

Photovoltaic Wire UL 4703



Scope:

Single conductor photovoltaic wire rated for interconnection wiring of grounded and ungrounded photovoltaic power systems. Approved for Direct Burial rated for a maximum continuous operating temperature between -40°C and 90°C in wet and 105°C in dry conditions.



Applicable Standards and Tests:

- ASTM B-1, B-3, B33 and B-8
- CSA C22.2 No. 271-11
- ICEA S-95-658/NEMA WC70, ICEA S-66-524/NEMA WC7
- NEC NFPA 70, NEC 310, NEC Section 690.31
- UL 44, UL 66, UL 83, UL 854, UL 1581, UL 4703
- Spark tested at 7500 VAC



Construction:

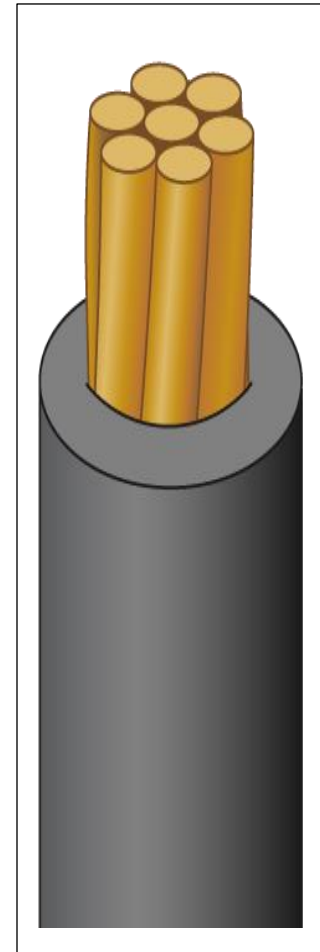
Conductors: The single conductors are solid or stranded annealed or hard uncoated or tinned copper.

Insulation: Concentrically applied XLP (crosslinked polyethylene) insulation, rated at 600V, 1000V, and 2000V. Sunlight Resistant, FV-1 flame retardant, Oil and Gasoline Resistant Cat II.



Identification and Packaging:

The wire shall be identified by surface marking indicating the manufacturer and AWG size. Products will be identified and surface printed in accordance with the UL requirements. 500 or 2500 feet length bulk reels are standard. Custom lengths, non-standard colors, AWG, and custom packaging are available by request.



AWG	Standard Number of Strands	Alternative/Extra Flexible Stranding	Bending Radius (inches)	Insulation Thickness (inches) 600V/1 or 2KV	Nominal Overall Diameter – Inches (standard strands) 600V/1 or 2KV	Approx. Shipping Weight (Lbs/Mft) 600V/1 or 2KV
14	7, 19	41	0.80"/0.92"	60/75	0.20"/0.23"	29 / 35
12	7, 19	65	0.88"/1.00"	60/75	0.22"/0.25"	39 / 46
10	7, 19	37 or 105	0.96"/1.08"	60/75	0.24"/0.27"	54 / 61
8	7, 19	133	1.20"/1.28"	75/85	0.30"/0.32"	84 / 90
6	7	133	1.32"/1.4"	75/85	0.33"/0.35"	120 / 127
4	7	133	1.52"/1.6"	75/85	0.38"/0.40"	174 / 181
2	7	133	1.76"/1.84"	75/85	0.44"/0.46"	258 / 266
1	19	133	2.12"/2.16"	95/105	0.53"/0.54"	335 / 345
1/0	19	133	2.24"/2.32"	95/105	0.56"/0.58"	410 / 420
2/0	19	37	2.44"/2.48"	95/105	0.61"/0.62"	496 / 507
3/0	19	37	2.64"/2.72"	95/105	0.66"/0.68"	610 / 622
4/0	19	37	2.88"/2.96"	95/105	0.72"/0.74"	752 / 765