# **Triplex XLPE Service Drop. Reduced ACSR 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: ACSR Neutral

### **SPECIFICATIONS:**

- ASTM B230 Aluminum, 1350-H19 Wire for Electrical Purposes
- ASTM B231 Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors
- ASTM B400 Standard Specification for Compact Round 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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## **SPEC 83233**

### Table 1 – Weights and Measurements

	Stock umber	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
10	)4935	Cockle	2	7	0.283	45	0.373	4	0.806	228

All dimensions are nominal and subject to normal manufacturing tolerances

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

! Linear Low Density Polyethylene (LLDPE) instead of XLPE insulation

### 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
Cockle	2	1860	0.2631	0.3373	0.0296	0.0086	150

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. 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)
#4	Swan	0.250
#2	Sparrow	0.316
1/0	Raven	0.398
2/0	Quail	0.447
3/0	Pigeon	0.502
4/0	Penguin	0.684
336.4	Merlin	0.563

