

FLEXIBLE SPECIALTY CABLES

SAB^{solar} PV Wire Halogen-free cable
for photovoltaic systems



Photovoltaic Wire
Service-Entrance Cable



Service-Entrance Cable Type USE-2 600V Single Conductor

Marking for SAB^{solar} PV Wire 718133866:

SAB BRÖCKSKES · D-VIERSEN · SAB^{solar} 12 AWG (UL) · Photovoltaic Wire 600V 90°C dry 90°C wet sunlight-resistant -40°C
(UL) Service-Entrance Cable Type USE-2 600V Single Conductor CE

The SAB^{solar} PV1-F cable with improved fire performance and temperature resistance is particularly used as connection cable in photo-voltaic systems. The cable is suitable for various climatic conditions such as outdoor use as well as for fixed laying in dry, damp and wet rooms. Our solar cable is approved for a maximum temperature at the conductor +120°C and suitable as electrical equipment of protection class II. The cable is available with black, red or blue outer jacket depending on the requirements of the customer.

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5 and UL standard 758 table 5.1 + UL 1581 table 20.1
Primary insulation:	SABIX® 285
Color code primary insulation:	see table below
Secondary insulation:	SABIX® 285
Color code secondary insulation:	see table below

Outstanding features:

- ▶ UL Subject 4703 PV Wire
- ▶ UL 854 USE-2
- ▶ halogen-free
- ▶ flame retardant and self-extinguishing
- ▶ weather resistant
- ▶ sunlight resistance
- ▶ very good resistance against acids and alkaline solutions
- ▶ connection cable for photovoltaic modules acc. to NEC Section 690.31 (A)
- ▶ ammonia resistance
- ▶ absence of marten attractants

Technical data:

Nominal voltage:	600 V (AC)
Testing voltage:	3000 V (AC)
Min. bending radius:	
∅ ≤ 12 mm	3 x O.D.
∅ > 12 mm	4 x O.D.
Temperature range: for ambient temperature:	-40/+90 °C
Zero halogen:	without hydrogen chloride acc. to EN 50267-2-1, without fluorine content acc. to EN 60684-2
Corrosiveness of conflagration gases:	in compliance with IEC 60754-2 + EN 50257-2-2 + VDE 0482 part 267-2-2 no development of corrosive conflagration gases
Burning characteristics	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2 and (UL) FT1
Sunlight resistance:	yes
Weather resistance:	very good
Ozone resistance:	acc. to EN 50396
Ammonia resistance:	very good
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

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item no.	AWG	max. outer-∅ inch	max. outer-∅ mm	cable weight ≈ lbs/mft
▶ 7181 .. 86	12 (≈ 52/28)	0.260	6.6	52
▶ 7181 .. 87	10 (≈ 78/28)	0.280	7.1	65
▶ 7181 .. 88	8 (≈ 77/26)	0.350	8.9	101

Other dimensions are possible on request.

Marking for primary and secondary insulation

Primary insulation / secondary insulation		
33 black / black	23 blue / black	63 white / black
83 red / black	Other colors for the primary insulation possible on request.	

E-mail: info@sabcable.com



Web site: www.sabcable.com