
Shepard	Duplex	6 AWG	7	74.6	1,190	20085
Chow	Duplex	2 AWG	7	176	2,850	78841
Conch	Triplex	2 AWG	7	259	2,850	20098
Neritina	Triplex	1/0 AWG	7	549	4,380	78844
Limpet	Triplex	336.4 kcmil	19	1,167	8,680	78845
Costena	Quadraplex	1/0 AWG	9	549	4,380	78842
Bronco	Quadraplex	336.4 kcmil	19	1,568	8,680	78843

3.4. **Conductor Identification and Packaging**

3.4.1. For quadruplexed cable, one insulated conductor to be plain, the second insulated conductor shall have one (1) raised rib or extruded colored stripe, and the third insulated conductor shall have two (2) raised ribs or extruded colored stripes.

3.4.2. **Reels**

- a) Only new wooden reels shall be used.
- b) The reels shall not be manufactured from plywood.
- c) Reels shall have 18" to 24" of inside tail wire exposed through the reel start-hole (nearest flange when cable pay-off is in a clockwise direction) and secured to the reel flange.
- d) The wooden reels shall have 3" minimum diameter center arbor holes and 1½" minimum diameter drive pin holes located a radius of 3" to 4" on the 30" flange diameter reel or 4" to 12" on reels having a larger than 30" flange diameter, from the spool flange center per NEMA WC26.
- e) Reels shall be tagged or stenciled with permanent type stencil, to show the following information:
 - 1) DOP Purchase Order number
 - 2) DOP Division ID number

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- 3) Total length (circuit feet) on reel
- 4) Pounds per 1000 feet or circuit feet
- 5) Tare weight of reel
- 6) Gross weight

3.4.3. Unless specified otherwise on the purchase order, cable packaging shall be per the following table:

Code Name	Size	Approx. Feet Per Reel	Max. Flange Diameter (in.)	Max Overall Reel Width (in.)	Min. Drum Dia. (in.)	Division ID
Shepherd	6 AWG	3,300	28	24	11	20085
Chow	2 AWG	2,400	34	30	15	78841
Conch	2 AWG	1,800	34	30	15	20098
Neritina	1/0 AWG	1,200	34	30	15	78844
Limpet	336.4 kcmil	500	40	31	16	78845
Costena	1/0 AWG	1,200	40	31	16	78842
Bronco	336.4 kcmil	500	45	35	21	78843

3.5. **Shipping Requirements**

- 3.5.1. Small reels shall be shipped on an open or closed truck having sufficient clearance in all directions to permit unloading by a fork truck.
- 3.5.2. Reels stacked vertically or on their side shall have wood or some other material below each reel to provide enough space for a forklift to lift reels off of the stack or the truck floor without damaging the cable or reels.
- 3.5.3. Reels shall be loaded to permit efficient unloading at destination. DOP receiving personnel shall not be required to shift load around in order to remove the designated reels on the shipping documents when the truck includes deliveries to more than one location.
- 3.5.4. Coils shall be shipped on 4-way pallets and shrink wrapped.