

## PVN1M3I9SXFV101TXPX10

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

[www.weidmueller.com](http://www.weidmueller.com)

### Product image



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, 1000 V, 3 MPP's, 3 Inputs / 3 Outputs per MPP, Surge protection I / II, WM4C
Order No.	<a href="#">2683190000</a>
Type	PVN1M3I9SXFV101TXPX10
GTIN (EAN)	4050118700220
Qty.	1 items
Delivery status	This article will no longer be available in the future.
Available until	2025-12-31T00:00:00+01:00
Alternative product	<a href="#">PVN DC 3I 3O 3MPP SPD1R WM4 11</a>

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## Technical data

## Approvals

Approvals



ROHS Conform

## Dimensions and weights

Depth	210 mm	Depth (inches)	8.2677 inch
Height	334 mm	Height (inches)	13.1496 inch
Width	558 mm	Width (inches)	21.9685 inch
Net weight	8480 g		

## Temperatures

Ambient temperature -40 °C...50 °C Humidity 5 - 90 %, no condensation

## Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6c
REACH SVHC	Lead 7439-92-1
SCIP	bdab5698-6a20-4370-8e28-8810d882d01a

## Approvals and norms

Approvals EN 61439-2, IEC 61439-2

## Guarantee

Time interval 5 years

## Electrical characteristics

Rated DC voltage	1000 V
Rated short-term current resistance	Rated current 56.25 A
Current per Maximum Power Point, max.	45 A
Rated DC current per connection	Current per string, max. 35.00 A

## Enclosure

Cover	with cover, removeable	Insulating material	Polyester glass-fibre reinforced, Polycarbonate
Type of mounting	Wall mounting, 4 screws	Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262
Enclosure attachment	Via mounting feet	Protection class	II
Connection type string	Plug WM4C		

## 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)	3		
Functional earth connector	Cable entry	Number of cable entries	2
		Cable diameter, min.	5 mm
		Cable diameter, max.	10 mm
	Wire connection	Cable gland	M 16
		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	9		
DC Input + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable crossection	EN 50618:2015
		Wire cross-section, min.	2.5 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	2
		Cable diameter, min.	5 mm
		Cable diameter, max.	10 mm
	Wire connection	Cable gland	M 16
		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	9		

**Outputs**

Max. number of DC outputs	per Maximum Power Point 3 outputs connected in parallel		
DC Output + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable crossection	TÜV 2 Pfg1169/08.07
		Wire cross-section, min.	4 mm <sup>2</sup>
		Wire cross-section, max.	6 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

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## Technical data

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
Maximum continuous operating voltage 1100 V DC UCPV mode +/-, -/PE, +/PE			

### DC load break switch

Switch disconnector execution no switch

### 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

### 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

Combiner box for inverters with 3 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to EN 51543-32. MPP1: 3 inputs, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg1 169/08.07 / EN 50618:2063  
3 outputs, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg1 169/08.07 / EN 50618:2063  
MPP2 to 3: identical to MPP1 Max. string voltage U<sub>oc</sub>: 1000V  
1 class/type I + II combined arrester with signal contact  
Connection of the signal contact via cable glands (8-12mmØ) max. conductor cross-section: 1.5mm<sup>2</sup>  
Connection of the functional earth via cable glands (8-12mmØ) Conductor cross-section: 16-25mm<sup>2</sup>  
Protection class: IP65  
All built into a glas fibre reinforced polyester housing. Dimensions HxWxD: 334x558x210 mm

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Approval according to  
low voltage switchgear  
and controlgear IEC  
61439-1:2011 and EN  
61439-2:2011

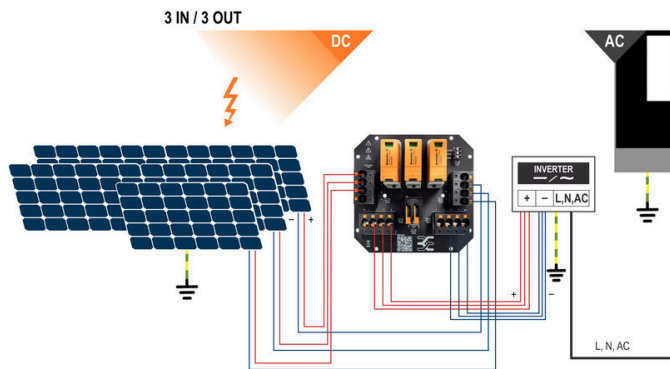
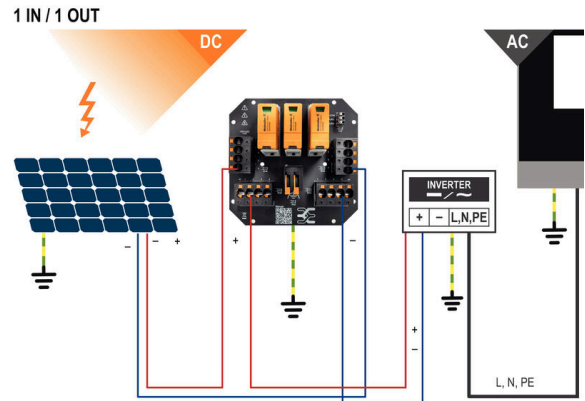
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Drawings

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PCB design



PVN 1 M2 I6 S0 F3 V1 Q1 TX PX 10

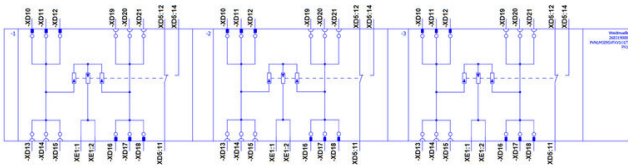
<b>Series</b> PVN = PV Next VPU = PV Protect	<b>Voltage</b> 10 = 1kV 11 = 1,1kV 15 = 1,5kV
<b>Level</b> 1 = DC trunk box (L1)	<b>Powersupply</b> x = n/a
<b>Series</b> 1 = 1 MPPT supported 2 = 2 MPPT supported 3 = 3 MPPT supported 4 = 4 MPPT supported 6 = 6 MPPT supported	<b>Monitoring</b> x = n/a
<b>Inputs</b> 1...12 inputs	<b>Output Type</b> 0 = CG 1 = WM4C 2 = MC4-Evo 2
<b>Switch</b> x = n/a 0 = manual switch 1 = remote switch	<b>SPD</b> 2/0 = TYP II 1 = TYP I+II X = No SPD
	<b>Fuses</b> x = n/a 3 = only fuse holders

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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



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

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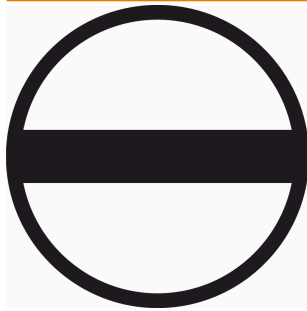
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## Accessories

### 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		

### 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		

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## Accessories

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

### External fixing lugs



The enclosures of the TBF series are made of extremely tough glass fibre-reinforced polyester. These enclosures are ideal for applications that call for low weight coupled with high shock resistance. The weather-resistant TBF enclosures are designed for a wide range of applications. Together with their comprehensive range of accessories, they provide universal solutions for accommodating built-in items such as regulators, measuring instruments, valves and other equipment.

Features:

- 9 sizes in 2 versions, with grey and transparent lids
- Cover with nylon screws
- Fixing holes outside the sealed area
- Thread for fitting to terminal rails and mounting plates
- Comprehensive accessories
- Weidmüller can manufacture and supply this enclosure to match customer specifications, fitted with all necessary terminals and cable glands.

### General ordering data

Type	MF TBF	Version	
Order No.	<a href="#">0360800000</a>	TBF (polyester empty enclosure), Mounting foot, Fixing lugs, Height: 72.5 mm, Width: 24 mm, Depth: 12 mm, Basic material: Polyamide, Polyamide 66, Deep black	
GTIN (EAN)	4008190108595		
Qty.	1 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		

### PV Sun Covers



#### General ordering data

Type	PV SUN COVER 56/30/21	Version	
Order No.	<a href="#">8000087025</a>		Photovoltaics
GTIN (EAN)	4064675845188		
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,
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		

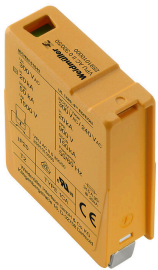
## Sealing sets



### 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		

## Spare Arrester



### General ordering data

Type	VPU PV I+II O 1000	Version	
Order No.	<a href="#">2530600000</a>	Surge voltage arrester, Low voltage, Accessories, Surge protection I /	
GTIN (EAN)	4050118540819	II, Spare arrester	
Qty.	9 ST		
Type	VPU PV I+II OM 1000	Version	
Order No.	<a href="#">2534300000</a>	Surge voltage arrester, Low voltage, Surge protection I / II, Spare	
GTIN (EAN)	4050118545906	arrester	
Qty.	9 ST		

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## Counterpart

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### General ordering data

Type	PV-STICK SET	Version
Order No.	<a href="#">1422030000</a>	Photovoltaics, Plug-in connector, DC version
GTIN (EAN)	4050118225723	
Qty.	1 ST	
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+ VPE200	Version
Order No.	<a href="#">1303470000</a>	Photovoltaics, Plug-in connector, DC version
GTIN (EAN)	4050118102543	
Qty.	200 ST	
Type	PV-STICK+ VPE50	Version
Order No.	<a href="#">1303460000</a>	Photovoltaics, Plug-in connector, DC version
GTIN (EAN)	4050118102383	
Qty.	50 ST	
Type	PV-STICK- VPE10	Version
Order No.	<a href="#">1303490000</a>	Photovoltaics, Plug-in connector, DC version
GTIN (EAN)	4050118102529	
Qty.	10 ST	
Type	PV-STICK- VPE200	Version
Order No.	<a href="#">1303510000</a>	Photovoltaics, Plug-in connector, DC version
GTIN (EAN)	4050118102390	
Qty.	200 ST	
Type	PV-STICK- VPE50	Version
Order No.	<a href="#">1303500000</a>	Photovoltaics, Plug-in connector, DC version
GTIN (EAN)	4050118102536	
Qty.	50 ST	