Data sheet

PVN DC 6IF 7O 1MPP SW SPD1R WM4 10

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

www.weidmueller.com



PV Next combiner boxes for inverters with 1 to 12 MPP trackers are used to protect the DC side of a photovoltaic system. The combiner boxes protect the inverter against overvoltages and thus comply with the European Directive CLC/TS 51643-32. In addition, these products offer the possibility to protect the system against reverse currents and the possibility to combine strings to save cables during installation.

General ordering data

Version	Photovoltaics, Combiner Box, PV Next, 1000 V, 1 MPP, 6 Inputs / 6 Outputs per MPP, With fuse holder, Surge protection I / II, Switch disconnector, WM4C
Order No.	2737480000
Type	PVN DC 6IF 7O 1MPP SW SPD1R WM4 10
GTIN (EAN)	4032248395538
Qty.	1 items

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Technical data

Approvals

Approvals	CE
ROHS	Conform

Dimensions and weights

Depth	249 mm	Depth (inches)	9.8031 inch
Height	334 mm	Height (inches)	13.1496 inch
Width	488 mm	Width (inches)	19.2126 inch
Net weight	6453 g		

Temperatures

Ambient temperature	25 °C...40 °C	Humidity	5 - 90 %, no condensation

Environmental Product Compliance

RoHS Compliance Status	Compliant
REACH SVHC	Lead 7439-92-1
SCIP	bdab5698-6a20-4370-8e28-8810d882d01a

Included in delivery

Included accessories	Article	Sealing plug
	Quantity	8

Approvals and norms

Approvals	EN 61439-2, IEC 61439-2

Guarantee

Time interval	5 years

Electrical characteristics

Rated DC voltage	1000 V	
Rated short-term current resistance	Rated current	112.5 A
Current per Maximum Power Point, max.	90 A	
Rated DC current per connection	Current per string, max.	35.00 A
	Current per string, max.	90.00 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 in accordance with IEC 62262	Enclosure attachment	Via mounting foots
Protection class	II	Connection type string	Plug WM4C

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

Inputs

Cartridge fuse	10 x 38 mm		
Fused poles of string	+/-		
Fuse-link standard	IEC 60269-1, IEC 60269-6, gPV (EN 60269-6)		
Amount of maximum power points (MPP)	1		
Functional earth connector	Cable entry	Number of cable entries	1
		Cable diameter, min.	5 mm
		Cable diameter, max.	10 mm
		Cable gland	M 16
	Wire connection	Type of connection	Screw connection
		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	WM4C plug-in connector
		Compatible cable crossection	EN 50618:2015
		Wire cross-section, min.	2.5 mm²
		Wire cross-section, max.	6 mm²
Fuse type	Empty fuse holder		
Fuses	Yes		
Max. number of DC inputs	per Maximum Power Point 6 inputs connected in parallel		
Number of string inputs per MPP	≥ 4...≤ 6		
Surge protection auxiliary contact	Cable entry	Cable diameter, min.	5 mm
		Cable diameter, max.	10 mm
		Cable gland	M 16
	Wire connection	Type of connection	Tension clamp connection with actuator
		Flexible, max. H05(07) V-K	1.5 mm²
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm²
Number of inputs	6		

Outputs

Max. number of DC outputs	per Maximum Power Point 7 outputs connected in parallel		
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
		Type of connection	Screw connection

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Compatible cable crossection	TÜV 2 Pfg1169/08.07
Wire cross-section, min.	2.5 mm²
Wire cross-section, max.	50 mm²

Surge protection DC side

Standards	EN 61643-31	Lightning test current limp (10/350 µs)	6.25 kA
Discharge current, max. (8/20 µs)	40 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)	12.5 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
Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/PE	1100 V		

DC load break switch

Rated impulse withstand voltage	8 kV	Switch disconnector execution	switch in cover
Switching disconnector capacity	DC-PV1, IEC 60947-3	Motor drive available	No
Rated short-circuit making current	1.4 A	Number of breaking operation cycles at rated current	300
Number of operating cycles	10000		

Important note

Product information	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 Fuses are not included

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	Combiner box for inverters with 1 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to EN 51543-32. MPP1: 6 inputs, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2063 6 outputs, connection via WM4 C connector,

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compatible with cable type
TÜV 2 Pfg1169/08.07 /
EN 50618:2063
Max. string voltage Uoc:
1000V
1 class/type I + II
combined arrester with
signal contact
Fuse holders for inputs and
outputs (fuses 10x38 to be
ordered separately)
With load break switch
for safe separation of the
string lines
Connection of the
signal contact via cable
glands (8-12mmØ) max.
conductor cross-section:
1.5mm²
Connection of the
functional earth via
cable glands (8-12mmØ)
Conductor cross-section:
16-25mm²
Protection class: IP65
All built into a glas fibre
reinforced polyester
housing. Dimensions
HxWxD: 334x488x249
mm
Approval according to
low voltage switchgear
and controlgear IEC
61439-1:2011 and EN
61439-2:2011

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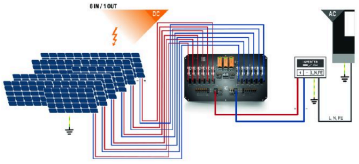
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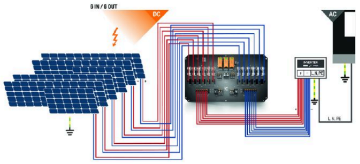
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Drawings

PCB design







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Drawings

