SPEC 83028 Stock #: TBA

Quad Parallel 600 Volt USE-2 Underground Service Entrance



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

- 1. **Conductor:** Conductors are stranded, compressed 1350-H16/H26 (3/4 Hard) aluminum
- 2. **Insulation:** Cross Linked Polyethylene (XLPE)
- 3. **Neutral:** Cross Linked Polyethylene (XLPE) with three Yellow Extruded Stripes (YES)

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APPLICATIONS AND FEATURES:

Conductors are stranded, compressed 1350-H16/H26 (3/4 Hard) aluminum, insulated with cross-linked polyethylene. Neutrals are identified by three yellow extruded stripes. Cables with "YES" neutrals have sequential footage markers. Conductors are durably surface printed for identification. Three-phase conductors and one neutral conductor are guad paralleled. These cables are capable of operating continuously at the conductor temperature not in excess of 90°C for normal operation in wet and dry locations, 130°C for emergency overload, and 250°C for short circuit conditions. UL listed as USE-2 per UL 854 Service-Entrance Cables.

SPECIFICATIONS:

- ASTM B231 Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors
- ASTM B609 Standard Specification for Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical
- ASTM B901 Standard Specification for Compressed Round Stranded Aluminum Conductors Using Single Input Wire Construction. (The number of strands for both phase and neutral may differ)
- UL 854 Service Entrance Cable
- ICEA S-105-692 Standard For 600 Volt Single Layer Thermoset Insulated Utility Underground Distribution Cables







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Table 1 – Weights and Measurements

| Stock Number | Code Word | Phase Cond. Size | Phase Strand | Dia. Over Phase Conductor | Phase Insul. Thickness | Dia. Over Phase Insulation | Neutral Cond. Size | Neutral Strand | Neutral Insul. Thickness | Dia. Over Neutral Insulation | Approx. OD | Approx. Weight |
|-----------------|--------------|------------------------|-----------------|---------------------------------|---------------------------|----------------------------------|--------------------------|-------------------|--------------------------------|------------------------------------|---------------|-------------------|
| | | AWG/ Kcmil | No. | inch | mil | inch | AWG/ Kcmil | No. | mil | inch | inch | lb/1000ft |
| TBA | Laney | 3/0 | 17 | 0.456 | 80 | 0.603 | 3/0 | 17 | 80 | 0.603 | 2.412 | 860 |

All dimensions are nominal and subject to normal manufacturing tolerances

Table 2 – Electrical and Engineering Data

| Code Word | Phase Cond. Size | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | GMR | Allowable Ampacity in Duct 90°C | Allowable Ampacity Directly Buried 90°C |
|--------------|---------------------|-----------------------|---------------------|-------------------------|-------------------------|----------------------------------|-------|------------------------------------|--|
| | AWG/ Kcmil | inch | lb | Ω/1000ft | Ω/1000ft | Ω/1000ft | ft | Amp | Amp |
| Laney | 3/0 | 14.5 | 3221 | 0.105 | 0.126 | 0.042 | 0.014 | 195 | 250 |

Notes:

- 1. Inductive reactance assumes cables are cradled in conduit, and the neutral is carrying no current.
- 2. Triple parallel inductive reactance calculation assumes the phase conductors are adjacent to one another.
- 3. Conductors assumed to be reverse lay stranded, compressed construction.
- 4. Phase spacing assumes cables are touching.
- 5. Resistances shown are for the Phase conductors only.
- 6. Ampacity based on 90°C conductor temperature, 20°C ambient, RHO 90, 100% load factor.





^{1.} The actual number of strands may differ for single input wire per ASTM B901