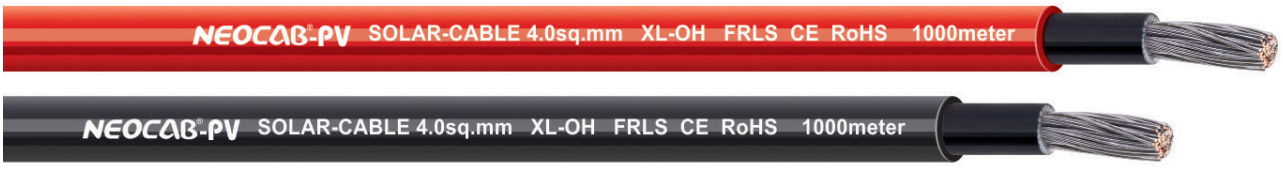
NEOCAB®-PV

SOLAR CABLE

Wire the Sun



RoHS CE

CERTIFIED ISO 9001:2008 COMPANY


NEOCAB®-PV
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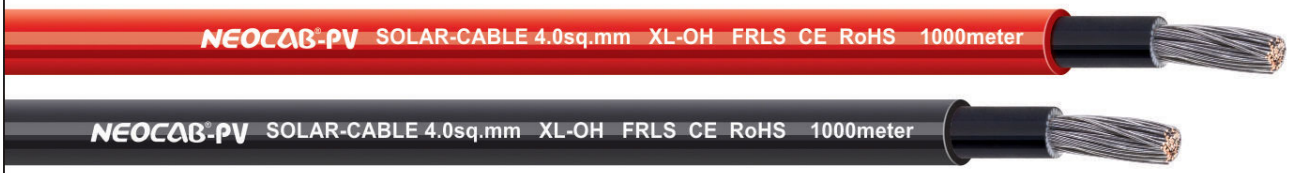
NEOCAB®-PV SOLAR CABLE

NEOCAB® one of the most trusted brands in cable and conductors, was created with an aim to cater high-quality premium cable products to the market. Through times we catered products that required high-end INNOVATION and RESEARCH.

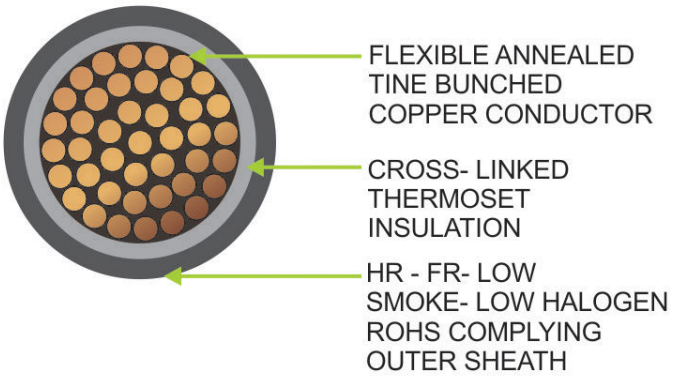
NEOCAB®-PV's SOLAR Cables are a step towards creation of environment friendly cables for development of ELECTRICITY thru SOLAR-POWER. NEOCAB®-PV is our effort to take part in ENERGY CONSERVATION. Our Range of PV-CABLES (also known as SOLAR CABLES) are more ADAPTIVE, more ROBUST, RUGGED and more VERSATILE than ever before. These cables are made in compliance with international standards such as RoHS and CE certified.



NEOCAB®-PV SOLAR CABLE

NEOCAB®-PV Solar cables are exclusively made for applications in photovoltaic power systems. . A solar cable interconnects solar panels and other electrical components of a photovolatic system. These Solar cables are designed to be UV & Ozone resistant, Chemical and oil resistant, with excellent FR properties, propagates smoke with low opacity when forced burned with external source and contains absolutely ZERO or Low halogen. This cable can survive extreme weather conditions. It can be used within a large temperature range and are generally laid outside. These cables can be installed at indoor, outdoor, in hazard areas, in explosion areas, in industry and in agriculture.

Construction Characteristics



NEOCAB®-PV SOLAR CABLE

SPECIAL PROPERTIES OF SOLAR CABLES

- Lifetime Reliability : Lasts up to 30 years even under tough external conditions.
- Outdoor Durability : Resists extreme temperatures (-40°C to 120°C maximum at the core) and ozone resistant.
- UV Resistance : Full protection against ultraviolet rays.
- Halogen-Free : Low Smoke Emission & Low Toxicity / Corrosivity during fire.
- Properties against Fire : Flame Retardant, Fire Retardant.
- Flexibility and Strip-Ability : For fast and easy installation.
- Fully Recyclable : In accordance with new environmental regulations.
- Easy Installation with color identification (blue, red).
- Suitable to common connector types.

NEOCAB®-PV SOLAR CABLE

NEOCAB®-PV CABLE RANGE

Solar cables generally not installed in places where its directly exposed to sunlight, however throughout the day time they are continuously exposed to diffused or indirect sunlight. Moreover they may need to face extreme weather conditions and harsh handling. Considering these conditions we have developed certain range of Solar cables which can be used according to prevalent conditions of installation site. We also develop tailor made solar cables as per customer's requirements.

TYPES OF CONDUCTOR AVAILABLE-

1. Annealed Bunched Flexible Copper conductor with ETP Copper with 99.97% purity and 101% conductivity
2. Tinned copper bunched flexible conductor with ETP Copper with 99.97% purity and 101% conductivity

TYPE OF INSULATIONS AVAILABLE

1. Double insulated Cross-linkable Fire Retardant Low smoke zero halogen with conductor temperature rating 120° C
2. Double Insulated Flexible insulation with Fire Retardant Low smoke Low halogen- conductor Temperature Rating 105° C
3. Double Insulated :
   a. First layer Cross Linkable Thermo-set Polymer with Conductor Temperature Rating 90° C
   b. Second Layer UV Stabilized FRLS-H Sheath

BEHAVIOUR IN CASE OF FIRE

- Single cable according to DIN VDE 0482 Part 332-1-2, DIN EN 60332-1-2
- Multiple cable according to DIN VDE 0482 Part 266-2-1, DIN EN 50305-9
- Low smoke emission according to DIN VDE 0482 Part 268-1& 2,
- DIN EN 61034 & DIN EN 50268-2 (light transmittance <70%)
- Corrosively according to DIN EN 50267-2-2
- Toxicity according to DIN EN 50305

XLOH Insulated and sheathed Solar Cable Dimensions and Amperage

Solar DC Cables from PV Module to Array Juntion Box (generally conforming to TUV Specifications-2 Pfg 1169/08.2007)					
Single Core Size in Sq.mm	Max. Conductor Diameter in mm	XL-LSOH Insulation Thickness-Nominal in mm	XL-LSOH Sheathing Thickness-Nominal in mm	Overall Dia. Nominal in mm	Ampere Rating 2-Adjecent Cable on Surface
1.5	0.26	0.5	0.5	4.10 +/-0.5	24
2.5	0.26	0.5	0.5	4.5 +/-0.5	33
4	0.31	0.5	0.5	5.1+/-0.5	44
6	0.31	0.5	0.5	6.1 +/-0.5	57
Solar DC Cables from Array Junction Box to Main Juntion Box & MJB to Inverter ((generally conforming toTUV Specifications-2 Pfg 1169/08.2007)					
10	0.41	0.50	0.50	6.6 +/-0.5	79
16	0.41	0.50	0.50	7.7 +/-0.5	107
25	0.41	0.90	1.00	10.5 +/-0.7	142
35	0.41	0.90	1.10	12.0 +/-0.7	176
50	0.41	1.00	1.20	14.0 +/-0.7	219
70	0.51	1.10	1.30	16.0 +/-1.0	325
95	0.51	1.10	1.50	18.5 +/-1.0	393
120	0.51	1.20	1.60	20.0 +/-1.0	461
150	0.51	1.40	1.70	22.5 +/-1.0	536
185	0.51	1.60	1.90	25.0 +/-1.0	627
240	0.51	1.70	2.10	28.0 +/-1.0	755

105° C HR Insulated and sheathed Solar Cable Dimensions and Amperage

Solar DC Cables from PV Module to Array Juntion Box (as per is -694 and is-1554 part 1 guidelines)					
Single Core Size in Sq.mm	Max. Conductor Diameter in mm	105° C HR Insulation Thickness Nominal in mm	105° C HR Sheath Thickness Nominal in mm	Overall Dia. Nominal in mm	Ampere Rating 2-Adjecent Cable on Surface
1.5	0.26	0.6	0.9	5.0 +/-0.5	22
2.5	0.26	0.7	0.9	5.5 +/-0.5	31
4	0.31	0.8	0.9	6.5+/-0.5	40
6	0.31	0.8	0.9	7 +/-0.5	51
Solar DC Cables from Array Junction Box to Main Juntion Box & MJB to Inverter (as per is-694 and is-1554 part 1 guidelines)					
10	0.41	1.0	0.9	8.5 +/-0.5	71
16	0.41	1.0	0.9	9.5+/-0.5	95
25	0.41	1.2	1.0	11 +/-0.7	120
35	0.41	1.2	1.1	12.5 +/-0.7	153
50	0.41	1.4	1.3	15.0 +/-0.7	202
70	0.51	1.4	1.4	17.0 +/-1.0	299
95	0.51	1.6	1.5	18.5 +/-1.0	361
120	0.51	1.6	1.6	19.5 +/-1.0	424
150	0.51	1.8	1.8	23.5 +/-1.0	494
185	0.51	2.0	2.0	25.5 +/-1.0	577
240	0.51	2.2	2.2	29.5 +/-1.0	695

NEOCAB®-PV SOLAR CABLE

XLPE Insulated and 90° C HRFRLS-H sheathed Solar Cable Dimensions and Amperage

Solar DC Cables from PV Module to Array Juntion Box as per is 7098 part 1 guidelines					
Single Core Size in Sq.mm	Max. Conductor Diameter in mm	XLPE Insulation Thickness-Nominal in mm	90° C HR FRLS-H Insulation Thickness-Nominal in mm	Overall Dia. Nominal in mm	Ampere Rating 2-Adjecent Cable on Surface
1.5	0.26	0.7	0.9	5.0 +/-0.5	20
2.5	0.26	0.7	0.9	5.5 +/-0.5	28
4	0.31	0.7	0.9	6.0+/-0.5	36
6	0.31	0.7	0.9	6.5 +/-0.5	46
Solar DC Cables from Array Junction Box to Main Juntion Box & MJB to Inverter as per is 7098 part 1 guidelines					
10	0.41	0.7	0.9	7.5 +/-0.5	64
16	0.41	0.7	0.9	8.5+/-0.5	85
25	0.41	0.9	1	10.5 +/-0.7	108
35	0.41	0.9	1.1	12.0 +/-0.7	138
50	0.41	1	1.2	14.0 +/-0.7	181
70	0.51	1.1	1.3	16.0 +/-1.0	269
95	0.51	1.1	1.5	18.5 +/-1.0	325
120	0.51	1.2	1.6	20.0 +/-1.0	381
150	0.51	1.4	1.7	22.5 +/-1.0	444
185	0.51	1.6	1.9	25.0 +/-1.0	519
240	0.51	1.7	2.1	28.0 +/-1.0	625

REQUIRED FEATURES OF SOLAR CABLE

Chemical Features

- Weather resistant
- Resistant to mineral oils
- Resistant to acids & alkaline

Thermal Features

- Maximum conductor temperature of operation-120° C during 20000 hours
- Minimum operating temperature: - 40° C
- Generaly conforming to TUV

Electrical Features

- Voltage rating :
- 1.5 (1.8) KV DC / 0.6/1.0 (1.2) KV AC
- High voltage test: 6.5 KV DC for 5 minutes.

Mechanical Features

- Resistant to Impact , tear & abrasion
- Minimum bending radius – 4 times of overall diameter.
- Safe pulling force -50 N/sqmm.

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