

## PVN DC 2I 2O 3MPP SPD1R CG 11

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

www.weidmuller.com



PV Next combiner boxes for inverters with 1 to 12 MPP trackers are used to protect the DC side of a photovoltaic system. The combiner boxes protect the inverter against overvoltages and thus comply with the European Directive CLC/TS 5 1643-32. In addition, these products offer the possibility to protect the system against reverse currents and the possibility to combine strings to save cables during installation.

### General ordering data

Version	Photovoltaics, Combiner Box, PV Next, 3 MPP's, 2 Inputs / 2 Outputs per MPP, Surge protection I / II, Cable gland, 1100 V
Order No.	<a href="#">2975540000</a>
Type	PVN DC 2I 2O 3MPP SPD1R CG 11
GTIN (EAN)	4099986823136
Qty.	1 items

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**Technical data**

**Approvals**

Approvals



ROHS Conform

**Dimensions and weights**

Depth	132 mm	Depth (inches)	5.1968 inch
Height	235 mm	Height (inches)	9.252 inch
Width	400 mm	Width (inches)	15.748 inch
Net weight	3224 g		

**Temperatures**

Ambient temperature -40 °C...50 °C Humidity 5...95 %, no condensation

**Environmental Product Compliance**

RoHS Compliance Status	Compliant
REACH SVHC	Lead 7439-92-1
SCIP	bdab5698-6a20-4370-8e28-8810d882d01a

**Included in delivery**

Included accessories	Article	Mounting foot
	Quantity	4
	Article	Sealing plug
	Quantity	7

**Approvals and norms**

Approvals EN 61439-2:2020

**Guarantee**

Time interval 5 years

**Electrical characteristics**

Rated DC voltage	1100 V
Rated short-term current resistance	Rated current 67 A
Current per Maximum Power Point, max.	53.6 A
Rated DC current per connection	Current per string, max. 53.60 A

**Enclosure**

Cover	removeable	Insulating material	Polyester glass-fibre reinforced, Polycarbonate, Polycarbonate
Type of mounting	Wall mounting	Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262

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## Technical data

Enclosure attachment	Via mounting foots	Protection class	II
Connection type string	Internal terminal (with cable gland feed-through)		

### General data

Standards	EN 61439-2, EN 61643-31	Protection degree	IP65
Installation location	Protected outdoor area (Land and Sea)		

### Inputs

Amount of maximum power points (MPP)	3		
Functional earth connector	Cable entry	Number of cable entries	2
	Wire connection	Type of connection	Screw connection
		Flexible, max. H05(07) V-K	25 mm <sup>2</sup>
		w. wire end ferrule, DIN 46228 pt 1, max.	16 mm <sup>2</sup>
Number of conduit inlets	6		
DC Input + & -	Wire connection	Type of connection	PUSH IN with actuator
		Wire cross-section, min.	2.5 mm <sup>2</sup>
		Wire cross-section, max.	25 mm <sup>2</sup>
	Cable entry	Number of cable entries	18
		Cable diameter, min.	5 mm
		Cable diameter, max.	16 mm
Fuse type	Neither fuse cartridge nor holder		
Fuses	No		
Max. number of DC inputs	per Maximum Power Point 2 inputs connected in parallel		
Number of string inputs per MPP	≤ 2		
Surge protection auxiliary contact	Cable entry	Number of cable entries	2
	Wire connection	Type of connection	Tension clamp connection with actuator
		Flexible, max. H05(07) V-K	1.5 mm <sup>2</sup>
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm <sup>2</sup>
Number of inputs	2		

### Outputs

Max. number of DC outputs	per Maximum Power Point 2 outputs connected in parallel		
DC Output + & -	Wire connection	Type of connection	PUSH IN with actuator
		Wire cross-section, min.	2.5 mm <sup>2</sup>
		Wire cross-section, max.	16 mm <sup>2</sup>

### Surge protection DC side

Standards	EN 61439-2, EN 61643-31	Lightning test current limp (10/350 μs)	6.25 kA
Discharge current, max. (8/20 μs)	40 kA	Protection level Up (+/-, -/PE, +/-PE)	≤ 3.8 kV

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Standby power consumption PC	<0.2 W	Short-circuit current ISCPV	11 000 A
Total discharge current I <sub>total</sub> ( 8/20µs)	50 kA	Discharge current I <sub>n</sub> (8/20 µs)	20 kA
Requirements class	Type I/II	Total discharge current I <sub>total</sub> (10/350µs)	12.5 kA
Protection level Up (-/PE)	≤ 3.8 kV	Protection level Up (+/-)	≤ 3.8 kV
Protection level Up (+/PE)	≤ 3.8 kV	PV system voltage, max. U <sub>cpv</sub>	1100 V
Surge protection DC side	1000 V type I + II	Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/PE	1100 V

### DC load break switch

Voltage type	DC	Switch disconnecter execution	no switch
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### Important note

Product information	The SCIP number was assigned due to a lead content of more than 0.1 % of the net weight. Safe use instruction according to ECHA: The identification of the hazardous substance is sufficient to allow safe use of the article throughout its life cycle, including the service life, disassembly and waste/recycling phase
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### Classifications

ETIM 8.0	EC003857	ETIM 9.0	EC003857
ETIM 10.0	EC003857	ECLASS 14.0	22-57-02-92
ECLASS 15.0	22-57-02-92		

### Tender specification sheets

Long specification	<p>Combiner box for inverters with 3 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to DIN CLC/TS 51643-32. MPP1: 2 inputs, connection via M25 cable gland with multiple sealing inserts. PUSH IN connection / single-wire, multi-wire, with/without ferrule. 1 output, connection via M25 cable gland with multiple sealing inserts. PUSH IN connection / single-wire, multi-wire, with/without ferrule. MPP2 to 3: identical to MPP1 Max. string voltage U<sub>oc</sub>: 1100 VDC</p> <p>1 class/type I + II combined arrester with signal contact                  Connection of the signal contact via M16 cable glands (Clamping range 5-10 mmØ) max. conductor cross-section: 1.5 mm<sup>2</sup>                  Connection of the functional earth via M16 cable glands (Clamping range 5-10 mmØ)</p>
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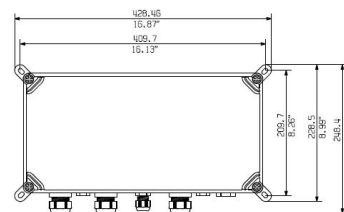
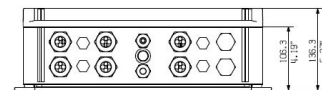
Conductor cross-section:  $\geq$   
16 mm<sup>2</sup>  
Protection class: IP65  
All built into a glas fibre  
reinforced polyester  
housing. Dimensions  
HxWxD: 235x400x132  
mm  
Approval according to low  
voltage switchgear and  
controlgear IEC 61439-1  
and EN 61439-2

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Drawings

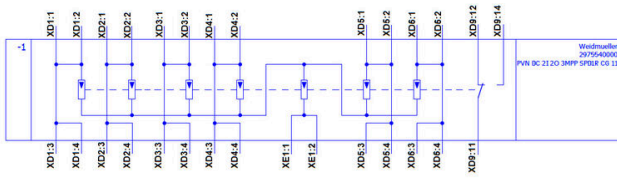


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## Accessories

### PV Sun Covers



#### General ordering data

Type	PV SUNCOVER 20/40/13	Version	
Order No.	<a href="#">8000143247</a>	Photovoltaics, Sun cover	
GTIN (EAN)	4099987 111867		
Qty.	1 ST		

### Cutting tools



Cutting tools for conductors up to 8 mm, 12 mm, 14 mm and 22 mm outside diameter. The special blade geometry allows pinch-free cutting of copper and aluminium conductors with minimum physical effort. The cutting tools (KT 8 to KT 22) also come with VDE and GS-tested protective insulation up to 1,000 V in accordance with EN/IEC 60900.

#### General ordering data

Type	KT 14	Version	
Order No.	<a href="#">1157820000</a>	Cutting tools, Cutting tool for one-hand operation	
GTIN (EAN)	4032248945344		
Qty.	1 ST		

### Tools



- For flexible and solid conductors with special insulating materials
- High-quality stripping for industrial applications (complies with aircraft industry requirements)
- Specially shaped blades enable stripping of special types of insulation and conductor configurations
- Stripping length adjustable via end stop
- Very versatile thanks to interchangeable stripping units
- Stripping results reproduced accurately over and over again
- No damage to the conductor
- A long-lasting, reliable tool thanks to its sturdy design
- Integrated cutting function

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**Accessories**

**General ordering data**

Type	MULTI-STRIPAX PV	Version	
Order No.	<a href="#">1190490000</a>	Photovoltaics, Plug-in connector	
GTIN (EAN)	4032248973262		
Qty.	1 ST		

**Crosshead screwdriver Phillips**



VDE insulated crosshead screwdriver, for Phillips screws, SDIK PH DIN 7438, ISO 8764/2-PH, output to ISO 8764-PH, SoftFinish grip

**General ordering data**

Type	SDIK PH3 X 150	Version	
Order No.	<a href="#">2749910000</a>	Screwdriver, Blade width (B): 3 mm, 150 mm, Blade thickness (A): 3	
GTIN (EAN)	4050118897210		
Qty.	1 ST		

**Slotted screwdriver**



VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

**General ordering data**

Type	SDIS 0.6X3.5X100	Version	
Order No.	<a href="#">2749810000</a>	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm	
GTIN (EAN)	4050118897012		
Qty.	1 ST		
Type	SDIS 1.0X5.5X125	Version	
Order No.	<a href="#">2749850000</a>	Screwdriver, Blade width (B): 5.5 mm, Blade length: 125 mm, Blade thickness (A): 1 mm	
GTIN (EAN)	4050118897050		
Qty.	1 ST		

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## Accessories

### External fixing lugs



External attachment lugs 4-part set

#### General ordering data

Type	MF FPC	Version	
Order No.	<a href="#">9536040000</a>	FPC (polycarbonate empty enclosure), Mounting foot, Fixing lugs,	
GTIN (EAN)	4032248009442	Height: 40 mm, Width: 19 mm, Depth: 35.5 mm, Basic material:	
Qty.	1 ST	Polyamide, Polyamide 66, Light Grey	

### UV-resistant cable ties



UV-resistant polyamide 6.6 ensures long durability of our special cable ties even with strong UV radiation. Ideal for continuous outdoor use.

#### General ordering data

Type	CB-UVR 290/4,5 BK	Version	
Order No.	<a href="#">26593350000</a>	Cable ties, 4.5 x 290 mm, Polyamide 66, 220 N	
GTIN (EAN)	4050118682816		
Qty.	100 ST		

### Sealing sets



#### General ordering data

Type	SL SET PV NEXT	Version	
Order No.	<a href="#">2729230000</a>	Photovoltaics	
GTIN (EAN)	4050118804508		
Qty.	1 ST		

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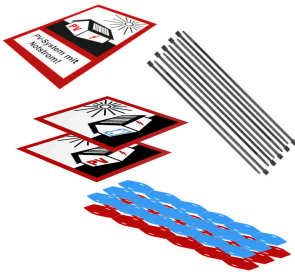
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## Accessories

Type	BLINDPLUG SET5 7X28MM	Version
Order No.	<a href="#">3077670000</a>	Photovoltaics, Blind plug
GTIN (EAN)	4099987081894	
Qty.	1 ST	
Type	BLINDPLUG SET50 7X28MM	Version
Order No.	<a href="#">3077650000</a>	Photovoltaics, Blind plug, Accessories, Blind plug, 50 pieces
GTIN (EAN)	4099987081870	
Qty.	1 ST	

## PV marking sets



## General ordering data

Type	PV MARKER 1-3 MPP	Version
Order No.	<a href="#">8000149520</a>	Photovoltaics, Device markers, Accessories, Conductor and cable markers, Cable ties, Marking set, Warning label, Cable marker, Self-adhesive
GTIN (EAN)	4099987229197	
Qty.	1 ST	

## Spare Arrester



## General ordering data

Type	VPU PV II O 1000	Version
Order No.	<a href="#">2530660000</a>	Surge voltage arrester, Low voltage, Accessories, Spare arrester
GTIN (EAN)	4050118540871	
Qty.	9 ST	