

## PVN DC 1I 1O 2MPP SW SPD1R EVO 11

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

www.weidmueller.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, 1100 V, 2 MPP's, 1 Input / 1 Output per MPP, Surge protection I / II, Switch disconnecter, MC4-Evo 2
Order No.	<a href="#">3116990000</a>
Type	PVN DC 1I 1O 2MPP SW SPD1R EVO 11
GTIN (EAN)	4099987237772
Qty.	1 items

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**Technical data**
**Approvals**

Approvals



ROHS Conform

**Dimensions and weights**

Depth	226 mm	Depth (inches)	8.8976 inch
Height	236 mm	Height (inches)	9.2913 inch
Width	200 mm	Width (inches)	7.874 inch
Net weight	2100 g		

**Temperatures**

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

**Environmental Product Compliance**

RoHS Compliance Status Compliant with exemption  
 RoHS Exemption (if applicable/known) 6c  
 REACH SVHC Lead 7439-92-1

**Included in delivery**

Included accessories	Article	Mounting foot
	Quantity	4

**Guarantee**

Time interval 5 years

**Electrical characteristics**

Rated DC voltage	1100 V
Rated short-term current resistance	Rated current 43.75 A
Current per Maximum Power Point, max.	35 A
Rated DC current per connection	Current per string, max. 35.00 A

**Enclosure**

Insulating material	Polyester glass-fibre reinforced, Polycarbonate	Type of mounting	4 screws, Wall mounting
Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262	Enclosure attachment	Via mounting feet
Connection type string	Plug MC4-Evo 2		

**General data**

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

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## Technical data

### Inputs

Amount of maximum power points (MPP)	2		
Functional earth connector	Cable entry	Number of cable entries	1
	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	2		
DC Input + & -	Wire connection	Type of connection	Stäubli MC4-Evo 2 connector
		Compatible cable cross-section	TÜV 2 Pfg1169/08.07
		Wire cross-section, min.	2.5 mm <sup>2</sup>
		Wire cross-section, max.	16 mm <sup>2</sup>
	Cable entry	Number of cable entries	2
Fuse type	Neither fuse cartridge nor holder		
Fuses	No		
Max. number of DC inputs	per Maximum Power Point 1 input		
Number of string inputs per MPP	1		
Surge protection auxiliary contact	Cable entry	Number of cable entries	1
	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	1		

### Outputs

Max. number of DC outputs	per Maximum Power Point 1 output		
DC Output + & -	Wire connection	Type of connection	Stäubli MC4-Evo 2 connector
		Compatible cable cross-section	TÜV 2 Pfg1169/08.07
		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 61643-31	Lightning test current Iimp (10/350 µs)	6.25 kA
Discharge current, max. (8/20 µs)	40 kA	Protection level Up (+/-, -/PE, +/-PE)	≤ 3.8 kV
Standby power consumption PC	<0.2 W	Short-circuit current ISCPv	11000 A
Total discharge current Itotal (8/20 µs)	50 kA	Discharge current In (8/20 µs)	20 kA
Requirements class	Type I/II	Total discharge current Itotal (10/350 µs)	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. Ucpv	1100 V
Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/-PE	1100 V		

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## Technical data

### DC load break switch

Voltage type	DC	Rated impulse withstand voltage	8 kV
Switch disconnector execution	switch in cover	Switching disconnector capacity	DC-PV1, IEC 60947-3
Motor drive available	No	Rated short-circuit making current	1.4 kA
Number of breaking operation cycles at rated current	300	Number of operating cycles	10000

### 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 2 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to DIN CLC/TS 51643-32. MPP1: 1 input, connection via MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg 1169/08.07 / EN 50618:2063</p> <p>1 output, connection via MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg 1169/08.07 / EN 50618:2063</p> <p>MPP2: identical to MPP1</p> <p>Max. string voltage Uoc: 1100 VDC</p> <p>1 class/type I + II combined arrester with signal contact</p> <p>With lockable DC load break switch for safe separation of the string lines according to DIN EN IEC 60947-3</p> <p>Connection of the signal contact via M16 cable glands (Clamping range 5-10 mmØ) max. conductor cross-section: 1.5 mm<sup>2</sup></p> <p>Connection of the functional earth via M16 cable glands (Clamping range 5-10 mmØ) Conductor cross-section: ≥ 16 mm<sup>2</sup></p> <p>Protection class: IP65</p> <p>All built into a glass fibre reinforced polyester housing. Dimensions HxWxD: 236x200x226.2 mm</p> <p>Approval according to low voltage switchgear and</p>
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**Technical data**

controlgear IEC 61439-1  
and EN 61439-2

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Drawings



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## Accessories

### 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

### 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



Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

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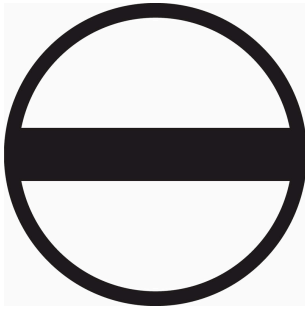
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## Accessories

### General ordering data

Type	SDK PH3	Version	
Order No.	<a href="#">9008500000</a>	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056491		
Qty.	1 ST		

### Slotted screwdriver



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

### General ordering data

Type	SDS 0.6X3.5X100	Version	
Order No.	<a href="#">9008330000</a>	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056286		
Qty.	1 ST		
Type	SDS 1.0X5.5X150	Version	
Order No.	<a href="#">9008350000</a>	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056316		
Qty.	1 ST		

## Accessories



The dust protection cap "Dustcap VSSO" protects the Weidmüller and type 4 solar connectors against dust and dirt.

The "SafetyClip" protects the Weidmüller solar connectors against unintentional opening and can only be released using the special multi-tool.

### General ordering data

Type	VSSO WM4 C	Version	
Order No.	<a href="#">1254870000</a>	Photovoltaics, Flat design	
GTIN (EAN)	4050118047479		
Qty.	100 ST		

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## Accessories

### 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="#">2659350000</a>		Cable ties, 4.5 x 290 mm, Polyamide 66, 220 N
GTIN (EAN)	4050118682816		
Qty.	100 ST		

### 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, Height: 40 mm, Width: 19 mm, Depth: 35.5 mm, Basic material: Polyamide, Polyamide 66, Light Grey
GTIN (EAN)	4032248009442		
Qty.	1 ST		

### Y-Connector Cables



The Y cable is used for the parallel connection of several strings in a PV system, e.g. for splitting a line in front of an inverter.  
The cables are available in different connection variants.

### General ordering data

Type	PVHYM-M-XXXX6W+11	Version	
Order No.	<a href="#">2877850000</a>		Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x MC4 Male, 6mm <sup>2</sup> , 1100 V
GTIN (EAN)	4064675666417		
Qty.	1 ST		

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## Accessories

Type	PVHYM+M+XXXX6W-11	Version	
Order No.	<a href="#">2877860000</a>	Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x MC4 Female,	
GTIN (EAN)	4064675666424	6mm <sup>2</sup> , 1100 V	
Qty.	1 ST		

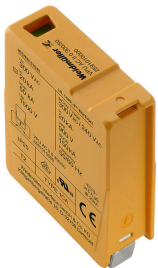
## Sealing sets



### General ordering data

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		

## Spare Arrester



### General ordering data

Type	VPU PV I+II O 1000 E	Version	
Order No.	<a href="#">2530530000</a>	Surge voltage arrester, Low voltage, Accessories, Surge protection I /	
GTIN (EAN)	4050118540741	II, Spare arrester	
Qty.	9 ST		