

Photovoltaic DC Accessories

PV Photovoltaic DC Cable



General

Solar PV Cable is mainly used to interconnect solar panels and inverters in solar system. We use the XLPE material for insulation and jacket so that the cable can resist sun irradiate, it also can be used in high and low temperature environment.

Features

Cable Full Name:

Halogen-free low smoke cross-linked polyolefin insulated and sheathed cables for photovoltaic power generation systems.

Conductor Structure:

En60228 (IEC60228) Type five conductor and must be tinned copper wire.

Cable Color:

Black or Red (The insulation material shall be extruded halogen-free material, which shall be composed of one layer or several tightly adhered layers. The insulation shall be solid and uniform in material, and the insulation itself, the conductor and the tin layer shall be as for as possible not damaged when the insulation is peeled off)

Cable Characteristics Double insulated construction, Higher systems bear voltage, UV radiation, Low and High tem-perature resistant environment.

Selection

PV15	1.5
Model	Wire diameter
Photovoltaic cable PV10: DC1000 PV15: DC1500	1.5mm ² 2.5mm ² 4mm ² 6mm ² 10mm ² 16mm ² 25mm ² 35mm ²

Technical data

Rated voltage	AC : U ₀ /U=1.0/1.0KV , DC:1.5KV
Voltage test	AC : 6.5KV DC:15KV,5min
Ambient temperature	-40°C~90°C
Maximum conductor temperature	+120°C
Service life	> 25 years (-40°C~+90°C)
Reference short-circuit allowable temperature	200°C 5 (seconds)
Bending radius	IEC60811-401:2012,135±2/168h
Compatibility test	IEC60811-401:2012,135±2/168h
Acid and alkali resistance test	EN60811-2-1
Cold bending test	IEC60811-506
Damp heat test	IEC60068-2-78
Sunlight resistance tTest	IEC62930
Cable ozone resistance test	IEC60811-403
Flame retardant test	IEC60332-1-2
Smoke density	IEC61034-2,EN50268-2
Evaluate all non-metallic materials for halogens	IEC62821-1

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Extension cord customization (1000V, 1500V)

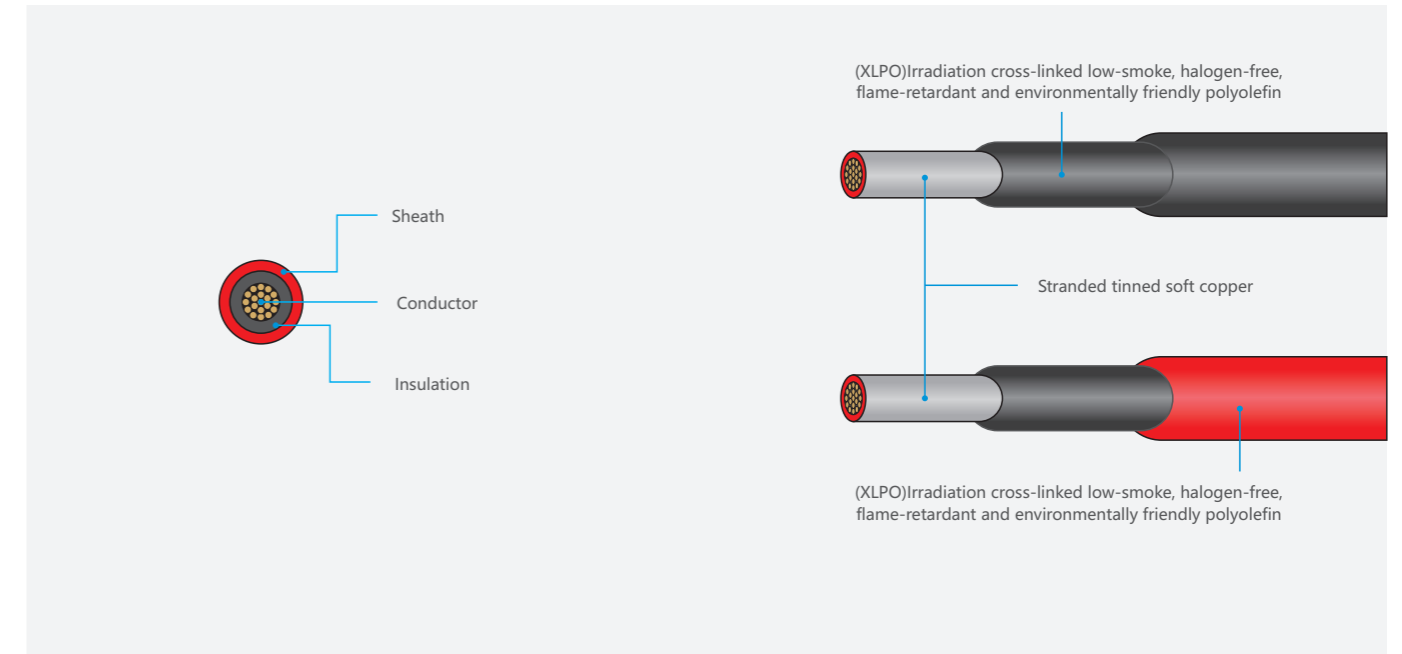
• 2.5m² • 4m² • 6m²



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Details



Photovoltaic cable structure and recommended current carrying capacity table

Construction	Conductor Construction	Conductor Outer	Cable Outer	Resistance Max.	Current Carrying Capacity AT 60C
mm ²	nxmm	mm	mm	Ω/Km	A
1X1.5	30X0.25	1.58	4.9	13.7	30
1X2.5	48X0.25	2.02	5.45	8.21	41
1X4.0	56X0.3	2.35	6.10	5.09	55
1X6.0	84X0.3	3.2	7.20	3.39	70
1X10	142X0.3	4.6	9.00	1.95	98
1x16	228X0.3	5.6	10.20	1.24	132
1x25	361X0.3	6.95	12.00	0.795	176
1x35	494X0.3	8.30	13.80	0.565	218

The current-carrying capacity is under the situation of laying the single cable in air.