



OCTEL CABLES

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# Solar Cables





## Application

Double insulated, cross-linked cables for Solar System applications. These cables are designed to meet the varying needs of the Solar Industry. Applications include connection to PV module junction boxes to array junction box



**Temperature Range :** Ambient temperature :-40deg C to +90deg C , Max. Cond temp at conductor :120 deg C

**Construction :** Conductor : Annealed Tinned Copper as per EN 60228 Class-5

Insulation : XL-LOSH/XLPE/HR PVC, Sheath : XL-LOSH/HR UV PVC, **Voltage :** 1.8 kV DC- 0.6/1 kV AC

### Type 1 : Solar DC Cable from PV Module to Array Junction Box & MIB to Inverter as per TUV Specification 2 Pfg 1169/08.2007 Guideline

Cross Section Area (nom) mm <sup>2</sup>	Max Wire Size/No of Wire Mm/Nos	XL-LSOH Insulation Thick nom. mm	XL-LSOH Sheath Thick nom mm	Overall Diameter Nominal mm	Max Conductor Resistance at 20 <sup>o</sup> C Ohm/km	Current Carrying Capacity in Air Amp
1.50	0.26/30	0.70	0.80	4.60 +/-0.20	13.70	30
2.50	0.26/50	0.70	0.80	5.00 +/-0.20	8.21	41
4.00	0.31/56	0.70	0.80	5.50 +/-0.20	5.09	55
6.00	0.31/84	0.80	0.80	6.50 +/-0.20	3.39	70
10.00	0.41/80	0.80	0.90	7.45 +/- 0.40	1.95	98
16.00	0.41/126	0.80	0.90	8.45 +/- 0.40	1.24	132
25.00	0.41/196	1.00	1.00	10.30+/- 0.40	0.795	176
35.00	0.41/276	1.00	1.10	11.70 +/- 0.40	0.565	218
50.00	0.41/396	1.20	1.10	13.60 +/- 0.40	0.393	274
70.00	0.41/556	1.20	1.10	15.20 +/- 0.40	0.277	406
95.00	0.41/756	1.20	1.30	17.40 +/- 0.40	0.210	491
120.00	0.41/954	1.30	1.40	19.30 +/- 0.40	0.164	576
150.00	0.41/1192	1.50	1.60	21.75 +/- 0.40	0.132	670
185.00	0.41/1472	1.60	1.70	23.90 +/- 0.40	0.108	784
240.00	0.41/1910	1.80	1.90	27.10 +/- 0.40	0.0817	944

### Type 2 : Solar DC Cable from PV Module to Array Junction Box as per IS 694 & IS:1554 Part 1 Guideline

Cross Section Area (nom) mm <sup>2</sup>	Max Wire Size/No of Wire Mm/Nos	HR 105 <sup>o</sup> C Insulation Thick nom. mm	UV HR105 <sup>o</sup> C Sheath Thick nom mm	Overall Diameter Nominal mm	Max Conductor Resistance at 20 <sup>o</sup> C Ohm/km	Current Carrying Capacity in Air Amp
1.50	0.26/30	0.60	0.90	4.90 +/-0.40	13.70	28
2.50	0.26/50	0.70	0.90	5.40 +/-0.40	8.21	39
4.00	0.31/56	0.80	0.90	6.40 +/-0.50	5.09	50
6.00	0.31/84	0.80	0.90	6.90 +/-0.60	3.39	64
10.00	0.41/80	1.00	0.90	8.20 +/- 0.50	1.95	89
16.00	0.41/126	1.00	0.90	9.30 +/- 0.50	1.24	119
25.00	0.41/196	1.20	1.00	10.70+/- 0.60	0.795	150
35.00	0.41/276	1.20	1.10	12.40 +/- 0.60	0.565	191
50.00	0.41/396	1.40	1.30	14.75 +/- 0.60	0.393	253
70.00	0.41/556	1.40	1.40	16.80 +/- 0.80	0.277	374
95.00	0.41/756	1.60	1.50	19.30 +/- 0.80	0.210	451
120.00	0.41/954	1.60	1.60	20.75 +/- 0.80	0.164	530
150.00	0.41/1192	1.80	1.80	23.20 +/- 1.00	0.132	618
185.00	0.41/1472	2.00	1.90	25.30 +/- 1.00	0.108	721
240.00	0.41/1910	2.20	2.20	29.20 +/- 1.00	0.0817	869



**Type 3 : Solar DC Cable from PV Module to Array Junction Box as per IS 7098 Part 1 Guideline**

Cross Section Area (nom)	Max Wire Size/No of Wire	XLPE Insulation Thick nom. (mm)	UV PVC ST-2 Sheath Thickness nom (mm)	Overall Diameter Nominal (mm)	Max Conductor Resistance at 20 <sup>0</sup> C	Current Carrying Capacity in Air
mm <sup>2</sup>	Mm/Nos	mm	mm	mm	Ohm/km	Amp
1.50	0.26/30	0.70	0.90	4.90 +/-0.40	13.70	25
2.50	0.26/50	0.70	0.90	5.40 +/-0.40	8.21	35
4.00	0.31/56	0.70	0.90	5.90 +/-0.50	5.09	45
6.00	0.31/84	0.70	0.90	6.40 +/-0.60	3.39	58
10.00	0.41/80	0.70	0.90	7.40 +/- 0.50	1.95	80
16.00	0.41/126	0.70	0.90	8.40 +/- 0.50	1.24	106
25.00	0.41/196	0.90	1.00	10.40+/- 0.60	0.795	135
35.00	0.41/276	0.90	1.10	11.85 +/- 0.60	0.565	173
50.00	0.41/396	1.00	1.20	13.90 +/- 0.60	0.393	226
70.00	0.41/556	1.10	1.30	15.85 +/- 0.80	0.277	336
95.00	0.41/756	1.10	1.50	18.20 +/- 0.80	0.210	406
120.00	0.41/954	1.20	1.60	20.75 +/- 0.80	0.164	476
150.00	0.41/1192	1.40	1.70	23.20 +/- 1.00	0.132	555
185.00	0.41/1472	1.60	1.90	25.40 +/- 1.00	0.108	649
240.00	0.41/1910	1.70	2.10	29.30 +/- 1.00	0.0817	781

## Solar Assembly





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