

PVN DC 3IF 30 1MPP SPD1R CG 10**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.	2683030000
Type	PVN DC 3IF 30 1MPP SPD1R CG 10
GTIN (EAN)	4050118699852
Qty.	1 pc(s).
Replacement parts	2530600000 2534300000

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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	3,000 g		

Temperatures

Ambient temperature	-40 °C...+45 °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. 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	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	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 crossection	EN 50618:2015, TÜV 2 Pfg1169/08.07
		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	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	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 cross-section	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 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 DC UCPV mode +/-, -/PE, +/-PE	1,100 V
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	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	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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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 - 6mm² single-wire, multi-wire, with/without ferrule.

3 outputs, connection via M25 cable gland with 3x7mm Ø cable entry. PUSH IN connection / 2.5 - 6mm² single-wire, multi-wire, with/without ferrule.

Max. string voltage U_{oc}: 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: 1.5mm²

Connection of the functional earth via cable glands (8-12mmØ) Conductor cross-section: 16-25mm²

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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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](#)

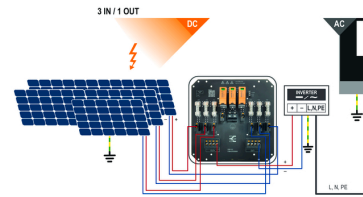
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Drawings

PCB design



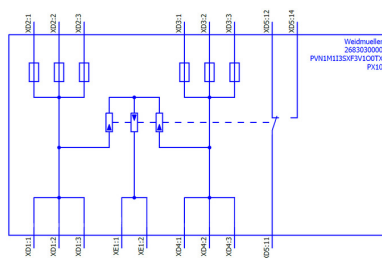
PVN 1 M2 I6 S0 F3 V1 Q1 TX PX 10									
Series		Voltage		Powersupply		Monitoring		Output Type	
PVN = PV Next		10 ~ 1kV		x = n/a		x = n/a		0 = DG	
VPU = PV Protect		11 ~ 1.1kV						1 = VVWAC	
		15 ~ 1.5kV						2 = MCA-5m 2	
Level		Inputs		SPD		Fuses			
1 = DC trunk box (L1)		1...12 inputs		0 = TYP II		x = n/a			
Series				1 = TYP I+II		3 = only fuse holders			
1 = 1 MPP supported				X = No SPD					
2 = 2 MPP supported									
3 = 3 MPP supported									
4 = 4 MPP supported									
6 = 6 MPP supported									
Switch									
x = n/a									
0 = manual switch									
1 = remote switch									

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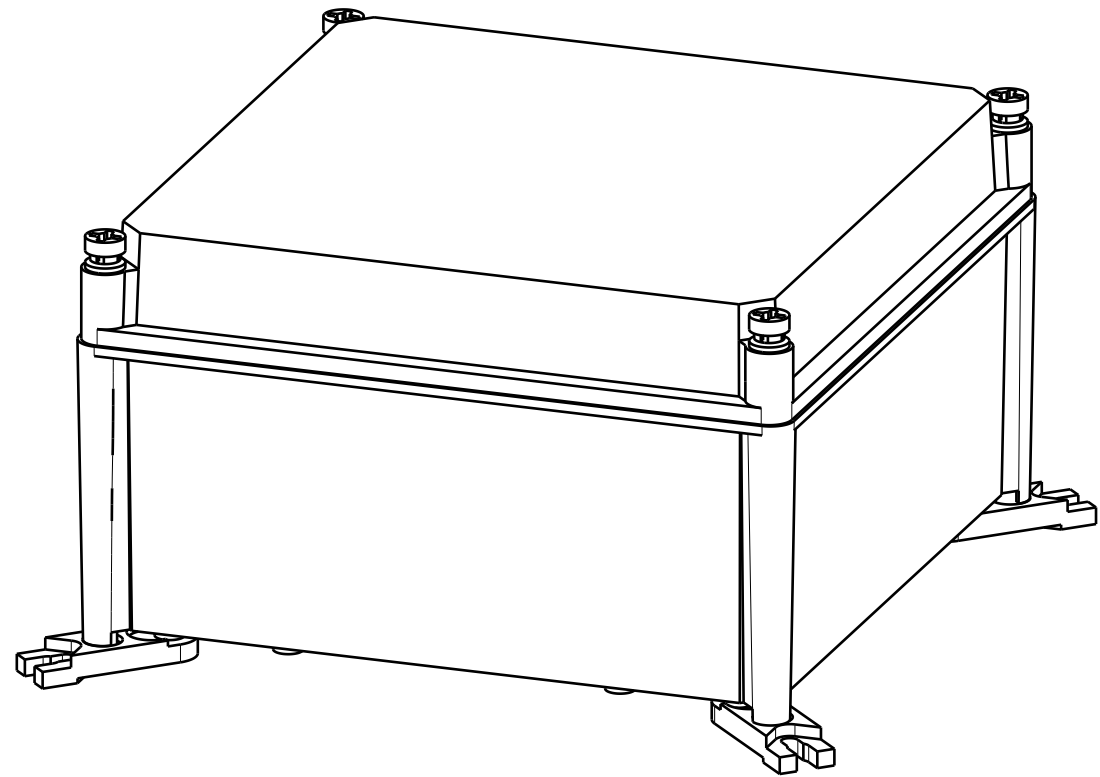
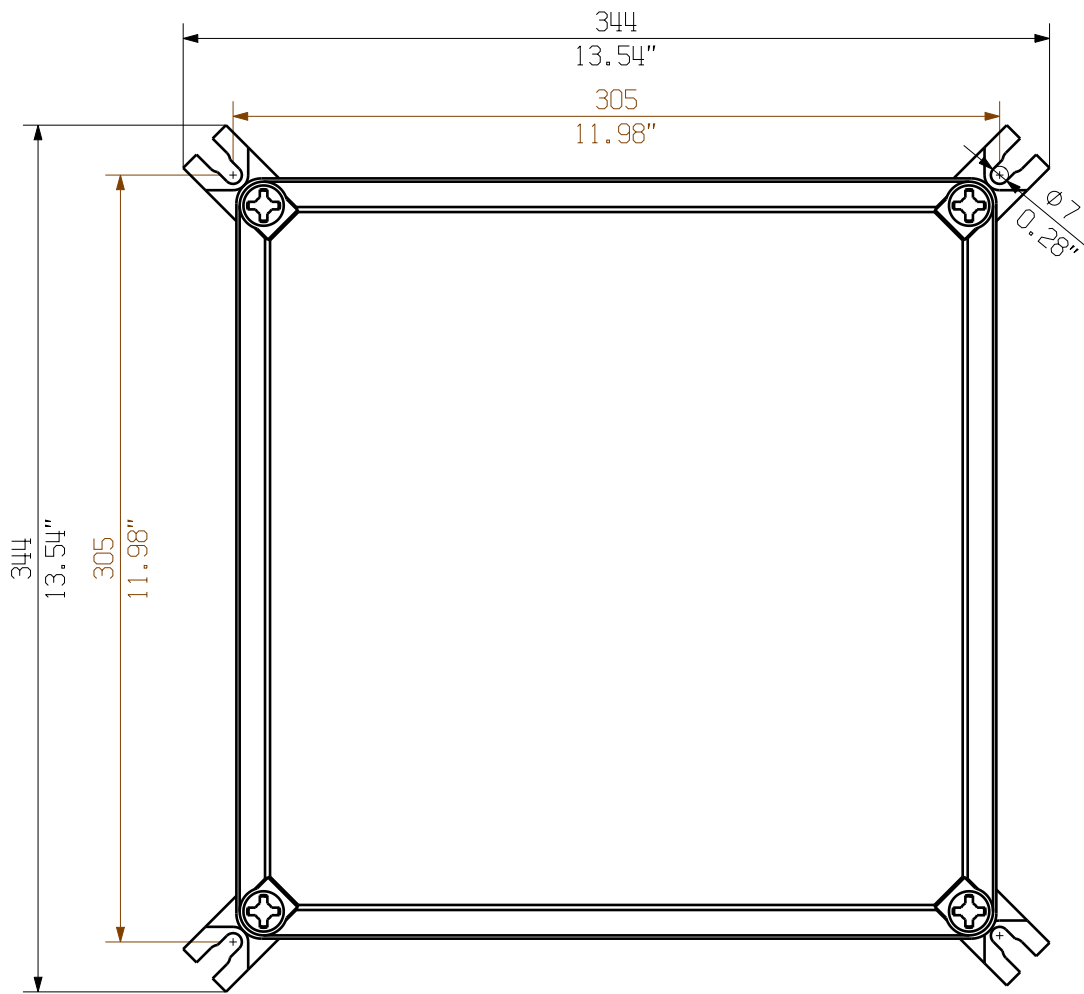
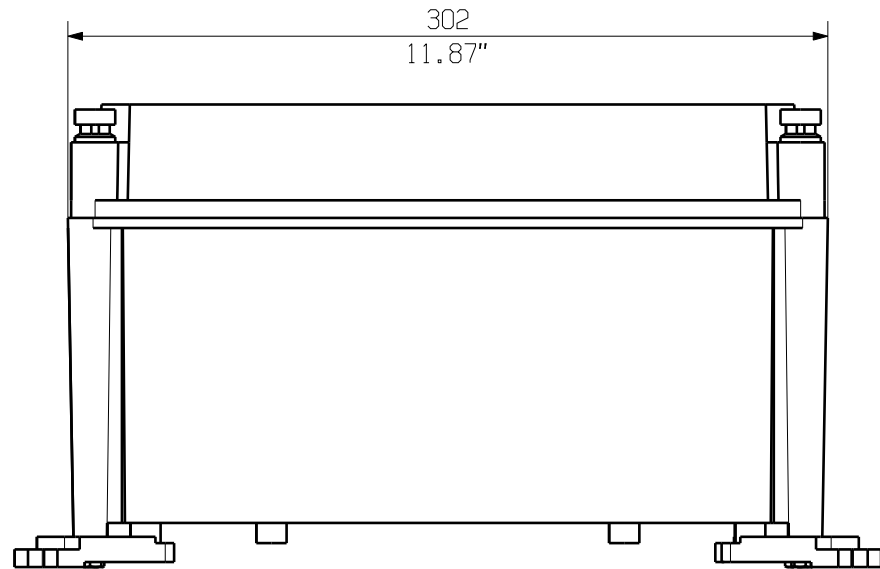


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Dimensions without tolerances are no check dimensions

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.: 1174506		Prim ERP Part No.:	
First Issue Date 29.01.2020	Max. nos.		Weidmüller 		71730 Drawing no. Issue no. Sheet 01 of 01 sheets
	Modification				
		Date	Name	PVN TBF 303018 COMBINERBOX RESIDENTIAL/COMMERCIAL COMBINERBOX RESIDENTIAL/COMMERCIAL	
	Drawn	29.01.2020	Brüntrup, Anna		
Responsible		Wohlgemuth, KI			
Approved	31.01.2020	Püschner, Klau			
Scale: 1/3 Size: A3				Product file:	
Drawings Customer					