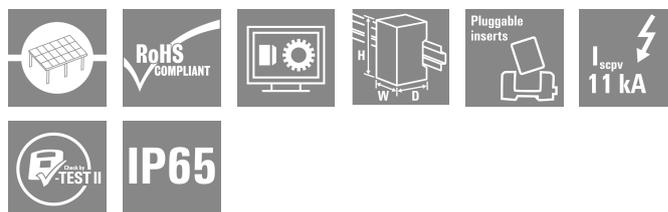


PVN DC 3I 3O 1MPP SW SPD1R EVO 11

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 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, 1 MPP, 3 Inputs / 3 Outputs per MPP, Surge protection I / II, Switch disconnecter, MC4-Evo 2 |
| Order No. | 2890350000 |
| Type | PVN DC 3I 3O 1MPP SW SPD1R EVO 11 |
| GTIN (EAN) | 4064675877998 |
| Qty. | 1 items |

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Technical data

Approvals

Approvals



ROHS Conform

Dimensions and weights

| | | | |
|------------|--------|-----------------|-------------|
| Depth | 172 mm | Depth (inches) | 6.7716 inch |
| Height | 236 mm | Height (inches) | 9.2913 inch |
| Width | 200 mm | Width (inches) | 7.874 inch |
| Net weight | 2133 g | | |

Temperatures

Ambient temperature -40 °C...50 °C Humidity 5...95 %, 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 |

Included in delivery

| | | |
|----------------------|----------|---------------|
| Included accessories | Article | Mounting foot |
| | Quantity | 4 |

Approvals and norms

Approvals EN 61439-2, IEC 61439-2

Guarantee

Time interval 5 years

Electrical characteristics

| | | |
|---------------------------------------|--------------------------|---------|
| Rated DC voltage | 1100 V | |
| Rated short-term current resistance | Rated current | 57.5 A |
| Current per Maximum Power Point, max. | 46 A | |
| Rated DC current per connection | Current per string, max. | 37.50 A |
| | Current per string, max. | 45.00 A |

Enclosure

| | | | |
|---------------------|--|------------------------|-------------------|
| Insulating material | Polyester glass-fibre reinforced, Polycarbonate, Polycarbonate | Type of mounting | Wall mounting |
| 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 | Plug MC4-Evo 2 |

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Technical data

General data

| | | | |
|-----------------------|---------------------------------------|-------------------|------|
| Standards | EN 61643-31 | Protection degree | IP65 |
| Installation location | Protected outdoor area (Land and Sea) | | |

Inputs

| | | | |
|--------------------------------------|--|---|--|
| Amount of maximum power points (MPP) | 1 | | |
| Functional earth connector | Cable entry | Number of cable entries | 2 |
| | 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 | Stäubli MC4-Evo 2 connector |
| | | Compatible cable crossection | TÜV 2 Pfg1169/08.07 |
| | | Wire cross-section, min. | 2.5 mm ² |
| | | Wire cross-section, max. | 16 mm ² |
| Fuse type | Neither fuse cartridge nor holder | | |
| Fuses | No | | |
| 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 |
| | 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 | 3 | | |

Outputs

| | | | |
|---------------------------|---|------------------------------|-----------------------------|
| Max. number of DC outputs | per Maximum Power Point 3 outputs connected in parallel | | |
| DC Output + & - | Wire connection | Type of connection | Stäubli MC4-Evo 2 connector |
| | | Compatible cable crossection | 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 | 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 (8/20 μs) | 50 kA | Discharge current In (8/20 μs) | 20 kA |

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| | | | |
|--|-----------|--|----------|
| 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 |
|---------------------|--|

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 MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg1 169/08.07 / EN 50618:2063 3 outputs, connection via MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg1 169/08.07 / EN 50618:2063 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 ² Connection of the functional earth via cable glands (8-12mmØ) Conductor cross-section: 16-25mm ² |
|--------------------|--|

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Protection class: IP65
All built into a glas fibre reinforced polyester housing. Dimensions
HxWxD: 236x200x172 mm
Approval according to low voltage switchgear and controlgear IEC 61439-1:2011 and EN 61439-2:2011

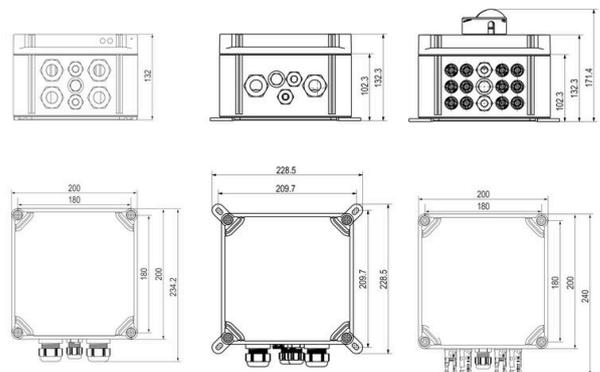
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Drawings

PCB design

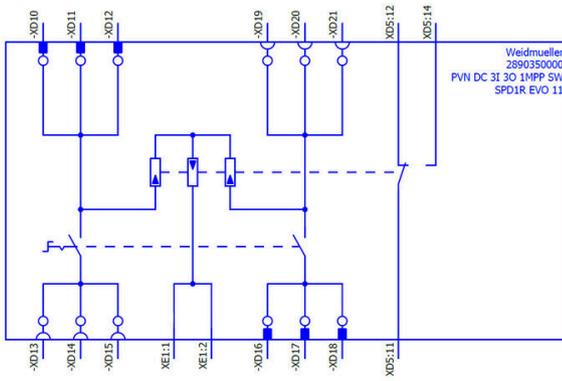


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Accessories

PV Sun Covers



General ordering data

| | | | |
|------------|----------------------------|---|--|
| Type | PV SUNCOVER 20/20/13 SW | Version | |
| Order No. | 8000143244 | Photovoltaics, Sun cover, Switch disconnecter | |
| GTIN (EAN) | 4099987 111836 | | |
| Qty. | 1 ST | | |

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

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Accessories

General ordering data

| | | | |
|------------|----------------------------|----------------------------------|--|
| Type | MULTI-STRIPAX PV | Version | |
| Order No. | 1190490000 | Photovoltaics, Plug-in connector | |
| GTIN (EAN) | 4032248973262 | | |
| Qty. | 1 ST | | |

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. | 9008500000 | Screwdriver, Screwdriver | |
| GTIN (EAN) | 4032248056491 | | |
| Qty. | 1 ST | | |

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. | 9008330000 | Screwdriver, Screwdriver | |
| GTIN (EAN) | 4032248056286 | | |
| Qty. | 1 ST | | |
| Type | SDS 1.0X5.5X150 | Version | |
| Order No. | 9008350000 | Screwdriver, Screwdriver | |
| GTIN (EAN) | 4032248056316 | | |
| Qty. | 1 ST | | |

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Accessories

Accessories

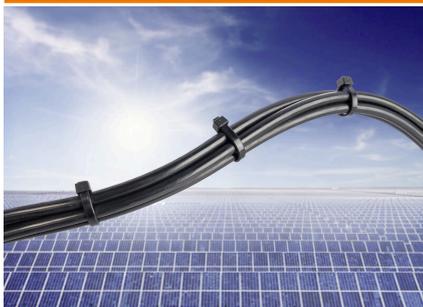


The dust protection cap "Dustcap VSSO" protects the Weidmüller and type 4 solar connectors against dust and dirt.
 The "SafetyClip" protects the Weidmüller solar connectors against unintentional opening and can only be released using the special multi-tool.

General ordering data

| | | | |
|------------|----------------------------|----------------------------|--|
| Type | VSSO WM4 C | Version | |
| Order No. | 1254870000 | Photovoltaics, Flat design | |
| GTIN (EAN) | 4050118047479 | | |
| Qty. | 100 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 | | |

External fixing lugs



External attachment lugs 4-part set

General ordering data

| | | | |
|------------|----------------------------|--|--|
| Type | MF FPC | Version | |
| Order No. | 9536040000 | FPC (polycarbonate empty enclosure), Mounting foot, Fixing lugs, | |
| GTIN (EAN) | 4032248009442 | Height: 40 mm, Width: 19 mm, Depth: 35.5 mm, Basic material: | |
| Qty. | 1 ST | Polyamide, Polyamide 66, Light Grey | |

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Accessories

Y-Connector Cables



The Y cable is used for the parallel connection of several strings in a PV system, e.g. for splitting a line in front of an inverter.
 The cables are available in different connection variants.

General ordering data

| | | | |
|------------|----------------------------|---|--|
| Type | PVHYM-M-XXX6W+11 | Version | |
| Order No. | 2877850000 | Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x MC4 Male, | |
| GTIN (EAN) | 4064675666417 | 6mm ² , 1100 V | |
| Qty. | 1 ST | | |
| Type | PVHYM+M+XXX6W-11 | Version | |
| Order No. | 2877860000 | Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x MC4 Female, | |
| GTIN (EAN) | 4064675666424 | 6mm ² , 1100 V | |
| Qty. | 1 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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Spare Arrester



General ordering data

| | | | |
|------------|----------------------------|--|--|
| Type | VPU PV I+II O 1000 E | Version | |
| Order No. | 2530530000 | Surge voltage arrester, Low voltage, Accessories, Surge protection I / | |
| GTIN (EAN) | 4050118540741 | II, Spare arrester | |
| Qty. | 9 ST | | |