

## String combiner box (SCB) - SOL-SC-1ST-0-DC-2MPPT-2001 - 2403337

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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 SUNCLIX DC connector 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 disconnector or fire service switch disconnector.

### Your advantages

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



### Key Commercial Data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 1 pc  |
| GTIN                                 | <br>4 055626 370514 |
| GTIN                                 | 4055626370514   |
| Weight per Piece (excluding packing) | 1,900.000 g   |
| Custom tariff number                 | 85363030  |
| Country of origin                    | Germany   |

### Technical data

#### System parameter

|                                  |                         |
|----------------------------------|-------------------------|
| System voltage                   | 1000 V DC ( $U_{max}$ ) |
| 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                       |

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## Technical data

### Safety equipment

|   |                       |
|---|-----------------------|
| Surge protective device                                       | T2                    |
| Protection level $U_p$  | $\leq 3.7 \text{ kV}$ |
| Total discharge current $I_{\text{total}} (8/20) \mu\text{s}$ | 40 kA                 |

### Cable entry

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

### General data

|                      |                             |
|----------------------|-----------------------------|
| Material cover/door  | Polycarbonate (transparent) |
| Housing material     | Polycarbonate               |
| Degree of protection | IP65                        |
| Protection class     | II                          |

### Dimensions

|  |   |
|--|---|
| Outer dimensions: width, height, depth | 180 mm x 180 mm x 111 mm (Housing dimensions) |
|--|---|

### Ambient conditions

|                                 |                  |
|---------------------------------|------------------|
| Ambient temperature (operation) | -20 °C ... 55 °C |
|---------------------------------|------------------|

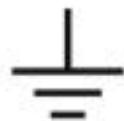
### Drawings

## String combiner box (SCB) - SOL-SC-1ST-0-DC-2MPPT-2001 - 2403337

Schematic diagram



Schematic diagram



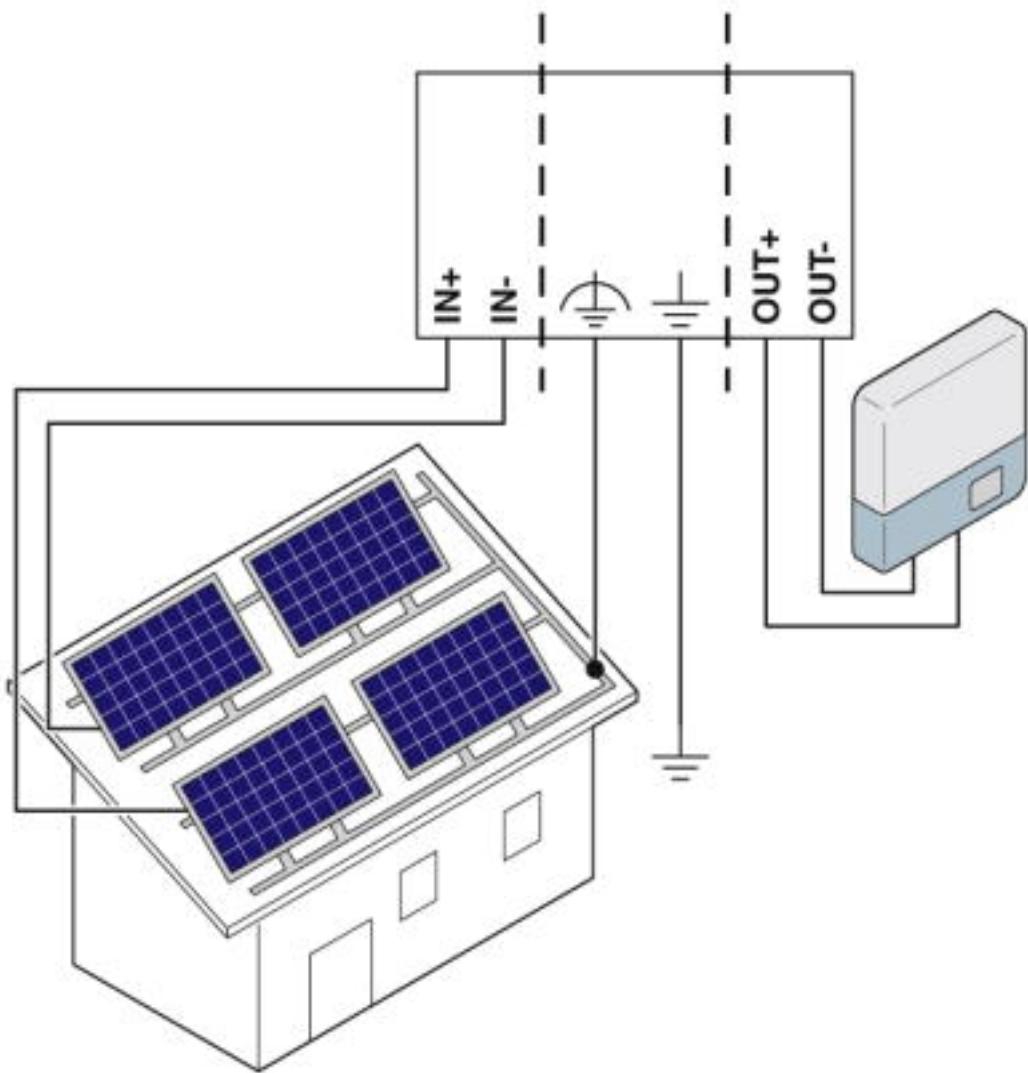
Connection of the protective grounding conductor



Connection of the protective equipotential bonding conductor

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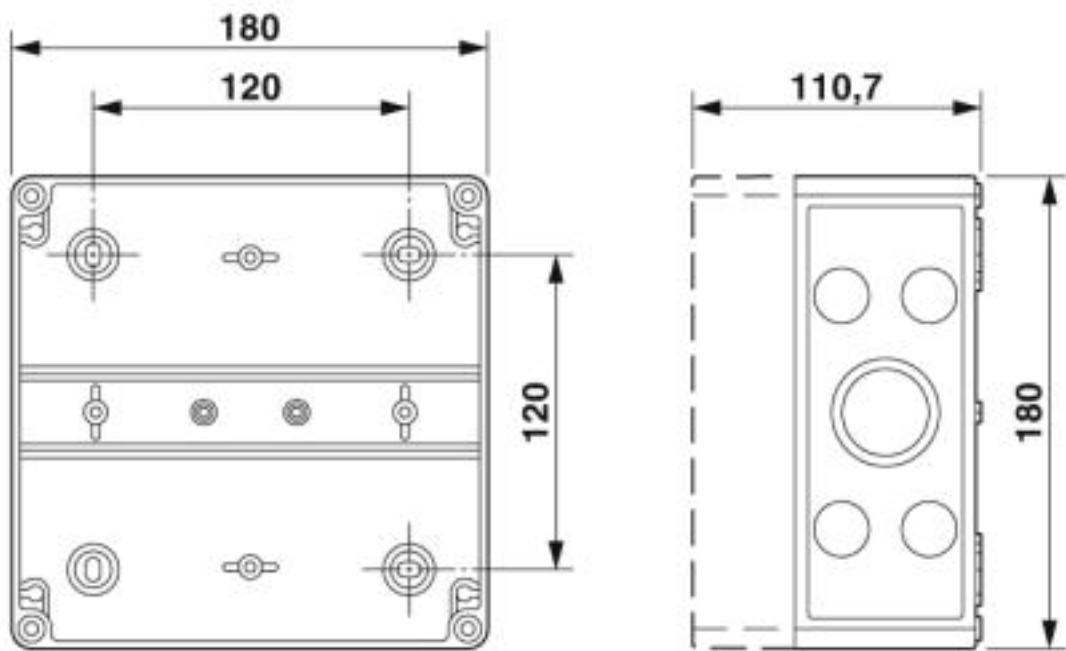
Connection diagram



Schematic application drawing

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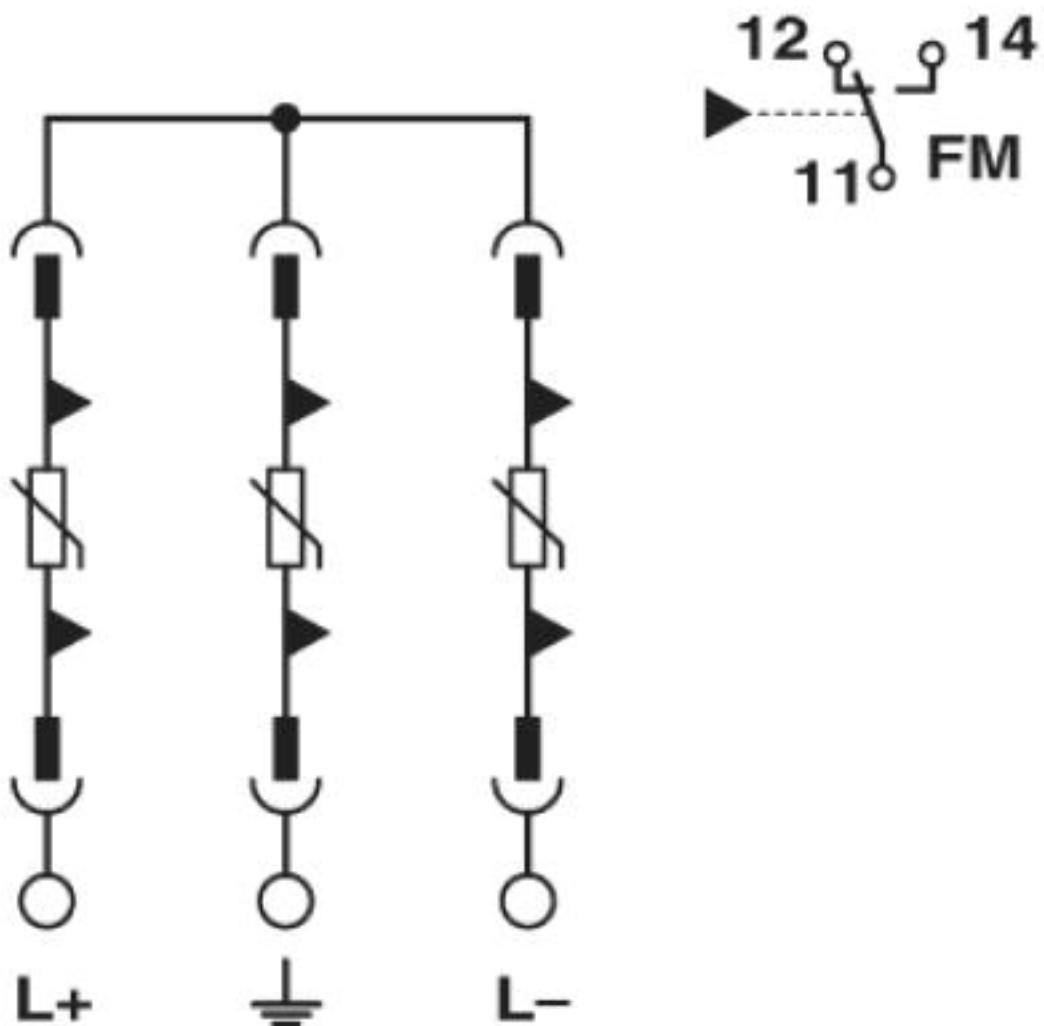
Dimensional drawing



Housing dimensions

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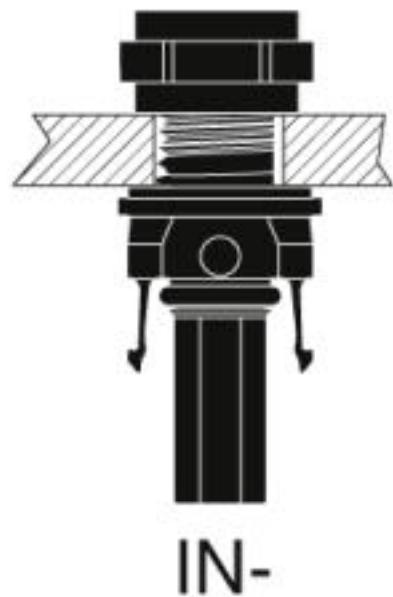
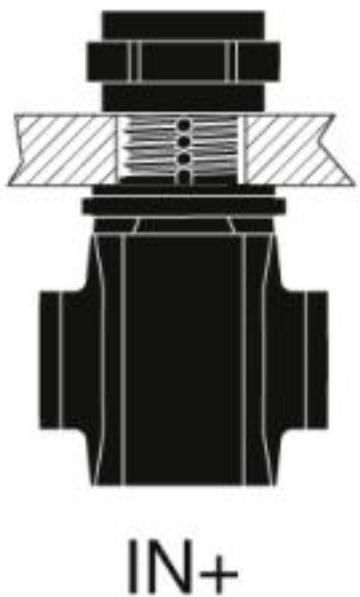
Circuit diagram



Connection of the remote indication contact on the surge protection

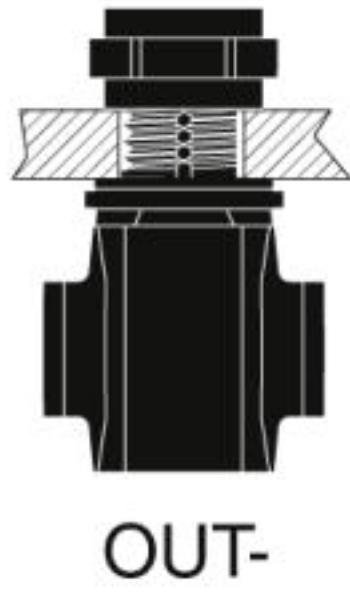
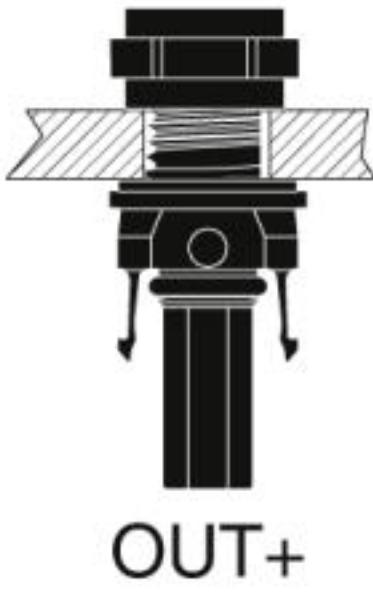
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Schematic diagram



Connection of the PV strings

Schematic diagram



Connection to the inverter

### Classifications

eCl@ss

eCl@ss 10.0.1

27142422

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### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 5.1 | 27371890 |
| eCl@ss 7.0 | 27142422 |
| eCl@ss 8.0 | 27142422 |
| eCl@ss 9.0 | 27142422 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 4.0 | EC000816 |
| ETIM 5.0 | EC000268 |
| ETIM 6.0 | EC000268 |
| ETIM 7.0 | EC000268 |

### Accessories

#### Accessories

##### Photovoltaic connector

Protective cap - PV-C PROTECTION CAP - 1785430

Photovoltaic connector, Range of articles: PV-JB TF, Protective cap, color: black, number of positions: 1



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

Photovoltaic connector, Range of articles: PV-CF-S, 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 current: 27 A, Connection method: Spring-cage, Type of contact: Socket. can only be released using a tool



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

Photovoltaic connector, Range of articles: PV-CM-S, 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 current: 27 A, Connection method: Spring-cage, Type of contact: Pin. can only be released using a tool



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### Accessories

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



Photovoltaic connector, Photovoltaic Y-distributor, housing material: PPE, color: black. Assembled with SUNCLIX - 1x male (minus) - 2x female (plus); length of single cable 0.12 m, varying number of nodes and customer-specific cable lengths are available on request.

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



Photovoltaic connector, Range of articles: PV-CF-S, 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 current: 40 A, Connection method: Spring-cage, Type of contact: Socket. can only be released using a tool

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



Photovoltaic connector, Photovoltaic Y-distributor, housing material: PPE, color: black. Assembled with SUNCLIX - 1x female (plus) - 2x male (minus); length of single cable 0.12 m, varying number of nodes and customer-specific cable lengths are available on request.

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



Photovoltaic connector, Range of articles: PV-CM-S, 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 current: 40 A, Connection method: Spring-cage, Type of contact: Pin. can only be released using a tool

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

Photovoltaic connector, Photovoltaic adapter set, type: Adapter, color: black, rated current: 35 A, cable length: 150. Adapter pair (+- / -+), assembled with SUNCLIX - 1 x pin (minus) and MC4 - 1 x socket (plus) or with SUNCLIX - 1 x socket (plus) and MC4 - 1 x pin (minus), free cable length: 0.15 m, cable type: multi-standard (UL/PV1-F), customer-specific cable length available on request

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Replacement plug

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### Accessories

Type 2 surge protection plug - VAL-MS 1000DC-PV-ST - 2800624



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