



SPECIALCAVI
WE BRIDGE PEOPLE

CURRENT CAPACITY
SOLAR CABLE

Technical information: SOLAR CABLE CURRENT CAPACITY

RECOMMENDED USE OF CABLES FOR PHOTOVOLTAIC SYSTEMS

1	2	3
Construction	Recommended use	Comments
Cables for photovoltaic systems H1Z2Z2-K	Intended use in photovoltaic installations, e.g., in accordance with HD 60364-7-712. They are designed for permanent outdoor or indoor use, for free-standing, suspended, and fixed installations. Installation also in conduits and cable trays, inside or under plaster, as well as in equipment. Suitable for application on equipment with protective insulation (protection class II). Intrinsically short-circuit-proof and earth leakage-proof in accordance with HD 60364-5-52.	For the recommended bending radius, see EN 50565-1 :2014, Table 3. Maximum storage temperature: + 40°C Minimum installation and operating temperature: - 25°C

CURRENT CAPACITY OF CABLES FOR PHOTOVOLTAIC SYSTEMS

Nominal cross section [mm ²]	Current capacity based on installation method		
	Cavo singolo libero in aria [A]	Single cable on a surface [A]	Two charged cables touching each other on a surface [A]
1,50	30	29	24
2,50	41	39	33
4,00	55	52	44
6,00	70	67	57
10,00	98	93	79
16,00	132	125	107
25,00	176	167	142
35,00	218	207	176
50,00	276	262	221
70,00	347	330	278
95,00	416	395	333
120,00	488	464	390
150,00	566	538	453
185,00	644	612	515
240,00	775	736	620

Ambient temperature: 60 °C (see Table A.4 for other ambient temperatures) Maximum conductor temperature: 120 °C

NOTE The expected period of use at a maximum conductor temperature of 120 °C and a maximum ambient temperature of 90 °C is limited to 20,000 hours.

Technical information: SOLAR CABLE CURRENT CAPACITY

CONVERSION FACTORS FOR NOMINAL CURRENT FOR DIFFERENT AMBIENT TEMPERATURES

Groups

For group installations, reduction factors for the rated current apply in accordance with HD 60364-5-54:2009.

Short-circuit temperature

The maximum permissible short-circuit temperature is 250°C for a period of 5 seconds.

Ambient temperature [°C]	Conversion factor
up to 60	1
70	0,92
80	0,84
90	0,75