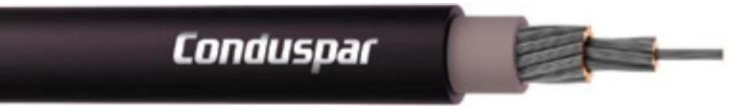
Cable PROSOLAR FV



Application

The Conduspar Line of Cables PROSOLAR FV is suitable for connections of photovoltaic panels. The reliability in photovoltaic systems demands resistance to high levels of UV radiation, workability in extreme temperature ranges and halogen-free materials to prevent the emission of corrosive smoke in case of fire. In addition to all these requirements, the cables PROSOLAR FV have excellent flexibility to facilitate handling during installation. These characteristics make the cables PROSOLAR FV able to operate for at least 25 years.

Construction

Conductor: tinned electrolitic copper wires, flexible stringing class 5, acc. to NM 280.
Insulation: halogen-free polyolefin thermoplastic compound
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Colors: black, blue and red - other colors on request.

Operation Conditions

Insulation voltage in direct current: 1,8 kV (among conductors - systems without grounding)
Insulation voltage in alternating current: 0,6/1 kV
Room temperature: - 40°C to + 90°C

Maximum Operating Temperatures

In continuous regime: 90°C or 120°C for up to 20.000 hours
In short circuit: 250°C

Reference Standards

TÜV 2 PFG 1169 - Requirements for cables for use in photovoltaic-systems.
ABNT NBR NM 280 - Conductors of insulated cables (IEC 60228, MOD).

Conditioning

In rolls of 100 m or reels.

Nominal Dimensions

	Conductor		Cable	Coverage		Nominal	Minimum ray of
Code	Section (mm²)	Diameter (mm)	Diameter (mm)	Thickness (mm)	Diameter (mm)	Weight (kg/km)	Curvature (mm)
17585	4	2,47	0,7	0,9	5,8	59,3	29
17586	6	3,02	0,7	1	6,5	78,6	33
17587	10	3,99	0,7	1	7,5	122	38

Electric Parameters

Section	Resistance in CC (/km)			Current Capacity		
(mm²)	20°C	90°C	120°C	Outdoor	In Ducts	Buried Ducts
4	5,09	6,49	7,09	48	42	44
6	3,39	4,32	4,72	63	54	56
10	1,95	2,49	2,72	88	75	73

Correction Factors of Current Capacity

Temperature (°C)	10	15	20	25	30	35	40	45	50	55	60
Air	1,15	1,12	1,08	1,04	1	0,96	0,91	0,87	0,82	0,76	0,71
Floor	1,07	1,04	1	0,96	0,93	0,89	0,85	0,8	0,76	0,71	0,65

Considerations: Current capacities for maximum conductor temperature of 90°C. Air temperature 30°C / floor 20°C