Data sheet

PVN1M3I9S0FXV1O0TXPX10

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, PV Next, 1000 V, 3 MPP's, 3 Inputs / 3 Outputs per MPP, Surge protection I / II, Switch disconnector, Cable gland
Order No.	2683160000
Type	PVN1M3I9S0FXV1O0TXPX10
GTIN (EAN)	4050118700206
Qty.	1 items
Delivery status	This article will no longer be available in the future.
Last order date	2025-12-31T00:00:00+01:00
Alternative product	PVN DC 3I 3O 3MPP SW SPD1R CG 11

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Technical data

Approvals

Approvals	
ROHS	Conform

Dimensions and weights

Depth	249 mm	Depth (inches)	9.8031 inch
Depth with add-on components	250 mm	Height	330 mm
Height (inches)	12.9921 inch	Width	558 mm
Width (inches)	21.9685 inch	Net weight	6831 g

Temperatures

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

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6c
REACH SVHC	Lead 7439-92-1
SCIP	bdab5698-6a20-4370-8e28-8810d882d01a

Included in delivery

Included accessories	Article	Sealing plug
	Quantity	24

Approvals and norms

Approvals	IEC 61439-2, EN 61439-2:2020

Guarantee

Time interval	5 years

Electrical characteristics

Rated DC voltage	1000 V	
Rated short-term current resistance	Rated current	37.5 A
Current per maximum power point, max.	30 A	
Rated DC current per connection	Current per string, max.	30.00 A

Enclosure

Cover	removeable	Insulating material	Polyester glass-fibre reinforced, Polycarbonate
Type of mounting	Wall mounting, 4 screws	Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262

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Enclosure attachment	Via mounting foots	Protection class	II
Connection type string	Internal terminal (with cable gland feed-through)		

General data

Standards	EN 61643-31	Protection degree	IP65
Installation location	Protected outdoor area (Land and Sea)		

Inputs

Amount of maximum power points (MPP)	3		
Functional earth connector	Cable entry	Number of cable entries	2
		Cable diameter, min.	5 mm
		Cable diameter, max.	10 mm
		Cable gland	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
Number of conduit inlets	2		
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 mm²
		Wire cross-section, 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 string inputs per MPP	≤ 3		
Surge protection auxiliary contact	Cable entry	Number of cable entries	2
		Cable diameter, min.	5 mm
		Cable diameter, max.	10 mm
		Cable gland	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	9		

Outputs

Max. number of DC outputs	per Maximum Power Point 3 outputs connected in parallel		
DC Output + & -	Wire connection	Type of connection	PUSH IN
		Compatible cable crossection	TÜV 2 Pfg1169/08.07, EN 50618:2015
		Wire cross-section, min.	2.5 mm²
		Wire cross-section, max.	16 mm²

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Surge protection DC side

Standards	EN 61643-31	Lightning test current limp (10/350 µs)	6.25 kA
Discharge current (8 / 20 µs), max.	40 kA	Protection level Up (+/- , -/PE , +/PE)	≤ 3.8 kV
Standby power consumption PC	< 0.2 W	Short-circuit curent (ISCPV)	11000 A
Total discharge current (Itotal) (8 / 20 µs)	50 kA	Discharge current In (8/20 µs)	20 kA
Requirements class	Type I/II	Total discharge current (Itotal) (10 / 350 µs)	12.5 kA
Protection level Up (-/PE)	≤ 3.8 kV	Protection level Up (+/-)	≤ 3.8 kV
Protection level Up (+/PE)	≤ 3.8 kV	PV system voltage (Ucpv), max.	1100 V
Maximum continuous operating voltage, DC UCPV mode (+ / -), (- / PE), (+ / PE)	1100 V		

DC load break switch

Rated impulse withstand voltage	8 kV	Switch disconnector execution	switch in cover
Switching disconnector capacity	DC-PV1, IEC 60947-3	Motor drive available	No
Rated short-circuit making current	1.4 A	Number of breaking operation cycles (rated current)	300
Number of operating cycles	10000		

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

Classifications

ETIM 8.0	EC003857	ETIM 9.0	EC003857
ETIM 10.0	EC003857	ECLASS 14.0	22-57-02-92
ECLASS 15.0	22-57-02-92		

Tender specification sheets

Long specification	Combiner box for inverters with 3 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 to 3: identical to MPP1 Max. string voltage Uoc: 1000V 1 class/type I + II combined arrester with signal contact

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Technical data

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: 1.5mm²
Connection of the functional earth via cable glands (8-12mmØ)
Conductor cross-section: 16-25mm²
Protection class: IP65
All built into a glas fibre reinforced polyester housing. Dimensions HxWxD: 330x558x249 mm
Approval according to low voltage switchgear and controlgear IEC 61439-1:2011 and EN 61439-2:2011

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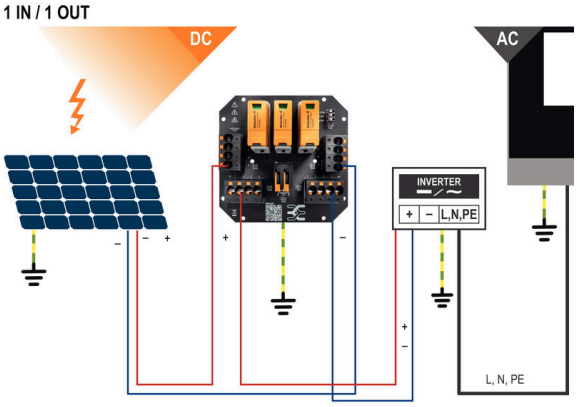
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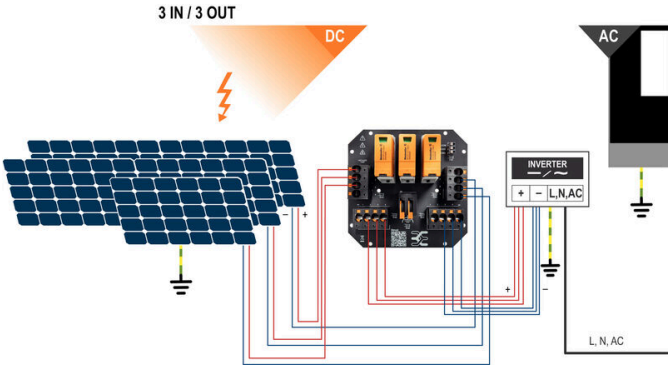
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Drawings

PCB design









PVN 1 M2 I6 S0 F3 V1 O1 TX PX 10

Series
PVN = PV Next
VPU = PV Protect

Level
1 = DC trunk box (L1)

Series
1 = 1 MPPT supported
2 = 2 MPPT supported
3 = 3 MPPT supported
4 = 4 MPPT supported
6 = 6 MPPT supported

Inputs
1...12 inputs

Switch
x = n/a
0 = manual switch
1 = remote switch

Voltage
10 = 1kV
11 = 1,1kV
15 = 1,5kV

Powersupply
x = n/a

Monitoring
x = n/a

Output Type
0 = CG
1 = WM4C
2 = MC4-Evo 2

SPD
2/0 = TYP II
1 = TYP I+II
X = No SPD

Fuses
x = n/a
3 = only fuse holders

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Drawings

