



Single 600 Volt USE-2 Aluminum 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) Type USE-2

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APPLICATIONS AND FEATURES:

Conductors are stranded, compressed 1350-H16/H26 (3/4 Hard) aluminum, insulated with cross-linked polyethylene UL listed as Type USE-2 . 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 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-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	Approx. OD	Approx. Weight
		AWG/Kcmil	No.	inch	mil	inch	inch	lb/1000ft
154435	Princeton	6	7	0.177	60	0.297	0.298	43
105437	Mercer	4	7	0.225	60	0.345	0.344	62
105445!	Clemson	2	7	0.282	60	0.402	0.403	90
105452!	Kenyon	1	9	0.322	80	0.482	0.473	121
105460!	Harvard	1/0	9	0.361	80	0.521	0.512	146
105478!	Yale	2/0	11	0.405	80	0.565	0.555	176
105486!	Tufts	3/0	17	0.456	80	0.616	0.603	213
105494!	Beloit	4/0	18	0.512	80	0.672	0.658	261
161877!	Hofstra	250	22	0.558	95	0.748	0.726	315
105502	Gonzaga	300	37	0.610	95	0.800	0.784	368
105510!	Rutgers	350	30	0.661	95	0.851	0.831	422
105528!	Emory	500	34	0.789	95	0.979	0.950	576
245480	Emory	500	37	0.789	95	0.979	0.956	579
105536	Duke	600	61	0.865	110	1.085	1.086	704
105551	Sewanee	750	55	0.968	110	1.188	1.159	854

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
 ! Conductor is 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	Allowable Ampacity in Duct 90°C
	AWG/Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp
Princeton	6	1.2	157	0.674	0.812	0.051	50 / 55
Mercer	4	1.4	250	0.424	0.511	0.048	65 / 75
Clemson	2	1.6	398	0.266	0.320	0.045	90 / 100
Kenyon	1	1.9	502	0.211	0.254	0.046	100 / 115
Harvard	1/0	2.0	633	0.167	0.201	0.044	120 / 135
Yale	2/0	2.2	798	0.133	0.159	0.043	135 / 150
Tufts	3/0	2.4	1006	0.105	0.126	0.042	155 / 175
Beloit	4/0	2.6	1269	0.084	0.100	0.041	180 / 205
Hofstra	250	2.9	1500	0.071	0.086	0.041	205 / 230
Gonzaga	300	3.1	1800	0.059	0.071	0.041	230 / 260
Rutgers	350	3.3	2100	0.050	0.062	0.040	250 / 280
Emory	500	3.8	3000	0.035	0.044	0.039	310 / 350
Emory	500	3.8	3000	0.035	0.044	0.039	310 / 350
Duke	600	5.4	3600	0.029	0.037	0.039	340 / 385
Sewanee	750	5.8	4500	0.024	0.031	0.038	385 / 435

Ampacities are based on Table 310.15 (B)(16) of the NEC, 2017 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts, based on ambient temperature of 30°C (86°F)

