

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



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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	Approx. OD	Approx. Weight
		AWG/Kcmil	No.	inch	mil	inch	lb/1000ft
154435	Princeton	6	7	0.177	60	0.298	44
105437	Mercer	4	7	0.225	60	0.345	62
105445!	Clemson	2	6	0.282	60	0.403	91
105452!	Kenyon	1	9	0.322	80	0.473	122
105460!	Harvard	1/0	9	0.361	80	0.512	146
105478!	Yale	2/0	11	0.405	80	0.555	177
105486!	Tufts	3/0	17	0.456	80	0.603	214
105494!	Beloit	4/0	18	0.512	80	0.658	261
161877!	Hofstra	250	22	0.558	95	0.732	317
105502	Gonzaga	300	37	0.61	95	0.784	368
105510!	Rutgers	350	30	0.661	95	0.831	422
105528!	Emory	500	34	0.789	95	0.956	578
245480	Emory	500	37	0.789	95	0.956	579
105536	Duke	600	61	0.865	110	1.086	704
105551	Sewanee	750	61	0.968	110	1.159	856

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

