

# Photovoltaic Cable Copper

EPR Insulated / CPE Jacketed, 600 V, 1000 V or 2000 V

**CME**<sup>®</sup>  
wire and cable

A Viakable Company

## Features

Rated and listed as PV Wire per UL.

Also listed as Type USE-2 and RHH / RHW-2.

All sizes are rated VW-1 and CT Use for 1/0 AWG and larger sizes.

Rated Sun Resistance.

Listed RW90 as per CSA, rated -40 °C FT4 and Direct Burial.

18 and 16 AWG rated as PV only.

## Application

For interconnection wiring of grounded and ungrounded photovoltaic power systems as described in Wiring Systems, Article 690, and other applicable parts of the National Electrical Code (NEC), NFPA 70.

## Standards

UL Subject 4703

Outline of Investigation for Photovoltaic Wire.

UL 854

Service Entrance Cables.

UL 44

Rubber-Insulated Wires and Cables, for cables rated RHW-2 or RHH.

ICEA S-95-658/NEMA WC70

Non-shielded 0-2 kV Cables

## Specifications

Maximum operating voltage:

- 600 V, 1000 V or 2000 V  
USE-2 is rated 600V

Maximum conductor operation temperatures:

- 90 °C wet and dry

## Engineering Information

**1. Conductor:** Soft annealed tinned coated copper compressed Class B stranding, or unilay-compressed per ASTM B8 and B33.



COPPER  
CONDUCTOR

*On request, flexible or other strandings available.*

**Sizes:** 14 AWG – 1000 kcmil.

**2. Binder Tape:** A suitable opaque tape, as required

**3. Insulation:** Flame retardant thermoset ethylene propylene rubber (EPR) compound

**4. Jacket:** Black flame retardant thermoset chlorinated polyethylene (CPE) compound

**Markings:** CME WIRE AND CABLE – PV WIRE – SIZE -90 °C W&D – VOLTS – SUN RES – -40 °C – VW-1 – DIRECT BURIAL

**Technical Data**

**Copper EPR Insulated / CPE Jacketed, 600 V**

Size AWG	Number of Strands	Insulation Thickness		Approximate Outside Diameter	Approximate Net Weight
		Inner Layer	Outer Layer		
		mil	mil	in	lb/kft
14	7	30	30	0.20	29
12	7	30	30	0.21	39
10	7	30	30	0.24	54
8	7	45	30	0.30	85
6	7	45	45	0.37	133
4	7	45	45	0.41	190
2	7	45	45	0.47	279
1	19	55	60	0.57	363
1/0	19	55	60	0.61	440
2/0	19	55	60	0.65	536
3/0	19	55	60	0.70	654
4/0	19	55	60	0.76	803
250	37	65	80	0.87	984
300	37	65	80	0.92	1154
350	37	65	80	0.97	1323
400	37	65	80	1.02	1491
450	37	65	80	1.06	1658
500	37	65	80	1.10	1824
600	61	80	80	1.21	2193
750	61	80	80	1.31	2689
1000	61	80	80	1.46	3510

The above data are approximate and subject to normal manufacturing tolerances. Other sizes available upon request.

**Copper EPR Insulated / CPE Jacketed, 1000 V / 2000 V**

Size AWG	Number of Strands	Insulation Thickness		Approximate Outside Diameter	Approximate Net Weight
		Inner Layer	Outer Layer		
		mil	mil	in	lb/kft
14	7	45	30	0.23	36
12	7	45	30	0.25	46
10	7	45	30	0.27	62
8	7	55	30	0.32	91
6	7	55	45	0.39	140
4	7	55	45	0.43	198
2	7	55	45	0.49	288
1	19	65	60	0.59	375
1/0	19	65	60	0.63	453
2/0	19	65	60	0.67	549
3/0	19	65	60	0.72	669
4/0	19	65	60	0.78	819
250	37	75	80	0.89	1002
300	37	75	80	0.94	1173
350	37	75	80	0.99	1343
400	37	75	80	1.04	1512
450	37	75	80	1.08	1680
500	37	75	80	1.12	1847
600	61	90	80	1.23	2218
750	61	90	80	1.33	2716
1000	61	90	80	1.48	3540

The above data are approximate and subject to normal manufacturing tolerances. Other sizes available upon request.