Data sheet

PVN1M1I3SXFXV2O1TXPX10

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 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, Surge protection II, WM4C
Order No.	2683370000
Type	PVN1M1I3SXFXV2O1TXPX10
GTIN (EAN)	4050118700022
Qty.	1 pc(s).
Delivery status	This article will no longer be available in the future.
Available until	2023-03-31
Replacement parts	2530660000
Alternative product	2890440000

Creation date June 11, 2025 10:37:21 PM CEST

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Technical data

Dimensions and weights

Depth	175 mm	Depth (inches)	6.89 inch
Height	334 mm	Height (inches)	13.15 inch
Width	186 mm	Width (inches)	7.323 inch
Net weight	2,500 g		

Temperatures

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

Approvals and norms

Approvals	EN 61439-2, IEC 61439-2

Guarantee

Time interval	5 years

Electrical characteristics

Current per Maximum Power Point, max.	45 A	
Rated DC voltage	1,000 V	
Rated short-term current resistance	Rated current	56.25 A

Enclosure

Connection type string	Plug WM4C	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	Type of mounting	Wall mounting, 4 screws

General data

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

Inputs

Amount of maximum power points (MPP)	1		
DC Input + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable crossection	EN 50618:2015
		Wire cross-section, min.	2.5 mm²
		Wire cross-section, max.	6 mm²

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Functional earth connector	Cable entry	Number of cable entries	1
		Cable diameter, min.	5 mm
		Cable diameter, max.	10 mm
		Cable glands	M 16
	Wire connection	Type of connection	Screw connection
		Flexible, max. H05(07) V-K	25 mm²
		w. wire end ferrule, DIN 46228 pt 1, max.	16 mm²
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 conduit inlets	3		
Number of string inputs per MPP	≤ 3		
Surge protection auxiliary contact	Cable entry	Number of cable entries	1
		Cable diameter, min.	5 mm
		Cable diameter, max.	10 mm
		Cable glands	M 16
	Wire connection	Type of connection	Tension clamp connection with actuator
		Flexible, max. H05(07) V-K	1.5 mm²
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm²
Number of inputs	3		

Outputs

DC Output + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable crossection	TÜV 2 Pfg1169/08.07
		Wire cross-section, min.	4 mm²
		Wire cross-section, max.	6 mm²
Max. number of DC outputs	per Maximum Power Point 3 outputs connected in parallel		

Surge protection DC side

Discharge current I_n (8/20 µs)	20 kA	Discharge current, max. (8/20 µs)	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 (+/-)	≤ 3.8 kV	Protection level U_p (+/PE)	≤ 3.8 kV
Protection level U_p (-/PE)	≤ 3.8 kV	Requirements class	Type II
Short-circuit curent I_{SCPV}	11,000 A	Standby power consumption P_C	<0.2 W
Total discharge current I_{total} (8/20µs)	50 kA		

DC load break switch

Switch disconnector execution	no switch

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Classifications

ETIM 6.0	EC002928	ETIM 7.0	EC002928
ETIM 8.0	EC003857	ETIM 9.0	EC003857
ETIM 10.0	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	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 WM4 C connector compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2049
Up to 3 outputs, connection via WM4 C connector compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2049

without DC switch
1 surge protection 1000 V type II with remote contact

Connection of the signal contact via cable glands (8-12mmØ) max. cable cross-section: 1.5mm²
Connection of functional earth via cable glands (8-12mmØ) cable cross-section: 16mm²
Protection class: IP65
Plastic enclosure
Dimensions HxWxD: 186x302x175 mm

According to standard, Low-voltage switchgear assemblies -
Part 1: General specifications, (IEC 61439-1:2011), BS EN 61439-2:2045

Environmental Product Compliance

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

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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

Approvals

Approvals	CE
Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/

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 EN CB Combining PV strings Fact Sheet EN PV Combiner Box earthing Fact Sheet DE PV Combiner Box Erdung
Catalogues	Catalogues in PDF-format

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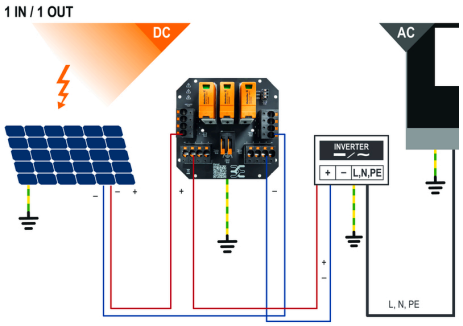
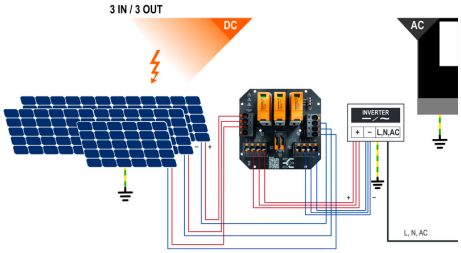
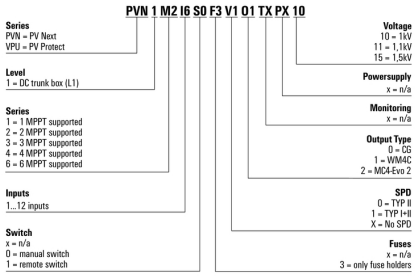
Drawings

PCB design

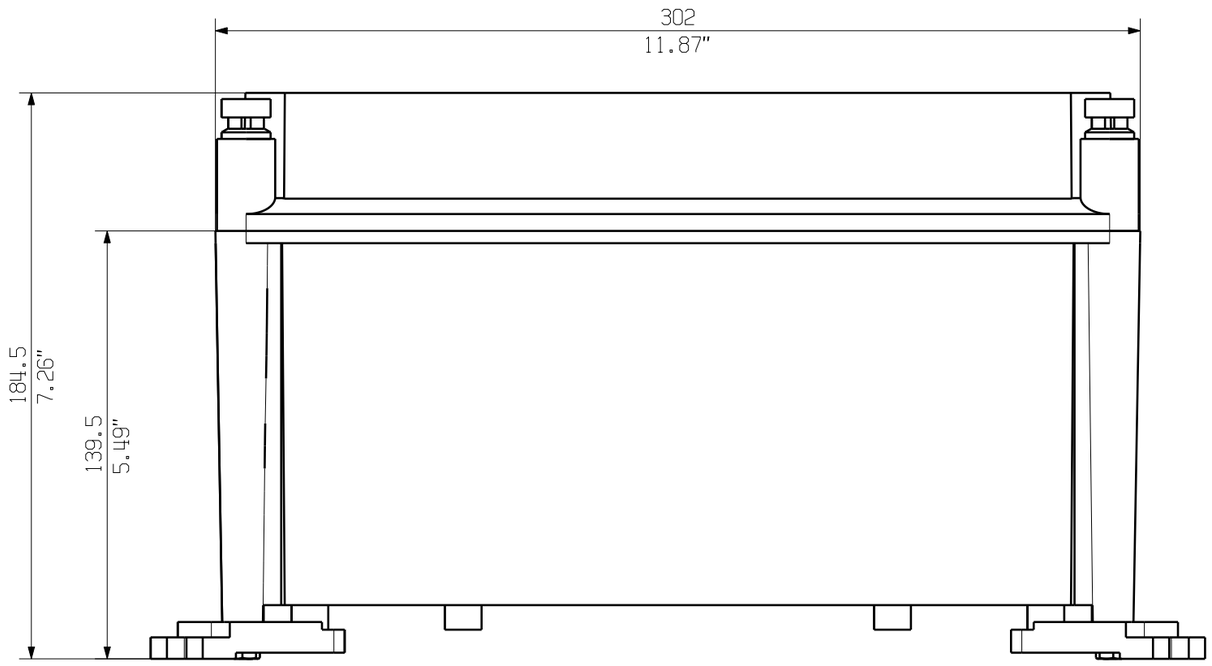


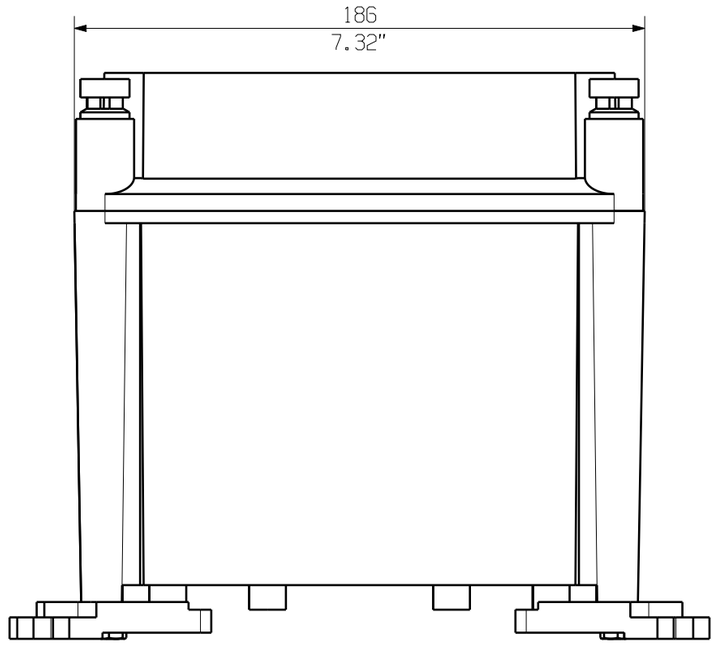


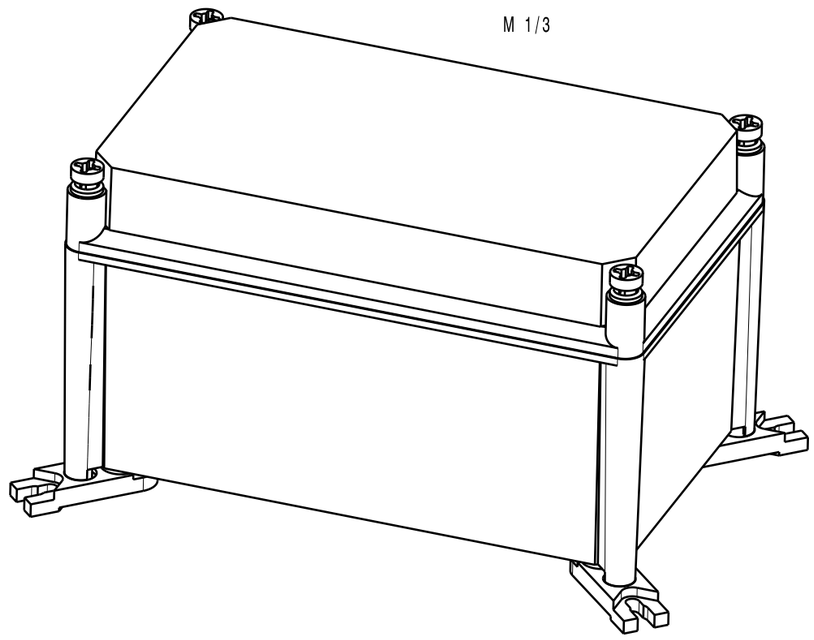


Dimensions without tolerances are no check dimensions

The English version is binding







Darstellung mit Zubehoer
Shown with accessory 0360800000 MF TBF

Nicht im Lieferumfang enthalten!
Not included in delivery!

First Issue Date 29.01.2020		Max. nos.	Prim PLM Part No.: 1215112	Prim ERP Part No.:	
		Modification	Weidmüller	71728 Drawing no.	0 Issue no.
				Sheet 01 of 01 sheets	
		Date	Name	PVN TBF 301918	
	Drawn	29.01.2020	Brüntrup, Anna	COMBINERBOX RESIDENTIAL/COMMERCIAL	
	Responsible		Wohlgemuth, Kl	COMBINERBOX RESIDENTIAL/COMMERCIAL	
Scale: 1/2 Size: A3	Approved	31.01.2020	Püschner, Klau		
Drawings Customer				Product file:	