Quadruplex XLPE Service Drop. AAC Neutral - Messenger

Aluminum Conductors With Crosslinked Polyethylene Insulation.

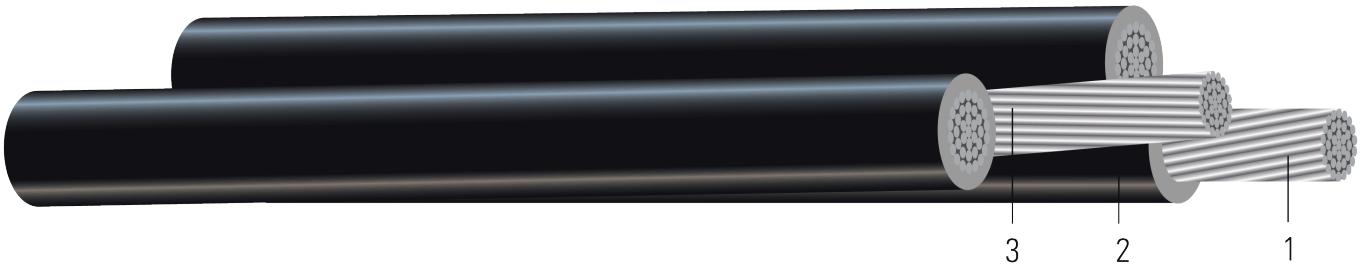

Image not to scale. See Table 1 for dimensions.

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

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
TBA	Clydesdale	4	1	0.204	45	0.294	4	7	0.71	198
TBA	Pinto	4	7	0.225	45	0.315	4	7	0.76	211
TBA	Mustang	2	7	0.283	45	0.373	2	7	0.9	318
105213	Criollo	1/0	9	0.352	60	0.472	1/0	7	1.139	503
105221	Percheron	2/0	11	0.395	60	0.515	2/0	7	1.243	619
TBA	Hanoverian	3/0	17	0.443	60	0.563	3/0	19	1.359	764
105247	Oldenburg	4/0	18	0.498	60	0.618	4/0	19	1.492	945

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
Clydesdale	4	881	0.41	0.5258	0.0339	0.0066	100
Pinto	4	881	0.4183	0.5363	0.0348	0.0068	100
Mustang	2	1350	0.2631	0.3373	0.0335	0.0086	135
Criollo	1/0	1990	0.1653	0.212	0.0337	0.0107	180
Percheron	2/0	2510	0.1312	0.1682	0.0329	0.0121	205
Hanoverian	3/0	3310	0.104	0.1335	0.0319	0.0139	235
Oldenburg	4/0	4020	0.0825	0.1059	0.0313	0.0157	275

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	0..232
#2-7	Iris	0.292
1/0-7	Poppy	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