Data sheet

PVN DC 2I 1O 2MPP RD WM4 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, 2 MPP's, 2 Inputs / 1 Output per MPP, Remote disconnector, WM4C, 1100 V
Order No.	2778880000
Type	PVN DC 2I 1O 2MPP RD WM4 11
GTIN (EAN)	4064675047636
Qty.	1 items

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Technical data

Approvals

Approvals	CE
ROHS	Conform

Dimensions and weights

Depth	132 mm	Depth (inches)	5.1968 inch
Height	370 mm	Height (inches)	14.5669 inch
Width	200 mm	Width (inches)	7.874 inch
Net weight	2534 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, 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	4
	Article	Sealing plug
	Quantity	1

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	43.75 A
Current per Maximum Power Point, max.	35 A	

Enclosure

Insulating material	Polyester glass-fibre reinforced, Polycarbonate	Type of mounting	Wall mounting, 4 screws
Impact resistance	IK08 in accordance with IEC 62208, IK10	Enclosure attachment	Via mounting foots

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Technical data

	in accordance with IEC 62262		
Protection class	II	Connection type string	Plug WM4C

General data

Protection degree	IP65	Installation location	Protected outdoor area (>1 km from sea)

Inputs

Amount of maximum power points (MPP)	2		
Number of conduit inlets	4		
DC Input + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable crossection	EN 50618:2015
		Wire cross-section, min.	4 mm²
		Wire cross-section, max.	6 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		
Number of inputs	2		

Outputs

Max. number of DC outputs	per Maximum Power Point 1 output		
DC Output + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable crossection	TÜV 2 Pfg1169/08.07
		Wire cross-section, min.	4 mm²
		Wire cross-section, max.	6 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	Screw terminal connectors
		Flexible, max. H05(07) V-K	1.5 mm²
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm²
Remote disconnector control contact	Cable entry	Number of cable entries	1
	Wire connection	Type of connection	Screw terminal connectors
		Flexible, max. H05(07) V-K	1.5 mm²
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm²

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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	300 mA
	Current consumption continuous	30 mA
Number of breaking operation cycles at rated current	300	
Switch disconnector execution	Remote disconnector inside enclosure	
Switching disconnector capacity	IEC 60947-3, DC-PV1	

Important note

Product information	Intended use of the UPS: This UPS has been especially developed as a safety device for direct current (DC) photovoltaic installations. The DC disconnect switch is used to disconnect the connected strings of the installation in case of an emergency situation. Such an emergency situation could be in case of fire. Normal operation: The UPS will automatically switch to the off position, breaking the DC connection between the solar panels and the inverter, after the AC power to the UPS is interrupted for longer than five seconds. The UPS will automatically switch to the on position, restoring the DC connection between the solar panels and the inverter, once the AC power to the UPS is restored longer than five seconds. Special Operation: If the temperature inside the UPS enclosure exceeds the 100°C, the UPS will automatically switch to OFF to protect the internal components and create a safe situation. When the installation is checked and the UPS is not affected, the UPS can be switched ON again by removal and re-applying the AC voltage to the UPS. The UPS will also automatically switch to OFF if there is an internal failure. If this occurs please try to reset the UPS by removal and re-applying the AC voltage to the UPS. Emergency switch not included.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 6.0	EC002928	ETIM 7.0	EC002928
ETIM 8.0	EC003857	ETIM 9.0	EC003857
ETIM 10.0	EC003857	ECLASS 9.0	22-57-92-03
ECLASS 9.1	22-57-02-90	ECLASS 10.0	22-57-02-90
ECLASS 11.0	22-57-02-92	ECLASS 12.0	22-57-02-92
ECLASS 13.0	22-57-02-92	ECLASS 14.0	22-57-02-92
ECLASS 15.0	22-57-02-92		

Tender specification sheets

Long specification	Automatic ON and OFF switching fireman switch for the connection to 2 MPP tracker in the inverter. Suitable for remote disconnection of the DC side by the fire department. Max. string voltage Uoc: 1100V MPP1: 2 inputs, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2063

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Technical data

1 output, connection via WM4 C connector, compatible with cable type
TÜV 2 Pfg1169/08.07 / EN 50618:2063
MPP2:
identical to MPP1
DC fireman switch:
Switching off by undervoltage tripping.
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 cable glands (8-12mmØ) max. conductor cross-section: 1.5mm².
Connection of the signal contact 24 VDC via cable glands (8-12mmØ) max. conductor cross-section: 1.5mm².
Protection class: IP65.
All built into a glas fibre reinforced polyester housing.
Dimensions HxWxD: 370x200x132mm.
Approval according to low voltage switchgear IEC 61439-1:2011 and EN 61439-2:2011

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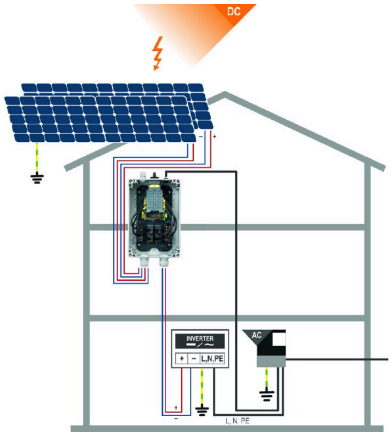
Drawings



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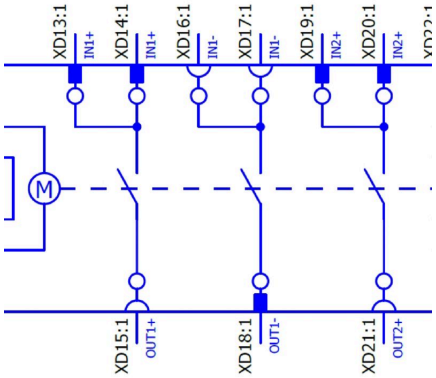

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Accessories

PV Sun Covers

General ordering data

Type	PV SUNCOVER 20/30/13	Version
Order No.	8000143245	Photovoltaics, Sun cover
GTIN (EAN)	4099987111843	
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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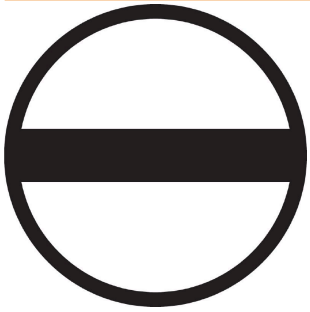
Accessories

General ordering data

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

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

PV-Stick field connectors

Faster is better. This also applies to the cabling of solar systems. Our handy connectors stay firmly in your grip even in frosty temperatures and can be installed very quickly and easily without a crimping tool.
You don't need crimp contacts and crimping tools and you avoid assembly errors. This saves up to 50% installation time – without affecting quality. The new photovoltaic connectors are TÜV-approved and comply with IEC 62852.
Our "SNAP IN" technology enables safe connections with minimal effort – insert, turn: current!

- 1.500 V DC (DE) / 1,500 V DC (EN)
- SNAP IN technology
- Standard-compliant quality in accordance with IEC 62852
- Ergonomic, prize-winning design
- Fastest PV connector currently available
- Reliable latching

General ordering data

Type	PV-STICK SET	Version
Order No.	1422030000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118225723	
Qty.	1 ST	
Type	PV-STICK+ VPE10	Version
Order No.	1303450000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102468	
Qty.	10 ST	
Type	PV-STICK- VPE10	Version
Order No.	1303490000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102529	
Qty.	10 ST	
Type	PV-STICK+ VPE50	Version
Order No.	1303460000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102383	
Qty.	50 ST	
Type	PV-STICK- VPE50	Version
Order No.	1303500000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102536	
Qty.	50 ST	
Type	PV-STICK+ VPE200	Version
Order No.	1303470000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102543	
Qty.	200 ST	
Type	PV-STICK- VPE200	Version
Order No.	1303510000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102390	
Qty.	200 ST	

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Accessories

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	6mm², 1100 V
Qty.	1 ST	
Type	PVHYM+M+XXXX6W-11	Version
Order No.	2877860000	Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x MC4 Female,
GTIN (EAN)	4064675666424	6mm², 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	
Qty.	1 ST	

Sealing sets

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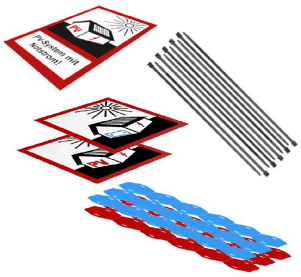
Accessories

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	

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