

Triplex 600 Volt Underground Service Entrance

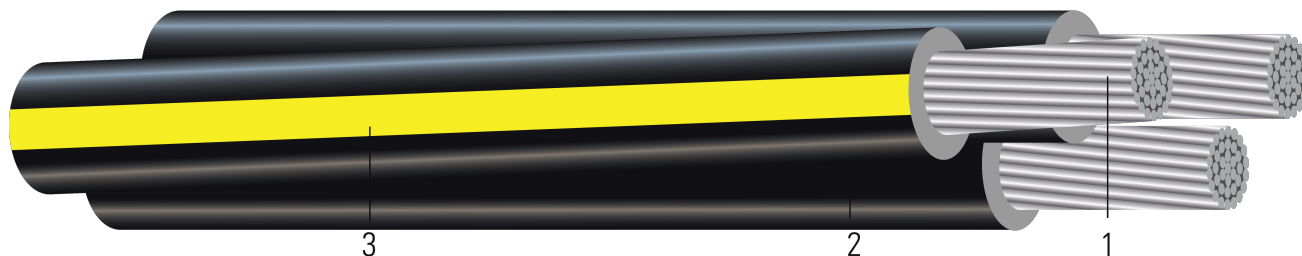


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Conductors are stranded, compressed 1350-H16/H26 (3/4 Hard) aluminum
2. **Insulation:** Cross Linked Polyethylene (XLPE)
3. **Neutral:** Cross Linked Polyethylene (XLPE) with three Yellow Extruded Stripes (YES)

APPLICATIONS AND FEATURES:

Conductors are stranded, compressed 1350-H16/H26 (3/4 Hard) aluminum, insulated with cross-linked polyethylene. Neutrals are identified by three yellow extruded stripes. Cables with "YES" neutrals have sequential footage markers. Conductors are durably surface printed for identification. Two-phase conductors and one neutral conductor are cabled together to produce the quadruplex cable configuration. These cables are capable of operating continuously at the conductor temperature not in excess of 90°C for normal operation in wet and dry locations, 130°C for emergency overload, and 250°C for short circuit conditions

SPECIFICATIONS:

- ASTM B231 Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors
- ASTM B609 Standard Specification for Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes
- 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-105-692 Standard For 600 Volt Single Layer Thermoset Insulated Utility Underground Distribution Cables



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	Neutral Insul. Thickness	Dia. Over Neutral Insulation	Approx. OD	Approx. Weight
		AWG/Kcmil	No.	inch	mil	inch	AWG/Kcmil	No.	mil	inch	inch	lb/1000ft
TBA	Blank	8	7	0.142	60	0.262	8	7	60	0.262	0.565	193
277996	Erskine	6	7	0.178	60	0.298	6	7	60	0.298	0.644	134
241661	Vassar	4	7	0.225	60	0.345	4	7	60	0.345	0.745	191
272641	Stephens	2	7	0.283	60	0.403	4	7	60	0.345	0.87	249
272658	Ramapo	2	7	0.283	60	0.403	2	7	60	0.403	0.87	278
205724	Brenau	1/0	9	0.352	80	0.512	2	7	60	0.403	1.106	387
272674	Bergen	1/0	9	0.352	80	0.512	1/0	9	80	0.512	1.106	441
243311	Converse	2/0	11	0.395	80	0.555	1	9	80	0.473	1.199	478
272682	Hunter	2/0	11	0.395	80	0.555	2/0	11	80	0.555	1.199	535
267500	Hollins	3/0	17	0.443	80	0.603	1/0	9	80	0.512	1.302	581
272690	Rockland	3/0	17	0.443	80	0.603	3/0	17	80	0.603	1.302	651
237024	Sweetbriar	4/0	18	0.498	80	0.658	2/0	11	80	0.555	1.421	709
272708	Monmouth	4/0	18	0.498	80	0.658	4/0	18	80	0.658	1.421	796
272716	Pratt	250	22	0.542	80	0.732	3/0	17	80	0.603	1.581	853
242511	Wesleyan	350	30	0.641	95	0.831	4/0	18	80	0.658	1.795	1106
613823 [^]	Wesleyan	350	30	0.641	95	0.831	4/0	18	80	0.658	1.795	1106
TBA	Holyoke	500	37	0.789	95	0.979	300	37	95	0.784	2.115	1545
TBA	Rider	500	37	0.789	95	0.979	350	30	95	0.831	2.115	1593

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

2. [^] Sureseal[®] a visco-elastic sealant that provides self sealing of the cable.



Table 2 – Electrical and Engineering Data

Stock Number	Code Word	Phase Cond. Size	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	GMR	Allowable Ampacity in Duct 90°C	Allowable Ampacity Directly Buried 90°C
		AWG/Kcmil	Ω/1000ft	Ω/1000ft	Ω/1000ft	ft	Amp	Amp
TBA	Blank	8	1.0574	1.3558	0.0374	0.0043	55	70
277996	Erskine	6	0.6653	0.853	0.0351	0.0054	70	95
241661	Vassar	4	0.4183	0.5363	0.0331	0.0068	90	125
272641	Stephens	2	0.2631	0.3373	0.0314	0.0086	120	165
272658	Ramapo	2	0.2631	0.3373	0.0314	0.0086	120	165
205724	Brenau	1/0	0.1653	0.212	0.0317	0.0107	160	215
272674	Bergen	1/0	0.1653	0.212	0.0317	0.0107	160	215
243311	Converse	2/0	0.1312	0.1682	0.0308	0.0121	180	245
272682	Hunter	2/0	0.1312	0.1682	0.0308	0.0121	180	245
267500	Hollins	3/0	0.104	0.1335	0.0295	0.0139	205	280
272690	Rockland	3/0	0.104	0.1335	0.0295	0.0139	205	280
237024	Sweetbriar	4/0	0.0825	0.1059	0.0288	0.0157	240	315
272708	Monmouth	4/0	0.0825	0.1059	0.0288	0.0157	240	315
272716	Pratt	250	0.0698	0.0897	0.0291	0.0172	265	345
242511	Wesleyan	350	0.0499	0.0641	0.0281	0.0204	320	415
613823^	Wesleyan	350	0.0499	0.0641	0.0281	0.0204	320	415
TBA	Holyoke	500	0.0349	0.045	0.027	0.0252	395	495
TBA	Rider	500	0.0349	0.045	0.027	0.0252	395	495

Notes:

1. Inductive reactance assumes cables are cradled in conduit, and the neutral is carrying no current.
2. Triple parallel inductive reactance calculation assumes the phase conductors are adjacent to one another.
3. Conductors assumed to be reverse lay stranded, compressed construction.
4. Phase spacing assumes cables are touching.
5. Resistances shown are for the Phase conductors only.
6. Ampacity based on 90°C conductor temperature, 20°C ambient, RHO 90, 100% load factor.

