

ALUMINUM CONDUCTOR SOLAR CABLE

TÜV 2PFG 2642 PV1500DC-AL



Advantages

- ◆ Halogen-free
- ◆ E-beam cross-linked compounds
- ◆ High resistance against UV, ozone and hydrolyzation
- ◆ High temperature resistance, materials will not melt or flow

Application

According to TÜV Rheinland 2PFG 2642, aluminum solar cables are engineered for DC 1.5KV PV systems. They are particularly well-suited for outdoor applications because of their durable outer sheath.

Construction

- ◆ Conductor : Stranded Aluminum Alloy, Class 5
- ◆ Insulation : XLPE, flame retardant, halogen free, E-Beam cross-linked compounds
- ◆ Jacket : XLPE, flame retardant, halogen free, E-Beam cross-linked compounds, UV and ozone resistant, black / white marking
- ◆ Jacket color : Black / Red

Electrical performance

- ◆ Rated Voltage : U0=1.5kV DC
- ◆ Test Voltage : 6.5KV AC 5min

Thermal performance

- ◆ Operation temperature : -40°C ~ +120°C
- ◆ Ambient temperature : -40°C ~ +90°C
- ◆ Maximum short circuit temperature : 250°C, +536°F, 5s

Bending radius

- ◆ Fixed setting : $>4 \times \varnothing$
- ◆ Moves on occasion : $>5 \times \varnothing$

Material characteristics / standard

- ◆ Fireproof performance : EN 60332-1-2
- ◆ Smoke emission : EN 61034-1; EN 61034-2
- ◆ Low fire load : DIN 51900
- ◆ Approval : TÜV 2PFG 2642
- ◆ Applied standard: TÜV 2PFG 2642

Conductor			Insulation	Jacket		Conductor Resistance (20 °C)
Area	No.	OD.	Thickness	Thickness	OD.	
mm ²	N/mm	mm	mm	mm	mm	Ω/km
4.0	56/0.30	2.6	0.7	0.8	5.6±0.1	7.2
6.0	84/0.30	3.2	0.7	0.8	6.2±0.1	4.8
10.0	80/0.40	4.2	0.8	0.8	7.4±0.1	3.08
16.0	123/0.40	5.5	0.9	0.9	9.1±0.1	1.91
25.0	193/0.40	6.9	1.0	1.0	10.9±0.2	1.20
35.0	266/0.40	9.6	1.1	1.1	13.2±0.2	0.868