

## PVN1M1I3SXF3V1O0TXPX10

**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 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, 1 MPP, 3 Inputs / 3 Outputs per MPP, With fuse holder, Surge protection I / II, Cable gland
Order No.	<a href="#">2683030000</a>
Type	PVN1M1I3SXF3V1O0TXPX10
GTIN (EAN)	4050118699852
Qty.	1 pc(s).
Replacement parts	<a href="#">2530600000</a> <a href="#">2534300000</a>

Creation date January 4, 2024 2:49:45 PM CET

Catalogue status 09.12.2023 / We reserve the right to make technical changes.

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## Technical data

### Dimensions and weights

Depth	175 mm	Depth (inches)	6.89 inch
Height	330 mm	Height (inches)	12.992 inch
Width	302 mm	Width (inches)	11.89 inch
Net weight	4,447 g		

### Temperatures

Ambient temperature	-40 °C...+45 °C	Humidity	5 - 90 %, no condensation
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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. 45 A

Rated DC current per connection	Current per string, max.	45 A
Rated short-term current resistance	Rated current	56.25 A
Rated DC voltage	1,000 V	

### Enclosure

Connection type string	Internal terminal (with cable gland feed-through)	Cover	with cover, removeable
Enclosure attachment		Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262
Insulating material	Via mounting foots Polyester glass-fibre reinforced, Polycarbonate	Switch disconnector execution	no switch
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	1 MPP		
Cartridge fuse	10 x 38 mm		
DC Input + & -	Wire connection	Type of connection	PUSH IN
		Compatible cable crosssection	EN 50618:2015, 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>

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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	Empty fuse holder		
Fuse-link standard	IEC 60269-1, IEC 60269-6, gPV (EN 60269-6)		
Max. number of DC inputs	per Maximum Power Point 3 inputs connected in parallel		
Surge protection auxiliary contact	Cable entry	Number of cable entries	2
		Cable diameter, min.	5
		Cable diameter, max.	10
		Cable glands	M 16
	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>	

**Outputs**

DC Output + & -	Wire connection	Type of connection	PUSH IN
		Compatible cable cross-section	TÜV 2 Pfg1169/08.07, 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
Lightning test current $I_{imp}$ (10/350 $\mu$ s)	6.25 kA	Maximum continuous operating voltage	
		DC UCPV mode +/-, -/PE, +/-PE	1,100 V
PV system voltage, max. $U_{cpv}$	1,100 V	Protection level $U_p$ (+/-, -/PE, +/-PE)	$\leq 3.8$ kV
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 I/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	Total discharge current $I_{total}$ (10/350 $\mu$ s)	12.5 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	22570292

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## Technical data

### Tender specification sheets

#### Long specification

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 I + II combined 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 61439-1:2011 and EN 61439-2:2011

### Important note

Product information

Fuses are not included

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## Technical data

## Approvals

Approvals



ROHS

Conform

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

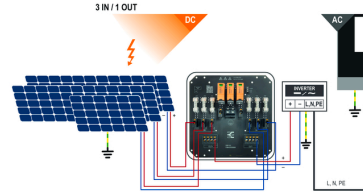
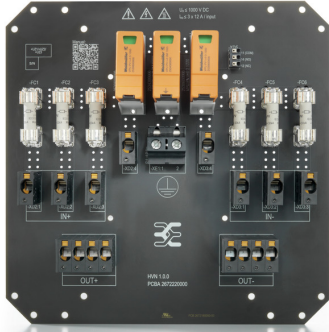
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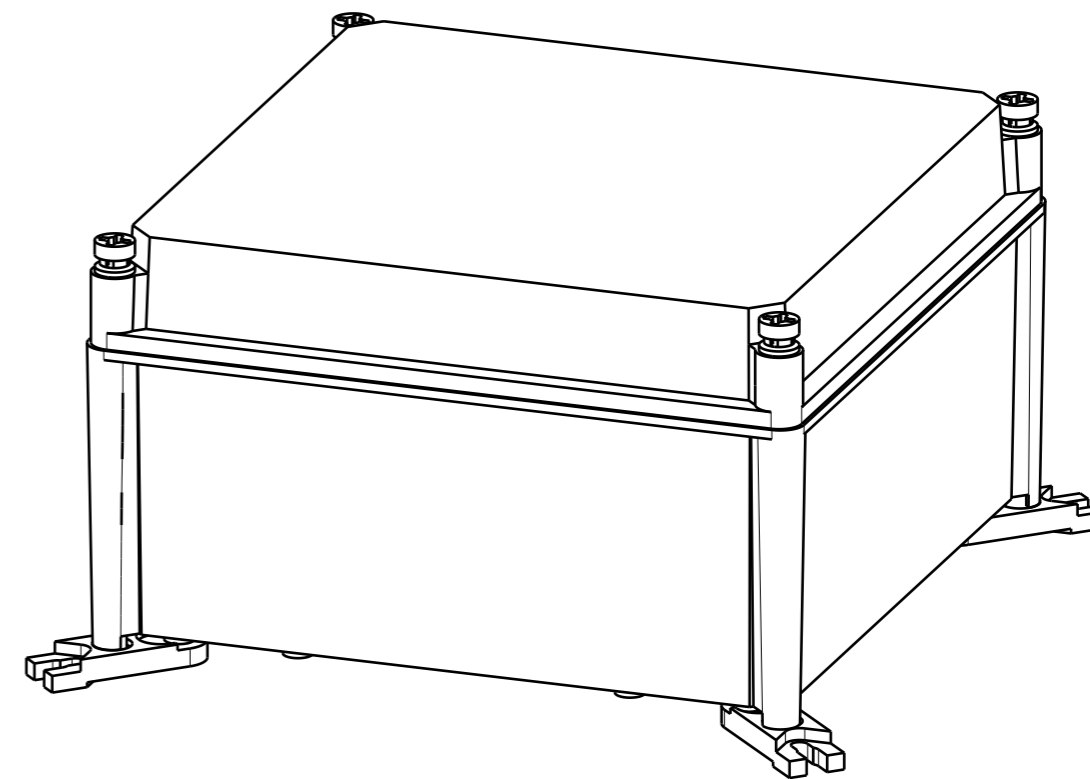
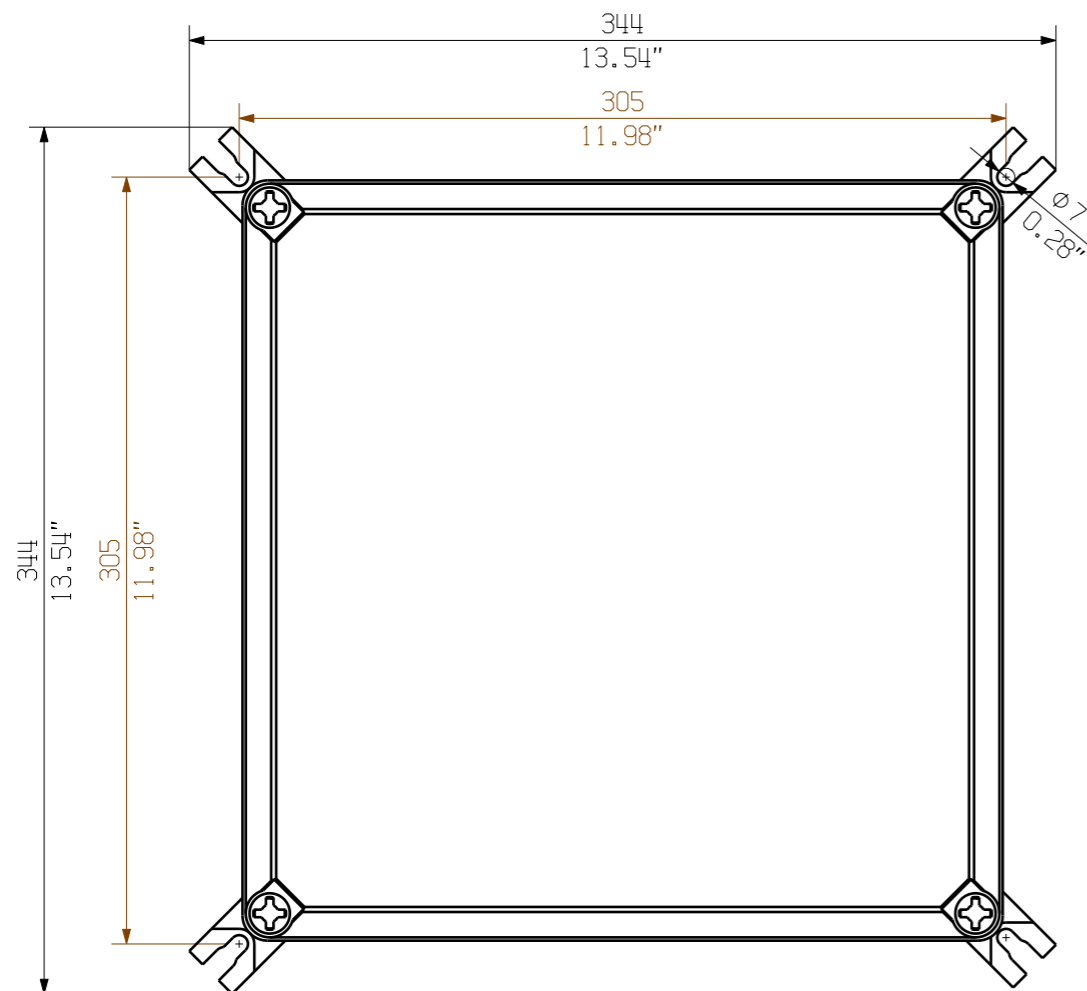
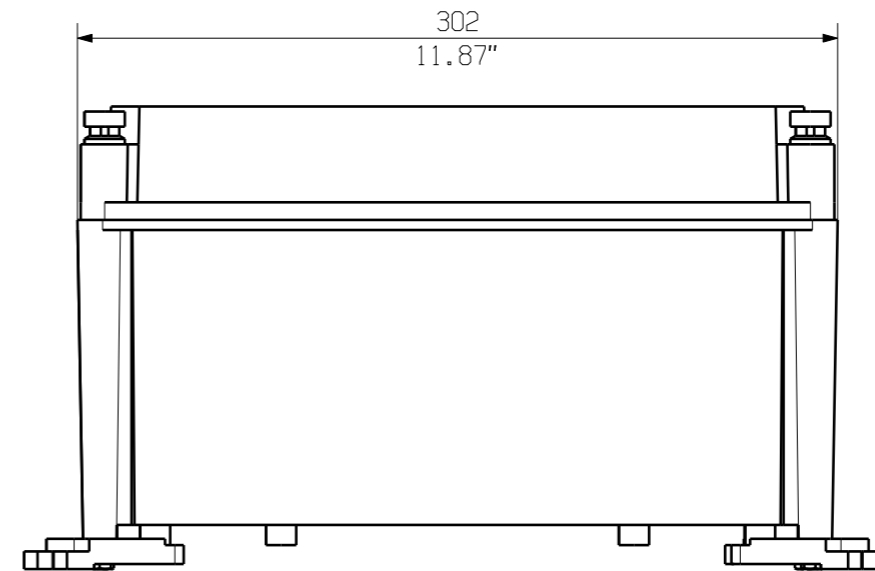
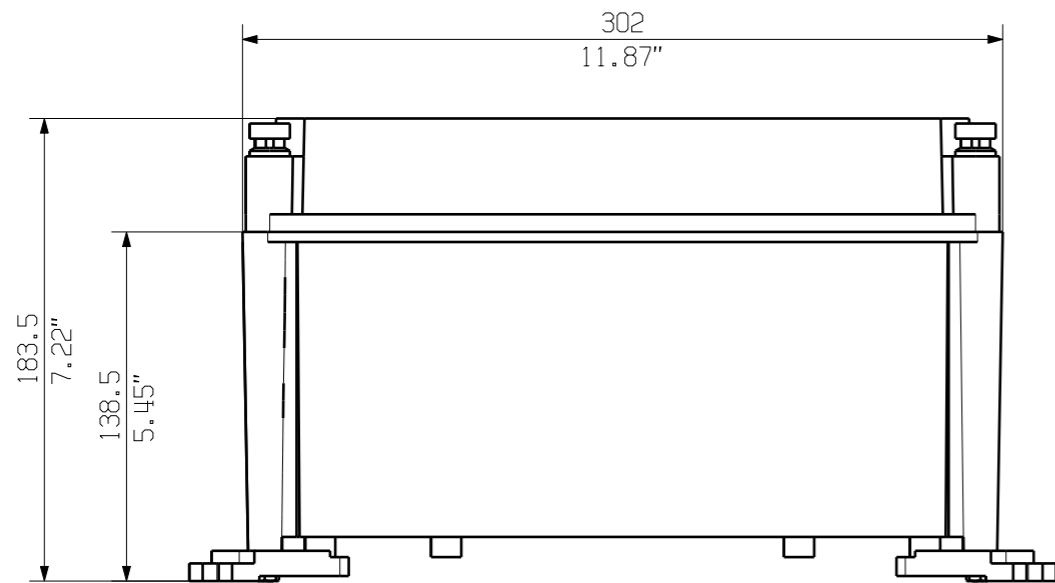
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Drawings

PCB design



PVN 1 M2 I6 S0 F3 V1 O1 TX PX 10	
<b>Series</b>	<b>Voltage</b>
PVN - PV Next	10 - 1kV
VPU - PV Protect	11 - 1.1kV
	15 - 1.5kV
<b>Level</b>	<b>Power supply</b>
1 - DC trunk box (L1)	x = n/a
<b>Series</b>	<b>Monitoring</b>
1 = 1 MPPT supported	x = n/a
2 = 2 MPPT supported	
3 = 3 MPPT supported	<b>Output Type</b>
4 = 4 MPPT supported	0 = EG
6 = 6 MPPT supported	1 = VMAC
	2 = MCA-Exp 2
<b>Inputs</b>	<b>SPD</b>
1..12 inputs	0 = TYP II
<b>Switch</b>	1 = TYP I+II
x = n/a	X = No SPD
0 = manual switch	<b>Fuses</b>
1 = remote switch	x = n/a
	3 = only fuse holders



Darstellung mit Zubehoer  
Shown with accessory 036080000 MF TBF

Nicht im Lieferumfang enthalten!  
Not included in delivery!

First Issue Date 29.01.2020		Max. nos. Modification		Prim PLM Part No.: 1174506		Prim ERP Part No.:	
Scale: 1/3		Size: A3				<b>71730</b> Drawing no. <span style="float: right;">Issue no. 0</span> Sheet 01 of 01 sheets	
Drawings Customer		Drawn: 29.01.2020 Brüntrup, Anna Responsible: Wohlgemuth, Kl Approved: 31.01.2020 Püschner, Klau		PVN TBF 303018 COMBINERBOX RESIDENTIAL/COMMERCIAL COMBINERBOX RESIDENTIAL/COMMERCIAL Product file:			

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