

2000 Volt Copper Type PV

Single Conductor Photovoltaic (Type PV) Power Cable 2000 Volt Copper Conductor XLPE Insulation. Sizes 12 AWG through 1000 Kcmil. Heat, Moisture, Sunlight Resistant RoHS. 90°C

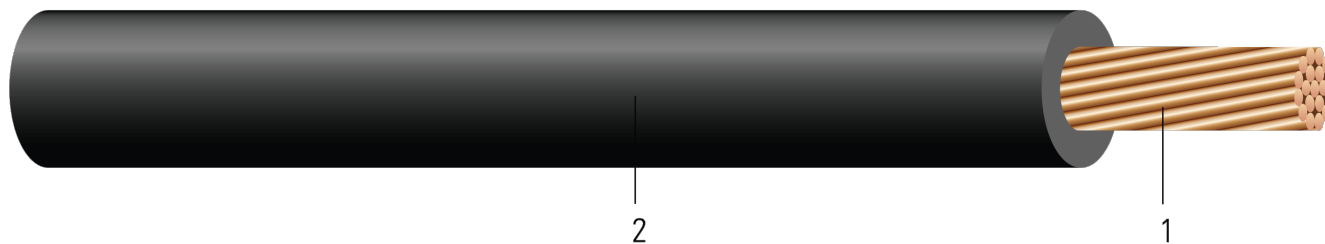


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
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. For uses in Class I, II, and III, Division 2 hazardous locations per NEC Article 501 and 502.

SPECIFICATIONS:

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 4703 Standard for Photovoltaic Wire
- VW-1 Vertical-Wire Flame Test (Optional)

SAMPLE PRINT LEGEND:

SOUTHWIRE E316464 MASTER-DESIGN {UL} PV WIRE XX AWG (XXX.XX{mm²}) CU 2000V 90{D}C WET OR DRY -40{D}C SUN RES DIRECT BURIAL VW-1 OR RHW-2 2000V --- RoHS {MMM/DD/YYYY}



Table 1 – Weights and Measurements

Stock Number	Cond. Size AWG/Kcmil	Diameter Over Conductor inch	Insul. Thickness mil	Approx. OD inch	Copper Weight lb/1000ft	Approx. Weight lb/1000ft
597958	12	0.087	75	0.243	20	40
579962	10	0.113	75	0.263	32	53
569037	8	0.139	85	0.313	51	80
569039	6	0.174	85	0.349	81	113
569040	4	0.221	85	0.395	129	167
569041	2	0.277	85	0.456	205	251
569042	1	0.321	105	0.531	258	323
569043	1/0	0.360	105	0.57	326	396
569044	2/0	0.404	105	0.614	411	489
578298	3/0	0.454	105	0.664	518	604
TBA	4/0	0.510	105	0.705	653	749
TBA	250	0.558	120	0.783	772	891
590138	350	0.661	120	0.901	1081	1219
578324	500	0.789	120	1.03	1544	1706
TBA	600	0.866	135	1.12	1853	2051
TBA	750	0.968	135	1.263	2316	2534
TBA	1000	1.117	135	1.402	3088	3336

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

Stock Number	Cond. Size AWG/ Kcmil	Min Bending Radius inch	Max Pull Tension lb	DC Resistance @ 25°C Ω/1000ft	AC Resistance @ 90°C Ω/1000ft	Inductive Reactance @ 60Hz Ω/1000ft	Shield Short Circuit Current 6 Cycles Amp	Allowable Ampacity At 60°C† Amp	Allowable Ampacity At 75°C† Amp	Allowable Ampacity At 90°C† Amp
597958	12	1.9	40	1.660	2.075	0.045	1087	20	20	20
579962	10	2.1	83	1.040	1.300	0.033	2361	30	30	30
569037	8	2.2	132	0.652	0.815	0.038	3754	40	50	55
569039	6	2.5	210	0.411	0.514	0.035	5966	55	65	75
569040	4	2.9	334	0.258	0.323	0.033	9491	70	85	95
569041	2	3.3	531	0.162	0.203	0.031	15089	95	115	130
569042	1	4.0	670	0.129	0.161	0.032	19029	110	130	145
569043	1/0	4.3	845	0.102	0.128	0.031	24011	125	150	170
569044	2/0	4.7	1065	0.081	0.102	0.030	30264	145	175	195
578298	3/0	5.1	1342	0.064	0.081	0.029	38154	165	200	225
TBA	4/0	5.5	1693	0.051	0.064	0.029	48114	195	230	260
TBA	250	6.1	2000	0.043	0.055	0.029	56845	215	255	290
590138	350	7.0	2800	0.031	0.040	0.028	79583	260	310	350
578324	500	8.0	4000	0.022	0.028	0.027	113690	320	380	430
TBA	600	8.8	4800	0.018	0.024	0.027	136428	350	420	475
TBA	750	9.7	6000	0.014	0.020	0.027	170535	400	475	535
TBA	1000	10.9	8000	0.011	0.016	0.026	227380	455	545	615



† 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)

