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:

1. **Conductor:** Flexible stranded bare copper per ASTM B3 and ASTM B173 or flexible tinned copper per ASTM B33.
2. **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{mm2}) 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

Stock Number	Cond. Size	Strand Count	Diameter Over Conductor	Insul. Thickness	Insulation Color	Dia. Over Insulation	Approx. OD	Copper Weight	Approx. Weight	Jacket Color
	AWG/ Kcmil	No. of Strands	inch	mil		inch	inch	lb/1000ft	lb/1000ft	
668048	8	54	0.145	85	BK	0.315	0.326	52	90	BK
664694	8	49	0.166	85	BK	0.336	0.326	53	91	BK
458007	6	49	0.208	85	RD	0.378	0.359	89	135	BK
668079	6	133	0.21	85	BK	0.38	0.36	82	129	BK

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

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Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	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
668048	8	1.3	132	0.654	0.812	0.052	50	55
664694	8	1.3	132	0.701	0.87	0.052	50	55
458007	6	1.4	209	0.431	0.535	0.051	65	75
668079	6	1.4	209	0.446	0.554	0.051	65	75

* 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 (Strand)	Black	Red	White	Green
8 (49)	664694	664709	668032	
8 (54)	668048	668051		
6 (49)	458006	458007		457937
6 (133)	668079	457051		

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