

PVN DC 2I 1O 3MPP SPD1R WM4 11**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, 3 MPP's, 2 Inputs / 1 Output per MPP, Surge protection I / II, WM4C, 1100 V
Order No.	2975520000
Type	PVN DC 2I 1O 3MPP SPD1R WM4 11
GTIN (EAN)	4099986823112
Qty.	1 pc(s).
Replacement parts	2530600000 2534300000

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Technical data

Dimensions and weights

Depth	132 mm	Depth (inches)	5.197 inch
Height	240 mm	Height (inches)	9.449 inch
Width	400 mm	Width (inches)	15.748 inch
Net weight	999 g		

Temperatures

Ambient temperature	-40 °C...+50 °C	Humidity	5...95 %, no condensation
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Approvals and norms

Approvals	EN 61439-2:2020
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Guarantee

Time interval	5 years
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Electrical characteristics

Current per Maximum Power Point, max. 35 A

Rated DC current per connection	Current per string, max.	35 A
Rated short-term current resistance	Rated current	67 A
Rated DC voltage	1,100 V	

Enclosure

Connection type string	Plug WM4C	Cover	removeable
Enclosure attachment		Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262
Insulating material	Via mounting foots Polyester glass-fibre reinforced, Polycarbonate, Polycarbonate	Protection class	II
Type of mounting	Wall mounting		

General data

Installation location	Protected outdoor area (Land and Sea)	Protection degree	IP65
Standards	EN 61439-2		

Inputs

Amount of maximum power points	3		
DC Input + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable crossection	EN 50618:2015
		Wire cross-section, min.	4 mm ²
		Wire cross-section, max.	6 mm ²

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Technical data

Functional earth connector	Cable entry	Number of cable entries	2
	Wire connection	Type of connection	PUSH IN with actuator
		Flexible, max. H05(07) V-K	25 mm ²
		w. wire end ferrule, DIN 46228 pt 1, max.	16 mm ²
Fuse type	Neither fuse cartridge nor holder		
Max. number of DC inputs	per Maximum Power Point 2 inputs connected in parallel		
Surge protection auxiliary contact	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
	Cable entry	Number of cable entries	2

Outputs

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
Max. number of DC outputs	per Maximum Power Point 1 output		

Surge protection DC side

Discharge current I_n (8/20 μ s)	20 kA	Discharge current, max. (8/20 μ s)	40 kA
Lightning test current I_{imp} (10/350 μ s)	6.25 kA	Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/-PE	1,100 V
PV system voltage, max. U_{cpv}	1,100 V	Protection level U_p (+/-, -/PE, +/-PE)	≤ 3.8 kV
Protection level U_p (+/-)	≤ 3.8 kV	Protection level U_p (+/PE)	≤ 3.8 kV
Protection level U_p (-/PE)	≤ 3.8 kV	Requirements class	Type I/II
Short-circuit current I_{SCP}	11,000 A	Standards	EN 61439-2
Standby power consumption P_C	<0.2 W	Surge protection DC side	1000 V type I + II
Total discharge current I_{total} (8/20 μ s)	50 kA	Total discharge current I_{total} (10/350 μ s)	12.5 kA

Classifications

ETIM 6.0	EC002928	ETIM 7.0	EC002928
ETIM 8.0	EC003857	ETIM 9.0	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		

Approvals

Approvals



ROHS

Conform

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Technical data

Downloads

Technical Documentation	Customer drawing PVN DC 2I 10 3MPP SPD1R WM4 11
User Documentation	Manual PV Next Mini double enclosure
Catalogues	Catalogues in PDF-format

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Drawings



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www.weidmueller.com**Replacement parts****Spare Arrester****General ordering data**

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 pc(s).	
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 pc(s).	

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www.weidmueller.com**Accessories****PV Sun Covers****General ordering data**

Type	PV SUN COVER 30/19/18	Version
Order No.	8000086576	Photovoltaics
GTIN (EAN)	4064675845164	
Qty.	1 pc(s).	

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	Photovoltaics, Plug-in connector
GTIN (EAN)	4032248973262	
Qty.	1 pc(s).	

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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	Cutting tools, Cutting tool for one-hand operation
GTIN (EAN)	4032248945344	
Qty.	1 pc(s).	

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 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 pc(s).	
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 pc(s).	

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www.weidmueller.com**Accessories****Y-Connector Cables**

The Y or X cable is used to connect three or four elements of a PV system, such as the connection between PV panels, inverters and surge protection boxes. The cables are available in different connection variants.

General ordering data

Type	PVHYM-M-XXXX6W+15	Version
Order No.	2877850000	Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x MC4 Male,
GTIN (EAN)	4064675666417	6mm², 1500 V
Qty.	1 pc(s).	
Type	PVHYM+M+XXXX6W-15	Version
Order No.	2877860000	Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x MC4 Female,
GTIN (EAN)	4064675666424	6mm², 1500 V
Qty.	1 pc(s).	

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

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 pc(s).	

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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+ VPE10	Version
Order No.	1303450000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102468	
Qty.	10 pc(s).	

Type	PV-STICK- VPE10	Version
Order No.	1303490000	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102529	
Qty.	10 pc(s).	

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 pc(s).	

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www.weidmueller.com**Accessories****Accessories**

The dust protection cap "Dustcap VSSO" protects the Weidmüller and type 4 solar connectors against dust and dirt.

The "SafetyClip" protects the Weidmüller solar connectors against unintentional opening and can only be released using the special multi-tool.

General ordering data

Type	VSSO WM4 C	Version
Order No.	1254870000	Photovoltaics, Flat design
GTIN (EAN)	4050118047479	
Qty.	100 pc(s).	

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,
GTIN (EAN)	4032248009442	Height: 40 mm, Width: 19 mm, Depth: 35.5 mm, Material: Polyamide,
Qty.	1 pc(s).	Light Grey