

**PVN1M1I3SXF3V200TXPX10****Weidmüller Interface GmbH & Co. KG**Klingenbergsstraße 26  
D-32758 Detmold  
Germany[www.weidmueller.com](http://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 51643-32. 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, 1000 V, 1 MPP, 3 Inputs / 3 Outputs per MPP, With fuse holder, Surge protection II, Cable gland
Order No.	<a href="#">2683230000</a>
Type	PVN1M1I3SXF3V200TXPX10
GTIN (EAN)	4050118699975
Qty.	1 items
Delivery status	Discontinued
Available until	2024-12-31T00:00:00+01:00
Alternative product	<a href="#">PVN DC 3IF 30_1MPP SPD1R CG 10</a>

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**Technical data****Approvals**

Approvals

**Dimensions and weights**

Depth	175 mm	Depth (inches)	6.8898 inch
Height	330 mm	Height (inches)	12.9921 inch
Width	302 mm	Width (inches)	11.8897 inch
Net weight	3144 g		

**Temperatures**

Ambient temperature	-40 °C...45 °C	Humidity	5 - 90 %, no condensation
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**Environmental Product Compliance**

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

**Approvals and norms**

Approvals	EN 61439-2, IEC 61439-2
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**Guarantee**

Time interval	5 years
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**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.	45.00 A	

**Enclosure**

Cover	with cover, removable	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 foots	Connection type string	Internal terminal (with cable gland feed-through)

**General data**

Protection degree	IP65	Installation location	Protected outdoor area (Land and Sea)
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**Inputs**

Fused poles of string	+-
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## Technical data

Fuse-link standard	IEC 60269-1, IEC 60269-6, gPV (EN 60269-6)				
Amount of maximum power points (MPP)	1				
Functional earth connector	Cable entry	Number of cable entries	2		
		Cable diameter, min.	5 mm		
Wire connection		Cable diameter, max.	10 mm		
		Cable gland	M 16		
Number of conduit inlets	Type of connection	Screw connection			
	Flexible, max. H05(07) 25 mm <sup>2</sup> V-K				
DC Input + & -	w. wire end ferrule,	16 mm <sup>2</sup> DIN 46228 pt 1, max.			
Fuse type	Empty fuse holder				
Fuses	Yes				
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		
Wire connection		Cable diameter, max.	10 mm		
		Cable gland	M 16		
Number of inputs	Type of connection	Tension clamp connection with actuator			
	Flexible, max. H05(07) 1.5 mm <sup>2</sup> V-K				
	w. wire end ferrule,	1.5 mm <sup>2</sup> DIN 46228 pt 1, max.			

## Number of inputs 3

## Outputs

Max. number of DC outputs	per Maximum Power Point 3 outputs connected in parallel		
DC Output + & -	Wire connection	Type of connection	PUSH IN
		Compatible cable crosssection	TÜV 2 Pfg 1169/08.07
		Wire cross-section, min.	2.5 mm <sup>2</sup>
		Wire cross-section, max.	16 mm <sup>2</sup>

## Surge protection DC side

Discharge current, max. (8/20 µs)	40 kA	Standby power consumption PC	<0.2 W
Short-circuit current ISCPV	11000 A	Total discharge current Itotal (8/20µs)	50 kA
Discharge current In (8/20 µs)	20 kA	Requirements class	Type II
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	1100 V		
DC UCPV mode +/-, -/PE, +/-PE			

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**Technical data****DC load break switch**

Switch disconnector execution	no switch
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**Important note**

Product information	<p>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        Fuses are not included</p>
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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 1 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to EN 51543-32. MPP1:        3 inputs, connection via M25 cable gland with 3x7mm Ø cable entry.        PUSH IN connection / 2.5 - 6mm<sup>2</sup> single-wire, multi-wire, with/without ferrule.        3 outputs, connection via M25 cable gland with 3x7mm Ø cable entry.        PUSH IN connection / 2.5 - 6mm<sup>2</sup> single-wire, multi-wire, with/without ferrule.        Max. string voltage Uoc: 1000V        1 class/type II arrester with signal contact        Fuse holders for inputs and outputs (fuses 10x38 to be ordered separately)        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 glass fibre reinforced polyester housing. Dimensions HxWxD: 330x302x175 mm        Approval according to low voltage switchgear and controlgear IEC</p>
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**Technical data**

61439-1:2011 and EN  
61439-2:2011

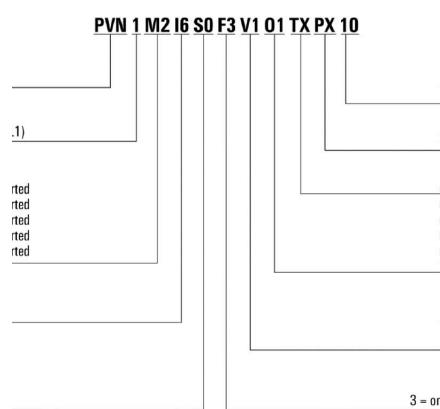
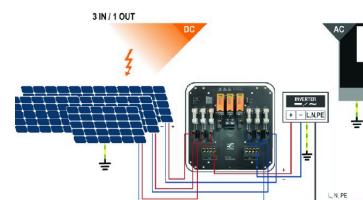
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## Drawings

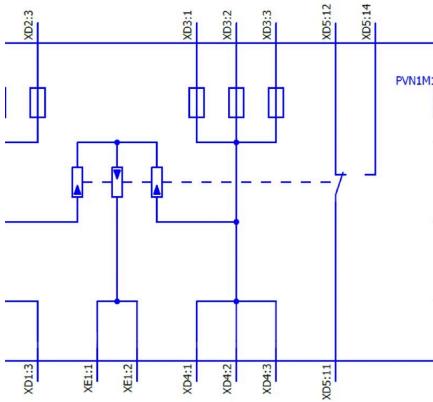
## PCB design



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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**

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

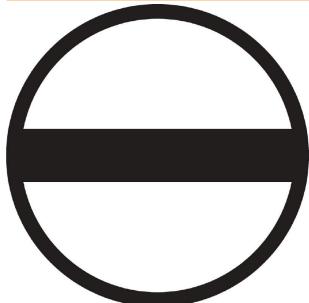
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**Accessories****General ordering data**

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
GTIN (EAN)	4050118897012	thickness (A): 0.6 mm
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
GTIN (EAN)	4050118897050	thickness (A): 1 mm
Qty.	1 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:
GTIN (EAN)	4008190108595	72.5 mm, Width: 24 mm, Depth: 12 mm, Basic material: Polyamide,
Qty.	1 ST	Polyamide 66, Deep black

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**Accessories****Sealing sets****General ordering data**

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

**10x38 gPV**

The gPV cylindrical fuse cartridges are designed to provide compact, safe and economical protection of photovoltaic modules (field protection) with voltages up to 1,500 DC. They provide protection against both overload and short circuit (gPV class according to the requirements of IEC60269-6 and UL248-19 standards). Made of a ceramic tube with high internal pressure and thermal shock resistance, allowing high switching capacity in a small space. The contacts are made of silver-plated copper and the fusible elements of pure silver to avoid ageing and thus keep the electrical characteristics invariable. They are available in the sizes 10x38 mm, 10x85 mm and 22x58 mm.

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## Accessories

## General ordering data

Type	FUSE 10X38 10A 1000 VDC...	Version
Order No.	<a href="#">2783230000</a>	Photovoltaics, Cartridge fuse, 1000 V, 10x38, gPV, 10 A
GTIN (EAN)	4064675059950	
Qty.	10 ST	
Type	FUSE 10X38 12A 1000 VDC...	Version
Order No.	<a href="#">2783240000</a>	Photovoltaics, Cartridge fuse, 1000 V, 10x38, gPV, 12 A
GTIN (EAN)	4064675059967	
Qty.	10 ST	
Type	FUSE 10X38 15A 1000 VDC...	Version
Order No.	<a href="#">2783250000</a>	Photovoltaics, Cartridge fuse, 1000 V, 10x38, gPV, 15 A
GTIN (EAN)	4064675059974	
Qty.	10 ST	
Type	FUSE 10X38 16A 1000 VDC...	Version
Order No.	<a href="#">2783260000</a>	Photovoltaics, Cartridge fuse, 1000 V, 10x38, gPV, 16 A
GTIN (EAN)	4064675059981	
Qty.	10 ST	
Type	FUSE 10X38 1A 1000 VDC ...	Version
Order No.	<a href="#">2783160000</a>	Photovoltaics, Cartridge fuse, 1000 V, 10x38, gPV, 1 A
GTIN (EAN)	4064675059684	
Qty.	10 ST	
Type	FUSE 10X38 20A 1000 VDC...	Version
Order No.	<a href="#">2783280000</a>	Photovoltaics, Cartridge fuse, 1000 V, 10x38, gPV, 20 A
GTIN (EAN)	4064675060000	
Qty.	10 ST	
Type	FUSE 10X38 2A 1000 VDC ...	Version
Order No.	<a href="#">2783170000</a>	Photovoltaics, Cartridge fuse, 1000 V, 10x38, gPV, 2 A
GTIN (EAN)	4064675059691	
Qty.	10 ST	
Type	FUSE 10X38 3A 1000 VDC ...	Version
Order No.	<a href="#">2783180000</a>	Photovoltaics, Cartridge fuse, 1000 V, 10x38, gPV, 3 A
GTIN (EAN)	4064675059905	
Qty.	10 ST	
Type	FUSE 10X38 4A 1000 VDC ...	Version
Order No.	<a href="#">2783190000</a>	Photovoltaics, Cartridge fuse, 1000 V, 10x38, gPV, 4 A
GTIN (EAN)	4064675059912	
Qty.	10 ST	
Type	FUSE 10X38 5A 1000 VDC ...	Version
Order No.	<a href="#">2783200000</a>	Photovoltaics, Cartridge fuse, 1000 V, 10x38, gPV, 5 A
GTIN (EAN)	4064675059929	
Qty.	10 ST	
Type	FUSE 10X38 6A 1000 VDC ...	Version
Order No.	<a href="#">2783210000</a>	Photovoltaics, Cartridge fuse, 1000 V, 10x38, gPV, 6 A
GTIN (EAN)	4064675059936	
Qty.	10 ST	
Type	FUSE 10X38 8A 1000 VDC ...	Version
Order No.	<a href="#">2783220000</a>	Photovoltaics, Cartridge fuse, 1000 V, 10x38, gPV, 8 A
GTIN (EAN)	4064675059943	
Qty.	10 ST	

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**Accessories****General ordering data**

Type	PV SUN COVER 37/30/18	Version
Order No.	<a href="#">8000087024</a>	Photovoltaics
GTIN (EAN)	4064675845171	
Qty.	1 ST	

**Spare Arrester****General ordering data**

Type	VPU PV II 0 1000	Version
Order No.	<a href="#">2530660000</a>	Surge voltage arrester, Low voltage, Accessories, Spare arrester
GTIN (EAN)	4050118540871	
Qty.	9 ST	