

PVC DC 2I 10 6MPP RD SPD1R EVO 11

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

www.weidmueller.com



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, 1100 V, 6 MPP´s, 2 Inputs / 1 Output per MPP, Remote disconnecter, Surge protection I / II, MC4-Evo 2
Order No.	8000111274
Type	PVC DC 2I 10 6MPP RD SPD1R EVO 11
GTIN (EAN)	4099986883994
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	439 mm	Height (inches)	17.2834 inch
Width	600 mm	Width (inches)	23.622 inch
Net weight	12873.82 g		

Temperatures

Ambient temperature -20 °C...50 °C Humidity 5...95 %, no condensation

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
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 EN 61439-2, IEC 61439-2, OVE-Directive R 11-1:2022-05-01

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	Fixing lugs
Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262	Enclosure attachment	Via mounting feet

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Protection class	II	Connection type string	Plug MC4-Evo 2
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General data

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

Inputs

Amount of maximum power points (MPP)	6			
Functional earth connector	Cable entry	Number of cable entries	2	
	Wire connection	Type of connection	Tension clamp connection with actuator	
		Flexible, max. H05(07) V-K	25 mm ²	
Number of conduit inlets	3			
DC Input + & -	Wire connection	Type of connection	Stäubli MC4-Evo 2 connector	
		Compatible cable cross-section	TÜV 2 Pfg1169/08.07	
		Wire cross-section, min.	2.5 mm ²	
		Wire cross-section, max.	16 mm ²	
	Cable entry	Number of cable entries	12	
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 mm ²	
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm ²	
Number of inputs	12			

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
		Wire cross-section, min.	2.5 mm ²
		Wire cross-section, max.	16 mm ²

Remote disconnecter

Automatic reclosing after voltage drop	Yes
Number of operating cycles	10000

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Control voltage	100 V AC - 250 V AC 50/60Hz		
Remote disconnecter auxiliary contact	Cable entry	Number of cable entries	1
	Wire connection	Type of connection	PUSH IN
		Flexible, max. H05(07) V-K	2.5 mm ²
		w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm ²
Remote disconnecter control contact	Cable entry	Number of cable entries	1
	Wire connection	Type of connection	PUSH IN
		Flexible, max. H05(07) V-K	2.5 mm ²
		w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm ²
Type of power circuit disconnection	Under voltage tripping		
Turn-off time	<5 s		
Turn-on time	<15 s when the control unit was completely discharged		
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	600 mA	
	Current consumption continuous	60 mA	
Number of breaking operation cycles at rated current	300		
Switch disconnecter execution	Remote disconnecter inside enclosure		
Switching disconnecter capacity	DC-PV1, IEC 60947-3		

Surge protection DC side

Standards	EN 61643-31	Lightning test current Iimp (10/350 μs)	5 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 Itotal (8/20 μs)	50 kA
Discharge current In (8/20 μs)	20 kA	Requirements class	Type I/II
Total discharge current Itotal (10/350 μs)	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 6 MPP tracker. Suitable for remote disconnection of the DC side by the fire department according to VDE-AR-E2100-712.
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Max. string voltage Uoc:
1 100 VDC Integrated
surge protection with class
I+II combined arresters
with signal contact.
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 Pfg1 169/08.07 /
EN 50618:2063
1 output, connection via
MC4-Evo 2 connector,
compatible with cable type
TÜV 2 Pfg1 169/08.07 /
EN 50618:2063
MPP2 to 6:
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
mm \emptyset) 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
mm \emptyset) max. conductor
cross-section: 1.5 mm².
Protection class: IP65.
All built into a glas fibre
reinforced polyester
housing. Dimensions
HxWxD: 439x600x132
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	Version	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	Version	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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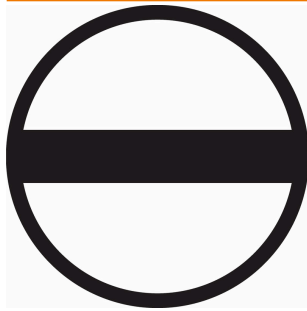
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Accessories

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 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		

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, Height: 40 mm, Width: 19 mm, Depth: 35.5 mm, Basic material: Polyamide, Polyamide 66, Light Grey	
GTIN (EAN)	4032248009442		
Qty.	1 ST		

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Accessories

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		

PV Weather protection



General ordering data

Type	PV SUNCOVER 40/60/13	Version	
Order No.	8000143256		Photovoltaics, Sun cover
GTIN (EAN)	4099987111959		
Qty.	1 ST		

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-XXXX6W+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		

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Accessories

Type	PVHYM+M+XXXX6W-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		

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		

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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		