**SPEC 83227** Stock #: TBA

# Triplex XLPE Service Drop. AAC Neutral - Messenger

Aluminum Conductors With Crosslinked Polyethylene Insulation.



Image not to scale. See Table 1 for dimensions.

### **CONSTRUCTION:**

1. **Conductor:** Conductors are stranded, compressed 1350-H19 aluminum

2. Insulation: Cross Linked Polyethylene (XLPE)

3. **Messenger:** AAC Neutral

# **APPLICATIONS AND FEATURES:**

Used to supply power, usually from a pole-mounted transformer, to the user's service head where connection to the service entrance cable is made. To be used at voltages of 600 volts phase-to-phase or less and at conductor temperatures 90°C for crosslinked polyethylene (XLP) insulated conductors.

#### SPECIFICATIONS:

- ASTM B230 Aluminum, 1350-H19 Wire for Electrical Purposes
- ASTM B231 Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors
- 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)
- ICEA S-76-474 Standard for Neutral-Supported Power Cable Assemblies with Weather-Resistant Extruded Insulation Rated 600V







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# **Table 1 – Weights and Measurements**

Code Word	Phase Cond. Size	Phase Strand	Dia. Over Phase Conductor	Phase Insul. Thickness	Dia. Over Phase Insulation	Neutral Cond. Size	Approx. OD	Approx. Weight
	AWG/Kcmil	No.	inch	mil	inch	AWG/Kcmil	inch	lb/1000ft
Purpura	1/0	9	0.352	60	0.472	1/0	1.02	368

All dimensions are nominal and subject to normal manufacturing tolerances

# **Table 2 – Electrical and Engineering Data**

Code Word	Phase Cond. Size	Neutral Rated Breaking Strength	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	GMR	Allowable Ampacity In Air 90°C
	AWG/Kcmil	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	ft	Amp
Purpura	1/0	1990	0.1653	0.212	0.0299	0.0107	205

#### Notes:

- 1. DC resistances include a 1% length factor for plexing.
- 2. Inductive reactance assumes the neutral is carrying current.
- 3. Phase conductors assumed to be reverse lay stranded, compressed construction.
- 4. Phase spacing assumes cables are touching.
- 5. Resistances shown are for the phase conductor only.
- 6. Sizes of AAAC neutrals are not the AAAC size, but are the size of an ACSR of equal diameter.
- 7. Ampacity based on conductor temperature of 90°; ambient temperature of 40°C; emissivity 0.9; 2 ft./sec. wind in sun.

## **Neutral Code Word**

Size-Strands	Code Word	OD (inches)
#6-7	Peachbell	0.184
#4-7	Rose	0232
#2-7	Iris	0.292
1/0-7	Рорру	0.368
2/0-7	Aster	0.414
3/0-19	Primrose	0.470
4/0-19	Sunflower	0.528
336.4-19	Tulip	0.665







<sup>1.</sup> The actual number of strands may differ for single input wire per ASTM B901