

PVN DC 2I 1O 1MPP 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, 1 MPP, 2 Inputs / 1 Output per MPP, Remote disconnecter, WM4C, 1100 V
Order No.	2778860000
Type	PVN DC 2I 1O 1MPP RD WM4 11
GTIN (EAN)	4064675047612
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	370 mm	Height (inches)	14.5669 inch
Width	200 mm	Width (inches)	7.874 inch
Net weight	2264 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	Dustcap VSSO
	Quantity	2
	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
Rated DC current per connection	Current per string, max. 35.00 A
	Rated current 35 A

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Enclosure

Insulating material	Polyester glass-fibre reinforced, Polycarbonate	Type of mounting	Wall mounting, 4 screws
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 WM4C

General data

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

Amount of maximum power points (MPP)	1		
Number of conduit inlets	2		
DC Input + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable crosssection	EN 50618:2015
		Wire cross-section, min.	4 mm ²
		Wire cross-section, max.	6 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		
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 crosssection	TÜV 2 Pfg 1169/08.07
		Wire cross-section, min.	4 mm ²
		Wire cross-section, max.	6 mm ²

Remote disconnecter

Automatic reclosing after voltage drop	Yes		
Number of operating cycles	10000		
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	Screw terminal connectors
		Flexible, max. H05(07) V-K	1.5 mm ²
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm ²

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Remote disconnect 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
Type of power circuit disconnection	Under voltage tripping		
Turn-off time	<3 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	300 mA	
	Current consumption continuous	30 mA	
Number of breaking operation cycles (rated current)	300		
Switch disconnect execution	Remote disconnect inside enclosure		
Switching disconnect 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
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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	Automatic ON and OFF switching fireman switch for the connection to 1 MPP tracker in the inverter. Suitable for remote disconnection of the DC side by the fire department. Max. string voltage Uoc: 1100V MPP1:
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Technical data

2 inputs, connection
via WM4 C connector,
compatible with cable type
TÜV 2 Pfg 1169/08.07 /
EN 50618:2063

1 output, connection
via WM4 C connector,
compatible with cable type
TÜV 2 Pfg 1169/08.07 /
EN 50618:2063

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 glass
fibre reinforced
polyester housing.

Dimensions HxWxD:
370x200x132mm.

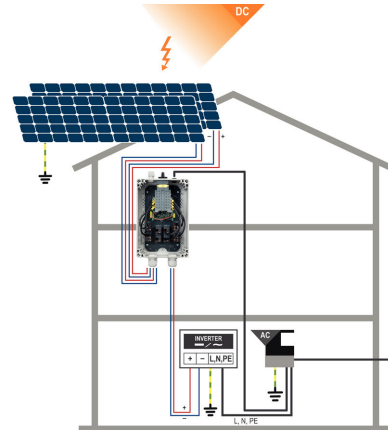
Approval according to low
voltage switchgear IEC
61439-1:2011 and EN
61439-2:2011

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Drawings



PVN 1 M2 I6 S0 F3 V1 Q1 TX PX 10									
Series PVN = PV Next VPU = PV Protect								Voltage 10 = 1kV 11 = 1,1kV 15 = 1,5kV	
Level 1 = DC trunk box (L1)								Powersupply x = n/a	
Series 1 = 1 MPPT supported 2 = 2 MPPT supported 3 = 3 MPPT supported 4 = 4 MPPT supported 6 = 6 MPPT supported								Monitoring x = n/a	
								Output Type 0 = CG 1 = WM4C 2 = MC4-Evo 2	
Inputs 1...12 inputs								SPD 2/0 = TYP II 1 = TYP I+II X = No SPD	
Switch x = n/a 0 = manual switch 1 = remote switch								Fuses x = n/a 3 = only fuse holders	

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Drawings

