

PVC DC 2I 1O 10MPP 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 EN 51543-32. 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, 1100 V, 10 MPP's, 2 Inputs / 1 Output per MPP, Surge protection I / II, WM4C
Order No.	8000112516
Type	PVC DC 2I 1O 10MPP SPD1R WM4 11
GTIN (EAN)	4099986850019
Qty.	1 pc(s).
Replacement parts	2530600000 2534300000

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Technical data

Dimensions and weights

Depth	2,554 mm	Depth (inches)	100.551 inch
Height	4,695 mm	Height (inches)	184.842 inch
Width	600 mm	Width (inches)	23.622 inch
Net weight	18,965 g		

Temperatures

Ambient temperature	-25 °C...+50 °C	Humidity	5 - 90 %, no condensation
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Approvals and norms

Approvals	EN 61439-2, IEC 61439-2
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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	43.75 A
Rated DC voltage	1,100 V	

Enclosure

Connection type string	Plug WM4C	Enclosure attachment	Via mounting feet
Impact resistance	IK10 in accordance with IEC 62262	Insulating material	Polyester glass-fibre reinforced, Polycarbonate
Protection class	II	Switch disconnector execution	no switch
Type of mounting	Fixing lugs		

General data

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

Amount of maximum power points	10		
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	20

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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	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

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_{SCPv}	11,000 A	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

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Long specification

Combiner box for inverters with 10 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to EN 51543-32.

MPP1:

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

MPP2 to 10:

identical to MPP1

Max. string voltage U_{oc}: 1100V

1 class/type I + II combined arrester with signal contact

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 glass fibre reinforced polyester housing. Dimensions HxWxD: 467x600x250 mm

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

Approvals

Approvals



ROHS

Conform

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Approval/Certificate/Document of Conformity

[Declaration of Conformity](#)

Technical Documentation

[Schematic diagram](#)

User Documentation

[Manual PV Next String Combiner Box](#)[MANUAL PV NEXT IT/ES/FR](#)

White paper

[Fact Sheet DE PV CB Wie man Gebäude gegen Blitzeinschläge schützt](#)[Fact Sheet DE PV Wie man die Lebensdauer eines GAK verlängert](#)[Fact Sheet DE PV CB Wann Sicherungen zu installieren sind](#)[Fact Sheet EN PV CB When DC fuses are mandatory to install](#)[Fact Sheet EN PV How to protect buildings against lightning strikes](#)[Fact Sheet EN PV How to extend the life time of a Combiner Box](#)[Fact Sheet DE CB PV Strings kombinieren](#)[Fact Sheet DE PV CB Richtig verbinden](#)[Fact Sheet EN CB Combining PV strings](#)[Fact Sheet EN PV CB connection](#)[Fact Sheet EN PV Combiner Box earthing](#)[Fact Sheet DE PV Combiner Box Erdung](#)

Catalogues

[Catalogues in PDF-format](#)

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Drawings



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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	6mm ² , 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	6mm ² , 1500 V
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
GTIN (EAN)	4050118897050	thickness (A): 1 mm
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
GTIN (EAN)	4050118897012	thickness (A): 0.6 mm
Qty.	1 pc(s).	

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Accessories

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).	

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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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).	

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 "PUSH IN" technology enables safe connections with minimal effort – insert, turn: current!

- 1.500 V DC (DE) / 1,500 V DC (EN)
- PUSH 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.	1303490000	Photovoltaics, Plug-in connector, PUSH IN connection, male
GTIN (EAN)	4050118102529	
Qty.	10 pc(s).	
Type	PV-STICK- VPE50	Version
Order No.	1303500000	Photovoltaics, Plug-in connector, PUSH IN connection, male
GTIN (EAN)	4050118102536	
Qty.	50 pc(s).	
Type	PV-STICK- VPE200	Version
Order No.	1303510000	Photovoltaics, Plug-in connector, PUSH IN connection, male
GTIN (EAN)	4050118102390	
Qty.	200 pc(s).	

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Type	PV-STICK+ VPE10	Version
Order No.	1303450000	Photovoltaics, Plug-in connector, PUSH IN connection, female
GTIN (EAN)	4050118102468	
Qty.	10 pc(s).	
Type	PV-STICK+ VPE50	Version
Order No.	1303460000	Photovoltaics, Plug-in connector, PUSH IN connection, female
GTIN (EAN)	4050118102383	
Qty.	50 pc(s).	
Type	PV-STICK+ VPE200	Version
Order No.	1303470000	Photovoltaics, Plug-in connector, PUSH IN connection, female
GTIN (EAN)	4050118102543	
Qty.	200 pc(s).	
Type	PV-STICK SET	Version
Order No.	1422030000	Photovoltaics, Plug-in connector, PUSH IN connection, male, female
GTIN (EAN)	4050118225723	
Qty.	1 pc(s).	

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Replacement parts

Spare Arrester



General ordering data

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).	
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).	