# Quadruplex XLPE Service Drop. AAAC 6201 Alloy 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: AAAC 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 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
TBA	Bay	6	Solid	0.162	30	0.222	6	7	0.539	158
TBA	French-Coach	6	7	0.177	30	0.237	6	7	0.576	162
TBA	German- Coach	4	Solid	0.204	30	0.264	4	7	0.641	237
105353	Arabian	4	7	0.225	30	0.285	4	7	0.759	214
105361	Belgian	2	7	0.282	45	0.372	2	7	0.901	324
105379	Shetland	1/0	9	0.361	60	0.481	1/0	7	1.139	520
105387	Thoroughbred	2/0	11	0.405	60	0.525	2/0	7	1.243	639
272476	Trotter	3/0	17	0.456	60	0.576	3/0	7	1.359	785
105395	Walking	4/0	18	0.512	60	0.632	4/0	7	1.491	372
243261	Exmoor	336.4	19	0.646	80	0.805	4/0	7	1.945	1428

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 75/90°C
	AWG/Kcmil	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	ft	Amp
Bay	6	1110	0.411	0.495	0.051	0.005	75 / 85
French-Coach	6	1110	0.674	0.812	0.051	0.005	75 / 85
German- Coach	4	1760	0.258	0.310	0.048	0.007	100 / 115
Arabian	4	1760	0.424	0.511	0.048	0.007	100 / 115
Belgian	2	2800	0.266	0.320	0.045	0.008	135 / 150
Shetland	1/0	4270	0.167	0.201	0.044	0.011	180 / 205
Thoroughbred	2/0	5390	0.133	0.159	0.043	0.013	210 / 235
Trotter	3/0	6790	0.105	0.126	0.042	0.014	240 / 270
Walking	4/0	8560	0.084	0.100	0.041	0.016	280 / 315
Exmoor	336.4		0.051	0.062	0.041	0.021	

#### 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.
- ${\bf 5}.$  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.

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

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

### **Neutral Code Word**

Size-Strands	Code Word	OD (inches)
#6-7	Akron	0.198
#4-7	Alton	0.250
#2-7	Ames	0.316
1/0-7	Azusa	0.398
2/0-7	Anaheim	0.447
3/0-7	Amherst	0.502
4/0-7	Alliance	0.563