

PVN DC 3I 3O 1MPP SW SPD1R CG 11
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, 1100 V, 1 MPP, 3 Inputs / 3 Outputs per MPP, Surge protection I / II, Switch disconnecter, Cable gland
Order No.	2890590000
Type	PVN DC 3I 3O 1MPP SW SPD1R CG 11
GTIN (EAN)	4064675878438
Qty.	1 items

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Technical data
Approvals

Approvals



ROHS Conform

Dimensions and weights

Depth	172 mm	Depth (inches)	6.7716 inch
Height	228 mm	Height (inches)	8.9764 inch
Width	200 mm	Width (inches)	7.874 inch
Net weight	2023 g		

Temperatures

Ambient temperature -40 °C...50 °C Humidity 5...95 %, no condensation

Environmental Product Compliance

RoHS Compliance Status	Compliant
REACH SVHC	Lead 7439-92-1
SCIP	bdab5698-6a20-4370-8e28-8810d882d01a

Included in delivery

Included accessories	Article	Mounting foot
	Quantity	4
	Article	Sealing plug
	Quantity	8

Approvals and norms

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

Guarantee

Time interval 5 years

Electrical characteristics

Rated DC voltage	1100 V
Rated short-term current resistance	Rated current 57.5 A
Current per maximum power point, max. 46 A	

Enclosure

Insulating material	Polyester glass-fibre reinforced, Polycarbonate, Polycarbonate	Type of mounting	Wall mounting
Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262	Enclosure attachment	Via mounting feet
Protection class	II	Connection type string	Internal terminal (with cable gland feed-through)

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

Inputs

Amount of maximum power points (MPP)	1		
Functional earth connector	Cable entry	Number of cable entries	2
	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
Number of conduit inlets	2		
DC Input + & -	Wire connection	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
	Cable entry	Number of cable entries	4
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
	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
Number of inputs	3		

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 cross-section	TÜV 2 Pfg 1169/08.07
		Wire cross-section, min.	2.5 mm ²
		Wire cross-section, max.	16 mm ²

Surge protection DC side

Standards	EN 61643-31	Lightning test current Iimp (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 current ISCP	11000 A
Total discharge current (I _{total}) (8 / 20 µs)	50 kA	Discharge current I _n (8/20 µs)	20 kA

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Requirements class	Type I/II	Total discharge current (I _{total}) (10 / 350 12.5 kA µs)
Protection level Up (-/PE)	≤ 3.8 kV	Protection level Up (+/-) ≤ 3.8 kV
Protection level Up (+/PE)	≤ 3.8 kV	PV system voltage (U _{cpv}), max. 1100 V
Surge protection DC side	1000 V type I + II	Maximum continuous operating voltage, 1100 V DC UCPV mode (+ / -), (- / PE), (+ / PE)

DC load break switch

Rated impulse withstand voltage	8 kV	Switch disconnecter execution	switch in cover
Switching disconnecter 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
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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 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 - 6mm ² single-wire, multi- wire, with/without ferrule. 3 outputs, connection via M25 cable gland with 3x7mm Ø cable entry. PUSH IN connection / 2.5 - 6mm ² single-wire, multi- wire, with/without ferrule. Max. string voltage U _{oc} : 1100V 1 class/type I + II combined arrester with signal contact 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 ² Connection of the functional earth via cable glands (8-12mmØ)
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Conductor cross-section:

16-25mm²

Protection class: IP65

All built into a glas fibre
reinforced polyester

housing. Dimensions

HxWxD: 228x200x172
mm

Approval according to
low voltage switchgear

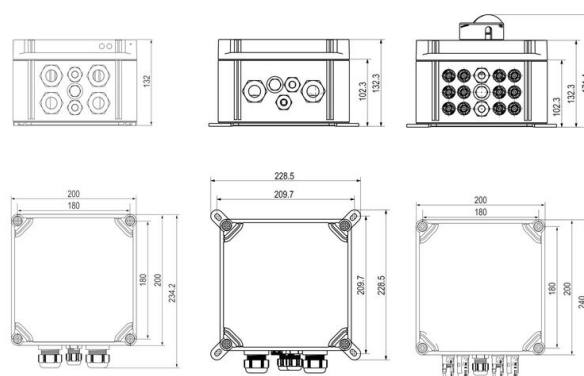
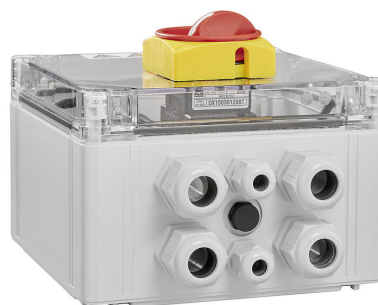
and controlgear IEC

61439-1:2011 and EN

61439-2:2011

Drawings

PCB design



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Drawings

