



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

Single Conductor Photovoltaic (Type PV) Power Cable 2000 Volt Copper Conductor XLPE Insulation. Sizes 14 AWG through 1000 Kcmil. Heat, Moisture, Sunlight Resistant RoHS. 90°C



Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

1. **Conductor:** Stranded bare copper per ASTM B3 and ASTM B8 or ASTM B787
2. **Insulation:** Cross Linked Polyethylene (XLPE). Colors available upon request.

### 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 B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B787 19 Wire Combination Unilay-Stranded Copper 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)

### SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE E316464 {UL} PV WIRE XX AWG (XX.X{MM2}) CU 2000V 90{D}C WET OR DRY -40{D}C SUN RES DIRECT BURIAL OR RHH-RHW-2 2000V --- RoHS





**Table 1 – Weights and Measurements**

| Stock Number | Cond. Size<br>AWG/Kcmil | Strand Count<br>No. of Strands | Diameter Over Conductor<br>inch | Insul. Thickness<br>mil | Approx. OD<br>inch | Copper Weight<br>lb/1000ft | Approx. Weight<br>lb/1000ft |
|--------------|-------------------------|--------------------------------|---------------------------------|-------------------------|--------------------|----------------------------|-----------------------------|
| 597961       | 14                      | 19                             | 0.073                           | 75                      | 0.224              | 12                         | 29                          |
| 597958       | 12                      | 19                             | 0.088                           | 75                      | 0.243              | 20                         | 39                          |
| 579962       | 10                      | 19                             | 0.113                           | 75                      | 0.263              | 32                         | 53                          |
| 569037*      | 8                       | 19                             | 0.141                           | 85                      | 0.313              | 50                         | 79                          |
| 569039*      | 6                       | 19                             | 0.177                           | 85                      | 0.349              | 81                         | 114                         |
| 569040*      | 4                       | 19                             | 0.225                           | 85                      | 0.396              | 128                        | 168                         |
| 569041*      | 2                       | 19                             | 0.282                           | 85                      | 0.456              | 204                        | 250                         |
| TBA          | 1                       | 19                             | 0.322                           | 105                     | 0.532              | 258                        | 331                         |
| 569043       | 1/0                     | 19                             | 0.361                           | 105                     | 0.570              | 326                        | 396                         |
| 569044       | 2/0                     | 19                             | 0.405                           | 105                     | 0.614              | 410                        | 488                         |
| 569045       | 3/0                     | 19                             | 0.456                           | 105                     | 0.664              | 518                        | 604                         |
| 569047       | 4/0                     | 19                             | 0.512                           | 105                     | 0.720              | 655                        | 750                         |
| 679559       | 250                     | 37                             | 0.558                           | 120                     | 0.782              | 771                        | 879                         |
| 653096       | 300                     | 37                             | 0.610                           | 120                     | 0.851              | 926                        | 1051                        |
| 590138       | 350                     | 37                             | 0.661                           | 120                     | 0.901              | 1080                       | 1215                        |
| 587813       | 400                     | 37                             | 0.706                           | 120                     | 0.946              | 1235                       | 1378                        |
| 578324       | 500                     | 37                             | 0.789                           | 120                     | 1.006              | 1543                       | 1685                        |
| 672530       | 600                     | 61                             | 0.865                           | 135                     | 1.136              | 1852                       | 2042                        |
| TBA          | 750                     | 61                             | 0.968                           | 135                     | 1.238              | 2316                       | 2560                        |
| 457200       | 1000                    | 61                             | 1.117                           | 135                     | 1.387              | 3088                       | 3325                        |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

\*VW-1 Rated





**Table 2 – Electrical and Engineering Data**

| Stock Number | Cond. Size | Min Bending Radius | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity At 75°C | Allowable Ampacity At 90°C |
|--------------|------------|--------------------|----------------------|----------------------|----------------------------|----------------------------|----------------------------|
|              | AWG/Kcmil  | inch               | Ω/1000ft             | Ω/1000ft             | Ω/1000ft                   | Amp                        | Amp                        |
| 597961       | 14         | 0.9                | 2.631                | 3.170                | 0.058                      | 20                         | 25                         |
| 597958       | 12         | 1.0                | 1.662                | 2.002                | 0.054                      | 25                         | 30                         |
| 579962       | 10         | 1.1                | 1.040                | 1.253                | 0.050                      | 35                         | 40                         |
| 569037*      | 8          | 1.3                | 0.653                | 0.786                | 0.052                      | 50                         | 55                         |
| 569039*      | 6          | 1.4                | 0.411                | 0.495                | 0.051                      | 65                         | 75                         |
| 569040*      | 4          | 1.6                | 0.258                | 0.310                | 0.048                      | 85                         | 95                         |
| 569041*      | 2          | 1.8                | 0.162                | 0.195                | 0.045                      | 115                        | 130                        |
| TBA          | 1          | 2.1                | 0.128                | 0.154                | 0.046                      | 130                        | 145                        |
| 569043       | 1/0        | 2.3                | 0.102                | 0.122                | 0.044                      | 150                        | 170                        |
| 569044       | 2/0        | 2.5                | 0.081                | 0.097                | 0.043                      | 175                        | 195                        |
| 569045       | 3/0        | 2.7                | 0.064                | 0.078                | 0.042                      | 200                        | 225                        |
| 569047       | 4/0        | 2.9                | 0.051                | 0.062                | 0.041                      | 230                        | 260                        |
| 679559       | 250        | 3.1                | 0.043                | 0.053                | 0.041                      | 255                        | 290                        |
| 653096       | 300        | 3.4                | 0.036                | 0.045                | 0.041                      | 285                        | 320                        |
| 590138       | 350        | 3.6                | 0.031                | 0.039                | 0.040                      | 310                        | 350                        |
| 587813       | 400        | 3.8                | 0.027                | 0.035                | 0.028                      | 335                        | 380                        |
| 578324       | 500        | 5.0                | 0.022                | 0.029                | 0.039                      | 380                        | 430                        |
| 672530       | 600        | 5.7                | 0.018                | 0.025                | 0.039                      | 420                        | 475                        |
| TBA          | 750        | 6.2                | 0.014                | 0.022                | 0.038                      | 475                        | 535                        |
| 457200       | 1000       | 6.9                | 0.011                | 0.018                | 0.037                      | 545                        | 615                        |

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.

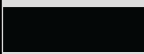
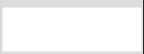



**Stock Code Colors**

| Size      | Black  | White  | Red    | Green | Green/Yellow |
|-----------|--------|--------|--------|-------|--------------|
| AWG/Kcmil |        |        |        |       |              |
| 14        | 597961 |        |        |       |              |
| 12        | 597958 | 596376 | 596377 |       |              |
| 10        | 579962 | 583665 | 583687 |       |              |
| 1/0       | 569043 |        |        |       | 677562       |
| 2/0       | 569044 |        |        |       |              |
| 3/0       | 569045 |        |        |       |              |
| 4/0       | 569047 |        |        |       |              |
| 250       | 679559 |        |        |       |              |
| 300       | 653096 | 599400 | 599401 |       |              |
| 350       | 590138 |        |        |       |              |
| 400       | 587813 |        |        |       |              |
| 500       | 578324 |        |        |       |              |
| 600       | 672530 |        |        |       |              |





**Stock Code Colors (VW-1)**

| Size      | Black   | White   | Red   | Green   | Green/Yellow  |
|-----------|---|---|---|---|---|
| AWG/Kcmil |  |  |  |  |  |
| 10        | 568110  |   | 577645  |   |   |
| 8         | 569037  | 585080  | 589110  |   |   |
| 6         | 569039  |   | 671956  | 585840  |   |
| 4         | 569040  | 673880  |   | 653094  |   |
| 2         | 569041  |   |   |   |   |
| 1000      | 457200  |   |   |   |   |

