

## PVN DC 3I 3O 3MPP SPD1R WM4 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, 3 MPP's, 3 Inputs / 3 Outputs per MPP, Surge protection I / II, WM4C
Order No.	<a href="#">2890460000</a>
Type	PVN DC 3I 3O 3MPP SPD1R WM4 11
GTIN (EAN)	4064675878308
Qty.	1 items

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**Technical data**

**Approvals**

Approvals



ROHS Conform

**Dimensions and weights**

Depth	132 mm	Depth (inches)	5.1968 inch
Depth with add-on components	132 mm	Height	340 mm
Height (inches)	13.3858 inch	Width	400 mm
Width (inches)	15.748 inch	Net weight	5615 g

**Temperatures**

Ambient temperature	-40 °C...40 °C	Humidity	5 to 95 % (non-condensing)
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**Environmental Product Compliance**

RoHS Compliance Status	Compliant
REACH SVHC	Lead 7439-92-1

**DC string monitoring**

Monitoring function	Non monitored
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**Included in delivery**

Included accessories	Article	Mounting foot
	Quantity	4
	Article	Sealing plug
	Quantity	2

**Guarantee**

Time interval	5 years
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**Electrical characteristics**

Rated DC voltage	1100 V
Rated short-term current resistance	Rated current 52.5 A
Current per Maximum Power Point, max.	42 A
Rated DC current per connection	Current per string, max. 35.00 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	Plug WM4C		

### General data

Standards	IEC 61643-31, IEC 61439-2 ed 3.0	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
		Cable diameter, min.	5 mm
		Cable diameter, max.	9 mm
		Cable gland	M 25
	Wire connection	Type of connection	PUSH IN with actuator
		Flexible, max. H05(07) V-K	25 mm <sup>2</sup>
DC Input + & -	Wire connection	w. wire end ferrule, DIN 46228 pt 1, max.	16 mm <sup>2</sup>
		Type of connection	WM4C plug-in connector
		Wire cross-section, min.	4 mm <sup>2</sup>
		Wire cross-section, max.	6 mm <sup>2</sup>
Fuse type	Neither fuse cartridge nor holder		
Fuses	No		
Max. number of DC inputs	per Maximum Power Point 3 inputs connected in parallel		
Number of string inputs per MPP	≤ 3		
Surge protection auxiliary contact	Cable entry	Number of cable entries	1
		Cable diameter, min.	4 mm
		Cable diameter, max.	9 mm
		Cable gland	M 25
	Wire connection	Type of connection	PUSH IN 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	9		

### Outputs

Max. number of DC outputs	per Maximum Power Point 3 outputs connected in parallel
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### Surge protection DC side

Standards	IEC 61643-31, IEC 61439-2 ed 3.0	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
Short-circuit current ISCPV	11000 A	Total discharge current I <sub>total</sub> (8/20 μs)	50 kA
Discharge current I <sub>n</sub> (8/20 μs)	20 kA	Requirements class	Type I/II

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### Technical data

Total discharge current I <sub>total</sub> (10/350µs)	6.25 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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### 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 5 1643-32. MPP1: 3 inputs, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg 1 169/08.07 / EN 50618:2063</p> <p>3 outputs, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg 1 169/08.07 / EN 50618:2063</p> <p>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</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: 339x400x132 mm</p> <p>Approval according to low voltage switchgear and controlgear IEC 61439-1 and EN 61439-2</p>
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**Drawings**

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## Accessories

### PV Weather protection



#### General ordering data

Type	PV SUNCOVER 30/40/13	Version	
Order No.	<a href="#">8000143253</a>	Version	Photovoltaics, Sun cover
GTIN (EAN)	4099987 111928		
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>	Version	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>	Version	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>	Version	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>	Version	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>	Version	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

**PV-Stick field connectors**



Faster is better. This also applies to the cabling of solar systems. Our handy connectors stay firmly in your grip even in frosty temperatures and can be installed very quickly and easily without a crimping tool. You don't need crimp contacts and crimping tools and you avoid assembly errors. This saves up to 50% installation time – without affecting quality. The new photovoltaic connectors are TÜV-approved and comply with IEC 62852.

Our "SNAP IN" technology enables safe connections with minimal effort – insert, turn: current!

- 1.500 V DC (DE) / 1,500 V DC (EN)
- SNAP IN technology
- Standard-compliant quality in accordance with IEC 62852
- Ergonomic, prize-winning design
- Fastest PV connector currently available
- Reliable latching

**General ordering data**

Type	PV-STICK+ VPE10	Version
Order No.	<a href="#">1303450000</a>	Photovoltaics, Plug-in connector, DC version
GTIN (EAN)	4050118102468	
Qty.	10 ST	
Type	PV-STICK- VPE10	Version
Order No.	<a href="#">1303490000</a>	Photovoltaics, Plug-in connector, DC version
GTIN (EAN)	4050118102529	
Qty.	10 ST	

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## Accessories

### 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		

### 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		

### 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,	
GTIN (EAN)	4064675666417	6mm <sup>2</sup> , 1100 V	
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

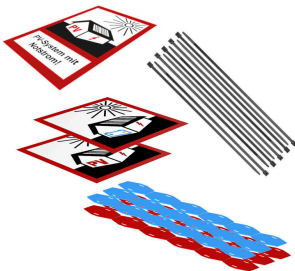


### General ordering data

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		

## 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	
GTIN (EAN)	4099987229197	markers, Cable ties, Marking set, Warning label, Cable marker, Self-	
Qty.	1 ST	adhesive	