Quad Parallel 600 Volt USE-2 Underground Service Entrance

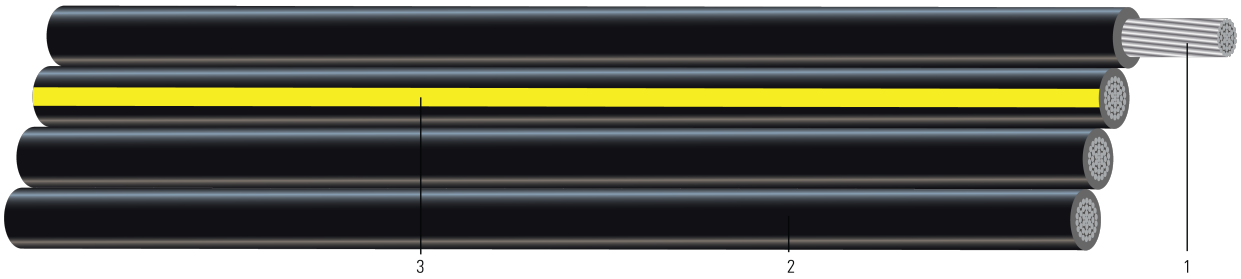

Image not to scale. See Table 1 for dimensions.

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)

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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. Three-phase conductors and one neutral conductor are quad paralleled. 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 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)*
- 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	Neutral Cond. Size	Neutral Strand	Neutral Insul. Thickness	Approx. OD	Approx. Weight
		AWG/ Kcmil	No.	inch	mil	inch	AWG/Kcmil	No.	mil	inch	lb/1000ft
TBA	Aims	4	7	0.225	60	0.345	4	6	60	0.837	304
TBA	Goshen	2	7	0.282	60	0.402	2	6	60	0.975	418
TBA	Linfield	2	7	0.282	60	0.402	4	6	60	0.975	441
TBA	Kellogg	1/0	19	0.361	80	0.521	1/0	7	80	1.263	683
TBA	Cerritos	1/0	19	0.361	80	0.521	2	6	60	1.263	719
TBA	Itasca	2/0	19	0.405	80	0.565	2/0	11	80	1.369	824
TBA	Avila	2/0	19	0.405	80	0.565	1	7	80	1.369	869
TBA	Carlow	3/0	19	0.456	80	0.616	3/0	15	80	1.493	1000
TBA	Laney	3/0	19	0.456	80	0.616	1/0	7	80	1.493	1061
TBA	Hiwassee	4/0	19	0.512	80	0.672	4/0	17	80	1.628	1216
TBA	Alfred	4/0	19	0.512	80	0.672	2/0	11	80	1.628	1288
TBA	Joliet	350	37	0.661	95	0.851	4/0	17	80	2.061	1961
TBA	Sullins	500	37	0.789	95	0.979	300	18	95	2.371	2680
TBA	Wilkes	750	61	0.968	110	1.188	350	24	95	2.877	3954

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	Allowable Ampacity in Duct 90°C
	AWG/Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp
Aims	4	3.3	801	0.424	0.511	0.048	52 / 60
Goshen	2	3.9	1274	0.266	0.320	0.045	72 / 80
Linfield	2	3.9	1274	0.266	0.320	0.045	72 / 80
Kellogg	1/0	6.3	2027	0.167	0.201	0.044	96 / 108
Cerritos	1/0	6.3	2027	0.167	0.201	0.044	96 / 108
Itasca	2/0	6.8	2555	0.133	0.159	0.043	108 / 120
Avila	2/0	6.8	2555	0.133	0.159	0.043	108 / 120
Carlow	3/0	7.5	3221	0.105	0.126	0.042	124 / 140
Laney	3/0	7.5	3221	0.105	0.126	0.042	124 / 140
Hiwassee	4/0	8.1	4062	0.084	0.100	0.041	144 / 164
Alfred	4/0	8.1	4062	0.084	0.100	0.041	144 / 164
Joliet	350	12.4	6720	0.050	0.062	0.040	200 / 224
Sullins	500	14.2	9600	0.035	0.044	0.039	248 / 280
Wilkes	750	17.3	14400	0.024	0.031	0.038	308 / 348

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.