



## 2000 Volt High Flex Copper Type PV

Single Conductor Photovoltaic (Type PV) Power Cable 2000 Volt Copper Conductor XLPE Insulation. Heat, Moisture, Sunlight Resistant RoHS. 90°C



Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

- Conductor:** Flexible stranded bare copper per ASTM B3 and ASTM B173 or flexible tinned copper per ASTM B33.
- Insulation:** Cross Linked Polyethylene (XLPE).

### APPLICATIONS AND FEATURES:

Southwire's 2000 Volt power cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, aerial supported by a messenger, and where superior electrical properties are desired. 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 B3 Soft or Annealed Copper Wire
- ASTM B173 Rope-Lay-Stranded Copper Conductors Having Concentric-Stranded Members
- 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

### SAMPLE PRINT LEGEND:

SOUTHWIRE E316464 {UL} PV WIRE XX AWG (XXX.XX{mm<sup>2</sup>}) CU 2000V 90°C WET OR DRY -40°C SUN RES DIRECT BURIAL VW-1 OR RHW-2 2000V --- RoHS {MMM/DD/YYYY}

**Table 1 – Weights and Measurements**

| Cond. Size<br>AWG/Kcmil | Cond. Number | Strand Count<br>No. of Strands | Diameter Over Conductor<br>inch | Insul. Thickness<br>mil | Jacket Thickness<br>mil | Approx. OD<br>inch | Copper Weight<br>lb/1000ft | Approx. Weight<br>lb/1000ft |
|-------------------------|--------------|--------------------------------|---------------------------------|-------------------------|-------------------------|--------------------|----------------------------|-----------------------------|
| 8                       | 1            | 54                             | 0.145                           | 85                      | 85                      | 0.326              | 52                         | 90                          |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item








**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/<br>Kcmil |              | inch               | lb               | Ω/1000ft             | Ω/1000ft             | Ω/1000ft                   | Amp                        | Amp                        |
| 8             | 1            | 1.3                | 132              | 0.679                | 0.818                | 0.052                      | 50                         | 55                         |

\* 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 Code Colors**

| Size    | Black   | Red   | White   |
|---------|---|---|---|
|         |  |  |  |
| 8 (49)  | 664694  | 664709  | 668032  |
| 8 (54)  | 668048  | 668051  |   |
| 6 (133) | 668079  |   |   |

