

PVN1M2I6S0FXV100TXPX10
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



PV Next: PV-Next, PV generator junction box for combination of 1-6 strings (input and output side) and connection to the inverter. Intelligent innovative design individual for every customer application. Advanced overvoltage protection, optional fuses and switch-disconnectors for optimum operation and safety for the system. In addition, all PV generator junction boxes comply with IEC/EN 61439-2 for maximum reliability of each component.

General ordering data

Version	Photovoltaics, Combiner Box, 1000 V, 2 MPPT's, 3 Inputs / 3 Outputs per MPPT, Surge protection I / II, Switch disconnector, Cable gland
Order No.	2683150000
Type	PVN1M2I6S0FXV100TXPX10
GTIN (EAN)	4050118700060
Qty.	1 pc(s).
Replacement parts	2530600000 2534300000

Creation date November 14, 2022 11:34:38 AM CET

Catalogue status 04.11.2022 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

Depth	214 mm	Depth (inches)	8.425 inch
Depth with add-on components	215 mm	Height	330 mm
Height (inches)	12.992 inch	Width	372 mm
Width (inches)	14.646 inch	Net weight	6,557 g

Temperatures

Ambient temperature	-25 °C...+50 °C	Humidity	5 - 90 %, no condensation
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1	SCIP	bdab5698-6a20-4370-8e28-8810d88
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Guarantee

Time interval	5 years
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Electrical characteristics

Current per MPPT, max.	45 A		
Rated DC current per connection	Current per string, max.	45 A	
	Ambient temperature	-25 °C...+50 °C	
	Short-circuit at main output	Duration	10 h
Factor		1.25 * I _{nc}	
Rated DC voltage	1,000 V DC		
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 the four holes under the cover screws	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 (>1 km from sea)	Protection degree	IP65
Standards	IEC 61439-2 ed 2.0, EN 61439-2:2011		

Inputs

Amount of Maximum Power Point Tracking	2 MPPT		
DC Input + & -	Wire connection	Type of connection	PUSH IN
		Compatible cable crossection	EN 50618:2015, TÜV 2 Pfg 1169/08.07
		Wire cross-section, min.	2.5 mm ²
		Wire cross-section, max.	16 mm ²

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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 ²
	w. wire end ferrule, DIN 46228 pt 1, max.	16 mm ²	
Fuse type	Neither fuse cartridge nor holder		
Max. number of DC inputs	per Maximum Power Point Tracking 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 ²
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm ²
	Cable entry	Number of cable entries	2
		Cable diameter, min.	5
		Cable diameter, max.	10
	Cable glands	M 16	

Outputs

DC Output + & -	Wire connection	Type of connection	PUSH IN
		Compatible cable crossection	TÜV 2 Pfg 1169/08.07, EN 50618:2015
		Wire cross-section, min.	2.5 mm ²
		Wire cross-section, max.	16 mm ²
Max. number of DC outputs	per Maximum Power Point Tracking 3 outputs connected in parallel		

Surge protection DC side

Discharge current I_n (8/20 μ s)	20 kA	Discharge current, max. (8/20 μ s)	40 kA
Lightning test current I_{imp} (10/350 μ s)	6.25 kA	Maximum continuous operating voltage UCPV mode +/-, -/PE, +/PE	1,100 V DC
PV system voltage, max. U_{cpv}	1,100 V	Protection level U_p (+/-, -/PE, +/PE)	≤ 3.8 kV
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 I/II
Short-circuit current I_{SCPV}	11,000 A	Standards	IEC 61439-2 ed 2.0, EN 61439-2:2011
Standby power consumption P_C	< 0.2 W	Total discharge current I_{total} (8/20 μ s)	50 kA
Total discharge current I_{total} (10/350 μ s)	12.5 kA		

Classifications

ETIM 6.0	EC002928	ETIM 7.0	EC002928
ETIM 8.0	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

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Technical data**Tender specification sheets**

Long specification

Combiner box for inverters with 2 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 Ø 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 Ø cable entry (for positive and negative one each)

PUSH IN connection / 2.5 - 6mm² single-wire, multi-wire, with/without ferrule

MPPT 2 is identical to MPPT 1

with DC switch
2 surge protection 1000 V type I + 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:
372x302x175 mm

According to standard, Low-voltage switchgear assemblies - Part 1: General specifications, (IEC 61439-1:2011), BS EN 61439-2:2023

Approvals

Approvals



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Technical data

Downloads

Approval/Certificate/Document of Conformity	EU Declaration of Conformity
Engineering Data	CAD data – PV Next Schematic Diagram CAD data – STEP Application notes – Fact Sheet DE PV CB Wie man Gebäude gegen Blitzeinschläge schützt Application notes – Fact Sheet DE PV Wie man die Lebensdauer eines GAK verlängert Application notes – Fact Sheet DE PV CB Wann Sicherungen zu installieren sind Application notes – Fact Sheet DE CB PV NEXT Application notes – Fact Sheet EN PV CB When DC fuses are mandatory to install Application notes – Fact Sheet EN CB PV NEXT Application notes – Fact Sheet EN PV How to protect buildings against lightning strikes Application notes – Fact Sheet EN PV How to extend the life time of a Combiner Box
Technical Documentation	customer drawing
User Documentation	Manual PV Next String Combiner Box MANUAL PV NEXT IT/ES/FR
Catalogues	Catalogues in PDF-format

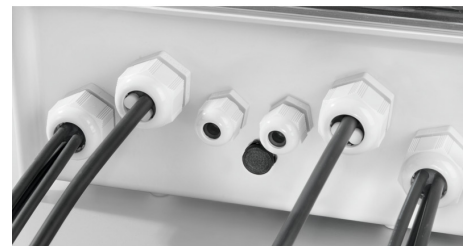
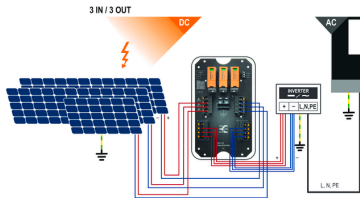
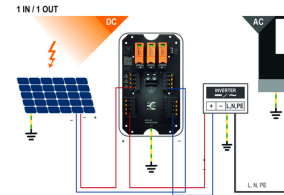
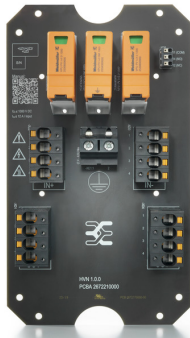
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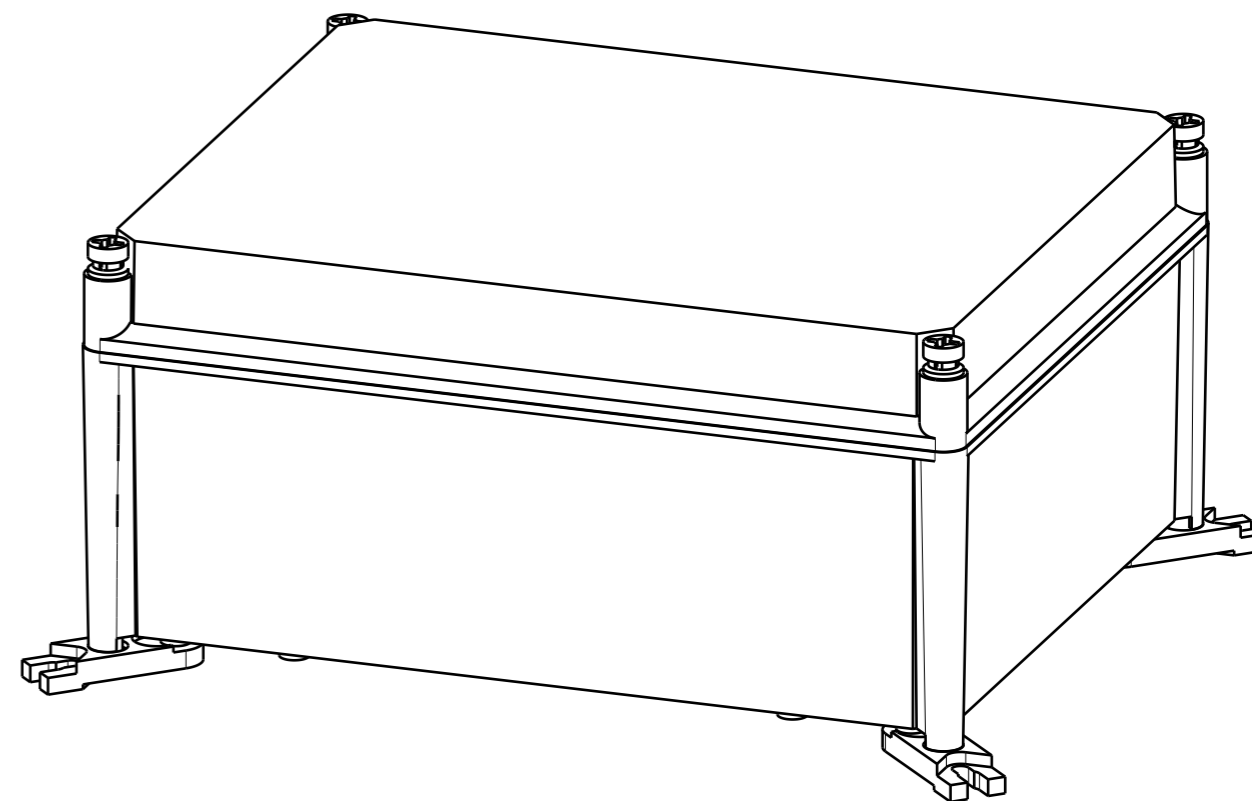
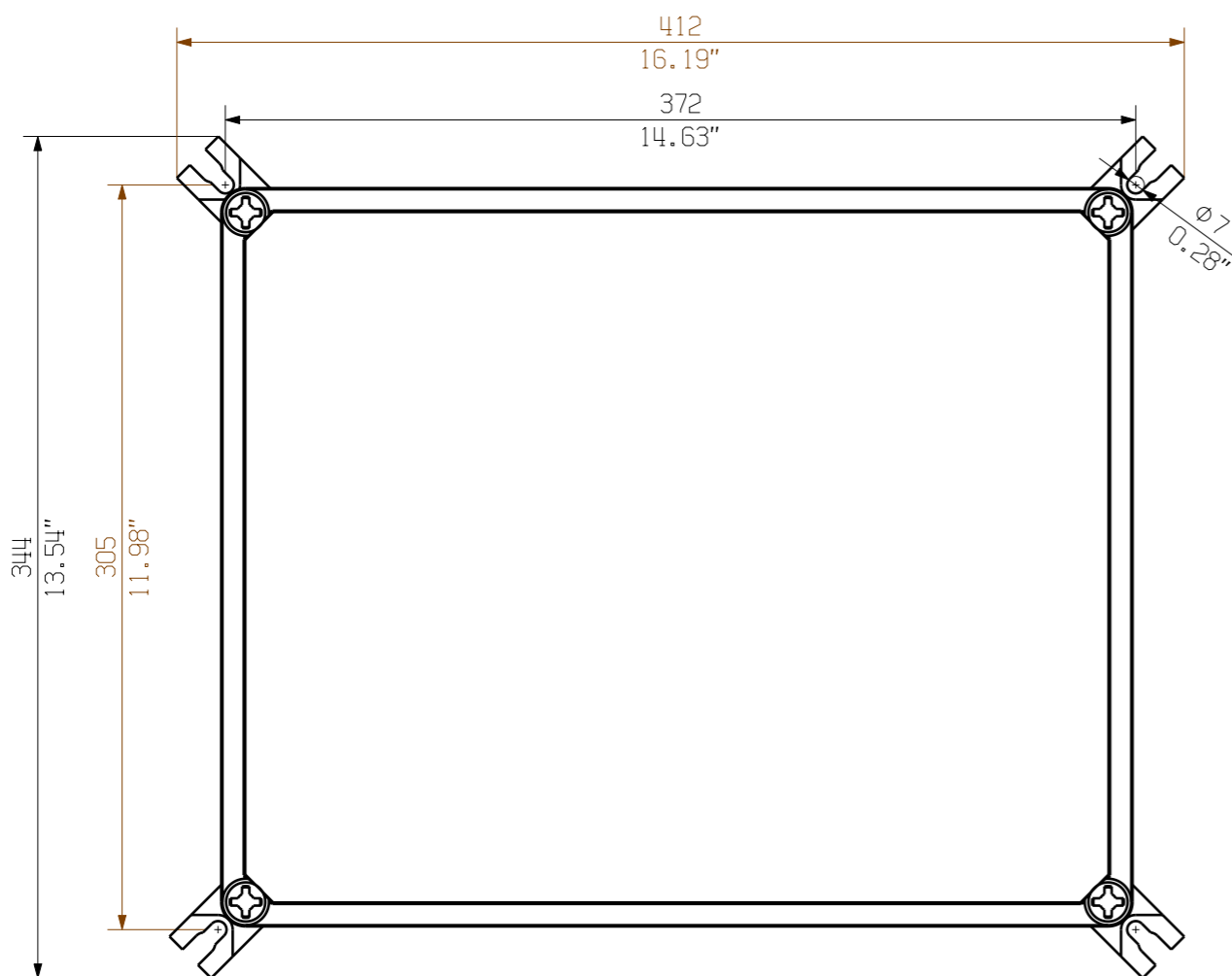
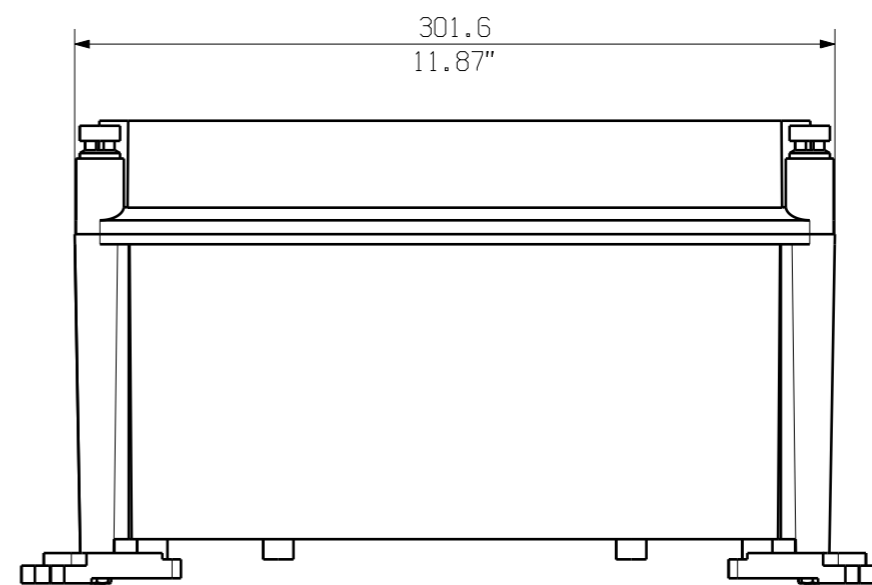
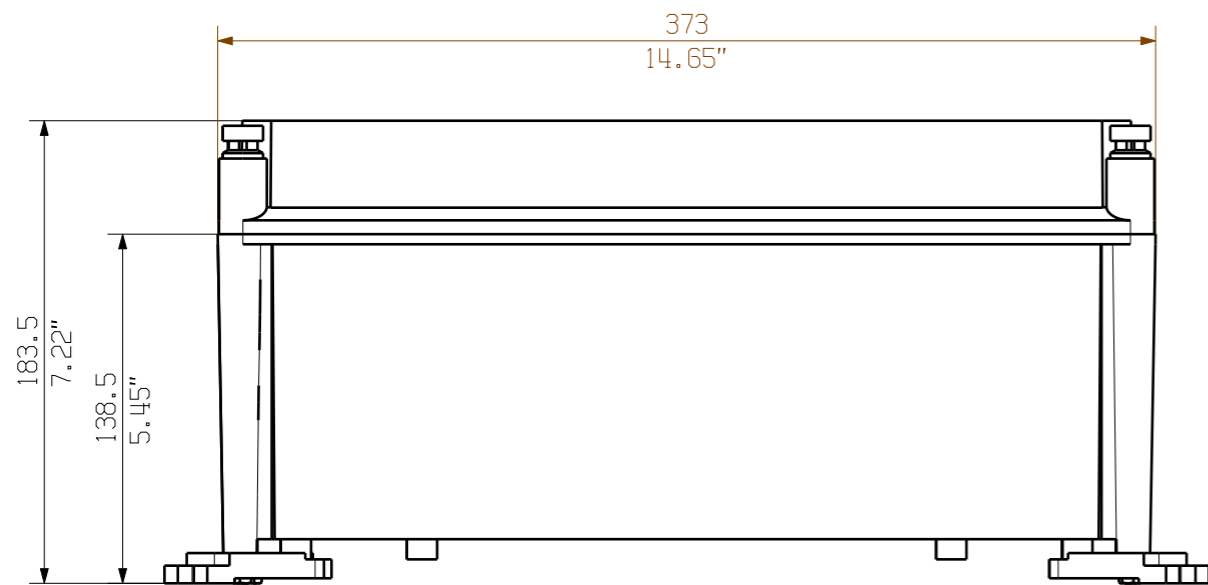
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Drawings

PCB design




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



Darstellung mit Zubehoer 0360800000 MF TBF
 Shown with accessory

Nicht im Lieferumfang enthalten!
 Not included in delivery!

First Issue Date 29.01.2020		Max. nos. Modification		Prim PLM Part No.: 1175097		Prim ERP Part No.:	
Scale: 1/3		Size: A3				71729 Drawing no. Issue no. Sheet 01 of 01 sheets	
Drawn		Date		Name		PVN TBF 373018 COMBINERBOX RESIDENTIAL/COMMERCIAL COMBINERBOX RESIDENTIAL/COMMERCIAL	
Responsible		Date		Name			
Approved		Date		Name			
Drawings Customer				Product file:			

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