

Photovoltaic Cable 0,6/1kVCA – 1,8kVCC – Solarmax

Conductor

Formed of electrolytic Copper wire, tinned, soft temper, class 5 stranding

Insulation

LSHF - Thermoset, non-halogenated polyolefinic compound, natural color, 120 °C, with special characteristics of non-propagation, self-extinguishing fire and low smoke emission, free of heavy metals, complying with RoHS directives 2000/53 EC and 2002/95 EC, with UV protection, natural color.

Sheath

LSHF - Thermoset, non-halogenated, polyolefin compound with special characteristics of non-spreading, self-extinguishing fire and low smoke emission, heavy metal free, meeting RoHS directives 2000/53 EC and 2002/95 EC, with UV protection for all cable colors.

Identification

Black, Red dor Green/Yellow

Maximum Operational Temperatures

- 90° in continuous operation
- 120° in overload
- 250° in short circuit

Working Voltage

- AC: 0,6/1kV
- DC: 1,8kV

Application

Used in photovoltaic generation systems, connected or not to the electrical grid, in the interconnection between modules, modules-charge controllers, modules-string box, modules-inverters, string box-inverter and interconnection with batteries.

Applicable Standards

- UL 4703: Standard for Photovoltaic Cable
- ICEA S-95-658: Standard for Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- NEMA WC-70: Standard for Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- ASTM B3: Standard Specification for Hard-Drawn Copper Wire
- ASTM B8: Standard Specification for Concentric-Lay-Stranded Copper Conductors

Dimensional Datasheet

Nominal Cross-section (mm²)	Conductor Diameter (mm)	Insulation Thickness (mm)	Sheath Thickness (mm)	Outer Diameter (mm)	Approx Mass (kg/km)	Resistance Electrical (Rcc 20 °C) (Ω/km)	Resistance Electrical (Rca 90 °C) (Ω/km)	Voltage Drop V/(A x km)**	Packing
									Reel (m)
2,50	1,9	0,7	0,8	4,8	37,5	8,21	10,47	19,99	2000
4,00	2,6	0,7	0,8	5,5	55,2	5,09	6,49	12,43	2000
6,00	3,1	0,7	0,8	6,1	75,0	3,39	4,32	8,30	2000
10,00	4,1	0,8	0,8	7,3	120,5	1,95	2,49	4,81	1000
16,00	5,2	0,8	0,9	8,6	172,2	1,24	1,58	3,08	1000
25,00	6,4	0,9	1,0	10,3	261,7	0,795	1,010	2,00	1000
35,00	7,7	0,9	1,1	11,7	357,9	0,565	0,720	1,44	1000
50,00	9,2	1,0	1,2	13,7	506,8	0,393	0,501	1,030	1000
70,00	10,9	1,1	1,2	15,6	691,3	0,277	0,353	0,743	500
95,00	12,4	1,1	1,3	17,4	887,4	0,210	0,268	0,580	500
120,00	14,1	1,2	1,3	19,3	1124,3	0,164	0,209	0,467	500
150,00	15,7	1,4	1,4	21,5	1393,0	0,132	0,168	0,390	500
185,00	17,4	1,6	1,6	24,1	1715,7	0,108	0,138	0,331	500
240,00	20,0	1,7	1,7	27,2	2250,3	0,0817	0,104	0,266	500

Current Conduction Capacity

Section (mm²)	Outdoor Facility Protected from the Sun					Outdoor Installation Exposed to the Sun				
	Ambient Temperature / Operating Temperature at the Conductor									
	68 °F / 194 °F	86 °F / 194 °F	104 °F / 194 °F	122 °F / 194 °F	140 °F / 248 °F	68 °F / 194 °F	86 °F / 194 °F	104 °F / 194 °F	122 °F / 194 °F	140 °F / 248 °F
2,50	39	35	32	28	34	35	31	26	22	29
4,00	51	47	42	37	45	46	41	35	28	39
6,00	65	60	53	47	57	58	51	44	36	49
10,00	91	83	74	65	79	80	71	61	49	68
16,00	120	110	98	86	105	106	93	79	63	89
25,00	160	146	131	114	140	139	123	104	82	117
35,00	199	181	163	142	174	172	151	129	100	145
50,00	251	229	205	179	219	215	189	159	123	181
70,00	313	285	255	223	273	267	234	196	151	224
95,00	376	343	307	268	328	319	279	233	178	267
120,00	441	402	360	315	385	373	325	271	205	311
150,00	508	463	415	363	443	426	371	308	232	355
185,00	580	528	474	414	506	483	420	347	259	402
240,00	694	633	568	497	606	575	499	411	303	477

Installation method: two single-core cables laid horizontally against each other.

* Maximum temperature of 248 °F in the conductor for a maximum period of 20.000 h.