Quadruplex 600 Volt USE-2 Underground Service Entrance

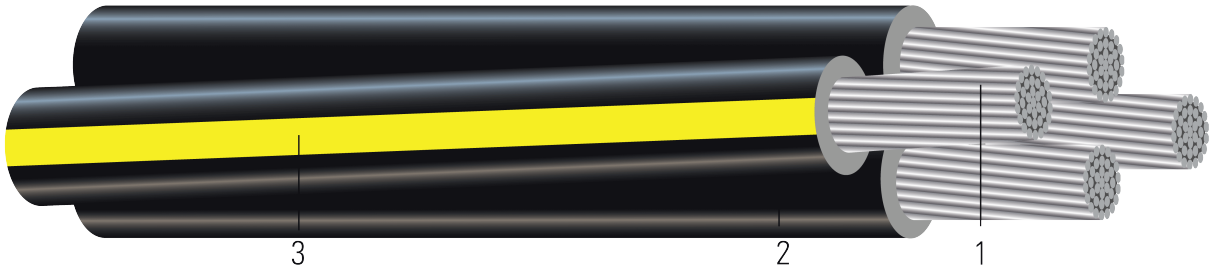

Image not to scale. See Table 1 for dimensions.

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 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 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

SAMPLE PRINT LEGEND:

SOUTHWIRE E32071 {UL} AWG XX AL TYPE USE-2 XX MILS XLP INSULATION 600 VOLTS {MMM/DD/YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET.

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
274332	Tulsa	4	7	0.225	60	0.345	0.831	250
274340	Dyke	2	7	0.282	60	0.402	0.972	337
274357	Wittenberg	2	7	0.282	60	0.402	0.972	366
274365	Notre Dame	1/0	9	0.361	80	0.521	1.235	534
274373	Purdue	1/0	9	0.361	80	0.521	1.235	590
274381	Syracuse	2/0	11	0.405	80	0.565	1.339	659
274399	Lafayette	2/0	11	0.405	80	0.565	1.339	714
274407	Swarthmore	3/0	17	0.456	80	0.616	1.455	795
274415	Davidson	3/0	17	0.456	80	0.616	1.455	863
274423	Wake Forest	4/0	18	0.512	80	0.672	1.588	970
274431	Earlham	4/0	18	0.512	80	0.672	1.588	1055
340844	Niagara	350	30	0.661	95	0.851	2.006	1705
274902	Slippery Rock	350	30	0.661	95	0.851	2.006	1542
303727	Wofford	500	37	0.789	95	0.979	2.293	2174
144048	Westminster	750	55	0.968	110	1.188	2.797	3014

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	Neutral Rated Breaking Strength	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
Tulsa	4	3.3	801	0.424	0.511	0.048	52 / 60
Dyke	2	3.9	1274	0.266	0.320	0.045	72 / 80
Wittenberg	2	3.9	1274	0.266	0.320	0.045	72 / 80
Notre Dame	1/0	6.2	2027	0.167	0.201	0.044	96 / 108
Purdue	1/0	6.2	2027	0.167	0.201	0.044	96 / 108
Syracuse	2/0	6.7	2555	0.133	0.159	0.043	108 / 120
Lafayette	2/0	6.7	2555	0.133	0.159	0.043	108 / 120
Swarthmore	3/0	7.3	3221	0.105	0.126	0.042	124 / 140
Davidson	3/0	7.3	3221	0.105	0.126	0.042	124 / 140
Wake Forest	4/0	7.9	4062	0.084	0.100	0.041	144 / 164
Earlham	4/0	7.9	4062	0.084	0.100	0.041	144 / 164
Niagara	350	12.0	6720	0.050	0.062	0.040	200 / 224
Slippery Rock	350	12.0	6720	0.050	0.062	0.040	200 / 224
Wofford	500	13.8	9600	0.035	0.044	0.039	248 / 280
Westminster	750	16.8	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.