

PVC DC 2I 2O 12MPP SPD1R CG 11

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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 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 5 1643-32. 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, 1100 V, 12 MPP's, 2 Inputs / 2 Outputs per MPP, Surge protection I / II, Cable gland
Order No.	3165170000
Type	PVC DC 2I 2O 12MPP SPD1R CG 11
GTIN (EAN)	4099987807227
Qty.	1 items

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Technical data

Dimensions and weights

Depth	250 mm	Depth (inches)	9.8425 inch
Height	467 mm	Height (inches)	18.3858 inch
Width	600 mm	Width (inches)	23.622 inch
Net weight	9999 g		

Temperatures

Ambient temperature	-20 °C...50 °C	Humidity	5 - 90 %, no condensation
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DC string monitoring

Monitoring function	Non monitored
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Included in delivery

Included accessories	Article	Mounting foot
	Quantity	4
	Article	Sealing plug
	Quantity	3

Guarantee

Time interval	5 years
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Electrical characteristics

Rated DC voltage	1100 V
Rated short-term current resistance	Rated current 51.25 A
Current per Maximum Power Point, max.	41 A
Rated DC current per connection	Current per string, max. 41.00 A

Enclosure

Insulating material	Polyester glass-fibre reinforced, Polycarbonate	Type of mounting	Fixing lugs
Impact resistance	IK 10 in accordance with IEC 62262	Enclosure attachment	Via mounting foots
Protection class	II	Connection type string	Internal terminal (with cable gland feed-through)

General data

Standards	EN 61643-31	Protection degree	IP65
Installation location	Protected outdoor area (>1 km from sea)		

Inputs

Amount of maximum power points (MPP)	12		
Functional earth connector	Cable entry	Number of cable entries	2
		Cable diameter, min.	5 mm
		Cable diameter, max.	10 mm
		Cable gland	M 16
		Wire connection	Type of connection PUSH IN with actuator

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Technical data

		Flexible, max. H05(07) 25 mm ² V-K
		w. wire end ferrule, 16 mm ² DIN 46228 pt 1, max.
Number of conduit inlets	24	
DC Input + & -	Wire connection	Type of connection PUSH IN with actuator
		Wire cross-section, min. 2.5 mm ²
		Wire cross-section, max. 6 mm ²
	Cable entry	Number of cable entries 24
		Cable diameter, min. 4 mm
		Cable diameter, max. 9 mm
Cable gland M 25		
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 2
		Cable diameter, min. 5 mm
		Cable diameter, max. 10 mm
		Cable gland M 16
	Wire connection	Type of connection PUSH IN with actuator
		Flexible, max. H05(07) 2.5 mm ² V-K
		w. wire end ferrule, 2.5 mm ² DIN 46228 pt 1, max.
Number of inputs	24	

Outputs

Max. number of DC outputs	per Maximum Power Point 2 outputs connected in parallel	
DC Output + & -	Wire connection	Type of connection PUSH IN with actuator
		Wire cross-section, min. 4 mm ²
		Wire cross-section, max. 6 mm ²

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 ISCPV	11000 A	Total discharge current Itotal (8/20 μs)	50 kA
Discharge current In (8/20 μs)	20 kA	Requirements class	Type I/II
Total discharge current Itotal (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. Ucpv	1100 V	Surge protection DC side	1000 V type I + II
Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/-PE	1100 V		

DC load break switch

Voltage type	DC	Switch disconnecter execution	no switch
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Technical data

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

<p>Long specification</p>	<p>Combiner box for inverters with 12 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to DIN CLC/TS 51643-32. MPP1: 2 inputs, connection via M25 cable gland with multiple sealing inserts. PUSH IN connection / single-wire, multi-wire, with/without ferrule. 2 outputs, connection via M25 cable gland with multiple sealing inserts. PUSH IN connection / single-wire, multi-wire, with/without ferrule. MPP2 to 12: identical to MPP1 Max. string voltage Uoc: 1100 VDC 1 class/type I + II combined arrester with signal contact Connection of the signal contact via M16 cable glands (Clamping range 5-10 mmØ) max. conductor cross-section: 1.5 mm² Connection of the functional earth via M16 cable glands (Clamping range 5-10 mmØ) Conductor cross-section: >= 16 mm² Protection class: IP65 All built into a glas fibre reinforced polyester housing. Dimensions HxWxD: 478.6x600x257 mm Approval according to low voltage switchgear and controlgear IEC 61439-1 and EN 61439-2</p>
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Drawings

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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 ST		

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 ST		

Slotted screwdriver



VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

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Accessories

General ordering data

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 ST		
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 ST		

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 ST		

Sealing sets



General ordering data

Type	BLINDPLUG SET5 7X28MM	Version	
Order No.	3077670000	Photovoltaics, Blind plug	
GTIN (EAN)	4099987081894		
Qty.	1 ST		
Type	BLINDPLUG SET50 7X28MM	Version	
Order No.	3077650000	Photovoltaics, Blind plug, Accessories, Blind plug, 50 pieces	
GTIN (EAN)	4099987081870		
Qty.	1 ST		

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Accessories

Spare Arrester



General ordering data

Type	VPU PV I+II 5 0 1000	Version	
Order No.	2857000000		
GTIN (EAN)	4064675537366		
Qty.	9 ST		
Type	VPU PV I+II 5 0M 1000	Version	
Order No.	2856650000		
GTIN (EAN)	4064675536581		
Qty.	9 ST		

Replacement parts



General ordering data

Type	BRES REPLACEMENT HINGE	Version	
Order No.	3098500000		Photovoltaics, Spare part, Hinge pin, 10 MPP's, 12 MPP's
GTIN (EAN)	4099987129831		
Qty.	1 ST		
Type	BRES BO-OFM-14-B44-86 W...	Version	
Order No.	3139420000		Photovoltaics, Mounting foot, Spare part, Mounting foot, 10 MPP's,
GTIN (EAN)	4099987378390		12 MPP's
Qty.	1 ST		