

PVN DC 3IF 30 2MPP SPD1R CG 10

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 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, 2 MPP's, 3 Inputs / 3 Outputs per MPP, With fuse holder, Surge protection I / II, Cable gland |
| Order No. | 2683040000 |
| Type | PVN DC 3IF 30 2MPP SPD1R CG 10 |
| GTIN (EAN) | 4050118699715 |
| Qty. | 1 items |

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Technical data

Approvals

Approvals



ROHS Conform

Dimensions and weights

| | | | |
|------------------------------|-------------|----------------|-------------|
| Depth | 132 mm | Depth (inches) | 5.1968 inch |
| Depth with add-on components | 132 mm | Height | 335 mm |
| Height (inches) | 13.189 inch | Width | 600 mm |
| Width (inches) | 23.622 inch | Net weight | 7738 g |

Temperatures

Ambient temperature -40 °C...45 °C Humidity 5 - 90 %, no condensation

Environmental Product Compliance

| | |
|--------------------------------------|--------------------------------------|
| RoHS Compliance Status | Compliant with exemption |
| RoHS Exemption (if applicable/known) | 6c |
| 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 | 11 |

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 |

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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 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, 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) | 2 | | |
| Functional earth connector | Cable entry | Number of cable entries | 2 |
| | | Cable diameter, min. | 5 mm |
| | | Cable diameter, max. | 10 mm |
| | Wire connection | Cable gland | M 16 |
| | | 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 | |
| Number of conduit inlets | 8 | | |
| DC Input + & - | Wire connection | Type of connection | PUSH IN with actuator |
| | | Compatible cable cross-section | EN 50618:2015 |
| | | Wire cross-section, min. | 2.5 mm ² |
| | | Wire cross-section, max. | 16 mm ² |
| | Cable entry | Number of cable entries | 6 |
| | | 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 | 2 |
| | | Cable diameter, min. | 5 mm |
| | | Cable diameter, max. | 10 mm |
| | Wire connection | Cable gland | M 16 |
| | | Type of connection | PUSH IN with actuator |
| | | | |

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| | | |
|------------------|---|--|
| | | Flexible, max. H05(07) 1.5 mm ² V-K |
| | | w. wire end ferrule, 1.5 mm ² DIN 46228 pt 1, max. |
| Number of inputs | 6 | |

Outputs

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

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 | Switch disconnector execution | no switch |
|--------------|----|-------------------------------|-----------|

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

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 2 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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- 6mm² single-wire, multi-wire, with/without ferrule.
3 outputs, connection via M25 cable gland with 3x7mm Ø cable entry.
PUSH IN connection / 2.5
- 6mm² single-wire, multi-wire, with/without ferrule.
MPP2:
identical to MPP1
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)
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: 330x558x210 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



