

PVN DC 2I 2O 3MPP SPD2R 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 5 1643-32. 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, 3 MPP's, 2 Inputs / 2 Outputs per MPP, Surge protection II, Cable gland, 1100 V
Order No.	2975570000
Type	PVN DC 2I 2O 3MPP SPD2R CG 11
GTIN (EAN)	4099986823167
Qty.	1 items

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Technical data

Approvals

Approvals



ROHS Conform

Dimensions and weights

Depth	132 mm	Depth (inches)	5.1968 inch
Height	235 mm	Height (inches)	9.252 inch
Width	400 mm	Width (inches)	15.748 inch
Net weight	3016 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	7

Approvals and norms

Approvals EN 61439-2:2020

Guarantee

Time interval 5 years

Electrical characteristics

Rated DC voltage	1100 V	
Rated short-term current resistance	Rated current	67 A
Current per Maximum Power Point, max. 53.6 A		
Rated DC current per connection	Current per string, max.	53.60 A

Enclosure

Cover	removeable	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

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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 61439-2, 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
	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	6		
DC Input + & -	Wire connection	Type of connection	PUSH IN with actuator
		Wire cross-section, min.	2.5 mm ²
		Wire cross-section, max.	16 mm ²
	Cable entry	Number of cable entries	18
		Cable diameter, min.	5 mm
		Cable diameter, max.	16 mm
Fuse type	Neither fuse cartridge nor holder		
Fuses	No		
Max. number of DC inputs	per Maximum Power Point 2 inputs connected in parallel		
Number of string inputs per MPP	≤ 2		
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	2		

Outputs

Max. number of DC outputs	per Maximum Power Point 2 outputs connected in parallel		
DC Output + & -	Wire connection	Type of connection	PUSH IN with actuator
		Wire cross-section, min.	2.5 mm ²
		Wire cross-section, max.	16 mm ²

Surge protection DC side

Standards	EN 61439-2, EN 61643-31	Discharge current, max. (8/20 μs)	40 kA
Protection level Up (+/-, -/PE, +/-PE)	≤ 3.8 kV	Standby power consumption PC	<0.2 W

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Short-circuit current I _{SCP}	11000 A	Total discharge current I _{total} (8/20µs)	50 kA
Discharge current I _n (8/20 µs)	20 kA	Requirements class	Type II
Protection level U _p (-/PE)	≤ 3.8 kV	Protection level U _p (+/-)	≤ 3.8 kV
Protection level U _p (+/PE)	≤ 3.8 kV	PV system voltage, max. U _{cpv}	1100 V
Surge protection DC side	1000 V type II	Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/PE	1100 V

DC load break switch

Voltage type	DC	Switch disconnector execution	no switch
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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	<p>Combiner box for inverters with 3 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to DIN CLC/TS 5 1643-32. MPP1: 2 inputs, connection via M25 cable gland with multiple sealing inserts. PUSH IN connection / single-wire, multi-wire, with/without ferrule. 1 output, connection via M25 cable gland with multiple sealing inserts. PUSH IN connection / single-wire, multi-wire, with/without ferrule. MPP2 to 3: identical to MPP1 Max. string voltage U_{oc}: 1100 VDC 1 class/type II arrester with signal contact Connection of the signal contact via M16 cable glands (Clamping range 5-10 mmØ) max. conductor cross-section: 1.5 mm² Connection of the functional earth via M16 cable glands (Clamping range 5-10 mmØ) Conductor cross-section: ≥ 16 mm² Protection class: IP65</p>
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Technical data

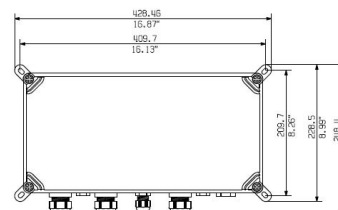
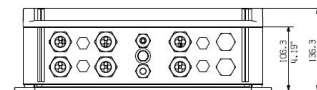
All built into a glas fibre reinforced polyester housing. Dimensions HxWxD: 235x400x132 mm
Approval according to low voltage switchgear and controlgear IEC 61439-1 and EN 61439-2

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Drawings

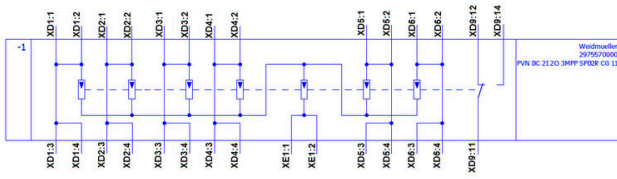


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Accessories

PV Sun Covers



General ordering data

Type	PV SUNCOVER 20/40/13	Version	
Order No.	8000143247	Photovoltaics, Sun cover	
GTIN (EAN)	4099987 111867		
Qty.	1 ST		

Cutting tools



Cutting tools for conductors up to 8 mm, 12 mm, 14 mm and 22 mm outside diameter. The special blade geometry allows pinch-free cutting of copper and aluminium conductors with minimum physical effort. The cutting tools (KT 8 to KT 22) also come with VDE and GS-tested protective insulation up to 1,000 V in accordance with EN/IEC 60900.

General ordering data

Type	KT 14	Version	
Order No.	1157820000	Cutting tools, Cutting tool for one-hand operation	
GTIN (EAN)	4032248945344		
Qty.	1 ST		

Tools



- For flexible and solid conductors with special insulating materials
- High-quality stripping for industrial applications (complies with aircraft industry requirements)
- Specially shaped blades enable stripping of special types of insulation and conductor configurations
- Stripping length adjustable via end stop
- Very versatile thanks to interchangeable stripping units
- Stripping results reproduced accurately over and over again
- No damage to the conductor
- A long-lasting, reliable tool thanks to its sturdy design
- Integrated cutting function

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Accessories

General ordering data

Type	MULTI-STRIPAX PV	Version	
Order No.	1190490000	Photovoltaics, Plug-in connector	
GTIN (EAN)	4032248973262		
Qty.	1 ST		

Crosshead screwdriver Phillips



VDE insulated crosshead screwdriver, for Phillips screws, SDIK PH DIN 7438, ISO 8764/2-PH, output to ISO 8764-PH, SoftFinish grip

General ordering data

Type	SDIK PH3 X 150	Version	
Order No.	2749910000	Screwdriver, Blade width (B): 3 mm, 150 mm, Blade thickness (A): 3	
GTIN (EAN)	4050118897210		
Qty.	1 ST		

Slotted screwdriver



VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

Type	SDIS 0.6X3.5X100	Version	
Order No.	2749810000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm	
GTIN (EAN)	4050118897012		
Qty.	1 ST		
Type	SDIS 1.0X5.5X125	Version	
Order No.	2749850000	Screwdriver, Blade width (B): 5.5 mm, Blade length: 125 mm, Blade thickness (A): 1 mm	
GTIN (EAN)	4050118897050		
Qty.	1 ST		

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Accessories

External fixing lugs



External attachment lugs 4-part set

General ordering data

Type	MF FPC	Version	
Order No.	9536040000	FPC (polycarbonate empty enclosure), Mounting foot, Fixing lugs,	
GTIN (EAN)	4032248009442	Height: 40 mm, Width: 19 mm, Depth: 35.5 mm, Basic material:	
Qty.	1 ST	Polyamide, Polyamide 66, Light Grey	

UV-resistant cable ties



UV-resistant polyamide 6.6 ensures long durability of our special cable ties even with strong UV radiation. Ideal for continuous outdoor use.

General ordering data

Type	CB-UVR 290/4,5 BK	Version	
Order No.	26593350000	Cable ties, 4.5 x 290 mm, Polyamide 66, 220 N	
GTIN (EAN)	4050118682816		
Qty.	100 ST		

Sealing sets



General ordering data

Type	SL SET PV NEXT	Version	
Order No.	2729230000	Photovoltaics	
GTIN (EAN)	4050118804508		
Qty.	1 ST		

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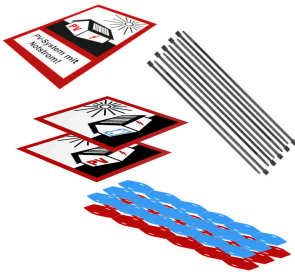
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Accessories

Type	BLINDPLUG SET5 7X28MM	Version
Order No.	3077670000	Photovoltaics, Blind plug
GTIN (EAN)	4099987081894	
Qty.	1 ST	
Type	BLINDPLUG SET50 7X28MM	Version
Order No.	3077650000	Photovoltaics, Blind plug, Accessories, Blind plug, 50 pieces
GTIN (EAN)	4099987081870	
Qty.	1 ST	

PV marking sets



General ordering data

Type	PV MARKER 1-3 MPP	Version
Order No.	8000149520	Photovoltaics, Device markers, Accessories, Conductor and cable markers, Cable ties, Marking set, Warning label, Cable marker, Self-adhesive
GTIN (EAN)	4099987229197	
Qty.	1 ST	

Spare Arrester



General ordering data

Type	VPU PV II O 1000	Version
Order No.	2530660000	Surge voltage arrester, Low voltage, Accessories, Spare arrester
GTIN (EAN)	4050118540871	
Qty.	9 ST	