

# Duplex XLPE Service Drop. ACSR Neutral - Messenger

Aluminum Conductors With Crosslinked Polyethylene Insulation.

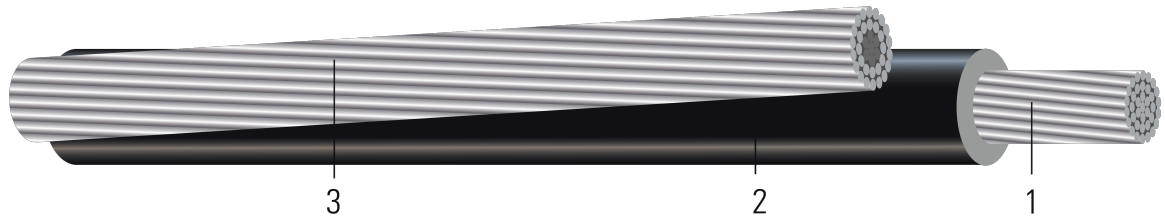


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

- Conductor:** Conductors are stranded, compressed 1350-H19 aluminum
- Insulation:** Cross Linked Polyethylene (XLPE)
- Messenger:** Coated Steel-Reinforced ACSR Neutral

## APPLICATIONS AND FEATURES:

Primarily used for 120 volt overhead service applications such as street lighting, outdoor lighting, and temporary service for construction. To be used at voltages of 600 volts phase-to-phase or less and at conductor temperatures not to exceed 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 B232 Concentric-Lay-Stranded, Aluminum Conductors, Coated Steel Reinforced (ACSR)
- 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

**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	Approx. OD	Approx. Weight
		AWG/Kcmil	No.	inch	mil	inch	AWG/Kcmil	No.	inch	lb/1000ft
104646	Setter	6	1	0.162	30	0.222	6	6/1	0.450	72
104653	Shepherd	6	7	0.177	30	0.237	6	6/1	0.466	74
TBA	Eskimo	4	Solid	0.204	30	0.264	4	6/1	0.530	158
104661	Terrier	4	7	0.225	30	0.285	4	6/1	0.564	113
TBA	Chow	2	7	0.282	45	0.372	2	6/1	0.746	273
TBA	Bull	1/0	19	0.361	60	0.481	1/0	6/1	0.964	444

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





**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
Setter	6	1190	0.411	0.495	0.051	0.005	75 / 85
Shepherd	6	1190	0.674	0.812	0.051	0.005	75 / 85
Eskimo	4	1860	0.258	0.310	0.048	0.007	100 / 115
Terrier	4	1860	0.424	0.511	0.048	0.007	100 / 115
Chow	2	2850	0.266	0.320	0.045	0.008	135 / 150
Bull	1/0	4380	0.167	0.201	0.044	0.011	180 / 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. 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	Turkey	0.198
#4-7	Swan	0.250
#2-7	Sparrow	0.316
1/0-7	Raven	0.398

