

PVN DC 3IF 30 2MPP 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 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, 2 MPP's, 3 Inputs / 3 Outputs per MPP, With fuse holder, Surge protection I / II, Cable gland
Order No.	2683040000
Type	PVN DC 3IF 30 2MPP SPD1R CG 10
GTIN (EAN)	4050118699715
Qty.	1 pc(s).
Replacement parts	2530600000 2534300000

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Technical data
Dimensions and weights

Depth	210 mm	Depth (inches)	8.268 inch
Height	330 mm	Height (inches)	12.992 inch
Width	558 mm	Width (inches)	21.968 inch
Net weight	7,738 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.	30 A
Rated short-term current resistance	Rated current	37.5 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	Protection class	II
Switch disconnecter 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	2 MPP		
Cartridge fuse	10 x 38 mm		
DC Input + & -	Wire connection	Type of connection	PUSH IN
		Compatible cable crosssection	EN 50618:2015
		Wire cross-section, min.	2.5 mm²
		Wire cross-section, max.	16 mm²

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Functional earth connector	Cable entry	Number of cable entries	2
		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 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 mm
		Cable diameter, max.	10 mm
		Cable glands	M 16

Outputs

DC Output + & -	Wire connection	Type of connection	PUSH IN
		Compatible cable cross-section	TÜV 2 Pfg 1169/08.07
		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 2 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.

MPP2:

identical to MPP1

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: 1.5mm²

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: 330x558x210 mm

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

Environmental Product Compliance

REACH SVHC

Lead 7439-92-1

SCIP

bdab5698-6a20-4370-8e28-8810d882d01a

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Product information

Fuses are not included 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

**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](#)

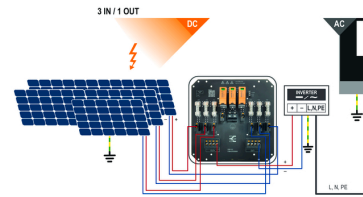
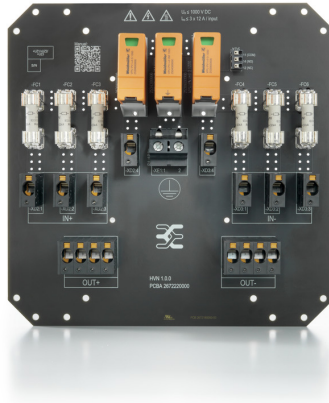
Catalogues

[Catalogues in PDF-format](#)

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Drawings
PCB design


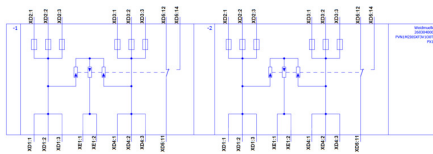
PVN 1 M2 I6 S0 F3 V1 Q1 TX PX 10									
Series		Voltage		Powersupply		Monitoring		Output Type	
PVN = PV Next		10 ~ 1kV		x = n/a		x = n/a		0 = DG	
VPU = PV Protect		11 ~ 1.1kV						1 = VVWAC	
Level		Inputs		SPD		Fuses			
1 = DC trunk box (L1)		1...12 inputs		0 = TYP II		x = n/a			
Series		Switch		1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

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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!

		Prim PLM Part No.: 1214838		Prim ERP Part No.:	
First Issue Date 28.01.2020	Max. nos.		Weidmüller 		71727 <div>0</div>
	Modification				
		Date	Name	<div>PVN TBF 563021</div> <div>COMBINERBOX RESIDENTIAL/COMMERCIAL</div> <div>COMBINERBOX RESIDENTIAL/COMMERCIAL</div>	
	Drawn	28.01.2020	Brüntrup, Anna		
	Responsible		Wohlgemuth, KI		
Scale: 1/4 Size: A3	Approved	31.01.2020	Püschner, Klau		
Drawings Customer			Product file:		

PVN TBF 563021
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