# Quadruplex 600 Volt RHH/RHW-2 or USE-2 AlumaFlex Underground Service Entrance



# **CONSTRUCTION:**

- 1. **Conductor**: Conductors are stranded, compressed Triple E AA8000 (8176-H24)
- 2. Insulation: Cross Linked Polyethylene (XLPE) Type RHH/RHW-2 or USE-2
- 3. **Neutral**: Cross Linked Polyethylene (XLPE) with three Yellow Extruded Stripes (YES)

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## **APPLICATIONS AND FEATURES:**

Conductors are stranded, compressed aluminum Triple E AA8000 (8176-H24), insulated with cross-linked polyethylene Type RHH/RHW-2 or USE-2. 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.

### **SPECIFICATIONS:**

- ASTM B801 Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy
- UL 44 Thermoset-Insulated Wires and Cables
- 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	Tulsa	4	7	0.225	60	0.345	4	6	60	0.837	304
TBA	Dyke	2	7	0.282	60	0.402	4	6	60	0.975	418
TBA	Wittenberg	2	7	0.282	60	0.402	2	6	60	0.975	441
TBA	Notre Dame	1/0	19	0.361	80	0.521	2	6	60	1.263	683
TBA	Purdue	1/0	19	0.361	80	0.521	1/0	7	80	1.263	719
TBA	Syracuse	2/0	19	0.405	80	0.565	1	7	80	1.369	824
TBA	Lafayette	2/0	19	0.405	80	0.565	2/0	11	80	1.369	869
TBA	Swarthmore	3/0	19	0.456	80	0.616	1/0	7	80	1.493	1000
TBA	Davidson	3/0	19	0.456	80	0.616	3/0	15	80	1.493	1061
606898^	Wake Forest	4/0	18	0.512	80	0.672	2/0	11	80	1.588	977
691964	Wake Forest	4/0	18	0.512	80	0.672	2/0	11	80	1.607	1019
TBA	Earlham	4/0	19	0.512	80	0.672	4/0	17	80	1.628	1288
341974^	Slippery Rock	350	30	0.661	95	0.851	4/0	17	80	2.006	1547
TBA	Morehouse	500	37	0.789	95	0.979	300	18	95	2.371	2680
TBA	Westminster	750	61	0.968	110	1.188	350	24	95	2.877	3954

All dimensions are nominal and subject to normal manufacturing tolerances

#### Notes:

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.



<sup>^</sup> HI-SCORE: Medium Density Polyethylene Insulation

<sup>1.</sup> 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 or Buried 75/90°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	6.3	2027	0.167	0.201	0.044	96 / 108
Purdue	1/0	6.3	2027	0.167	0.201	0.044	96 / 108
Syracuse	2/0	6.8	2555	0.133	0.159	0.043	108 / 120
Lafayette	2/0	6.8	2555	0.133	0.159	0.043	108 / 120
Swarthmore	3/0	7.5	3221	0.105	0.126	0.042	124 / 140
Davidson	3/0	7.5	3221	0.105	0.126	0.042	124 / 140
Wake Forest	4/0	7.9	4062	0.084	0.100	0.041	144 / 164
Wake Forest	4/0	8.0	4062	0.084	0.100	0.041	144 / 164
Earlham	4/0	8.1	4062	0.084	0.100	0.041	144 / 164
Slippery Rock	350	12.0	6720	0.050	0.062	0.040	200 / 224
Morehouse	500	14.2	9600	0.035	0.044	0.039	248 / 280
Westminster	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. Conductors assumed to be reverse lay stranded, compressed construction.
- 3. Phase spacing assumes cables are touching.
- 4. Resistances shown are for the phase conductors only.
- 5. 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)

