

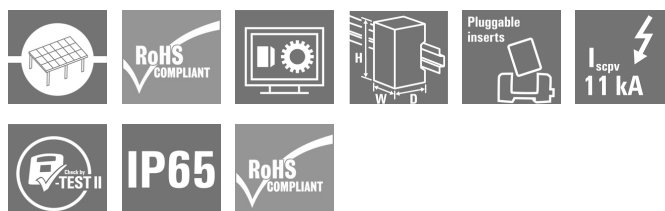
**PVN DC 3I 3O 2MPP SW SPD1R WM4 11****Weidmüller Interface GmbH & Co. KG**

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, 2 MPP's, 3 Inputs / 3 Outputs per MPP, Surge protection I / II, Switch disconnecter, WM4C
Order No.	<a href="#">2890480000</a>
Type	PVN DC 3I 3O 2MPP SW SPD1R WM4 11
GTIN (EAN)	4064675878322
Qty.	1 pc(s).

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**Technical data**
**Dimensions and weights**

Depth	172 mm	Depth (inches)	6.772 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, IEC 61439-2
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**Guarantee**

Time interval	5 years
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**Electrical characteristics**

Current per Maximum Power Point, max. 37.5 A

Rated DC current per connection	Current per string, max.	35 A
Rated short-term current resistance	Rated current	50 A
Rated DC voltage	1,100 V	
Switching disconnecter capacity	DC-PV1, IEC 60947-3	

**Enclosure**

Connection type string	Plug WM4C	Enclosure attachment	Via mounting foots
Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262	Insulating material	Polyester glass-fibre reinforced, Polycarbonate, Polycarbonate
Switch disconnecter execution	switch in cover	Type of mounting	Wall mounting

**General data**

Installation location	Protected outdoor area (Land and Sea)	Protection degree	IP65
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**Inputs**

Amount of maximum power points	2 MPP		
DC Input + & -	Wire connection	Compatible cable crossection	EN 50618:2015
		Wire cross-section, min.	4 mm <sup>2</sup>
		Wire cross-section, max.	6 mm <sup>2</sup>
Functional earth connector	Cable entry	Number of cable entries	2
		Type of connection	Screw connection
	Wire connection	Flexible, max. H05(07) V-K	25 mm <sup>2</sup>
		w. wire end ferrule, DIN 46228 pt 1, max.	16 mm <sup>2</sup>
Fuse type	Neither fuse cartridge nor holder		
Max. number of DC inputs	per Maximum Power Point 3 inputs connected in parallel		

Creation date May 2, 2024 9:37:22 AM CEST

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**Technical data**

Surge protection auxiliary contact	Cable entry	Number of cable entries	2
	Wire connection	Type of connection	Tension clamp connection with actuator
		Flexible, max. H05(07) V-K	1.5 mm <sup>2</sup>
		w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm <sup>2</sup>

**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 <sup>2</sup>
		Wire cross-section, max.	6 mm <sup>2</sup>

Max. number of DC outputs per Maximum Power Point 3 outputs connected in parallel

**Surge protection DC side**

Discharge current $I_n$ (8/20 $\mu$ s)	20 kA	Discharge current, max. (8/20 $\mu$ s)	40 kA
Lightning test current $I_{imp}$ (10/350 $\mu$ s)	6.25 kA	Maximum continuous operating voltage	
PV system voltage, max. $U_{cpv}$	1,100 V	DC UCPV mode +/-, -/PE, +/-PE	1,100 V
Protection level $U_p$ (+/-)	$\leq 3.8$ kV	Protection level $U_p$ (+/-, -/PE, +/-PE)	$\leq 3.8$ kV
Protection level $U_p$ (-/PE)	$\leq 3.8$ kV	Protection level $U_p$ (+/PE)	$\leq 3.8$ kV
Short-circuit current $I_{SCPv}$	11,000 A	Requirements class	Type I/II
Surge protection DC side	1000 V type I + II	Standby power consumption $P_C$	<0.2 W
Total discharge current $I_{total}$ (10/350 $\mu$ s)	12.5 kA	Total discharge current $I_{total}$ (8/20 $\mu$ s)	50 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 2 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to EN 51543-32.

**MPP1:**

3 inputs, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg1 169/08.07 / EN 50618:2063

3 outputs, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg1 169/08.07 / EN 50618:2063

**MPP2:**

identical to MPP1

Max. string voltage  $U_{oc}$ :  
1100V

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

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: 1.5mm<sup>2</sup>

Connection of the functional earth via cable glands (8-12mmØ) Conductor cross-section: 16-25mm<sup>2</sup>

Protection class: IP65

All built into a glas fibre reinforced polyester housing. Dimensions HxWxD: 240x200x172 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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**Technical data**
**Downloads**

Engineering Data	<a href="#">CAD data – PV Next Schematic Diagram</a> <a href="#">CAD data – STEP</a>
Technical Documentation	<a href="#">2932710000_00_03-2023_DRILL-TEMP_PV-Next_20-40</a>
User Documentation	<a href="#">Manual PV Next String Combiner Box</a> <a href="#">MANUAL PV NEXT IT/ES/FR</a> <a href="#">Instruction leaflet PV NEXT MINI</a>
White paper	<a href="#">Fact Sheet DE PV CB Wie man Gebäude gegen Blitzeinschläge schützt</a> <a href="#">Fact Sheet DE PV Wie man die Lebensdauer eines GAK verlängert</a> <a href="#">Fact Sheet DE PV CB Wann Sicherungen zu installieren sind</a> <a href="#">Fact Sheet DE CB PV NEXT</a> <a href="#">Fact Sheet EN PV CB When DC fuses are mandatory to install</a> <a href="#">Fact Sheet EN CB PV NEXT</a> <a href="#">Fact Sheet EN PV How to protect buildings against lightning strikes</a> <a href="#">Fact Sheet EN PV How to extend the life time of a Combiner Box</a> <a href="#">Fact Sheet DE PV CB Lastentrennschalter</a> <a href="#">Fact Sheet DE CB PV Strings kombinieren</a> <a href="#">Fact Sheet DE PV CB Richtig verbinden</a> <a href="#">Fact Sheet EN PV CB Load break switch</a> <a href="#">Fact Sheet EN CB Combining PV strings</a> <a href="#">Fact Sheet EN PV CB connection</a> <a href="#">Fact Sheet EN PV Combiner Box earthing</a> <a href="#">Fact Sheet DE PV Combiner Box Erdung</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

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## Drawings



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**Accessories****External fixing lugs**

External attachment lugs 4-part set

**General ordering data**

Type	MF FPC	Version
Order No.	<a href="#">9536040000</a>	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

**PV Sun Covers****General ordering data**

Type	PV SUN COVER 56/30/21	Version
Order No.	<a href="#">8000087025</a>	Photovoltaics
GTIN (EAN)	4064675845188	
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.	<a href="#">1157820000</a>	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.	<a href="#">1303490000</a>	Photovoltaics, Plug-in connector, PUSH IN connection, male
GTIN (EAN)	4050118102529	
Qty.	10 pc(s).	

Type	PV-STICK+ VPE10	Version
Order No.	<a href="#">1303450000</a>	Photovoltaics, Plug-in connector, PUSH IN connection, female
GTIN (EAN)	4050118102468	
Qty.	10 pc(s).	



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[www.weidmueller.com](http://www.weidmueller.com)**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.	<a href="#">1190490000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4032248973262	
Qty.	1 pc(s).	

**Crosshead screwdriver Phillips**

Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

**General ordering data**

Type	SDK PH3	Version
Order No.	<a href="#">9008500000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056491	
Qty.	1 pc(s).	

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[www.weidmueller.com](http://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.	<a href="#">1254870000</a>	Photovoltaics, Flat design
GTIN (EAN)	4050118047479	
Qty.	100 pc(s).	

**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.	<a href="#">2877850000</a>	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.	<a href="#">2877860000</a>	Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x MC4 Female,
GTIN (EAN)	4064675666424	6mm², 1500 V
Qty.	1 pc(s).	

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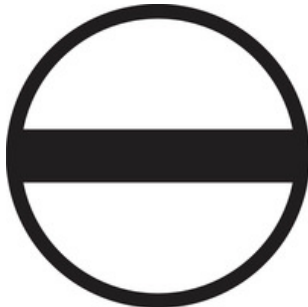
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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Spare Arrester****General ordering data**

Type	VPU PV I+II 0 1000	Version
Order No.	<a href="#">2530600000</a>	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.	<a href="#">2534300000</a>	Surge voltage arrester, Low voltage, Surge protection I / II, Spare
GTIN (EAN)	4050118545906	arrester
Qty.	9 pc(s).	

**Slotted screwdriver**

Slotted screwdriver with rounded blade SD DIN 5265,  
ISO 2380/2, output to DIN 5264, ISO 2380/1.  
ChromTop tip, SoftFinish grip

**General ordering data**

Type	SDS 0.6X3.5X100	Version
Order No.	<a href="#">9008330000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056286	
Qty.	1 pc(s).	
Type	SDS 1.0X5.5X150	Version
Order No.	<a href="#">9008350000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056316	
Qty.	1 pc(s).	

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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****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.	<a href="#">2659350000</a>	Cable ties, 4.5 x 290 mm, Polyamide 66, 220 N
GTIN (EAN)	4050118682816	
Qty.	100 pc(s).	

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## Drawings

