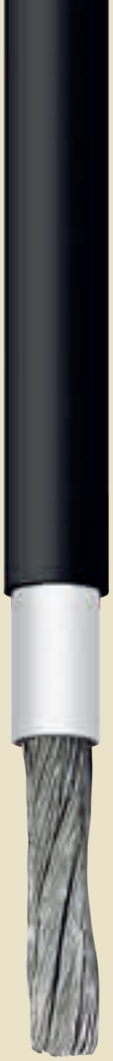

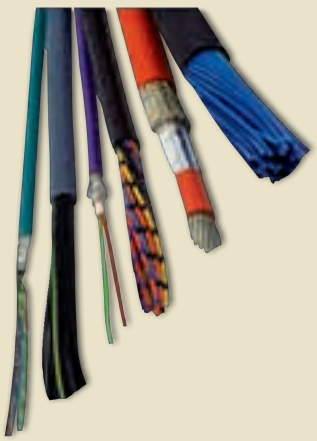

Renewable Energy Cables

Solar Photovoltaic Cables

Solar photovoltaic cables are used for transmitting electrical power generated from the solar panel to the charging units, battery banks, change over systems, inverters etc. These cables have to function effectively while remaining exposed to a wide range of severe environmental conditions.

Construction

Size (Sq mm)	Number of Strands/ Diameter	Nominal Outer Dia (mm)	Max Conductor Resistance Ohms/km
2.5	50/0.25	5.50	8.21
4.0	56/0.30	6.00	5.09
6.0	85/0.30	6.80	3.39
10.0	140/0.30	7.70	1.95
16.0	128/0.40	8.80	1.24

Size (Sq mm)	Single Cable in Air (Amps)	Single Cable on Surface (Amps)	Multiple Cable on Surface (Amps)
2.5	41	39	33
4.0	55	52	44
6.0	70	67	57
10.0	98	93	79
16.0	132	125	107

Voltage Grade : 600 / 1000 V AC
1000 / 1800 V DC

Temperature Range : - 40° C to 90° C

Maximum Conductor Temperature : 120° C withstands 250° C for 5 seconds

Conductor : Tin Coated Copper Class 5 conductor

Insulation : Electron Beam Irradiated Cross linked Polyolefin Compound

Standards : TUV-2PIG 1169 / 07 2008 (Standard for Photovoltaic cables) or BSEN 50618-2014 (Covers upto 240 Sq mm)

Features : Resistant to ozone, water absorption & severe environmental conditions
Working life of more than 25 years

Wind Power Cables

Torsion Cables

These cables are used for transmitting power from the generator mounted in the nacelle of the wind tower to base station. These are flexible cables made of special elastomeric compounds, so as to meet the torsional stresses exerted on the cable due to rotation of the nacelle in relation to wind direction.

Voltage Grade : 600 V / 1100 V

Conductor : Flexible Class-5 tinned or bare copper conductors, made to IEC-60228 / IS-8130

Range (Single Core) : 10 Sq mm to 300 Sq mm

Insulation : EPR - in conformance to IEC-60502 / IS-6380

Sheath : Special elastomer compound with Oil, Fire, Hydrolysis & Torsion resistant properties (Zero halogen sheath available on request)

Features

Maximum conductor temperature (continuous) : + 90° C

Short circuit temperature (max) for up to 5 seconds : + 250° C

Maximum permissible tensile load on cable : 15 N/mm^2

Torsion angle : ± 100° per meter

Minimum bending radius : 8 D

Control & Instrumentation Cables

These cables are used in Wind Energy applications such as rotor blade pitch control, Yaw control, Top Box, Anemometer feedback, Remote data logging etc. Construction of Cables shall be as per Customers' requirement and conforming to various National/International Standards.