

# SOL-SC-2ST-0-DC-2MPPT-1101 - String combiner box (SCB)



2404569

<https://www.phoenixcontact.com/us/products/2404569>

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String combiner box for photovoltaic systems up to 1,000 V DC for connecting 2x 2 strings. With surge protection (type 1/2), DC switch disconnecter, and SUNCLIX DC connectors for the input and output side (SUNCLIX mating connectors supplied as standard).

## Product description

The Solarline string combiner boxes (SCBs) are used in both small rooftop systems and large ground-mounted systems. The main tasks of the SCBs are the surge protection of the PV system, collecting strings (if necessary), and looping through the protective equipotential bonding conductor for the local equipotential bonding.

Further functions are optional and depend on the equipment.

Examples of optional functions include protecting the strings with string fuses and disconnecting the strings via DC switch disconnectors or DC fire department switches.

You can determine the full scope of functions of the SCB from its item designation (see type key in the SCB packing slip, which can be downloaded in the "Downloads" area).

## Your advantages

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

## Commercial data

Item number	2404569
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	DTHTBA
GTIN	4055626399249
Weight per piece (including packing)	4,802 g
Weight per piece (excluding packing)	4,802 g
Country of origin	DE

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## Technical data

### Product properties

Product type	String combiner box (SCB)
Scope of delivery	SUNCLIX DC connector for connecting the SCB
Design	DC switch disconnecter

### Insulation characteristics

Protection class	II
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### Electrical properties

#### General

MPP voltage $U_n$	max. 1000 V DC
Non-load voltage $U_{OC}$	max. 1100 V DC
Current per string $I_{max}$	max. 16 A
Total current MPP tracker	max. 32 A

#### DC switch disconnecter

Rated operating current DC-21B	32 A
Rated operating current DC-PV1	32 A
Rated operating current DC-PV2	32 A

#### Surge protection

EN type	T1
IEC test classification	T1
Protection level $U_p$	$\leq 3.5$ kV
Total discharge current $I_{total}$ (10/350) $\mu$ s	5 kA
Total discharge current $I_{total}$ (8/20) $\mu$ s	40 kA
Short-circuit current rating $I_{SCPV}$	32 A

### Input data

#### DC

Number of inputs: Strings	2 (per MPP tracker)
Number of supported MPP trackers	2

### Output data

#### DC

Number of outputs: MPP tracker	2
Number of outputs: $\pm$	1 (per MPP tracker)

### Connection data

#### DC input

Type of cable entry	SUNCLIX
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Cable cross section	2.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
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## Protective bonding and protective grounding conductor

Type of cable entry	Cable gland
Connection method	Screw connection
Cable cross section	2x 16 mm <sup>2</sup>
External cable diameter	2x 6 mm ... 12 mm

## DC output

Type of cable entry	SUNCLIX
Cable cross section	2.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>

## Dimensions

### Housing

Width	361 mm
Height	254 mm
Depth	111 mm

## Material specifications

Material Housing	Polycarbonate
Material Cover/door	Polycarbonate (transparent)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
Ambient temperature (operation)	-20 °C ... 50 °C

## Standards and regulations

Standard designation	Low-voltage switchgear and controlgear assemblies - Part 2: Power switchgear and controlgear assemblies
Standards/specifications	EN 61439-2

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## Classifications

### ECLASS

ECLASS-11.0	27142422
ECLASS-13.0	27171490

### ETIM

ETIM 9.0	EC003857
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### UNSPSC

UNSPSC 21.0	39121100
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