

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

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

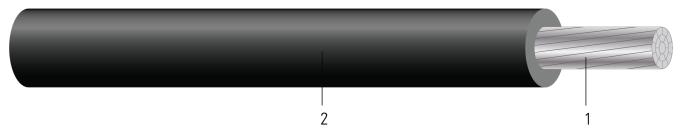


Image not to scale. See Table 1 for dimensions.

#### **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.

#### **SPECIFICATIONS:**

- ASTM B836 Compact Rounded Stranded Aluminum Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 854 Service Entrance Cable
- 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.<br>Number | Strand Count      | Diameter Over<br>Conductor | Insul.<br>Thickness | Insulation<br>Color | Approx.<br>OD | Aluminum<br>Weight | Approx.<br>Weight | Jacket<br>Color |
|---------------|-----------------|-------------------|----------------------------|---------------------|---------------------|---------------|--------------------|-------------------|-----------------|
| AWG/<br>Kcmil |                 | No. of<br>Strands | inch                       | mil                 |                     | inch          | lb/1000ft          | lb/1000ft         |                 |
| 4/0           | 1               | 19                | 0.474                      | 105                 | BK                  | 0.685         | 199                | 284               | BK              |

All dimensions are nominal and subject to normal manufacturing tolerances

♦ Cable marked with this symbol is a standard stock item





<sup>\*</sup> 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.<br>Size | Cond.<br>Number | Min Bending<br>Radius | Max Pull<br>Tension | DC Resistance @<br>25°C | AC Resistance @<br>75°C | Inductive Reactance<br>@ 60Hz | Allowable Ampacity<br>At 75°C | Allowable Ampacity<br>At 90°C |
|---------------|-----------------|-----------------------|---------------------|-------------------------|-------------------------|-------------------------------|-------------------------------|-------------------------------|
| AWG/<br>Kcmil |                 | inch                  | lb                  | Ω/1000ft                | Ω/1000ft                | Ω/1000ft                      | Amp                           | Amp                           |
| 4/0           | 1               | 2.7                   | 1269                | 0.084                   | 0.100                   | 0.041                         | 180                           | 205                           |

<sup>\*</sup> Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.

### **Stock Codes and Colors**

| Size          | Black  | Brown  | Orange | Yellow | White  | Red    | Green  |
|---------------|--------|--------|--------|--------|--------|--------|--------|
| AWG/<br>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 |        |
| 750           | 586013 |        |        |        | 589375 | 592619 | ·      |
| 1000          | 641387 |        |        |        | 641386 |        |        |



<sup>\*</sup> Inductive Reactance is based on non-ferrous conduit with one diameter spacing center-to-center.