Aluminum PV Wire / Photovoltaic Cable (AA-8000 Series Alloy, 2000V DC)

Farwalk's Aluminum PV Wires are the cost-optimized energy feeders for utility-scale solar projects. Specifically engineered with AA-8000 series aluminum alloy and dual-layer XLPO insulation, these cables deliver the same power-handling capacity as copper at a fraction of the weight and cost. They are the strategic choice for long-distance home-runs from combiner boxes to centralized inverters.

Applications

The primary choice for high-capacity energy transmission in ground-mount utility solar farms and large-scale commercial rooftops. Ideally suited for long-distance DC feeder circuits where reducing cable weight and project material costs is essential for maximizing ROI.

Description

Manufactured in accordance with UL 4703 and ASTM standards. The conductor is high-flexibility AA-8000 Series Aluminum Alloy, providing superior creep resistance and terminal stability. It is insulated and jacketed with dual layers of thermoset Cross-linked Polyolefin (XLPO), rated for 90°C wet/dry environments and up to 2000V DC.

Specifications

- **Conductor: AA-8000 Series Aluminum Alloy (Class B)**
- **Voltage Rating: 600V, 1000V, 2000V DC**
- **Material: Thermoset XLPO (UV, Ozone & Oil Resistant)**
- **Temp. Range: -40°C to +90°C (Wet/Dry)**
- **Flame Test: VW-1 / UL 1581**
- **Design Life: 25+ Years**

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Complete Technical Tables

UL 4703 Aluminum PV Wire (AA-8000)

Size (AWG / kcmil)	Insulation Thick. (mils/mm)	Approx. Overall Dia. (mils/mm)	Approx. Weight (lb/kft)	Ampacity @ 90° C (Amps)	Max. DC Resistance @ 20° C (Ω/kft)
AA-8000 Aluminum Solar Feeder - 600V / 2000V Rated					
6 AWG	75 / 1.91	334 / 8.48	65	60	0.674
4 AWG	75 / 1.91	382 / 9.70	95	75	0.424
2 AWG	75 / 1.91	442 / 11.23	145	100	0.266
1/0 AWG	95 / 2.41	545 / 13.84	225	135	0.168
2/0 AWG	95 / 2.41	595 / 15.11	275	155	0.133
4/0 AWG	95 / 2.41	710 / 18.03	420	205	0.084
250 kcmil	110 / 2.79	785 / 19.94	510	230	0.071
500 kcmil	110 / 2.79	1035 / 26.29	955	350	0.035