

Triple Marked RPVU90 SUN RES, RWU90 SUN RES, and RW90 SUN RES

RPVU90 Single Conductor 90C, 2000V

Applications : Solar photovoltaic cable for use in interconnection wiring of grounded and ungrounded photovoltaic power systems, suitable for ac and dc systems, in dry and wet locations. For exposed wiring where subjected to the weather, marked sunlight resistant "SUN RES" in all colours. For use in raceways, except that use in cable trays is permitted only for the interconnection of solar photovoltaic systems, in wet, damp, or dry locations. Suitable for direct burial in accordance with C22.1 Canadian Electrical Code, Part I.

Conductors : 14 AWG to 2 AWG bare copper (tinned copper is available for select AWG sizes).

Insulation : Cross-linked Polyethylene (XLPE).

Voltage Rating : RPVU90 1000V AND 2000V, RWU90 1000V, RW90 1000V AND 2000V.

Temperature Rating : -40°C* to 90°C

Flame Rating : CSA C22.2 No. 2556 Burning particles

Standards : CSA C22.2 No. 271

Table 1: Physical Properties

Gauge AWG	Strand Count	Nominal Insulation Thickness		Nominal Diameter		Nominal Cable Weight	
		mm	in.	mm	in.	kgs/km	lbs/mft
14	7	1.52	0.060	4.90	0.193	34	23
12	7	1.52	0.060	5.41	0.213	48	32
10	7	1.52	0.060	6.02	0.237	69	46
8	7	2.03	0.080	7.82	0.308	112	75
6	7	2.03	0.080	8.84	0.348	164	110
4	7	2.03	0.080	10.06	0.396	244	164
3	7	2.03	0.080	10.82	0.426	323	217
2	7	2.03	0.080	11.63	0.458	369	248
10	19	1.52	0.060	6.12	0.241	70	47
8	19	2.03	0.080	7.82	0.308	114	77

Table 2: Electrical Properties

Gauge AWG	Strand Count	Ampacity ¹ 30°C Ambient		Maximum DC Resistance @20°C ^{3,4}	
		Free Air	Conduit ²	Ω/km	Ω/1000'
14	7	35	25	8.62	2.62
12	7	40	30	5.43	1.65
10	7	55	40	3.41	1.04
8	7	80	55	2.14	0.654
6	7	105	75	1.35	0.411
4	7	140	95	0.848	0.259
3	7	165	115	0.673	0.205
2	7	190	130	0.534	0.163
10	19	55	40	3.41	1.04
8	19	80	55	2.14	0.654

* The -40°C low temperature rating indicates that the cables have passed a cold bend test under carefully controlled laboratory conditions. These conditions may or may not reflect actual field conditions. It is therefore recommended that all cables be warmed to at least -10°C before installation.

¹ Ampacities are provided for engineering information only. Final determination of wire size/ampacity will be governed by local jurisdiction.

Ampacity values per Canadian Electrical Code 4-004 (a) & (b) Table 1 and 2

² For not more than 3 conductors in cable or raceway. For more than 3 conductors the maximum current rating is subject to the derating factors in CEC Part 1, Table 5C

³ Per CSA 22.2 No 38, Table 29

⁴ For resistance at 25°C: divide 20°C value by 0.981; 90°C: divide 20°C value by 0.784. Per ASTM B8-11 Section 10.2, Table 5.

Notes: All dimensions are nominal and are subject to normal manufacturing tolerance. Specifications are subject to change without notice.