

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) (MM²) 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
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 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		

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1000 V or 2000 V, UL Type PV, Single Conductor, Aluminum



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Conductor:

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Insulation:

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

Print:

- GENERAL CABLE® (PLANT OF MFG) SIZE (AWG OR KCMIL) (MM²) 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®)
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Features:

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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:

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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
6 AWG - 1000 kcmil CONDUCTORS												
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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