

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)



1113128

<https://www.phoenixcontact.com/in/products/1113128>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



String combiner box for photovoltaic systems up to 1,000 V DC for connecting 1x 6 strings. With surge protection (type 1/2), string fuses for the positive and negative side, and cable glands 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. The main tasks of the SCBs are the surge protection of the photovoltaic 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 the application note for the type key of the SCB, 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
- Large portfolio of string combiner boxes in stock
- Application-oriented consultation

Commercial data

Item number	1113128
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	*****
Product key	DTHTAA
GTIN	4063151034634
Weight per piece (including packing)	3,350 g
Weight per piece (excluding packing)	3,350 g
Customs tariff number	85363030
Country of origin	DE

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)



1113128

<https://www.phoenixcontact.com/in/products/1113128>

Technical data

Product properties

Product type	String combiner box (SCB)
Design	Fuse holder

Insulation characteristics

Protection class	II
------------------	----

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. 10 A
Total current MPP tracker	max. 60 A

Surge protection

EN type	T1
IEC test classification	T1
Protection level U_p	≤ 3.5 kV
Total discharge current I_{total} (10/350) μs	5 kA
Total discharge current I_{total} (8/20) μs	40 kA
Short-circuit current rating I_{SCPV}	60 A

Input data

DC

Number of inputs: Strings	6 (Per MPP tracker)
Number of supported MPP trackers	1

String

String fuse	Midget / 10.3 x 38 (Not included in the scope of supply)
-------------	--

Output data

DC

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

Connection data

DC input

Type of cable entry	Cable gland
Connection method	Push-in connection
Cable cross-section range:	2.5 mm ² ... 6 mm ²
External cable diameter	3 mm ... 6.5 mm

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)



1113128

<https://www.phoenixcontact.com/in/products/1113128>

Protective bonding and protective grounding conductor

Type of cable entry	Cable gland
Connection method	Screw connection
Cable cross-section range:	16 mm ²
External cable diameter	5 mm ... 10 mm

DC output

Type of cable entry	Cable gland
Connection method	Push-in connection
Cable cross-section range:	2.5 mm ² ... 16 mm ²
External cable diameter	6 mm ... 12 mm

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 ... 45 °C

Standards and regulations

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

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)

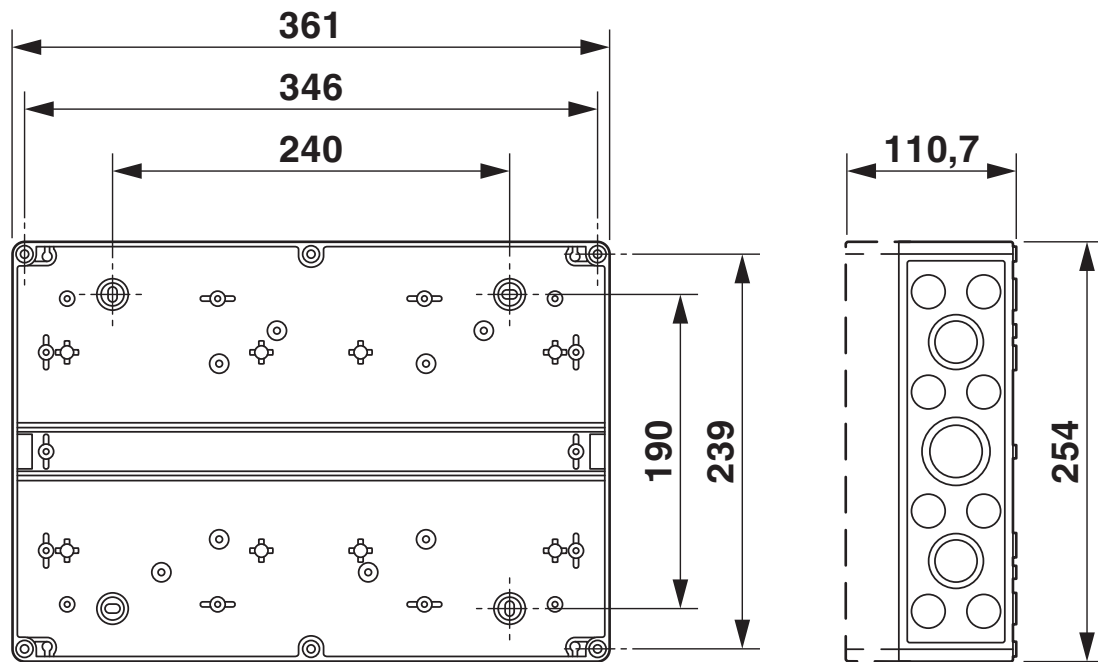


1113128

<https://www.phoenixcontact.com/in/products/1113128>

Drawings

Dimensional drawing



Housing dimensions

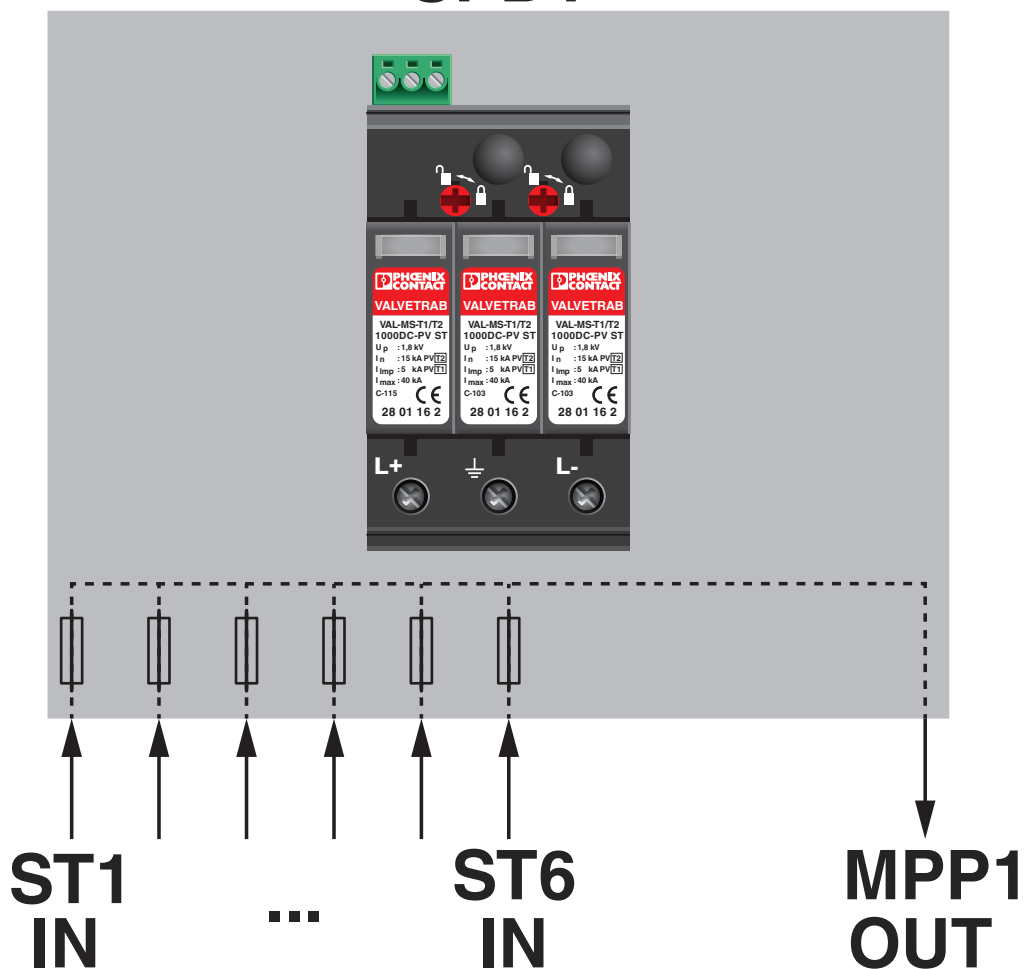
SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)

1113128

<https://www.phoenixcontact.com/in/products/1113128>

Connection diagram

SPD1



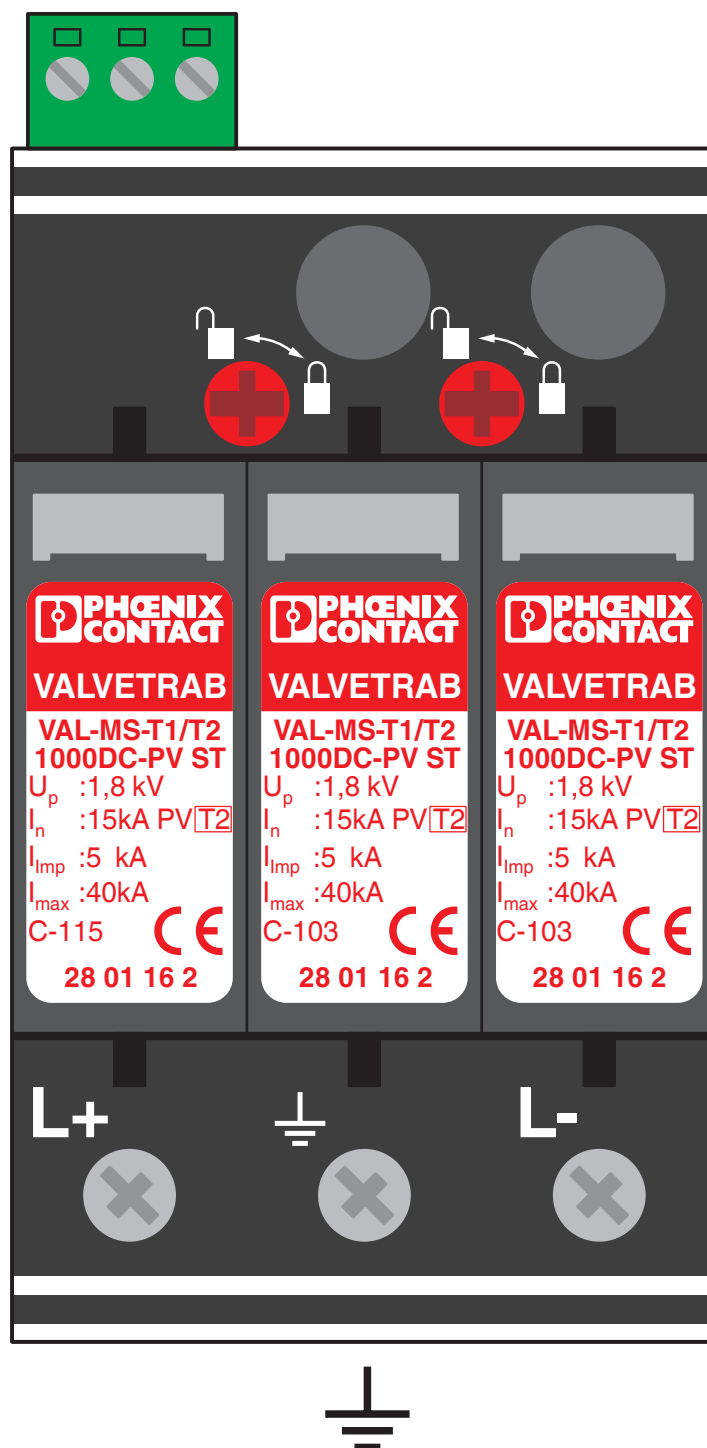
Schematic application drawing

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)

1113128

<https://www.phoenixcontact.com/in/products/1113128>

Schematic diagram



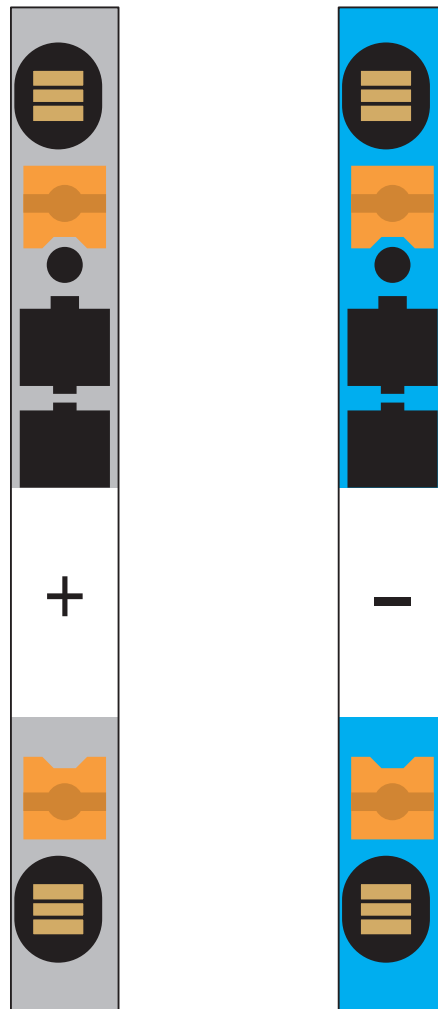
Connection of the protective grounding conductor on the surge protection

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)

1113128

<https://www.phoenixcontact.com/in/products/1113128>

Schematic diagram



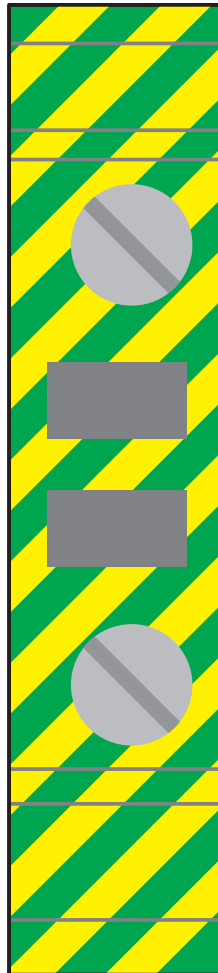
Connection of the PV strings, as well as connection to the inverter

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)

1113128

<https://www.phoenixcontact.com/in/products/1113128>

Schematic diagram



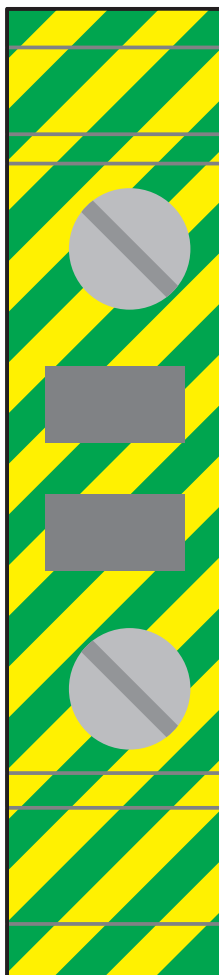
Connection of the protective equipotential bonding conductor

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)

1113128

<https://www.phoenixcontact.com/in/products/1113128>

Schematic diagram



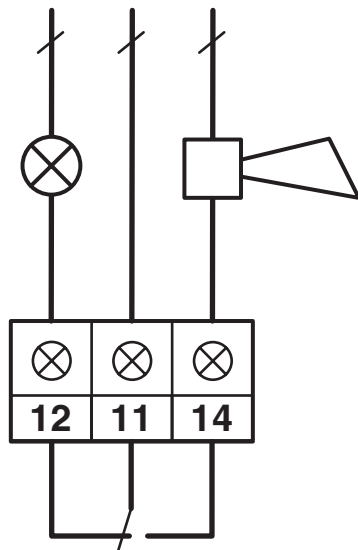
Connection of the protective grounding conductor

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)

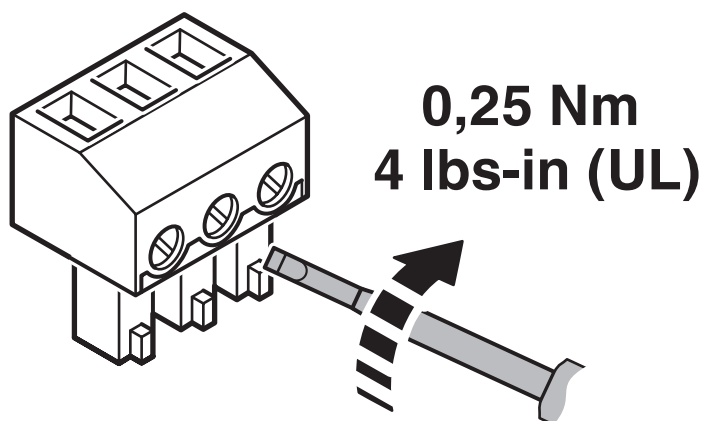
1113128

<https://www.phoenixcontact.com/in/products/1113128>

Schematic diagram



Connection of the remote indication contact on the surge protection



SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)



1113128

<https://www.phoenixcontact.com/in/products/1113128>

Classifications

ECLASS

ECLASS-13.0	27171490
ECLASS-11.0	27142422

ETIM

ETIM 9.0	EC003857
----------	----------

UNSPSC

UNSPSC 21.0	39121100
-------------	----------

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)



1113128
<https://www.phoenixcontact.com/in/products/1113128>

Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)



1113128

<https://www.phoenixcontact.com/in/products/1113128>

Mandatory accessories

FUSE 10,3X38 10A PV - Fuse

3061334

<https://www.phoenixcontact.com/in/products/3061334>

Fuse, 10.3x38 mm, up to 1000 V DC, gPV characteristics



FUSE 10,3X38 12A PV - Fuse

3061347

<https://www.phoenixcontact.com/in/products/3061347>

Fuse, 10.3x38 mm, up to 1000 V DC, gPV characteristics



SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)



1113128

<https://www.phoenixcontact.com/in/products/1113128>

FUSE 10,3X38 16A PV - Fuse

3061350

<https://www.phoenixcontact.com/in/products/3061350>

Fuse, 10.3x38 mm, up to 1000 V DC, gPV characteristics



FUSE 10,3X38 20A PV - Fuse

3061363

<https://www.phoenixcontact.com/in/products/3061363>

Fuse, 10.3x38 mm, up to 1000 V DC, gPV characteristics



Accessories

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)



1113128

<https://www.phoenixcontact.com/in/products/1113128>

SOL-WR-3625-AISI304 - Weather protection cover

1579291

<https://www.phoenixcontact.com/in/products/1579291>



Canopy to protect the string combiner box (SCB) from environmental influences when installed outdoors, made of stainless steel, with M8 grounding bolt on the back, incl. mounting material for SCB and grounding cable.

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

2801162

<https://www.phoenixcontact.com/in/products/2801162>



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

SOL-SC-6ST-0-DC-1MPPT-1010 - String combiner box (SCB)



1113128

<https://www.phoenixcontact.com/in/products/1113128>

SEALING PLUG 5X12 RD - Sealing plug

1400253

<https://www.phoenixcontact.com/in/products/1400253>

Sealing plug, color: red



TOOL-KIT SOLAR - Tool set

1212071

<https://www.phoenixcontact.com/in/products/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.

Phoenix Contact 2025 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

info@phoenixcontact.co.in