

# SunGen® Photovoltaic Wire

XLPE, RHH or RHW-2

600 V, UL Type PV, Single Conductor, Aluminum



## PRODUCT CONSTRUCTION:

### Conductor:

- 6 AWG thru 2 AWG Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801
- 1 AWG thru 350 kcmil compact stranded SIW aluminum alloy (8000 Series) per ASTM B800, ASTM B801 and ASTM B836
- 400 kcmil thru 1000 kcmil Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801

### Insulation:

- Flame-retardant Cross-linked Polyethylene (XLPE)
- RHH/RHW-2 (XLPE)

### Print:

- Prysmian® (PLANT OF MFG) SIZE (AWG OR KCMIL) (MM<sup>2</sup>) COMPACT SUNGEN® AA-8030 AL XLPE 600 V RHH RHW-2 90°C SUN RES (-40°C) PV WIRE VW-1 DIR BUR (UL) YEAR DATE (TIME OF MFG) SEQUENTIAL FOOTAGE

### Options:

- Other sizes and stranding options available upon request
- CT for 1/0 AWG and larger, RHH/RHW-2
- Available in black and full color skin coat

## APPLICATIONS:

- Single conductor, sunlight-resistant, direct burial photovoltaic wire rated 90°C wet or dry, 600 V, for interconnection wiring of grounded and ungrounded photovoltaic power systems described in NEC® Article 690
- Stable electrical properties over a broad temperature range
- General purpose building wire for use primarily in conduit or other recognized raceways as specified in the National Electric Code® (NEC®)
- Maximum operating temperature not to exceed 90°C in wet or dry locations

## FEATURES:

- Oil Resistant PRI/PRII
- Gas and Oil Res GRI/GRII
- UV/sunlight-resistant, moisture-resistant and flame-retardant insulation in all colors
- Meets cold bend and cold impact tests at -40°C
- Excellent electrical, thermal and physical properties
- Resistant to crush, compression cuts and heat deformation
- Rated for direct burial

## COMPLIANCES:

### Industry Compliances:

- UL 4703 Type PV, UL File #E343277
- National Electrical Code (NEC®)

### Flame Test Compliances:

- UL 2556 Horizontal Burn
- CT UL 1685, RHH/RHW-2
- VW-1 UL 2556

### Other Compliances:

- RoHS Compliant
- OSHA Acceptable

## PACKAGING:

- Material cut to length and shipped on non-returnable wood reels



| Cond. size<br>(AWG/<br>kcmil) | Number<br>of wires | Nominal<br>conductor<br>diameter |       | Min. avg.<br>insulation<br>thickness |      | Nominal<br>cable<br>diameter |       | Aluminum<br>conductor<br>weight |           | Net<br>weight   |           |
|-------------------------------|--------------------|----------------------------------|-------|--------------------------------------|------|------------------------------|-------|---------------------------------|-----------|-----------------|-----------|
|                               |                    | IN                               | mm    | Inches                               | mm   | Inches                       | mm    | LBS/<br>1000 FT                 | kg/<br>km | LBS/<br>1000 FT | kg/<br>km |
| 6 AWG - 1000 KCMIL CONDUCTORS |                    |                                  |       |                                      |      |                              |       |                                 |           |                 |           |
| 6*                            | 7                  | 0.169                            | 4.29  | 0.075                                | 1.91 | 0.319                        | 8.10  | 25                              | 37        | 51              | 76        |
| 4*                            | 7                  | 0.213                            | 5.41  | 0.075                                | 1.91 | 0.363                        | 9.22  | 39                              | 58        | 70              | 104       |
| 2*                            | 7                  | 0.268                            | 6.81  | 0.075                                | 1.91 | 0.418                        | 10.62 | 62                              | 92        | 99              | 147       |
| 1*                            | 8                  | 0.298                            | 7.57  | 0.095                                | 2.41 | 0.488                        | 12.40 | 79                              | 118       | 132             | 196       |
| 1/0*                          | 10                 | 0.337                            | 8.56  | 0.095                                | 2.41 | 0.527                        | 13.39 | 99                              | 147       | 159             | 237       |
| 2/0*                          | 12                 | 0.374                            | 9.50  | 0.095                                | 2.41 | 0.564                        | 14.33 | 125                             | 186       | 190             | 283       |
| 3/0*                          | 16                 | 0.421                            | 10.69 | 0.095                                | 2.41 | 0.611                        | 15.52 | 158                             | 235       | 230             | 342       |
| 4/0*                          | 19                 | 0.470                            | 11.94 | 0.095                                | 2.41 | 0.660                        | 16.76 | 199                             | 296       | 279             | 415       |
| 250*                          | 23                 | 0.514                            | 13.06 | 0.110                                | 2.79 | 0.734                        | 18.64 | 235                             | 350       | 336             | 500       |
| 300*                          | 22                 | 0.566                            | 14.38 | 0.110                                | 2.79 | 0.786                        | 19.96 | 282                             | 420       | 392             | 583       |
| 350*                          | 26                 | 0.607                            | 15.42 | 0.110                                | 2.79 | 0.827                        | 21.01 | 329                             | 490       | 446             | 664       |
| 400*                          | 37                 | 0.659                            | 16.74 | 0.110                                | 2.79 | 0.879                        | 22.33 | 376                             | 560       | 495             | 737       |
| 500*                          | 37                 | 0.736                            | 18.69 | 0.110                                | 2.79 | 0.956                        | 24.28 | 471                             | 701       | 602             | 896       |
| 600*                          | 61                 | 0.813                            | 20.65 | 0.125                                | 3.18 | 1.063                        | 27.00 | 565                             | 841       | 729             | 1085      |
| 750*                          | 61                 | 0.908                            | 23.06 | 0.125                                | 3.18 | 1.158                        | 29.41 | 706                             | 1051      | 888             | 1321      |
| 1000*                         | 61                 | 1.060                            | 26.92 | 0.125                                | 3.18 | 1.310                        | 33.27 | 941                             | 1400      | 1151            | 1713      |

Dimensions and weights are nominal; subject to industry tolerances.

\* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

## COLOR CODE CHART

| Color<br>code | Color  | Color<br>code | Color  |
|---------------|--------|---------------|--------|
| 1             | Black  | 7             | Blue   |
| 2             | White  | 8             | Orange |
| 3             | Red    | 9             | Gray   |
| 4             | Green  | A             | Purple |
| 5             | Yellow | C             | Tan    |
| 6             | Brown  |               |        |