



NICCO Solar Cables are manufactured employing State-of-the-art Electron Beaming facility to meet continuous operating Temperature of 120 Deg. C, ensuring higher Current carrying capacity. These Cables are suited for all types of solar modules, Photovoltaic Plants / systems, Building integrated PV systems and solar Parks applications. These Cables are manufactured as per BS EN 50618 :2014 incorporating the corrigendum published in 2015.

Properties and characteristics of Nicco Solar cables are :

- Ozone & UV resistant.
- Resistant to adverse weather condition
- Oil, Chemical and Crack resistant.
- Halogen free and flame propagation resistant.
- Resistant to water, impact and abrasion.
- Low smoke and toxic gas emission.
- Tear resistant and withstands wide range of Temperature.
- Enhanced Cable service life.



Cable Construction – Conductor composed of annealed tinned flexible (Class 5) Copper wires, Electron Beam Irradiated Crosslinked Polyolefin compound Insulated and Sheathed with Electron Beam Irradiated Crosslinked Polyolefin compound. Operating Voltage 1 kV AC and 1.5 kV DC. Permissible Operating Voltage (max.) 1.8 kV DC Conductor to Conductor for Non-Earthed system.
 Test Voltage 6.5 kV (AC). Max. Conductor Temperature – 40 to + 120 Deg. C. Ambient Temperature – 40 to + 90 Deg.C.

No. of Core & Crossection	Thickness of Insulation	Thickness of Sheath	Approx. Overall Diameter	Min. Insulation Resistance at 20 Deg.C	Min. Insulation Resistance at 90 Deg.C
no.x sqmm	mm	mm	mm	MegOhm.Km	MegOhm.Km
1x1.5	0.7	0.8	5.0	860	0.86
1x2.5	0.7	0.8	5.3	690	0.69
1x4	0.7	0.8	6.0	580	0.58
1x6	0.7	0.8	6.5	500	0.5
1x10	0.7	0.8	7.5	420	0.42
1x16	0.7	0.9	9.0	340	0.34
1x25	0.9	1.0	11.0	340	0.34
1x35	0.9	1.1	12.5	290	0.29
1x50	1.0	1.2	14.5	270	0.27
1x70	1.1	1.2	17.0	250	0.25
1x95	1.1	1.3	19.0	220	0.22
1x120	1.2	1.3	21.0	210	0.21
1x150	1.4	1.4	23.0	210	0.21
1x185	1.6	1.6	26.0	200	0.2
1x240	1.7	1.7	29.5	200	0.2

Nicco Eastern Pvt Ltd

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 CIN: U36100WB2018PTC227675



Current Carrying Capacity as per method of Installation			
Cable Crossection	Single Cable in Free Air	Single Cable on a surface	Two Cables touching each other on a surface
sqmm	Amps	Amps	Amps
1.5	30	29	24
2.5	41	39	33
4	55	52	44
6	70	67	57
10	98	93	79
16	132	125	107
25	176	167	142
35	218	207	176
50	276	262	221
70	347	330	278
95	416	395	333
120	488	464	390
150	566	538	453
185	644	612	515
240	775	736	620

The above Current Carrying Capacity is at ambient Temperature of 60 Deg. C and Maximum Conductor Temperature of 120 Deg.C.

Correction Factor for Variation in Temperature :

Ambient Temperature (Deg. C)	Correction Factor
Upto 60	1
70	0.91
80	0.82
90	0.71
100	0.58
110	0.41

Note : Permitted Short-circuit temperature is 250 Deg.C for a duration of 5 sec.

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