Data sheet

PVC DC 2I 2O 10MPP SPD1R EVO 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, 10 MPP's, 2 Inputs / 2 Outputs per MPP, Surge protection I / II, MC4-Evo 2
Order No.	8000107559
Type	PVC DC 2I 2O 10MPP SPD1R EVO 11
GTIN (EAN)	4099986665378
Qty.	1 items

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Technical data

Approvals

Approvals	CE
ROHS	Conform

Dimensions and weights

Depth	257 mm	Depth (inches)	10.1181 inch
Height	485 mm	Height (inches)	19.0944 inch
Width	600 mm	Width (inches)	23.622 inch
Net weight	18100 g		

Temperatures

Ambient temperature	-20 °C...50 °C	Humidity	5 - 90 %, no condensation

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cI
REACH SVHC	Lead 7439-92-1
SCIP	bdab5698-6a20-4370-8e28-8810d882d01a

Included in delivery

Included accessories	Article	Mounting foot
	Quantity	4
	Article	Dustcap VSSO
	Quantity	40
	Article	Sealing plug
	Quantity	3

Approvals and norms

Approvals	EN 61439-2, IEC 61439-2

Guarantee

Time interval	5 years

Electrical characteristics

Rated DC voltage	1100 V	
Rated short-term current resistance	Rated current	51.25 A
Current per Maximum Power Point, max.	41 A	
Rated DC current per connection	Current per string, max.	41.00 A

Enclosure

Insulating material	Polyester glass-fibre reinforced, Polycarbonate	Type of mounting	4 screws, Fixing lugs
Impact resistance	IK10 in accordance with IEC 62262	Enclosure attachment	Via mounting foots
Protection class	II	Connection type string	Plug MC4-Evo 2

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Technical data

General data

Standards	EN 61643-31	Protection degree	IP65
Installation location	Protected outdoor area (>1 km from sea)		

Inputs

Amount of maximum power points (MPP)	10		
Functional earth connector	Cable entry	Number of cable entries	1
	Wire connection	Type of connection	PUSH IN with actuator
		Flexible, max. H05(07) V-K	25 mm²
		w. wire end ferrule, DIN 46228 pt 1, max.	16 mm²
Number of conduit inlets	20		
DC Input + & -	Wire connection	Type of connection	Stäubli MC4-Evo 2 connector
		Wire cross-section, min.	2.5 mm²
		Wire cross-section, max.	6 mm²
	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 2 inputs connected in parallel		
Number of string inputs per MPP	≤ 2		
Surge protection auxiliary contact	Cable entry	Number of cable entries	1
	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	20		

Outputs

Max. number of DC outputs	per Maximum Power Point 2 outputs connected in parallel		
DC Output + & -	Wire connection	Type of connection	Stäubli MC4-Evo 2 connector
		Compatible cable crossection	TÜV 2 Pfg1169/08.07
		Wire cross-section, min.	2.5 mm²
		Wire cross-section, max.	6 mm²

Surge protection DC side

Standards	EN 61643-31	Lightning test current limp (10/350 µs)	5 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 (8/20µs)	50 kA
Discharge current In (8/20 µs)	20 kA	Requirements class	Type I/II

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Total discharge current Itotal (10/350µs)	10 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. Ucpv	1100 V	Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/PE	1100 V

DC load break switch

Voltage type	DC	Switch disconnector execution	no switch

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 10 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to EN 51543-32. MPP1: 2 inputs, connection via MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2063 2 outputs, connection via MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2063 MPP2 to 10: identical to MPP1 Max. string voltage Uoc: 1100V 1 class/type I + II combined arrester with signal contact 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: 469.5x600x248.9 mm Approval according to low voltage switchgear

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Technical data

	and controlgear IEC 61439-1:2011 and EN 61439-2:2011

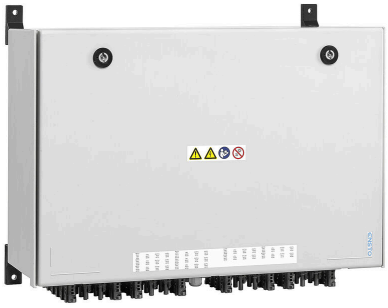
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Drawings





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Accessories

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

General ordering data

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

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Accessories

General ordering data

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

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.	2659350000	Cable ties, 4.5 x 290 mm, Polyamide 66, 220 N
GTIN (EAN)	4050118682816	
Qty.	100 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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Accessories

Spare Arrester



General ordering data

Type	VPU PV I+II 5 0 1000	Version
Order No.	2857000000	
GTIN (EAN)	4064675537366	
Qty.	9 ST	

Type	VPU PV I+II 5 0M 1000	Version
Order No.	2856650000	
GTIN (EAN)	4064675536581	
Qty.	9 ST	

Replacement parts



General ordering data

Type	BRES REPLACEMENT HINGE	Version
Order No.	3098500000	Photovoltaics, Spare part, Hinge pin, 10 MPP's, 12 MPP's
GTIN (EAN)	4099987129831	
Qty.	1 ST	

Type	BRES BO-OFM-14-B44-86 W...	Version
Order No.	3139420000	Photovoltaics, Mounting foot, Spare part, Mounting foot, 10 MPP's,
GTIN (EAN)	4099987378390	12 MPP's
Qty.	1 ST	