

**PVN1M1I6S0F3V1O1TXPX10**
**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, 6 Inputs / 6 Outputs per MPP, With fuse holder, Surge protection I / II, Switch disconnecter, WM4C
Order No.	<a href="#">2737480000</a>
Type	PVN1M1I6S0F3V1O1TXPX10
GTIN (EAN)	4032248395538
Qty.	1 pc(s).
Replacement parts	<a href="#">2530600000</a> <a href="#">2534300000</a>

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

Depth	249 mm	Depth (inches)	9.803 inch
Height	334 mm	Height (inches)	13.15 inch
Width	488 mm	Width (inches)	19.213 inch
Net weight	6,453 g		

**Temperatures**

Ambient temperature	-25 °C...+40 °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. 90 A

Rated DC current per connection	Current per string, max.	35 A
	Current per string, max.	90 A
Rated short-term current resistance	Rated current	112.5 A
Rated DC voltage	1,000 V	
Switching disconnector capacity	DC-PV1, IEC 60947-3	

**Enclosure**

Connection type string	Plug WM4C	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 disconnector 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	1 MPP		
Cartridge fuse	10 x 38 mm		
DC Input + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable crossection	EN 50618:2015
		Wire cross-section, min.	2.5 mm <sup>2</sup>
		Wire cross-section, max.	6 mm <sup>2</sup>

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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 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 6 inputs connected in parallel		
Surge protection auxiliary contact	Cable entry	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 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	WM4C plug-in connector
		Compatible cable cross-section	TÜV 2 Pfg 1169/08.07
		Wire cross-section, min.	4 mm <sup>2</sup>
		Wire cross-section, max.	6 mm <sup>2</sup>
		Type of connection	Screw connection
		Compatible cable cross-section	TÜV 2 Pfg 1169/08.07
		Wire cross-section, min.	2.5 mm <sup>2</sup>
		Wire cross-section, max.	50 mm <sup>2</sup>

Max. number of DC outputs per Maximum Power Point 7 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

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## Technical data

### 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

### 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:  
6 inputs, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2063  
6 outputs, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2063

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)  
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: 334x488x249 mm

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

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## Technical data

### Important note

Product information

Fuses are not included

### Approvals

Approvals



### Downloads

Approval/Certificate/Document of Conformity

[EU Declaration of Conformity](#)

Engineering Data

[CAD data – PV Next Schematic Diagram 6In6Out](#)[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](#)

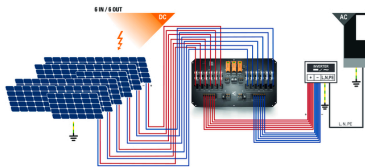
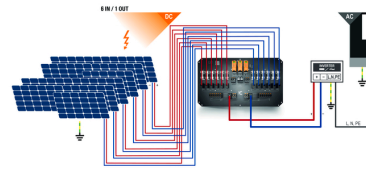
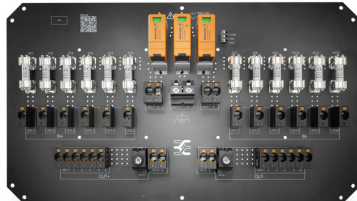
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# Drawings

## PCB design



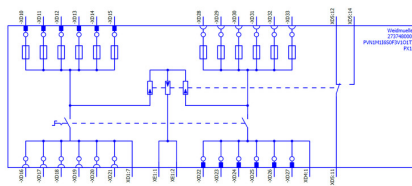
PVN 1 M2 I6 S0 F3 V1 O1 TX PX 10	
<b>Series</b> PVN = PV Next VPV = PV Protect	<b>Voltage</b> 10 = 1kV 11 = 1.1kV 15 = 1.5kV
<b>Level</b> 1 = DC trunk box (L1)	<b>Powersupply</b> x = n/a
<b>Series</b> 1 = 1 MPPT supported 2 = 2 MPPT supported 3 = 3 MPPT supported 4 = 4 MPPT supported 6 = 6 MPPT supported	<b>Monitoring</b> x = n/a
<b>Inputs</b> 1...12 inputs	<b>Output Type</b> 0 = GG 1 = VVAC 2 = MCA-5m 2
<b>Switch</b> x = n/a 0 = manual switch 1 = remote switch	<b>SPD</b> 0 = TYP II 1 = TYP I+II X = No SPD
	<b>Fuses</b> x = n/a 3 = only fuse holders

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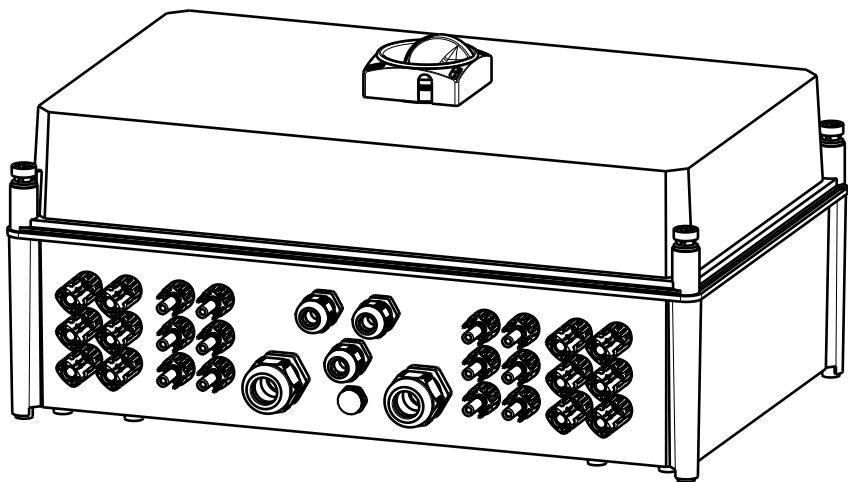
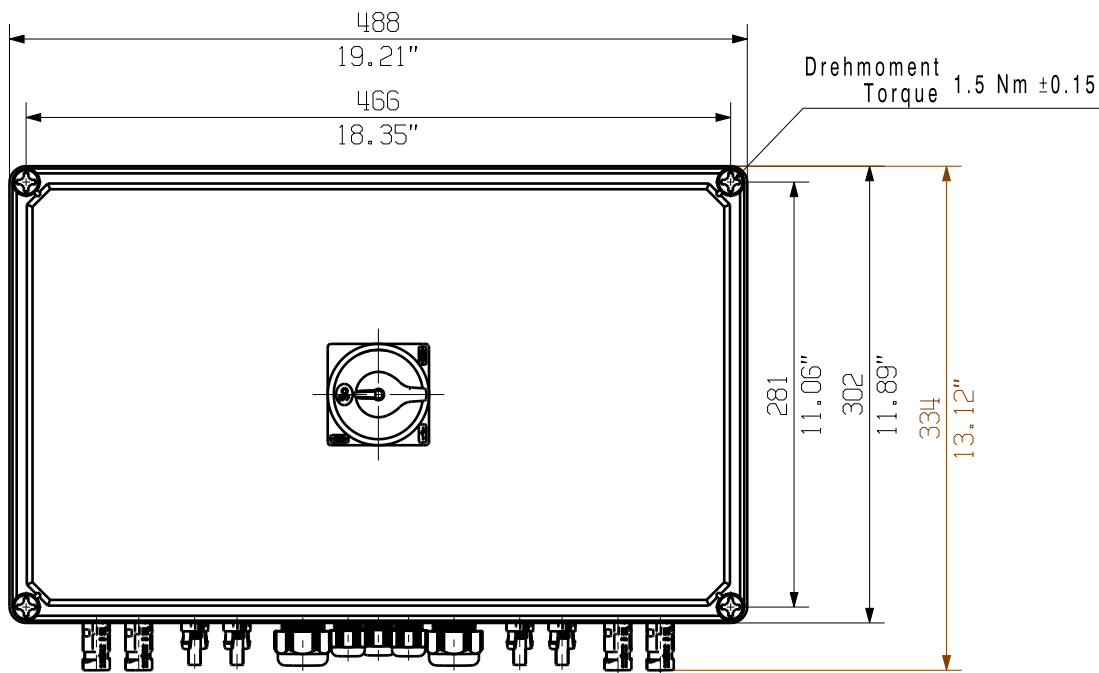
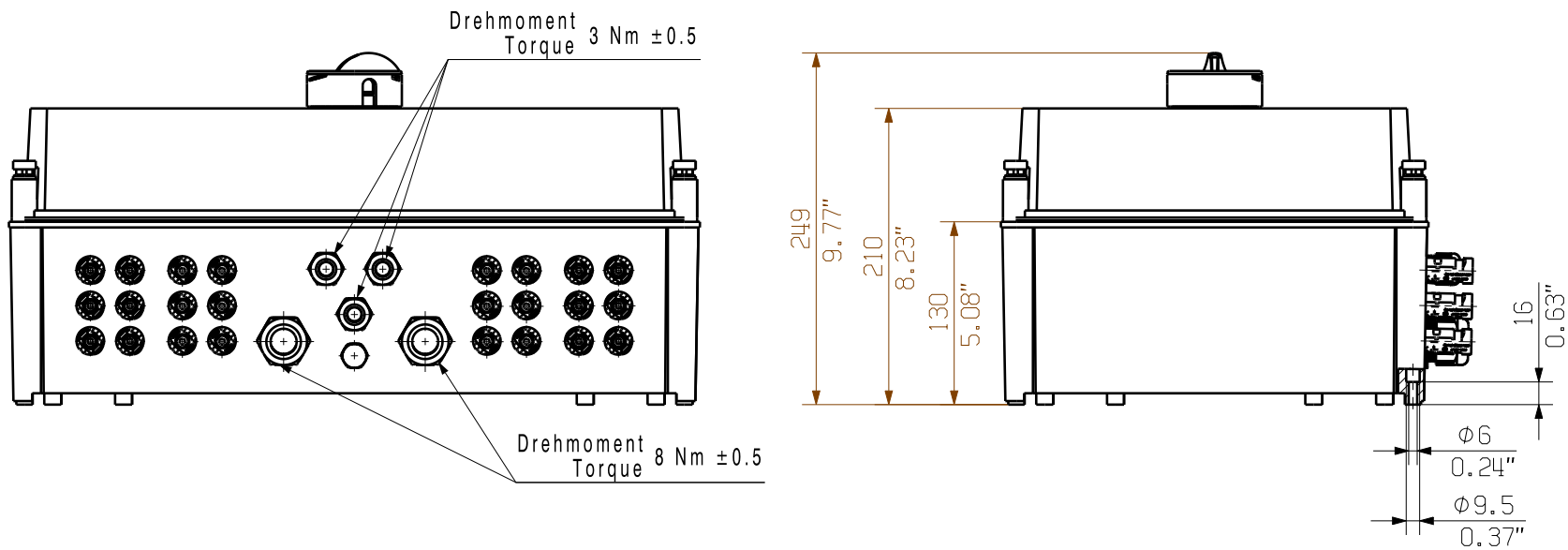
# Drawings



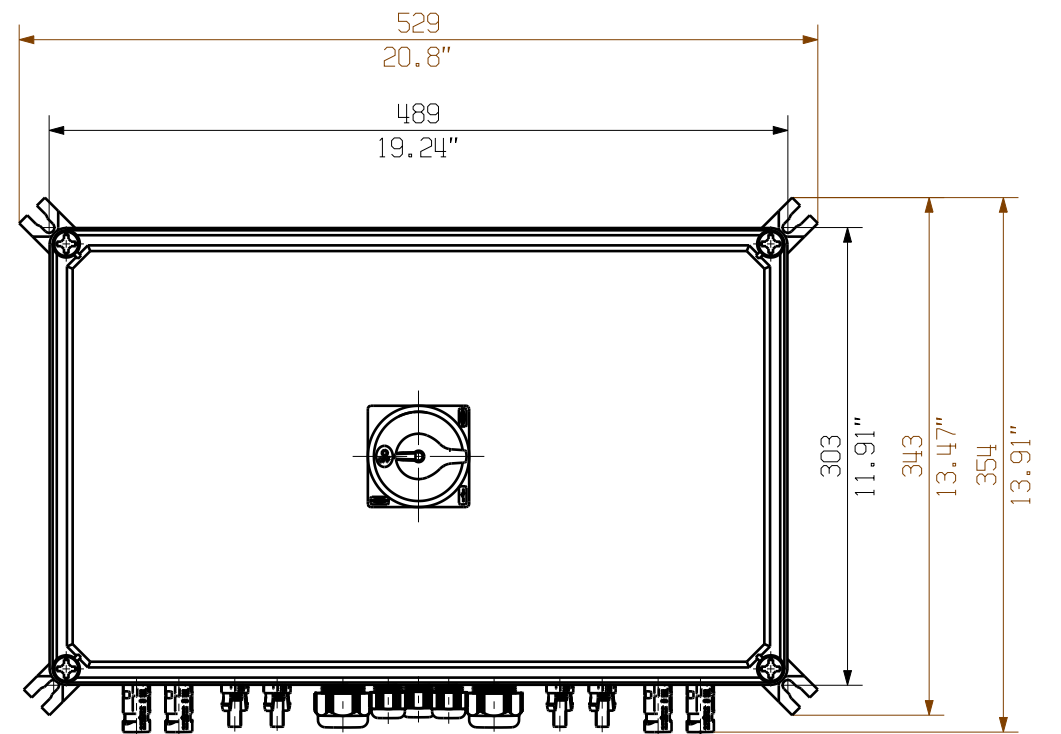
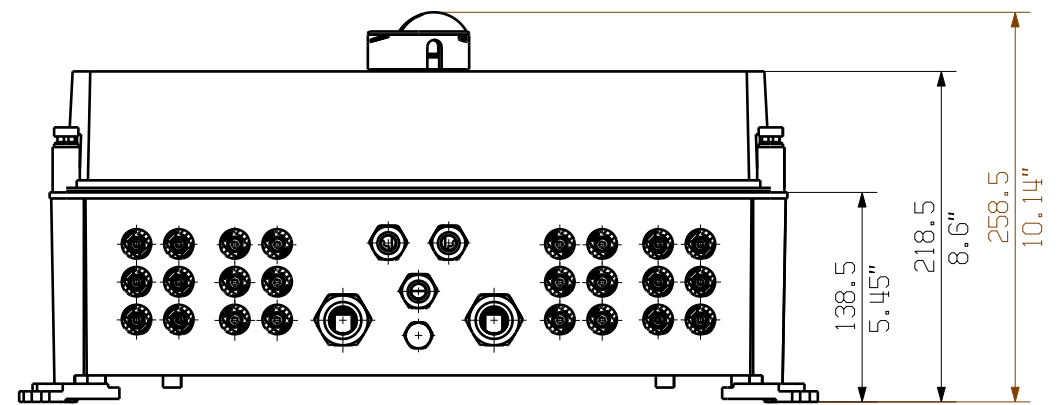
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Dimensions without tolerances are no check dimensions



The English version is binding



Darstellung mit Zubehoer  
Shown with accessory 0360800000 MF TBF

Nicht im Lieferumfang enthalten!  
Not included in delivery!

First Issue Date 23.03.2020		Max. nos. Modification		Prim PLM Part No.: 1230331		Prim ERP Part No.: 2737480000	
Scale: 1/5		Size: A3		Drawing no. Sheet 03 of 03 sheets		Issue no. 0	
Drawing Customer		Date 23.03.2020		Name Brüntrup, Anna		Responsible Wohlgemuth, KI	
Approved 03.06.2020		Püschner, Klau		Product file:		2737480000 PVN1M1I6S0F3V101TXPX10 Combinerbox Residential/Commercial Combinerbox Residential/Commercial	