

**PVN1M3I9S0FXV2O0TXPX10****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 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 EN 51543-32. 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, 3 MPP's, 3 Inputs / 3 Outputs per MPP, Surge protection II, Switch disconnecter, Cable gland
Order No.	<a href="#">2683360000</a>
Type	PVN1M3I9S0FXV2O0TXPX10
GTIN (EAN)	4050118700107
Qty.	1 pc(s).
Delivery status	<b>This article will no longer be available in the future.</b>
Available until	2024-12-31
Replacement parts	<a href="#">2530660000</a>

Creation date May 3, 2024 2:13:27 PM CEST

Catalogue status 20.04.2024 / We reserve the right to make technical changes.

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**Technical data****Dimensions and weights**

Depth	249 mm	Depth (inches)	9.803 inch
Depth with add-on components	250 mm	Height	330 mm
Height (inches)	12.992 inch	Width	558 mm
Width (inches)	21.968 inch	Net weight	7,566 g

**Temperatures**

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

Current per Maximum Power Point, max. 30 A

Rated DC current per connection	Current per string, max.	30 A
Rated short-term current resistance	Rated current	37.5 A
Rated DC voltage	1,000 V	
Switching disconnecter capacity	DC-PV1, IEC 60947-3	

**Enclosure**

Connection type string	Internal terminal (with cable gland feed-through)	Cover	with cover, removeable
Enclosure attachment	Via mounting foots	Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262
Insulating material	Polyester glass-fibre reinforced, Polycarbonate	Switch disconnecter execution	switch in cover
Type of mounting	Wall mounting, 4 screws		

**General data**

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

Amount of maximum power points	3 MPP		
DC Input + & -	Wire connection	Type of connection	PUSH IN
		Compatible cable crossection	EN 50618:2015, TÜV 2 Pfg1169/08.07
		Wire cross-section, min.	2.5 mm <sup>2</sup>
		Wire cross-section, max.	16 mm <sup>2</sup>

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**Technical data**

Functional earth connector	Cable entry	Number of cable entries	2
		Cable diameter, min.	5
		Cable diameter, max.	10
		Cable glands	M 16
	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>
Fuse type	Neither fuse cartridge nor holder		
Max. number of DC inputs	per Maximum Power Point 3 inputs connected in parallel		
Surge protection auxiliary contact	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 cable entries	2
	Cable entry	Cable diameter, min.	5
		Cable diameter, max.	10
		Cable glands	M 16

**Outputs**

DC Output + & -	Wire connection	Type of connection	PUSH IN
		Compatible cable cross-section	TÜV 2 Pfg 1169/08.07, EN 50618:2015
		Wire cross-section, min.	2.5 mm <sup>2</sup>
		Wire cross-section, max.	16 mm <sup>2</sup>

Max. number of DC outputs per Maximum Power Point 3 outputs connected in parallel

**Surge protection DC side**

Discharge current $I_n$ (8/20 $\mu$ s)	20 kA	Discharge current, max. (8/20 $\mu$ s)	40 kA
Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/-PE	1,100 V	PV system voltage, max. $U_{cpv}$	1,100 V
Protection level $U_p$ (+/-)	$\leq 3.8$ kV	Protection level $U_p$ (+/PE)	$\leq 3.8$ kV
Protection level $U_p$ (-/PE)	$\leq 3.8$ kV	Requirements class	Type II
Short-circuit current $I_{SCPv}$	11,000 A	Standby power consumption $P_C$	< 0.2 W
Total discharge current $I_{total}$ (8/20 $\mu$ s)	50 kA		

**Classifications**

ETIM 6.0	EC002928	ETIM 7.0	EC002928
ETIM 8.0	EC003857	ETIM 9.0	EC003857
ECLASS 9.0	22-57-92-03	ECLASS 9.1	22-57-02-90
ECLASS 10.0	22-57-02-90	ECLASS 11.0	22-57-02-92
ECLASS 12.0	22-57-02-92	ECLASS 13.0	22-57-02-92

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****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 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.

MPP2 to 3:  
identical to MPP1

Max. string voltage Uoc:  
1000V

1 class/type II arrester with signal contact  
With load break switch for safe separation of the string lines

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: 330x558x249 mm

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

**Environmental Product Compliance**

REACH SVHC

Lead 7439-92-1

SCIP

bdb5698-6a20-4370-8e28-8810d882d01a

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## Technical data

### 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

### Approvals

#### Approvals



### Downloads

#### Approval/Certificate/Document of Conformity

[EU Declaration of Conformity](#)

#### Engineering Data

[CAD data – PV Next Schematic Diagram](#)

[CAD data – STEP](#)

#### Technical Documentation

[customer drawing](#)

#### User Documentation

[Manual PV Next String Combiner Box](#)

[MANUAL PV NEXT IT/ES/FR](#)

#### White paper

[Fact Sheet DE PV CB Wie man Gebäude gegen Blitzeinschläge schützt](#)

[Fact Sheet DE PV Wie man die Lebensdauer eines GAK verlängert](#)

[Fact Sheet DE PV CB Wann Sicherungen zu installieren sind](#)

[Fact Sheet DE CB PV NEXT](#)

[Fact Sheet EN PV CB When DC fuses are mandatory to install](#)

[Fact Sheet EN CB PV NEXT](#)

[Fact Sheet EN PV How to protect buildings against lightning strikes](#)

[Fact Sheet EN PV How to extend the life time of a Combiner Box](#)

[Fact Sheet DE PV CB Lastentrennschalter](#)

[Fact Sheet DE CB PV Strings kombinieren](#)

[Fact Sheet DE PV CB Richtig verbinden](#)

[Fact-Sheet EN PV CB Load break switch](#)

[Fact Sheet EN CB Combining PV strings](#)

[Fact Sheet EN PV CB connection](#)

[Fact Sheet EN PV Combiner Box earthing](#)

[Fact Sheet DE PV Combiner Box Erdung](#)

#### Catalogues

[Catalogues in PDF-format](#)

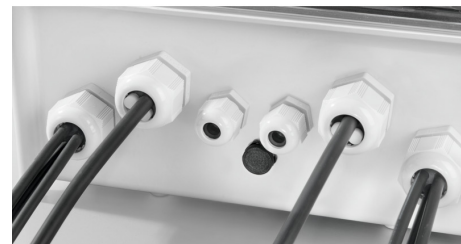
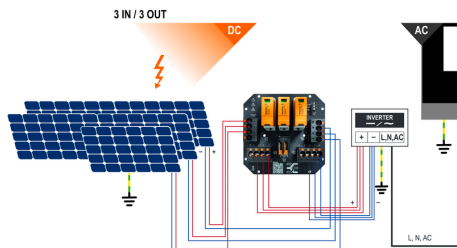
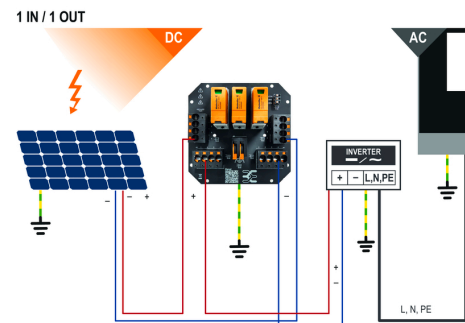
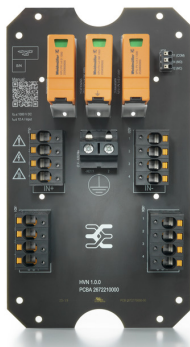
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## Drawings

### PCB design



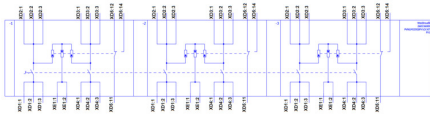
PVN 1 M2 I6 S0 F3 V1 Q1 TX PX 10									
<b>Series</b>		<b>Voltage</b>		<b>Power supply</b>		<b>Monitoring</b>		<b>Output Type</b>	
PVN = PV Next		10 ~ 1kV		x = n/a		x = n/a		0 = GG	
VPU = PV Protect		11 ~ 1.1kV						1 = VMAC	
<b>Level</b>		<b>Inputs</b>		<b>Switch</b>		<b>Fuses</b>			
1 = DC trunk box (L1)		1..12 inputs		x = n/a		3 = only fuse holders			
<b>Series</b>				0 = manual switch					
1 = 1 MPPT supported				1 = remote switch					
2 = 2 MPPT supported									
3 = 3 MPPT supported									
4 = 4 MPPT supported									
6 = 6 MPPT supported									

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## Drawings



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Dimensions without tolerances are no check dimensions

The English version is binding



Darstellung mit Zubehoer  
Shown with accessory 0360800000 MF TBF

Nicht im Lieferumfang enthalten!  
Not included in delivery!

		Prim PLM Part No.: 1214838		Prim ERP Part No.:			
First Issue Date 28.01.2020	Max. nos.		<b>Weidmüller</b> 		<b>71727</b>	<div>0</div>	
	Modification						
					Drawing no.	Issue no.	
					Sheet 01	of 01 sheets	
	Drawn		28.01.2020	Brüntrup, Anna		<b>PVN TBF 563021</b> COMBINERBOX RESIDENTIAL/COMMERCIAL COMBINERBOX RESIDENTIAL/COMMERCIAL	
	Responsible		Wohlgemuth, KI				
Scale: 1/4	Size: A3	Approved	31.01.2020	Püschner, Klau			
Drawings Customer				Product file:			