

PVC DC 2I 10 4MPP RD SPD1R WM4 11

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

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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, 4 MPP's, 2 Inputs / 1 Output per MPP, Surge protection I / II, Remote disconnecter, WM4C
Order No.	8000115470
Type	PVC DC 2I 10 4MPP RD SPD1R WM4 11
GTIN (EAN)	4099986849969
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	346 mm	Height (inches)	13.622 inch
Width	400 mm	Width (inches)	15.748 inch
Net weight	7559 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	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

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 WM4C
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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)	4		
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
		w. wire end ferrule, DIN 46228 pt 1, max.	16 mm ²
Number of conduit inlets	3		
DC Input + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable cross-section	EN 50618:2015
		Wire cross-section, min.	4 mm ²
		Wire cross-section, max.	6 mm ²
	Cable entry	Number of cable entries	8
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	8		

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 cross-section	TÜV 2 Pfg 1169/08.07
		Wire cross-section, min.	4 mm ²
		Wire cross-section, max.	6 mm ²

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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
Remote disconnecter 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 mm ²
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm ²
Type of power circuit disconnection	Under voltage tripping		
Turn-off time	<5 s		
Turn-on time	<18 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 at rated current	300		
Switch disconnecter execution	Remote disconnecter inside enclosure		
Switching disconnecter capacity	IEC 60947-3, DC-PV1		

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 ISCP	11000 A	Total discharge current I _{total} (8/20 µs)	50 kA
Discharge current I _n (8/20 µs)	20 kA	Requirements class	Type I/II
Total discharge current I _{total} (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. U _{cpv}	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
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connection to 4 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.
Suitable for protection
against overvoltages in
a photovoltaic system
according to DIN CLC/TS
51643-32. MPP1:
2 inputs, connection
via WM4 C connector,
compatible with cable type
TÜV 2 Pfg1169/08.07 /
EN 50618:2063
1 output, connection
via WM4 C connector,
compatible with cable type
TÜV 2 Pfg1169/08.07 /
EN 50618:2063
MPP2 to 4:
identical to MPP1 DC
fireman switch:
Switching off by
undervoltage tripping.
Switching off by reaching a
temperature of $\geq 100\text{ °C}$ 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 glass fibre
reinforced polyester
housing. Dimensions
HxWxD: 346x400x132
mm. Approval according to
low voltage switchgear IEC
61439-1 and EN 61439-2

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Drawings

