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



Image not to scale. See Table 1 for dimensions.

#### **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-Lav-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









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**SPEC 83048** Stock #: TBA

## **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	Dia. Over Neutral Insulation	Approx. OD	Approx. Weight
		AWG/ Kcmil	No.	inch	mil	inch	AWG/ Kcmil	No.	mil	inch	inch	lb/1000ft
TBA	Swarthmore	3/0	17	0.456	80	0.603	1/0	9	80	0.512	1.456	798

All dimensions are nominal and subject to normal manufacturing tolerances

Notes:

## **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	GMR	Allowable Ampacity in Duct 90°C	Allowable Ampacity Directly Buried 90°C
	AWG/ Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	ft	Amp	Amp
Swarthmore	3/0	7.3	3221	0.105	0.126	0.042	0.014	175	175

#### 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)









<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