

Renewable Energy Cable

SunGen® Photovoltaic Wire

Dual Layer EPR/XL-CPE, USE-2 at 600 V, RHH/RHW-2, RWU90
600 V, UL Type PV, Single Conductor, Copper



Product Construction:

Conductor:

- 14 AWG thru 2 AWG tinned coated compressed copper. Class C stranding per ASTM B33 and B8
- 1 AWG thru 1000 kcmil tinned coated compressed copper. Class B stranding per ASTM B33 and B8

Insulation:

- Lead-free Ethylene Propylene Rubber (EPR) colored for contrast with black jacket

Jacket:

- Black, lead-free, flame-retardant, oil-, chemical- and sunlight-resistant Cross-linked Chlorinated Polyethylene (XL-CPE)

Print:

- GENERAL CABLE® (PLANT OF MFG) SUNGEN® 600 V PV WIRE DIR BUR OR RHH OR RHW-2 OR USE-2 (SIZE) 90°C WET OR DRY SUN RES (UL) -40°C VW-1 MONTH/YEAR OF MFG SEQUENTIAL FOOTAGE MARK

Options:

- Bare copper conductors
- Other stranding options are available upon request
- Now available in colors

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 as described in Section 690.31(A) and other applicable parts of the National Electrical Code® (NEC), NFPA 70

Features:

- Rated 90°C wet and dry
- Rated for direct burial
- Deformation-resistant at high temperatures
- Excellent moisture resistance, exceeds UL 44
- Stable electrical properties over a broad temperature range
- Extra tough, mechanically rugged dual-layer construction
- Increased flexibility
- Resistant to most oils and chemicals
- UV/sunlight-resistant
- Meets cold bend and cold impact tests at -40°C

Compliances:

Industry Compliances:

- UL 4703 Type PV, UL File # E323451
- National Electrical Code (NEC®)
- ICSA S-95-658/NEMA WC70
- UL 44 Type RHH or RHW-2, UL File # E90494 or E54260
- UL 854 Type USE-2 for 600 V, UL File # E90499 or E86307
- Limited Smoke Rating per UL

Flame Test Compliances:

- UL 1581 VW-1
- For sizes 1/0 and larger: IEEE 383, IEEE 1202/CSA FT4

Other Compliances:

- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:

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



CATALOG NUMBER	COND. SIZE (AWG/kcmil)	COND. STRAND	NOMINAL CONDUCTOR O.D.		MIN. AVG. INSULATION THICKNESS		MIN. AVG. JACKET THICKNESS		NOMINAL CABLE DIAMETER		COPPER WEIGHT		NET WEIGHT	
			IN	mm	IN	mm	IN	mm	IN	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km

14 AWG - 1000 kcmil TINNED COPPER CONDUCTORS

12211.711400*	14	19/.0142	0.070	1.78	0.030	0.76	0.030	0.76	0.201	5.11	13	19	32	48
12211.711200*	12	19/.0185	0.088	2.24	0.030	0.76	0.030	0.76	0.219	5.56	20	30	42	63
12211.711100*	10	19/.0234	0.112	2.84	0.030	0.76	0.030	0.76	0.242	6.15	32	48	59	88
12211.710800*	8	19/.0295	0.143	3.63	0.045	1.14	0.030	0.76	0.310	7.87	50	74	89	132
12211.710600*	6	19/.0372	0.184	4.67	0.045	1.14	0.045	1.14	0.376	9.55	81	121	141	210
12211.710400*	4	19/.0469	0.234	5.94	0.045	1.14	0.045	1.14	0.420	10.67	129	192	202	301
12211.710200*	2	19/.0526	0.296	7.52	0.045	1.14	0.045	1.14	0.487	12.37	205	305	292	435
12211.710100*	1	19/.0664	0.323	8.20	0.055	1.40	0.060	1.52	0.539	13.69	258	384	408	607
12211.715100*	1/0	19/.0740	0.370	9.40	0.055	1.40	0.060	1.52	0.587	14.91	326	485	478	711
12211.715200*	2/0	19/.0837	0.410	10.41	0.055	1.40	0.060	1.52	0.632	16.05	411	612	590	878
12211.715300*	3/0	19/.0940	0.460	11.68	0.055	1.40	0.060	1.52	0.678	17.22	518	771	734	1092
12211.715400*	4/0	19/.1055	0.520	13.21	0.055	1.40	0.060	1.52	0.738	18.75	653	972	865	1287
12211.716250*	250	37/.0822	0.558	14.17	0.065	1.65	0.080	2.03	0.862	21.89	772	1149	995	1481
12211.716300*	300	37/.0900	0.611	15.52	0.065	1.65	0.080	2.03	0.915	23.24	926	1378	1167	1737
12211.716350*	350	37/.0972	0.661	16.79	0.065	1.65	0.080	2.03	0.965	24.51	1063	1582	1321	1966
12211.716400*	400	37/.1040	0.706	17.93	0.065	1.65	0.080	2.03	1.010	25.65	1235	1838	1508	2244
12211.716500*	500	37/.1159	0.789	20.04	0.065	1.65	0.080	2.03	1.093	27.76	1509	2246	1810	2694
12211.716600*	600	61/.0992	0.866	22.00	0.080	2.03	0.080	2.03	1.200	30.48	1883	2802	2237	3329
12211.716750*	750	61/.1109	0.968	24.59	0.080	2.03	0.080	2.03	1.302	33.07	2316	3447	2707	4028
12211.717000*	1000	61/.1280	1.117	28.37	0.080	2.03	0.080	2.03	1.451	36.86	3088	4595	3534	5259

Dimensions and weights are nominal; subject to industry tolerances.

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



Renewable Energy Cable



SunGen® Photovoltaic Wire

Dual Layer EPR/XL-CPE, USE-2 at 600 V, RHH/RHW-2, RWU90
2000 V, UL Type PV, Single Conductor, Copper



CATALOG NUMBER	COND. SIZE (AWG/kcmil)	COND. STRAND	NOMINAL CONDUCTOR O.D.		MIN. AVG. INSULATION THICKNESS		MIN. AVG. JACKET THICKNESS		NOMINAL CABLE DIAMETER		COPPER WEIGHT		NET WEIGHT	
			IN	mm	IN	mm	IN	mm	IN	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km
14 AWG - 1000 kcmil TINNED COPPER CONDUCTORS														
12221.711400*	14	19/.0142	0.070	1.78	0.045	1.14	0.030	0.76	0.232	5.89	13	19	36	54
12221.711200*	12	19/.0185	0.088	2.24	0.045	1.14	0.030	0.76	0.250	6.35	20	30	46	68
12221.711100*	10	19/.0234	0.112	2.84	0.045	1.14	0.030	0.76	0.273	6.93	32	48	64	95
12221.710800*	8	19/.0295	0.143	3.63	0.055	1.40	0.030	0.76	0.332	8.43	50	74	95	141
12221.710600*	6	19/.0372	0.184	4.67	0.055	1.40	0.045	1.14	0.398	10.11	81	121	148	220
12221.710400*	4	19/.0469	0.234	5.94	0.055	1.40	0.045	1.14	0.442	11.23	129	192	208	310
12221.710200*	2	19/.0526	0.296	7.52	0.055	1.40	0.045	1.14	0.507	12.88	205	305	306	455
12221.710100*	1	19/.0664	0.323	8.20	0.065	1.65	0.060	1.52	0.561	14.25	258	384	440	655
12221.715100*	1/0	19/.0740	0.370	9.40	0.065	1.65	0.060	1.52	0.607	15.42	326	485	505	752
12221.715200*	2/0	19/.0837	0.410	10.41	0.065	1.65	0.060	1.52	0.652	16.56	411	612	615	915
12221.715300*	3/0	19/.0940	0.460	11.68	0.065	1.65	0.060	1.52	0.700	17.78	518	771	747	1112
12221.715400*	4/0	19/.1055	0.520	13.21	0.065	1.65	0.060	1.52	0.760	19.30	653	972	891	1326
12221.716250*	250	37/.0822	0.558	14.17	0.075	1.91	0.080	2.03	0.882	22.40	772	1149	1012	1506
12221.716300*	300	37/.0900	0.611	15.52	0.075	1.91	0.080	2.03	0.935	23.75	926	1378	1184	1762
12221.716350*	350	37/.0972	0.661	16.79	0.075	1.91	0.080	2.03	0.985	25.02	1063	1582	1339	1993
12221.716400*	400	37/.1040	0.706	17.93	0.075	1.91	0.080	2.03	1.030	26.16	1235	1838	1527	2272
12221.716500*	500	37/.1159	0.789	20.04	0.075	1.91	0.080	2.03	1.113	28.27	1509	2246	1831	2725
12221.716600*	600	61/.0992	0.866	22.00	0.090	2.29	0.080	2.03	1.222	31.04	1883	2802	2262	3366
12221.716750*	750	61/.1109	0.968	24.59	0.090	2.29	0.080	2.03	1.324	33.63	2316	3447	2734	4069
12221.717000*	1000	61/.1280	1.117	28.37	0.090	2.29	0.080	2.03	1.473	37.41	3088	4595	3564	5304

Dimensions and weights are nominal; subject to industry tolerances.
* Non-stock item; minimum runs apply. Please contact Customer Service for price and delivery.

Product Construction:

Conductor:

- 14 AWG thru 2 AWG tinned coated compressed copper. Class C stranding per ASTM B33 and B8
- 1 AWG thru 1000 kcmil tinned coated compressed copper. Class B stranding per ASTM B33 and B8

Insulation:

- Lead-free Ethylene Propylene Rubber (EPR) colored for contrast with black jacket

Jacket:

- Black, lead-free, flame-retardant, oil-, chemical- and sunlight-resistant Cross-linked Chlorinated Polyethylene (XL-CPE)

Print:

- GENERAL CABLE® (PLANT OF MFG) SUNGEN® 2000 V PV WIRE DIR BUR OR RHH OR RHW-2 OR 600 V USE-2 (SIZE) 90°C WET OR DRY SUN RES (UL) -40°C VW-1 c(UL) RWU90 1000 V MONTH/YEAR OF MFG SEQUENTIAL FOOTAGE MARK

Options:

- Bare copper conductors
- Other stranding options are available upon request
- Now available in colors

Applications:

- Single conductor, sunlight-resistant, direct burial photovoltaic wire rated 90°C wet or dry, 2000 V for interconnection wiring of grounded and ungrounded photovoltaic power systems as described in Section 690.31(A) and other applicable parts of the National Electrical Code® (NEC), NFPA 70

Features:

- Rated 90°C wet and dry
- Rated for direct burial
- Deformation-resistant at high temperatures
- Excellent moisture resistance, exceeds UL 44
- Stable electrical properties over a broad temperature range
- Extra tough, mechanically rugged dual-layer construction
- Increased flexibility
- Resistant to most oils and chemicals
- UV/sunlight-resistant
- Meets cold bend and cold impact tests at -40°C

Compliances:

Industry Compliances:

- UL 4703 Type PV, UL File # E323451
- National Electrical Code (NEC®)
- ICEA S-95-658/NEMA WC70
- UL 44 Type RHH or RHW-2, UL File # E90494 or E54260
- UL 854 Type USE-2 for 600 V, UL File # E90499 or E86307
- Limited Smoke Rating per UL

Flame Test Compliances:

- UL 1581 VW-1
- For sizes 1/0 and larger: IEEE 383, IEEE 1202/CSA FT4

Other Compliances:

- EPA 40 CFR, Part 261 for leachable lead content per TCLP
- OSHA Acceptable
- RoHS Compliant

Packaging:

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

