

# String combiner box (SCB) - SOL-SC-1ST-0-DC-2MPPT-1000SE - 1101176

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String combiner box for photovoltaic systems up to 1000 V DC for the connection of 2x 1 string. With surge protection and Push-in connection for the input and output side.

## Product Description


The Solarline string combiner boxes (SCBs) are used in both small rooftop systems and large ground-mounted systems. Their functions include collecting and protecting strings and, if necessary, separating the panels from the rest of the system by means of a switch disconnecter or fire service switch disconnecter.

## Your advantages

- Fast installation and startup
- Standard-compliant switchgear and controlgear assembly, thanks to use of DIN EN 61439
- Large portfolio of string combiner boxes in stock
- Application-oriented consultation



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 957821
GTIN	4055626957821
Weight per Piece (excluding packing)	2,403.600 g
Weight per piece (including packing)	2,403.600 g
Custom tariff number	85363030
Country of origin	Germany
Sales Key	R1 - Housing+Switch Boxes

## Technical data

### System parameter

Open-circuit voltage (U <sub>OC</sub> )	max. 1100 V DC
MPP voltage (U <sub>n</sub> )	max. 1000 V DC

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## Technical data

### System parameter

Number of string inputs	1 (per MPP tracker)
Current per string (max.)	40 A ( $I_{max}$ )
Number of outputs	1 (per MPP tracker)
Number of supported MPP trackers	2

### Safety equipment

Surge protective device	T1 / T2
Protection level $U_p$	$\leq 3.5$ kV
Total discharge current $I_{total}$ (8/20) $\mu$ s	40 kA
Total discharge current $I_{total}$ (10/350) $\mu$ s	5 kA

### Cable entry

Type of cable entry	Cable gland
Cable cross section string input	2.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Sealing area string input	3 mm ... 6.5 mm
Cable cross section output	2.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Sealing area output	3 mm ... 6.5 mm
Cable cross section grounding	16 mm <sup>2</sup> (2 x)
Sealing area grounding	6 mm ... 12 mm (2 x)

### General data

Material cover/door	Polycarbonate (transparent)
Housing material	Polycarbonate
Weight	2403.6 g
Degree of protection	IP65
Protection class	II

### Dimensions

Outer dimensions: width, height, depth	254 mm x 180 mm x 111 mm (Housing dimensions)
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### Ambient conditions

Ambient temperature (operation)	-20 °C ... 55 °C
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## Drawings

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Schematic diagram



Connection of the PV strings, as well as connection to the inverter

Schematic diagram



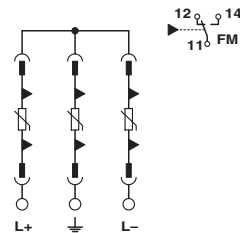
Connection of the protective grounding conductor

Schematic diagram



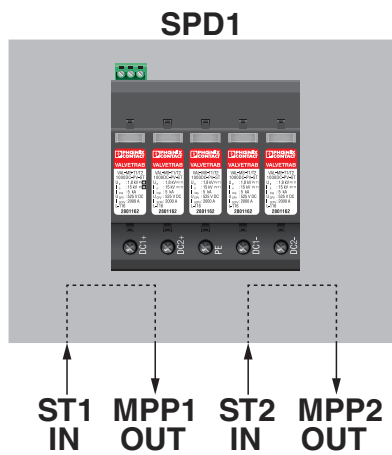
Connection of the protective equipotential bonding conductor

Circuit diagram

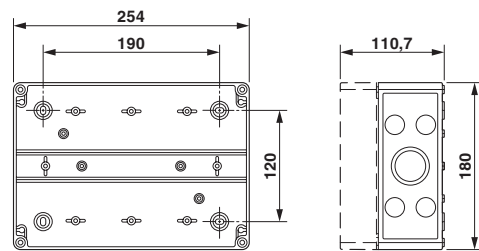


Connection of the remote indication contact on the surge protection

Connection diagram



Dimensional drawing



Housing dimensions

Schematic application drawing

## Classifications

eCl@ss

eCl@ss 10.0.1	27142422
eCl@ss 11.0	27142422

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## Classifications

### eCl@ss

eCl@ss 5.1	27371890
eCl@ss 7.0	27142422
eCl@ss 9.0	27142422

### ETIM

ETIM 4.0	EC000816
ETIM 6.0	EC000268
ETIM 7.0	EC000268

### UNSPSC

UNSPSC 18.0	39121116
UNSPSC 19.0	39121116
UNSPSC 20.0	39121116
UNSPSC 21.0	39121116

## Accessories

### Accessories

#### Connector set

Photovoltaic adapter set - PV-AS-MC4/6-150-MN-SET1 - 1079531



Connector set, Range of articles: Sunclix, Photovoltaic adapter set, type: Adapter, housing material: PPE, color: black, rated current: 35 A, cable length: 150. Connect these connectors only to other connectors of the same type made by the same manufacturer. When making the connections, always observe the specifications regarding nominal voltage and nominal current. The smallest common value is permissible.

#### Photovoltaic connector

Protective cap - PV-C PROTECTION CAP - 1785430



Photovoltaic connector, Range of articles: Sunclix, Protective cap, color: black. self-sealing, without interlock, set consisting of: 1 protective cap for connector side and 1 protective cap for coupling side

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### Accessories

#### Connector - PV-CF-S 2,5-6 (+) - 1774674



Photovoltaic connector, Range of articles: Sunclix, Connector, housing material: PPE, color: black, number of positions: 1, min. conductor cross section: 2.5 mm<sup>2</sup>, max. conductor cross section: 6 mm<sup>2</sup>, rated voltage: 1100 V DC, rated current: 40 A, Connection method: Spring-cage, Type of contact: Socket, min. cable diameter: 5.5 mm, max. cable diameter: 8 mm

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#### Connector - PV-CM-S 2,5-6 (-) - 1774687



Photovoltaic connector, Range of articles: Sunclix, Connector, housing material: PPE, color: black, number of positions: 1, min. conductor cross section: 2.5 mm<sup>2</sup>, max. conductor cross section: 6 mm<sup>2</sup>, rated voltage: 1100 V DC, rated current: 40 A, Connection method: Spring-cage, Type of contact: Pin, min. cable diameter: 5.5 mm, max. cable diameter: 8 mm

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#### Connector - PV-CF-S 6-16 (+) - 1790784



Photovoltaic connector, Range of articles: Sunclix, Connector, housing material: PPE, color: black, number of positions: 1, min. conductor cross section: 6 mm<sup>2</sup>, max. conductor cross section: 16 mm<sup>2</sup>, rated voltage: 1500 V DC, rated current: 65 A, Connection method: Spring-cage, Type of contact: Socket, min. cable diameter: 5.5 mm, max. cable diameter: 10 mm

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#### Connector - PV-CM-S 6-16 (-) - 1790797



Photovoltaic connector, Range of articles: Sunclix, Connector, housing material: PPE, color: black, number of positions: 1, min. conductor cross section: 6 mm<sup>2</sup>, max. conductor cross section: 16 mm<sup>2</sup>, rated voltage: 1500 V DC, rated current: 65 A, Connection method: Spring-cage, Type of contact: Pin, min. cable diameter: 5.5 mm, max. cable diameter: 10 mm

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### Power distributor

#### Photovoltaic Y-distributor - PV-ED6/Y-120(2+/1-) - 1030649

Power distributor, Range of articles: Sunclix, Photovoltaic Y-distributor, housing material: PPE, color: black



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### Accessories

Photovoltaic Y-distributor - PV-ED6/Y-120(1+/2-) - 1030650

Power distributor, Range of articles: Sunclix, Photovoltaic Y-distributor, housing material: PPE, color: black



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### Replacement plug

Type 1/2 surge protection plug - VAL-MS-T1/T2 1000DC-PV-ST - 2801162



Replacement plug for PV arrester combinations from the VAL-MS-T1/T2 1000DC-PV-... product range

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### Tool set

Tool set - TOOL-KIT SOLAR - 1212071



Tool case, equipped with: crimping pliers, pressing dies for MC3, MC4 and SOLARLOK connectors, stripping tool for commercially available solar cables, stripping tool for SUNCLIX, VDE cable cutter, VDE screwdriver: PH1, PH2, 0.6x3.5 and 0.8x4.0 slots.