Data sheet

PVC DC 2I 2O 10MPP RD SPD1R EVO 11

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com



IP65

Warranty 5 Years

For safe remote shutdown Rooftop photovoltaic systems can require a disconnection device at the point where the cables enter into the building, that is connected to the power grid in the building. This allows the fire brigade to carry out their work in an emergency without being unnecessarily endangered. When the power supply is restored, the PV Next Fireman Switch automatically reconnects the PV strings.

General ordering data

Version	Photovoltaics, Combiner Box, Fireman's switch, PV Next, 10 MPP's, 2 Inputs / 2 Outputs per MPP, Surge protection I / II, Remote disconnector, MC4-Evo 2, 1100 V
Order No.	8000130058
Type	PVC DC 2I 2O 10MPP RD SPD1R EVO 11
GTIN (EAN)	4099987231763
Qty.	1 items

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Technical data

Approvals

Approvals	
ROHS	Conform

Dimensions and weights

Depth	307 mm	Depth (inches)	12.0866 inch
Height	640 mm	Height (inches)	25.1968 inch
Width	800 mm	Width (inches)	31.496 inch
Net weight	19128.45 g		

Temperatures

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

Environmental Product Compliance

RoHS Compliance Status	Compliant
REACH SVHC	Lead 7439-92-1

Included in delivery

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

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

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

General data

Standards	EN 61439-2, OVE-Directive R	Protection degree	IP65

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Technical data

	11-1:2022-05-01, EN 61643-31		
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	2
	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	6		
DC Input + & -	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.	16 mm²
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	PUSH IN with actuator
		Flexible, max. H05(07) V-K	2.5 mm²
		w. wire end ferrule, DIN 46228 pt 1, max.	2.5 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.	16 mm²

Remote disconnector

Automatic reclosing after voltage drop	Yes		
Number of operating cycles	10000		
Control voltage	100 V AC - 250 V AC 50/60Hz		
Remote disconnector auxiliary contact	Cable entry	Number of cable entries	1
	Wire connection	Type of connection	PUSH IN with actuator
		Flexible, max. H05(07) V-K	2.5 mm²

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		w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm²
Remote disconnector control contact	Cable entry	Number of cable entries	1
	Wire connection	Type of connection	PUSH IN with actuator
		Flexible, max. H05(07) V-K	2.5 mm²
		w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm²
Type of power circuit disconnection	Under voltage tripping		
Turn-off time	1.5 s		
Current consumption of switch	Type of switch	Fireman switch	
	Current consumption, note	The Peak current only arises for a short time when the capacitors of the fireman switch were previously completely discharged.	
	Current consumption peak	900 mA	
	Current consumption continuous	90 mA	
Number of breaking operation cycles at rated current	300		
Switch disconnector execution	Remote disconnector inside enclosure		
Switching disconnector capacity	DC-PV1		

Surge protection DC side

Standards	EN 61439-2, OVE-Directive R 11-1:2022-05-01, 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
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	Surge protection DC side	1000 V type I + II
Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/PE	1100 V		

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 Fireman switch and surge protection for the connection to 10 MPP tracker. Suitable for remote disconnection of the DC side by the fire department according to VDE-AR-E2100-712. Max. string voltage Uoc: 1100 VDC Integrated surge protection with class I+II combined arresters with signal contact.

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Technical data

Suitable for protection against overvoltages in a photovoltaic system according to DIN CLC/TS 51643-32. 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 DC fireman switch:
Switching off by undervoltage tripping.
Switching off by reaching a temperature of ≥ 100 °C in the housing.
Automatic reconnection after the control voltage (230 V AC) is applied again.
With signal contact.
Connection of the fireman switch control line 230 VAC via M16 cable glands (Clamping range 5-10 mmØ) max. conductor cross-section: 1.5 mm².
Connection of the signal contact 24 VDC (max. 300 mA) via M16 cable glands (Clamping range 5-10 mmØ) max. conductor cross-section: 1.5 mm².
Protection class: IP65.
All built into a glas fibre reinforced polyester housing. Dimensions HxWxD: 683x800x327 mm. Approval according to low voltage switchgear IEC 61439-1 and EN 61439-2

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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	

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

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Accessories

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
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	

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Accessories

Emergency stop button



General ordering data

Type	AC SB E 5A 1POL PO 06KV	Version
Order No.	3077660000	Photovoltaics, Emergency stop button, 1 pole, 600 V AC, 5 A,
GTIN (EAN)	4099987081887	Complete enclosure
Qty.	1 ST	

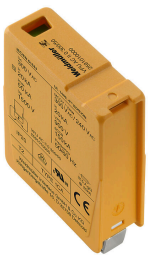
Sealing sets



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	

Spare Arrester



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Accessories

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	