

PVN DC 2I 1O 3MPP SPD1R EVO 11

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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 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 / 1 Output per MPP, Surge protection I / II, MC4-Evo 2, 1100 V
Order No.	2975530000
Type	PVN DC 2I 1O 3MPP SPD1R EVO 11
GTIN (EAN)	4099986823129
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	240 mm	Height (inches)	9.4488 inch
Width	400 mm	Width (inches)	15.748 inch
Net weight	3418 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

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 56.25 A
Current per Maximum Power Point, max.	45 A
Rated DC current per connection	Current per string, max. 45.00 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
Enclosure attachment	Via mounting feet	Protection class	II
Connection type string	Plug MC4-Evo 2		

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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	
	DC Input + & -	Wire connection	Flexible, max. H05(07) V-K	25 mm ²
			w. wire end ferrule, DIN 46228 pt 1, max.	16 mm ²
Surge protection auxiliary contact	Cable entry	Type of connection	Stäubli MC4-Evo 2 connector	
		Wire connection	Compatible cable cross-section TÜV 2 Pfg1169/08.07	
	Number of inputs	2	Wire cross-section, min.	2.5 mm ²
			Wire cross-section, max.	16 mm ²
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			

Outputs

Max. number of DC outputs	per Maximum Power Point 1 output			
DC Output + & -	Wire connection	Type of connection	Stäubli MC4-Evo 2 connector	
		Compatible cable cross-section	TÜV 2 Pfg1169/08.07	
	Number of outputs	2	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	Lightning test current limp (10/350 μs)	6.25 kA
Discharge current, max. (8/20 μs)	40 kA	Protection level Up (+/-, -/PE, +/-PE)	≤ 3.8 kV
Standby power consumption PC	<0.2 W	Short-circuit current ISCPV	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} (10/350µs)	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, max. U _{cpv}	1100 V
Surge protection DC side	1000 V type I + 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 MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg 1 169/08.07 / EN 506 18:2063</p> <p>1 output, connection via MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg 1 169/08.07 / EN 506 18:2063</p> <p>MPP2 to 3: identical to MPP1 Max. string voltage U_{oc}: 1100 VDC</p> <p>1 class/type I + II combined arrester with signal contact</p> <p>Connection of the signal contact via M16 cable glands (Clamping range 5-10 mmØ) max. conductor cross-section: 1.5 mm²</p> <p>Connection of the functional earth via M16 cable glands (Clamping range 5-10 mmØ) Conductor cross-section: ≥ 16 mm²</p> <p>Protection class: IP65</p> <p>All built into a glass fibre reinforced polyester housing. Dimensions</p>
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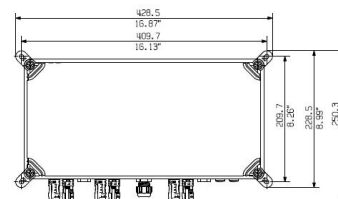
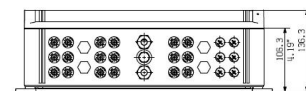
HxWxD: 240x400x132
mm
Approval according to low
voltage switchgear and
controlgear IEC 61439-1
and EN 61439-2

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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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Y-Connector Cables



The Y cable is used for the parallel connection of several strings in a PV system, e.g. for splitting a line in front of an inverter.
 The cables are available in different connection variants.

General ordering data

Type	PVHYM-M-XXX6W+11	Version	
Order No.	2877850000	Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x MC4 Male,	
GTIN (EAN)	4064675666417	6mm ² , 1100 V	
Qty.	1 ST		
Type	PVHYM+M+XXX6W-11	Version	
Order No.	2877860000	Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x MC4 Female,	
GTIN (EAN)	4064675666424	6mm ² , 1100 V	
Qty.	1 ST		

Sealing sets



General ordering data

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		

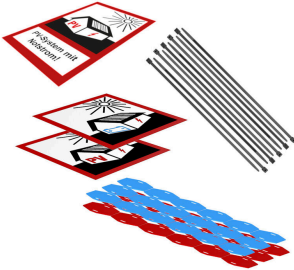
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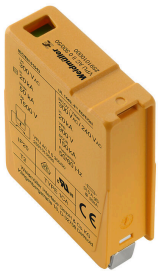
PV marking sets



General ordering data

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

Spare Arrester



General ordering data

Type	VPU PV I+II O 1000	Version	
Order No.	2530600000		Surge voltage arrester, Low voltage, Accessories, Surge protection I /
GTIN (EAN)	4050118540819		II, Spare arrester
Qty.	9 ST		
Type	VPU PV I+II OM 1000	Version	
Order No.	2534300000		Surge voltage arrester, Low voltage, Surge protection I / II, Spare
GTIN (EAN)	4050118545906		arrester
Qty.	9 ST		