

## PVN DC 3IF 30 1MPP SW SPD1R CG 10

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

[www.weidmueller.com](http://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, 1000 V, 1 MPP, 3 Inputs / 3 Outputs per MPP, With fuse holder, Surge protection I / II, Switch disconnecter, Cable gland
Order No.	<a href="#">2683050000</a>
Type	PVN DC 3IF 30 1MPP SW SPD1R CG 10
GTIN (EAN)	4050118699869
Qty.	1 items

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## Technical data

### Approvals

Approvals



ROHS Conform

### Dimensions and weights

Depth	172 mm	Depth (inches)	6.7716 inch
Depth with add-on components	215 mm	Height	335 mm
Height (inches)	13.189 inch	Width	300 mm
Width (inches)	11.811 inch	Net weight	4130.72 g

### Temperatures

Ambient temperature -40 °C...45 °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

### DC string monitoring

Monitoring function Non monitored

### Included in delivery

Included accessories	Article	Mounting foot
	Quantity	4
	Article	Sealing plug
	Quantity	5

### 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 56.25 A
Current per Maximum Power Point, max.	45 A
Rated DC current per connection	Current per string, max. 45.00 A

### Enclosure

Cover	with cover, removeable	Insulating material	Polyester glass-fibre reinforced, Polycarbonate
Type of mounting	Wall mounting, 4 screws	Impact resistance	IK08 in accordance with IEC 62208, IK10

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Enclosure attachment	Via mounting feet	Protection class	II
Connection type string	Internal terminal (with cable gland feed-through)		

in accordance with IEC 62262

### General data

Standards	EN 61643-31, IEC 61439-2 ed 3.0	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	PUSH IN with actuator
		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>	
Number of conduit inlets	4		
DC Input + & -	Wire connection	Type of connection	PUSH IN with actuator
		Compatible cable	TÜV 2 Pfg 1169/08.07 crosssection
		Wire cross-section, min.	2.5 mm <sup>2</sup>
		Wire cross-section, max.	16 mm <sup>2</sup>
	Cable entry	Number of cable entries	3
		Cable diameter, min.	5 mm
		Cable diameter, max.	10 mm
		Cable gland	M 25
Fuse type	Empty fuse holder		
Fuses	Yes		
Max. number of DC inputs	per Maximum Power Point 3 inputs connected in parallel		
Number of string inputs per MPP	≤ 3		
Surge protection auxiliary contact	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	PUSH IN 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>	
Number of inputs	3		

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### Outputs

Max. number of DC outputs	per Maximum Power Point 3 outputs connected in parallel		
DC Output + & -	Wire connection	Type of connection	PUSH IN with actuator
		Compatible cable cross-section	TÜV 2 Pfg1169/08.07
		Wire cross-section, min.	2.5 mm <sup>2</sup>
		Wire cross-section, max.	16 mm <sup>2</sup>

### Surge protection DC side

Standards	EN 61643-31, IEC 61439-2 ed 3.0	Lightning test current Iimp (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 current 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	1000 V
Surge protection DC side	1000 V type I + II with remote contact	Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/-PE	1100 V

### DC load break switch

Voltage type	DC	Rated impulse withstand voltage	8 kV
Nominal voltage	1000 V	Nominal current	45 A
Number of contacts as NC contact	0	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	Number of contacts as NO contact	4

### 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
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### 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

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: 3 inputs, connection via M25 cable gland with 3x7mm Ø cable entry. PUSH IN connection / 2.5
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## Technical data

- 6mm<sup>2</sup> single-wire, multi-wire, with/without ferrule.  
3 outputs, connection via M25 cable gland with 3x7mm Ø cable entry.  
PUSH IN connection / 2.5  
- 6mm<sup>2</sup> single-wire, multi-wire, with/without ferrule.  
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: 1.5mm<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 glass fibre reinforced polyester housing. Dimensions HxWxD: 330x302x214 mm  
Approval according to low voltage switchgear and controlgear IEC 61439-1:2011 and EN 61439-2:2011

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Drawings

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PCB design



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