

PVN1M1I3S0FXV2O0TXPX10

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, 1000 V, 1 MPP, 3 Inputs / 3 Outputs per MPP, Surge protection II, Switch disconnecter, Cable gland
Order No.	2683340000
Type	PVN1M1I3S0FXV2O0TXPX10
GTIN (EAN)	4050118700114
Qty.	1 items
Delivery status	Discontinued
Available until	2023-03-31T00:00:00+02:00
Alternative product	PVN DC 3I 3O 1MPP SW SPD1R CG 11

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Technical data

Approvals

Approvals



Dimensions and weights

Depth	214 mm	Depth (inches)	8.4252 inch
Depth with add-on components	215 mm	Height	330 mm
Height (inches)	12.9921 inch	Width	186 mm
Width (inches)	7.3228 inch	Net weight	2600 g

Temperatures

Ambient temperature	-40 °C...50 °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

DC string monitoring

Monitoring function	Non monitored
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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
Current per Maximum Power Point, max. 45 A		
Rated DC current per connection	Current per string, max.	45.00 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	Connection type string	Internal terminal (with cable gland feed-through)

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

Amount of maximum power points (MPP)	1		
Functional earth connector	Cable entry	Number of cable entries	1
		Cable diameter, min.	5
		Cable diameter, max.	10
		Cable gland	M 16
	Wire connection	Type of connection	Screw connection
		Flexible, max. H05(07) V-K	25 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.		16 mm ²	
DC Input + & -	Wire connection	Type of connection	PUSH IN
		Compatible cable crosssection	EN 506 18:2015, TÜV 2 Pfg 1169/08.07
		Wire cross-section, min.	2.5 mm ²
		Wire cross-section, max.	16 mm ²
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.	5
		Cable diameter, max.	10
		Cable gland	M 16
	Wire connection	Type of connection	Tension clamp connection with actuator
		Flexible, max. H05(07) V-K	1.5 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.		1.5 mm ²	
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, EN 506 18:2015
		Wire cross-section, min.	2.5 mm ²
		Wire cross-section, max.	16 mm ²

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 I _{total} (8/20μs)	50

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Discharge current I_n (8/20 μ s)	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 DC UCPV mode +/-, -/PE, +/PE	1100 V		

DC load break switch

Switch disconnecter execution	switch in cover	Switching disconnecter capacity	DC-PV1, IEC 60947-3
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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

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 1 Mpp-tracker, used to protect the DC side. Max. String voltage Uoc: 1000 V MPPT1: Up to 3 inputs, connection via M25 cable gland with 3x7mm \varnothing cable entry (for positive and negative one each)
 PUSH IN connection / 2.5 - 6mm² single-wire, multi-wire, with/without ferrule
 Up to 3 outputs, connection via M25 cable gland with 3x7mm \varnothing cable entry (for positive and negative one each)
 PUSH IN connection / 2.5 - 6mm² single-wire, multi-wire, with/without ferrule with DC switch
 1 surge protection 1000 V type II with remote contact
 Connection of the signal contact via cable glands (8-12mm \varnothing) max. cable cross-section: 1.5mm²
 Connection of functional earth via cable glands (8-12mm \varnothing) cable cross-section: 16mm²
 Protection class: IP65
 Plastic enclosure
 Dimensions HxWxD: 186x302x175 mm
 According to standard, Low-voltage switchgear assemblies -

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Technical data

Part 1: General
specifications, (IEC
61439-1:2011), BS EN
61439-2:2042

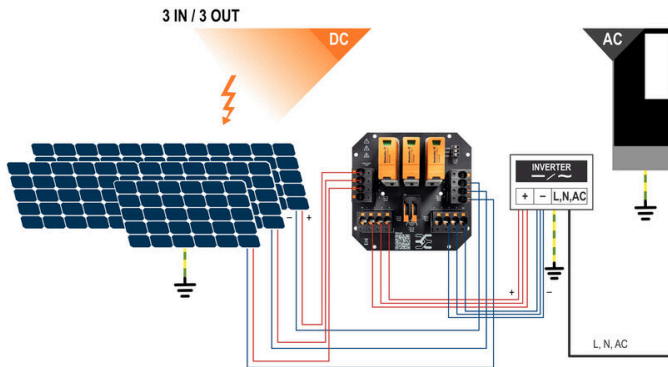
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Drawings

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PCB design



PVN 1 M2 I6 S0 F3 V1 Q1 TX PX 10

Series PVN = PV Next VPU = PV Protect	Voltage 10 = 1kV 11 = 1,1kV 15 = 1,5kV
Level 1 = DC trunk box (L1)	Powersupply x = n/a
Series 1 = 1 MPPT supported 2 = 2 MPPT supported 3 = 3 MPPT supported 4 = 4 MPPT supported 6 = 6 MPPT supported	Monitoring x = n/a
Inputs 1...12 inputs	Output Type 0 = CG 1 = WM4C 2 = MC4-Evo 2
Switch x = n/a 0 = manual switch 1 = remote switch	SPD 2/0 = TYP II 1 = TYP I+II X = No SPD
	Fuses 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.	1157820000	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.	1190490000	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.	2749910000	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.	2749810000	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.	2749850000	Screwdriver, Blade width (B): 5.5 mm, Blade length: 125 mm, Blade thickness (A): 1 mm	
GTIN (EAN)	4050118897050		
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.	0360800000	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.	2659350000		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 30/19/18	Version	
Order No.	8000086576		Photovoltaics
GTIN (EAN)	4064675845164		
Qty.	1 ST		

Sealing sets



General ordering data

Type	SL SET PV NEXT	Version	
Order No.	2729230000		Photovoltaics
GTIN (EAN)	4050118804508		
Qty.	1 ST		

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Accessories

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Spare Arrester



General ordering data

Type	VPU PV II O 1000	Version	
Order No.	2530660000	Surge voltage arrester, Low voltage, Accessories, Spare arrester	
GTIN (EAN)	4050118540871		
Qty.	9 ST		