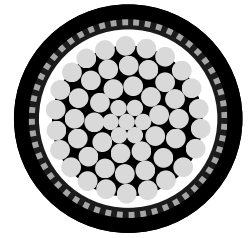




Flexible Aluminium Armoured Solar Cable

Aluminium PV cable



DESCRIPTION

Conductor: Class 2 Flexible Aluminium as per VDE 0295 or IEC 60228, **Insulation:** XLPE (Cross-Linked Polyethylene) as per IEC 60502-1, **Inner Sheath:** Extruded PVC, **Armouring:** Aluminium Wire Armour (AWA), **Sheath:** Specially formulated PVC ST2 having UV as per IEC 60502-1, **Sheath Colour:** Black

APPLICATION

Aluminium cable is suitable for all types of underground and open air solar installations. This cable is recommended for connections between string boxes and photovoltaic inverters in large scale rooftops or ground farms.

TECHNICAL DATA

Voltage Rating U_0/U_m : 1.8/3 kV AC & 1.5/1.5 kV DC
High Voltage Test: 6.5 kV for 5 mins
Permissible Voltage Variation: $\pm 10\%$
Permissible Frequency Variation: $\pm 5\%$
Combined Voltage & Frequency Variation: $\pm 10\%$
Max. Safe Pulling Force When Pulled by Pulling Eye: 3 kg/sq.mm of area
Max. Safe pulling Force When Pulled by Stocking: 3 kg/sq.mm of area

Suitable For: Earthed & Un-Earthed Systems
Impact Resistance: AG4 High Severity
Max. Cond. Temp. for Constant Use: $+90^\circ\text{C}$
Max. Cond. S.C.C Temp.: $+250^\circ\text{C}$
Volume Resistivity Test: @ 27°C - 1×10^{14} min $\Omega\text{-cm}$
@ 90°C - 1×10^{12} min $\Omega\text{-cm}$

Min. Bend Radius: 8 x OD

Standards: IEC 60502-1
Amount of Chlorine: $>20\%$
Chemical Resistance: Good
Grease & Mineral Oil Resistance: Good
UV Resistance: acc. to EN 50618 and HD 605/AL
Water Resistance: AD8 Submersion

TDS 1 OF 2



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DIMENSIONS												
No. of Cores	Size	Approx. OD (± 2mm)	No. of Strands	One Wire Dia.	Approx. Conductor Diameter	Nom. Insulation Thickness	Approx. Dia. Over Insulation	Nom. Thickness of Inner Sheath	Approx. Dia. Over Inner Sheath	Dia. of Wire Armour	Dia. Over Armour	Nom. Thickness of Outer Sheath
	mm ²	mm		mm	mm	mm	mm	Sheath	mm	mm ±5%	mm	mm
1	35	20	182	0.50	7.6	2.20	12	1.00	14.01	1.25	16.51	1.80
1	50	21	231	0.50	8.5	2.20	13	1.00	14.96	1.25	17.46	1.80
1	70	24	361	0.50	10.6	2.20	15	1.00	17.09	1.60	20.29	1.80
1	95	26	494	0.50	12.5	2.20	17	1.00	18.90	1.60	22.10	1.80
1	120	27	627	0.50	14.0	2.20	18	1.00	20.48	1.60	23.68	1.85
1	150	29	760	0.50	15.4	2.20	20	1.00	21.89	1.60	25.09	1.90
1	185	31	924	0.50	17.0	2.20	21	1.00	23.48	1.60	26.68	1.99
1	240	34	1221	0.50	19.6	2.20	24	1.00	26.02	2.00	30.02	2.09
1	300	37	1520	0.50	21.8	2.40	27	1.00	28.69	2.00	32.69	2.18
1	400	41	2013	0.50	25.1	2.60	30	1.00	32.38	2.00	36.38	2.28
1	500	47	1792	0.50	29.3	2.80	35	1.00	36.99	2.50	41.99	2.51
1	630	51	2280	0.50	33.1	2.80	39	1.00	40.74	2.50	45.74	2.66

ALL FIGURES QUOTED ARE APPROXIMATE

ELECTRICAL CHARACTERISTICS							
Size	Approx. Capacitance	Approx. Reactance at 50Hz	S.C. Rating 1s	Max. Cond. DC Res. at 20°C	Max. Cond. AC Res. at 90°C	Current Carrying Capacity A	
mm ²	µF/Km	Ω/Km	kA	Ω/Km	Ω/Km	In Ground @ 20°C Reference method D2 acc. to IEC 60364-5-52	In Air @30°C Reference method F acc. to IEC 60364-5-52
35	0.44	0.114	3.3	0.868	1.11	117	150
50	0.46	0.108	4.7	0.641	0.82	139	184
70	0.51	0.102	6.6	0.443	0.567	170	237
95	0.61	0.1	9	0.32	0.411	204	289
120	0.73	0.0841	11.3	0.253	0.325	233	337
150	0.74	0.0839	14.2	0.206	0.265	261	389
185	0.74	0.0836	17.5	0.164	0.211	296	447
240	0.8	0.0813	22.6	0.125	0.162	343	530
300	0.83	0.0795	28.3	0.100	0.130	386	613
400	0.83	0.0787	37.3	0.0778	0.1023	444	740
500	0.71	0.086	47.2	0.0605	0.0808	510	856
630	0.73	0.0843	59.4	0.0469	0.0648	588	996

ALL FIGURES QUOTED ARE APPROXIMATE

E&OE. Manufacturers reserve the right to amend the specification without prior notice.

TDS 2 OF 2

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