

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	Approx. OD	Approx. Weight
		AWG/Kcmil	No.	inch	mil	inch	AWG/Kcmil	inch	lb/1000ft
TBA	Bay	6	1	0.162	45	0.252	6	0.608	137
TBA	French-Coach	6	7	0.178	45	0.268	6	0.647	146
TBA	German-Coach	4	1	0.204	45	0.294	4	0.71	205
105353	Arabian	4	7	0.225	45	0.315	4	0.76	218
105361	Belgian	2	7	0.283	45	0.373	2	0.9	328
105379	Shetland	1/0	9	0.352	60	0.472	1/0	1.139	519
105387	Thoroughbred	2/0	11	0.395	60	0.515	2/0	1.243	639
272476	Trotter	3/0	17	0.443	60	0.563	3/0	1.359	789
105395	Walking	4/0	18.0	0.498	60	0.618	4/0	1.492	977

All dimensions are nominal and subject to normal manufacturing tolerances



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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
Bay	6	1110	0.6523	0.8363	0.0357	0.0053	75
French-Coach	6	1110	0.6653	0.853	0.0365	0.0054	75
German-Coach	4	1760	0.41	0.5258	0.034	0.0066	100
Arabian	4	1760	0.4183	0.5363	0.0349	0.0068	100
Belgian	2	2800	0.2631	0.3373	0.0336	0.0086	135
Shetland	1/0	4270	0.1653	0.212	0.0338	0.0107	180
Thoroughbred	2/0	5390	0.1312	0.1682	0.0331	0.0121	205
Trotter	3/0	6790	0.104	0.1335	0.032	0.0139	235
Walking	4/0	8560	0.0825	0.1059	0.0314	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	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

