

Triplex 600 Volt USE-2 HI-SCORE Underground Service Entrance

Aluminum Conductor. HI-SCORE Cross-linked Polyethylene (XLP) Insulation.

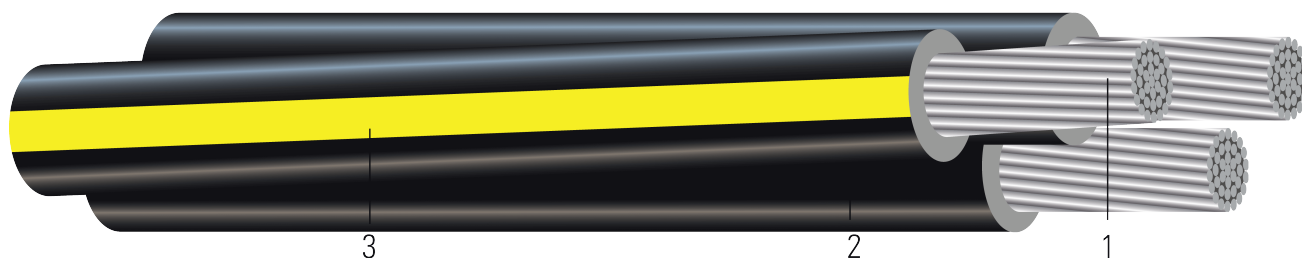


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Conductors are stranded, compressed 1350-H16/H26 (3/4 Hard) aluminum
2. **Insulation:** Rugged Cross Linked Polyethylene (XLPE) meeting the requirements of ANSI/ICEA S-81-570. LLDPE and HDPE or MDPE
3. **Neutral:** Cross Linked Polyethylene (XLPE) with three Yellow Extruded Stripes (YES)

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APPLICATIONS AND FEATURES:

Conductors are stranded, compressed 1350-H16/H26 (3/4 Hard) aluminum, insulated with cross-linked polyethylene. Especially suited for applications requiring superior resistance to mechanical damage. 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 triplex 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. UL listed as USE-2 per UL 854 Service-Entrance Cables.

SPECIFICATIONS:

- ASTM B231 Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors
- ASTM B609 Standard Specification for Aluminum 1350 Round Wire, Annealed and Intermediate Temps, 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)
- UL 854 Service Entrance Cable
- ICEA S-81-570 Standard for 600 Volt Rated Cables of Ruggedized Design for Direct Burial Installations as Single Conductors or Assemblies of Single Conductors
- ICEA S-105-692 Standard For 600 Volt Single Layer Thermoset Insulated Utility Underground Distribution Cables



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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	0.141	60	0.262	8	7	60	0.262	0.565	193
308411	Erskine	6	7	0.177	60	0.298	6	7	60	0.298	0.644	134
618576	Vassar	4	7	0.225	60	0.337	4	7	60	0.345	0.728	184
607483	Stephens	2	7	0.282	60	0.403	4	7	60	0.345	0.870	247
TBA	Ramapo	2	7	0.282	60	0.403	2	7	60	0.403	0.870	278
TBA	Brenau	1/0	9	0.361	80	0.512	2	7	60	0.403	1.106	387
TBA	Bergen	1/0	9	0.361	80	0.512	1/0	9	80	0.512	1.106	441
308478	Converse	2/0	11	0.405	80	0.555	1	9	80	0.473	1.199	478
TBA	Hunter	2/0	11	0.405	80	0.555	2/0	11	80	0.555	1.199	535
TBA	Hollins	3/0	17	0.456	80	0.603	1/0	9	80	0.512	1.302	581
TBA	Rockland	3/0	17	0.456	80	0.603	3/0	17	80	0.603	1.302	651
612667	Sweetbriar	4/0	18	0.512	80	0.658	2/0	11	80	0.555	1.421	709
TBA	Monmouth	4/0	18	0.512	80	0.658	4/0	18	80	0.658	1.421	796
310748	Pratt	250	22	0.558	80	0.732	3/0	17	80	0.603	1.581	853
308544	Wesleyan	350	30	0.661	95	0.831	4/0	18	80	0.658	1.795	1795
322073	Gloucester	350	30	0.661	95	0.831	3/0	18	80	0.658	1.795	1071
TBA	Holyoke	500	34	0.789	95	0.956	300	37	95	0.784	1.912	1830
656744	Rider	500	34	0.789	95	0.956	350	30	95	0.831	2.115	1605
TBA	Fairfield	750	61	0.968	110	1.159	500	37	80	0.949	2.316	2784

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	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	GMR	Allowable Ampacity in Duct 90°C	Allowable Ampacity Directly Buried 90°C
	AWG/ Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	ft	Amp	Amp
Blank	8	2.3	297	1.071	1.290	0.052	0.004	55	70
Erskine	6	2.6	472	0.674	0.812	0.051	0.005	70	95
Vassar	4	2.9	751	0.424	0.511	0.048	0.007	90	125
Stephens	2	3.5	1194	0.266	0.320	0.045	0.009	120	165
Ramapo	2	3.5	1194	0.266	0.320	0.045	0.009	120	165
Brenau	1/0	5.5	1900	0.167	0.201	0.044	0.011	160	215
Bergen	1/0	5.5	1900	0.167	0.201	0.044	0.011	160	215
Converse	2/0	6.0	2395	0.133	0.159	0.043	0.012	180	245
Hunter	2/0	6.0	2395	0.133	0.159	0.043	0.012	180	245
Hollins	3/0	6.5	3020	0.105	0.126	0.042	0.014	205	280
Rockland	3/0	6.5	3020	0.105	0.126	0.042	0.014	205	280
Sweetbriar	4/0	7.1	3808	0.084	0.100	0.041	0.016	240	315
Monmouth	4/0	7.1	3808	0.084	0.100	0.041	0.016	240	315
Pratt	250	7.9	4500	0.071	0.086	0.041	0.017	265	345
Wesleyan	350	9.0	6300	0.050	0.062	0.040	0.020	320	415
Gloucester	350	9.0	6300	0.050	0.062	0.040	0.020	320	415
Holyoke	500	9.6	9000	0.035	0.044	0.039	0.025	395	495
Rider	500	12.7	9000	0.035	0.044	0.039	0.025	395	495
Fairfield	750	13.9	13500	0.024	0.031	0.038	0.031	495	620

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.

