

PVN DC 6IF 70 1MPP SW SPD1R CG 10

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

www.weidmuller.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, 6 Inputs / 6 Outputs per MPP, With fuse holder, Surge protection I / II, Switch disconnecter, Cable gland |
| Order No. | 2737530000 |
| Type | PVN DC 6IF 70 1MPP SW SPD1R CG 10 |
| GTIN (EAN) | 4032248395552 |
| Qty. | 1 items |

PVN DC 6IF 70 1MPP SW SPD1R CG 10

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

www.weidmueller.com

Technical data

Approvals

Approvals



ROHS Conform

Dimensions and weights

| | | | |
|------------|--------|-----------------|--------------|
| Depth | 249 mm | Depth (inches) | 9.8031 inch |
| Height | 330 mm | Height (inches) | 12.9921 inch |
| Width | 488 mm | Width (inches) | 19.2126 inch |
| Net weight | 6453 g | | |

Temperatures

Ambient temperature 25 °C...40 °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 |

Included in delivery

| | | |
|----------------------|----------|--------------|
| Included accessories | Article | Sealing plug |
| | Quantity | 16 |

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 | 112.5 A |
| Current per Maximum Power Point, max. 90 A | | |
| Rated DC current per connection | Current per string, max. | 76.00 A |
| | Current per string, max. | 90.00 A |

Enclosure

| | | | |
|---------------------|--|------------------------|---|
| 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 feet |
| Protection class | II | Connection type string | Internal terminal (with cable gland feed-through) |

PVN DC 6IF 70 1MPP SW SPD1R CG 10

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

www.weidmueller.com

Technical data

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 | Screw connection |
| | | 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 | 2 | | |
| DC Input + & - | Wire connection | Type of connection | PUSH IN |
| | | Compatible cable cross-section | EN 50618:2015 |
| | | Wire cross-section, min. | 2.5 mm ² |
| | | Wire cross-section, max. | 16 mm ² |
| Fuse type | Empty fuse holder | | |
| Fuses | Yes | | |
| Max. number of DC inputs | per Maximum Power Point 6 inputs connected in parallel | | |
| Number of string inputs per MPP | ≥ 4...≤ 6 | | |
| Surge protection auxiliary contact | Cable entry | Cable diameter, min. | 5 mm |
| | | Cable diameter, max. | 10 mm |
| | | Cable gland | M 16 |
| | Wire connection | Type of connection | Tension clamp connection with actuator |
| | | Flexible, max. H05(07) V-K | 1.5 mm ² |
| | | w. wire end ferrule, DIN 46228 pt 1, max. | 1.5 mm ² |
| Number of inputs | 6 | | |

Outputs

| | | | |
|---------------------------|---|--------------------------------|---------------------|
| Max. number of DC outputs | per Maximum Power Point 7 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 |
| | | Type of connection | Screw connection |

PVN DC 6IF 70 1MPP SW SPD1R CG 10

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

www.weidmueller.com

Technical data

| | |
|--------------------------------|---------------------|
| Compatible cable cross-section | TÜV 2 Pfg1169/08.07 |
| Wire cross-section, min. | 2.5 mm ² |
| Wire cross-section, max. | 50 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 I _{total} (8/20µs) | 50 kA | Discharge current I _n (8/20 µs) | 20 kA |
| Requirements class | Type I/II | Total discharge current I _{total} (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. U _{cpv} | 1100 V |
| Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/-PE | 1100 V | | |

DC load break switch

| | | | |
|------------------------------------|---------------------|--|-----------------|
| Rated impulse withstand voltage | 8 kV | Switch disconnecter execution | switch in cover |
| Switching disconnecter 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 | | |

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 1 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to EN 51543-32. MPP1: 6 inputs, connection via M25 cable gland with 3x7mm Ø cable entry. PUSH IN connection / 2.5 - 6mm² single-wire, multi-wire, with/without ferrule. 6 outputs, connection via M25 cable gland with 3x7mm Ø cable entry. PUSH IN connection / 2.5

Technical data

- 6mm² 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:
1.5mm²
Connection of the
functional earth via
cable glands (8-12mmØ)
Conductor cross-section:
16-25mm²
Protection class: IP65
All built into a glas fibre
reinforced polyester
housing. Dimensions
HxWxD: 330x488x249
mm
Approval according to
low voltage switchgear
and controlgear IEC
61439-1:2011 and EN
61439-2:2011

PVN DC 6IF 70 1MPP SW SPD1R CG 10

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

Drawings

www.weidmueller.com

PCB design



PVN DC 6IF 70 1MPP SW SPD1R CG 10

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

Drawings

www.weidmueller.com

