

Aluminum 2KV Photovoltaic Cable



APPLICATION:

Aluminum 2KV Photovoltaic Cable is primarily used for interconnection wiring of grounded and ungrounded photovoltaic power systems. When installed in accordance with NEC article 690.31(C)(2), PV source and PV output circuits, single-conductor cable of all sizes can be installed in outdoor cable trays. The PV cable is for applications up to 2000 volts and temperatures from -40°C to +90°C wet or dry.

CONDUCTOR:

- Compact stranded 8000 Series Aluminum conductor per ASTM B800, B801, B836, B901

CABLE MARKING:

PRIORITY WIRE <AWG or KCMIL(mm²)> PV WIRE (UL) E340884 AL AA-8000 COMPACT STRAND XLPE RHH RHW-2 1KV/2KV 90°C -40°C SUN RES DIR BUR VW-1<YEAR> <SEQ FT> <Factory ID>

INSULATION:

- Cross-linked polyethylene (XLPE), gas/oil and sunlight resistant, direct burial rated
- Standard colors are black, red 8AWG-1000KCM and green in size 4AWG-1/0AWG. Other colors or stripes are available upon request

STANDARDS:

- ASTM B800, B801, B836, B901
- UL 44 RHH RHW-2, UL 854 USE-2, UL 4703 PV Wire, UL 2556
- CSA listed RPVU90 per CSA C22.2 No. 271
- ANSI/ICEA S-95-658/NEMA WC 70
- VW-1 flame test, Sunlight Resistant, Direct Burial

OPTIONS:

- 600V UL PV Wire, CSA RPV90 available upon request
- Paralleled conductors on one reel and circuit cuts available by request

| Part Number | Conductor Size | No. of Strands | Insulation Thickness | Overall Diameter | Net Weight | DC Resistance at 20°C | Ampacity* at 90°C |
|--------------------|----------------|----------------|----------------------|------------------|------------|-----------------------|-------------------|
| | AWG/kcmil | | inches | inches | lbs/kft | Ω/kft | amps |
| 6-01ALPV-2KVXLP | 6 | 7 | 0.085 | 0.34 | 56 | 0.6610 | 55 |
| 4-01ALPV-2KVXLP | 4 | 7 | 0.085 | 0.38 | 76 | 0.4160 | 75 |
| 2-01ALPV-2KVXLP | 2 | 7 | 0.085 | 0.44 | 107 | 0.2620 | 100 |
| 1-01ALPV-2KVXLP | 1 | 18 | 0.105 | 0.51 | 143 | 0.2060 | 115 |
| 1/0-01ALPV-2KVXLP | 1/0 | 18 | 0.105 | 0.55 | 171 | 0.1650 | 135 |
| 2/0-01ALPV-2KVXLP | 2/0 | 18 | 0.105 | 0.59 | 203 | 0.1310 | 150 |
| 3/0-01ALPV-2KVXLP | 3/0 | 18 | 0.105 | 0.63 | 245 | 0.1030 | 175 |
| 4/0-01ALPV-2KVXLP | 4/0 | 18 | 0.105 | 0.69 | 295 | 0.0821 | 205 |
| 250-01ALPV-2KVXLP | 250 | 35 | 0.120 | 0.76 | 353 | 0.0695 | 230 |
| 300-01ALPV-2KVXLP | 300 | 35 | 0.120 | 0.81 | 411 | 0.0579 | 260 |
| 350-01ALPV-2KVXLP | 350 | 35 | 0.120 | 0.86 | 467 | 0.0496 | 280 |
| 400-01ALPV-2KVXLP | 400 | 35 | 0.120 | 0.90 | 525 | 0.0434 | 305 |
| 500-01ALPV-2KVXLP | 500 | 35 | 0.120 | 0.98 | 622 | 0.0348 | 350 |
| 600-01ALPV-2KVXLP | 600 | 58 | 0.135 | 1.08 | 756 | 0.0290 | 385 |
| 700-01ALPV-2KVXLP | 700 | 58 | 0.135 | 1.15 | 836 | 0.0248 | 425 |
| 750-01ALPV-2KVXLP | 750 | 58 | 0.135 | 1.18 | 913 | 0.0232 | 435 |
| 900-01ALPV-2KVXLP | 900 | 58 | 0.135 | 1.27 | 1062 | 0.0193 | 480 |
| 1000-01ALPV-2KVXLP | 1000 | 58 | 0.135 | 1.33 | 1180 | 0.0174 | 500 |
| 1250-01ALPV-2KVXLP | 1250 | 58 | 0.155 | 1.51 | 1458 | 0.0142 | 545 |

All values are nominal and subject to correction

*Ampacities shown are for general use as specified by the National Electric Code, 2017 Edition, Table 310.15(B)(16) based on ambient temperature of 30 °C.



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