ASTM/ ICE/ EN
SOLAR CABLE

Application

Specifically designed for connecting photo voltaic system components inside and outside of building and equipment with high mechanical requirements and extreme weather conditions .For permanent installations.

Cable construction

Conductor: Tinned annealed copper
Insulation:120°C XLPE /XLPO
Jacket:120°C XLPE/PVC

ASTM STANDARD
SOLAR CABLE

Size	Diameter of conductor	Min. Number of Strands	Insulation Thickness	Nominal O.D.	Net Weight	Maximum conductor resistance at 20ºC
AWG or kcmil	mm	n	mm	mm	kg/km	Ω/km
12	2.16	7	1.90	6.0	46	8.880
10	2.72	7	1.90	6.5	56	5.590
8	3.40	7	2.15	7.7	80	3.520
6	4.29	7	2.15	8.6	102	2.210
4	5.41	7	2.15	9.7	135	1.390
3	6.02	7	2.15	10.3	156	1.100
2	6.81	7	2.15	11.1	183	0.875
1	7.59	18	2.66	12.9	244	0.693
1/0	8.53	18	2.66	13.9	286	0.550
2/0	9.55	18	2.66	14.9	337	0.436
3/0	10.74	18	2.66	16.1	400	0.346
4/0	12.07	18	2.66	17.4	477	0.274
250	13.21	35	3.04	19.3	579	0.232
300	14.48	35	3.04	20.6	665	0.194
350	15.65	35	3.04	21.7	750	0.166
400	16.74	35	3.04	22.8	836	0.145
450	17.78	35	3.04	23.9	914	0.129
500	18.69	35	3.04	24.8	1028	0.116
550	19.69	58	3.43	26.6	1133	0.1060
600	20.65	58	3.43	27.5	1217	0.0967
650	21.46	58	3.43	28.3	1298	0.0893
700	22.28	58	3.43	29.1	1382	0.0829
750	23.06	58	3.43	29.9	1463	0.0774
800	23.83	58	3.43	30.7	1543	0.0725
900	25.37	58	3.43	32.2	1707	0.0645
1000	26.92	58	3.43	33.8	1871	0.0580

IEC STANDARD
SOLAR CABLE

Size	Cross Section	Conductor Structure	Outer Diameter	Max. DC Resistance at 20℃	Rated Voltage	Rated Current
	mm2	mm	mm	Ω/km	V	A
1*1.5	1.5mm2	30/0.25	4.9	13.3	1500V	30
1*2.5	2.5mm2	50/0.25	5.45	7.98	1500V	41
1*4.0	4mm2	56/0.30	6.1	4.75	1500V	55
1*6.0	6mm2	84/0.30	7.2	3.39	1500V	70
1*10.0	10mm2	142/0.30	9	1.95	1500V	98
1*16.0	16mm2	228/0.30	10.2	1.24	1500V	132
1*25.0	25mm2	361/0.30	12	0.795	1500V	176
1*35.0	35mm2	525/0.30	13.8	0.565	1500V	218
1*50.0	50mm2	720/0.30	14.8	0.393	1500V	280
1*70.0	70mm2	988/0.30	16.9	0.277	1500V	350
1*95.0	95mm2	1349/0.30	18.7	0.21	1500V	410
1*120.0	120mm2	1691/0.30	20.7	0.164	1500V	480

Size (mm2)	Strand No./size	Conductor Strand OD.(mm)	Cable OD. (mm)	Electrical Resistance at 20 ℃(Ω/km)	Amp rating 60 ℃
2*1.5mm2	30/0.25	1.58	4.6x9.4	13.7	30
2*2.5mm2	50/0.25	2.02	5.1x10.4	8.21	42
2*4mm2	56/0.29	2.35	5.5x11.2	5.09	55
2*6mm2	84/0.29	3.2	6.2x12.6	3.39	70
2*10mm2	142/0.3	4.6	7.8x15.2	1.95	98
2*16mm2	228/0.3	5.6	9.3x18.8	1.24	132

EN 50618
SOLAR CABLE

Nominal Cross-Sectional (Sq. mm)	Insulation Thickness (mm)		Outer sheath Thickness (mm)		Approx. Cable Diameter (mm) as per TUV 2 Pfg	Approx. Cable Diameter (mm) as per EN 50618	Current carrying capacity according to method of installation			Max. Conductor Resistance at 20°C, (Ω/Km)
	TUV 2 Pfg (Minimum)	EN 50618 (Nominal)	TUV 2 Pfg (Minimum)	EN 50618 (Nominal)			Single cable free in air (A)	Single cable on a surface (A)	Two loaded cables touching, on a surface (A)	
1.5	0.5	0.70	0.5	0.80	4.06	4.66	30	29	24	13.7
2.5	0.5	0.70	0.5	0.80	4.49	5.09	41	39	33	8.21
4.0	0.5	0.70	0.5	0.80	4.99	5.59	55	52	44	5.09
6.0	0.5	0.70	0.5	0.80	5.53	6.13	70	67	57	3.39
10.0	0.5	0.70	0.5	0.80	6.47	7.07	98	93	79	1.95
16.0	0.5	0.70	0.5	0.90	7.52	8.32	132	125	107	1.24
25.0	0.5	0.90	0.5	1.00	8.74	10.14	176	167	142	0.795
35.0	0.5	0.90	0.5	1.10	9.89	11.49	218	207	176	0.565
50.0	-	1.00	-	1.20	-	13.33	276	262	221	0.393
70.0	-	1.10	-	1.20	-	15.19	347	330	278	0.277
95.0	-	1.10	-	1.30	-	16.94	416	395	333	0.210
120.0	-	1.20	-	1.30	-	18.71	488	464	390	0.164
150.0	-	1.40	-	1.40	-	20.86	566	538	453	0.132
185.0	-	1.60	-	1.60	-	23.24	644	612	515	0.108
240.0	-	1.70	-	1.70	-	26.14	755	736	620	0.0817