

**Renewable Energy Cable**



# 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:**

- GENERAL CABLE® (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 (AWG/kcmil)	NUMBER OF WIRES	NOMINAL CONDUCTOR DIAMETER		MIN. AVG. INSULATION THICKNESS		NOMINAL CABLE DIAMETER		ALUMINUM CONDUCTOR WEIGHT		NET WEIGHT	
		IN	mm	IN	mm	IN	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km
<b>6 AWG - 1000 kcmil CONDUCTORS</b>											
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 CODE	COLOR	COLOR CODE	COLOR
1	Black	7	Blue
2	White	8	Orange
3	Red	9	Gray
4	Green	A	Purple
5	Yellow	C	Tan
6	Brown		





# SunGen® Photovoltaic Wire

XLPE, RHH or RHW-2

1000 V or 2000 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
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- 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:**

- GENERAL CABLE® (PLANT OF MFG) SIZE (AWG OR KCMIL) (MM<sup>2</sup>) COMPACT SUNGEN® (VOLTS) PV WIRE OR RHH OR RHW-2 AA-8030 AL XLPE 90°C SUN RES (-40°C) VW-1 DIR BUR (UL) OR C(UL) (VOLTS) RPVVU90 FT1 YEAR DATE (TIME OF MFG) SEQUENTIAL FOOTAGE

**Options:**

- Other sizes and stranding options available upon request
- "FOR CT USE" 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, 1000 V or 2000 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
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- Flame Test Compliances:**
  - UL 2556 Horizontal Burn
  - CT UL 1685, RHH/RHW-2
  - VW-1 UL 2556
- Other Compliances:**
  - OSHA Acceptable
  - RoHS Compliant

**Packaging:**

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

CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NUMBER OF WIRES	NOMINAL CONDUCTOR DIAMETER		MIN. AVG. INSULATION THICKNESS		NOMINAL CABLE DIAMETER		ALUMINUM CONDUCTOR WEIGHT		NET WEIGHT	
			IN	mm	IN	mm	IN	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km
<b>6 AWG - 1000 kcmil CONDUCTORS</b>												
81006*	6	7	0.169	4.29	0.085	2.16	0.339	8.61	25	37	56	83
81004*	4	7	0.213	5.41	0.085	2.16	0.383	9.73	39	58	75	112
81002*	2	7	0.268	6.81	0.085	2.16	0.438	11.13	62	92	105	156
81001*	1	8	0.298	7.57	0.105	2.67	0.508	12.90	79	118	143	213
81110*	1/0	10	0.337	8.56	0.105	2.67	0.547	13.89	99	147	166	247
81210*	2/0	12	0.374	9.50	0.105	2.67	0.584	14.83	125	186	197	293
81310*	3/0	16	0.421	10.69	0.105	2.67	0.631	16.03	158	235	238	354
81410*	4/0	19	0.470	11.94	0.105	2.67	0.680	17.27	199	296	288	429
81250*	250	23	0.514	13.06	0.120	3.05	0.754	19.15	235	350	346	515
81300*	300	22	0.566	14.38	0.120	3.05	0.806	20.47	282	420	403	600
81350	350	26	0.607	15.42	0.120	3.05	0.847	21.51	329	490	458	682
81400*	400	37	0.659	16.74	0.120	3.05	0.899	22.83	376	560	507	754
81500	500	37	0.736	18.69	0.120	3.05	0.976	24.79	471	701	615	915
81600	600	61	0.813	20.65	0.135	3.43	1.083	27.51	565	841	744	1107
81750	750	61	0.908	23.06	0.135	3.43	1.178	29.92	706	1051	904	1345
81100*	1000	61	1.060	26.92	0.135	3.43	1.330	33.78	941	1400	1169	1740

Dimensions and weights are nominal; subject to industry tolerances.

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