

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

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

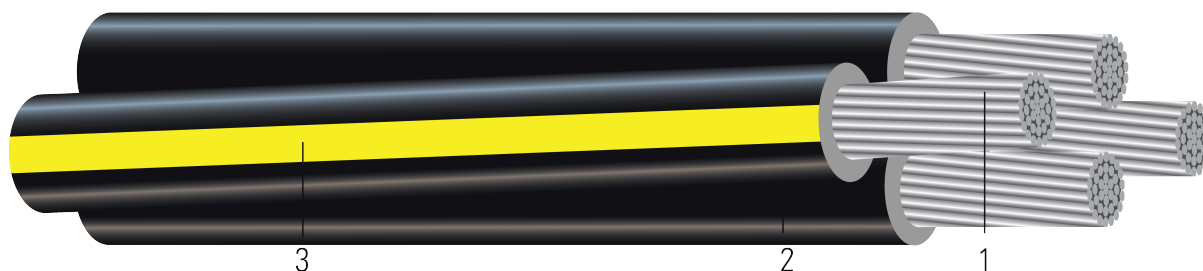


Image not to scale. See Table 1 for dimensions.

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)

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. Three-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. 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



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	Tulsa	4	7	0.225	60	0.345	4	7	60	0.345	0.833	255
TBA	Dyke	2	7	0.282	60	0.403	4	7	60	0.345	0.973	342
TBA	Wittenberg	2	7	0.282	60	0.403	2	7	60	0.403	0.973	378
308593	Notre Dame	1/0	9	0.361	80	0.512	2	7	60	0.403	1.236	534
TBA	Purdue	1/0	9	0.361	80	0.512	1/0	9	80	0.512	1.236	589
308619	Syracuse	2/0	11	0.405	80	0.555	1	9	80	0.473	1.340	657
TBA	Lafayette	2/0	11	0.405	80	0.555	2/0	11	80	0.555	1.340	713
308635	Swarthmore	3/0	17	0.456	80	0.603	1/0	9	80	0.512	1.456	798
TBA	Davidson	3/0	17	0.456	80	0.603	3/0	17	80	0.603	1.456	868
308650	Wake Forest	4/0	18	0.512	80	0.658	2/0	11	80	0.555	1.588	972
TBA	Earlham	4/0	18	0.512	80	0.658	4/0	18	80	0.658	1.588	1062
308676	Slippery Rock	350	30	0.661	95	0.658	4/0	18	80	0.658	2.006	1531
TBA	Morehouse	500	34	0.789	95	0.956	300	37	95	0.784	2.313	2542
TBA	Westminster	750	61	0.968	110	1.158	350	30	95	0.831	2.502	3691
662890		750	61	0.968	110	1.159	4/0	18	80	0.658	2.798	2852

All dimensions are nominal and subject to normal manufacturing tolerances

Notes:

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
Tulsa	4	3.3	801	0.424	0.511	0.048	0.007	85	120
Dyke	2	3.9	1274	0.266	0.320	0.045	0.009	115	155
Wittenberg	2	3.9	1274	0.266	0.320	0.045	0.009	115	155
Notre Dame	1/0	6.2	2027	0.167	0.201	0.044	0.011	150	200
Purdue	1/0	6.2	2027	0.167	0.201	0.044	0.011	150	200
Syracuse	2/0	6.7	2555	0.133	0.159	0.043	0.012	170	225
Lafayette	2/0	6.7	2555	0.133	0.159	0.043	0.012	170	225
Swarthmore	3/0	7.3	3221	0.105	0.126	0.042	0.014	195	250
Davidson	3/0	7.3	3221	0.105	0.126	0.042	0.014	195	250
Wake Forest	4/0	7.9	4062	0.084	0.100	0.041	0.016	225	290
Earlham	4/0	7.9	4062	0.084	0.100	0.041	0.016	225	290
Slippery Rock	350	12.0	6720	0.050	0.062	0.040	0.020	305	385
Morehouse	500	13.9	9600	0.035	0.044	0.039	0.025	370	465
Westminster	750	15.0	14400	0.024	0.031	0.038	0.031	470	580
	750	16.8	14400	0.024	0.031	0.038	0.031	470	580

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.

