AL 2000V XLPE Insulation. RHH/RHW-2 PV

Single Conductor Photovoltaic (Type PV) Power Cable 2000 Volt Aluminum Conductor XLPE Insulation. Sizes 6 AWG through 1000 kcmil. Heat, Moisture, and Sunlight Resistant RoHS. 90°C

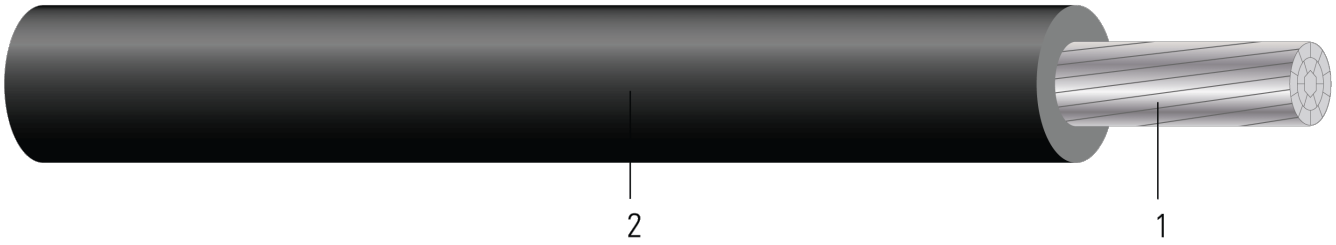

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** AlumaFlex® Compact Stranded Aluminum Alloy (AA-8176)
2. **Insulation:** Cross-linked Polyethylene (XLPE)

APPLICATIONS AND FEATURES:

The cable is available in sizes 6 AWG through 1000 kcmil. The product is approved for use in solar power applications per the NEC article 690 and is rated 90°C for exposed or concealed wiring in wet or dry locations. Individual conductors are stranded aluminum alloy covered with a cross-linked polyethylene (XLPE) insulation and is rated for direct burial. The cable is sunlight resistant, oil resistant PRI and PRII, RoHS compliant, passes -40°C cold bend. 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 B836 Compact Rounded Stranded Aluminum Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 4703 Standard for Photovoltaic Wire
- Made in America: Compliant with both Buy American and Buy America Act (BAA) requirements per 49 U.S.C. § 5323(j) and the Federal Transit Administration Buy America requirements per 49 C.F.R. part 661
- VW-1 Vertical-Wire Flame Test (Optional)
- AA 8176 Stranded Aluminum Alloy Conductors

SAMPLE PRINT LEGEND:

SOUTHWIRE E316464 {UL} PV WIRE XXX KCMIL (XXX.XXX{mm2}) COMPACT AL. --- AlumaFlex® AA8176 2000V 90°C WET OR DRY -40°C SUN RES DIRECT BURIAL OR RHH-RHW-2 2000V --- RoHS {MMM/DD/YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

Table 1 – Weights and Measurements

Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Insulation Color	Approx. OD	Aluminum Weight	Approx. Weight	Jacket Color
AWG/ Kcmil		No. of Strands	inch	mil		inch	lb/1000ft	lb/1000ft	
500	1	34	0.735	120	BK	0.978	471	615	BK

All dimensions are nominal and subject to normal manufacturing tolerances

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◊ Cable marked with this symbol is a standard stock item
* Strand count meets minimum number per ASTM
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.

Table 2 – Electrical and Engineering Data

Cond. Size	Cond. Number	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
AWG/ Kcmil		inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
500	1	3.9	3000	0.035	0.044	0.039	310	350

***** Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.
***** Inductive Reactance is based on non-ferrous conduit with one diameter spacing center-to-center.

Stock Codes and Colors

Size	Black	Brown	Orange	Yellow	White	Red	Green
AWG/ Kcmil							
6	585843						
4	586673						
2	586672						589171
1	619879						589051
1/0	591256				591241		
2/0	583673						
3/0	577100	669515	669516	669517	577843		669518
4/0	583678				597698	607400	591242
250	577101				577844	668535	
300	584290				589170	675225	
350	582174				597996	592618	
400	584291				596689	652801	
500	582267	591243	591244	591245	586671	588797	591246
600	585499				591247	588799	
700	607592	591248	591249	591250			
750						592619	
1000	641387				641386		

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