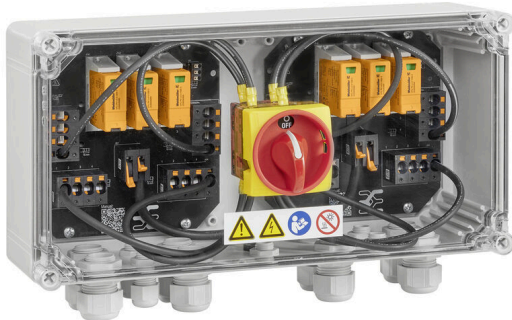


PVN DC 3I 3O 2MPP SW SPD1R CG 11

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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 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, 1100 V, 2 MPP's, 3 Inputs / 3 Outputs per MPP, Surge protection I / II, Switch disconnecter, Cable gland |
| Order No. | 2890600000 |
| Type | PVN DC 3I 3O 2MPP SW SPD1R CG 11 |
| GTIN (EAN) | 4064675878445 |
| 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 | 235 mm | Height (inches) | 9.252 inch |
| Width | 400 mm | Width (inches) | 15.748 inch |
| Net weight | 4210 g | | |

Temperatures

Ambient temperature -40 °C...50 °C Humidity 5...95 %, 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 | Mounting foot |
| | Quantity | 4 |
| | Article | Sealing plug |
| | Quantity | 8 |

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 | 62.5 A |
| Current per Maximum Power Point, max. 50 A | | |
| Rated DC current per connection | Current per string, max. | 37.50 A |
| | Current per string, max. | 50.25 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 |

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Technical data

| | | | |
|------------------|----|------------------------|---------------------------------------------------|
| 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 (Land and Sea) | | |

Inputs

| | | | |
|--------------------------------------|--------------------------------------------------------|-------------------------------------------|----------------------------------------|
| Amount of maximum power points (MPP) | 2 | | |
| 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 | Compatible cable cross-section | TÜV 2 Pfg1169/08.07 |
| | | Wire cross-section, min. | 2.5 mm ² |
| | | Wire cross-section, max. | 16 mm ² |
| | Cable entry | Number of cable entries | 4 |
| 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 | 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 | 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 ISCP | 11000 A |
| Total discharge current Itotal (8/20 μs) | 50 kA | Discharge current In (8/20 μs) | 20 kA |

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Technical data

| | | | |
|----------------------------|--------------------|----------------------------------------------------------------------|----------|
| 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 |
| Surge protection DC side | 1000 V type I + II | 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

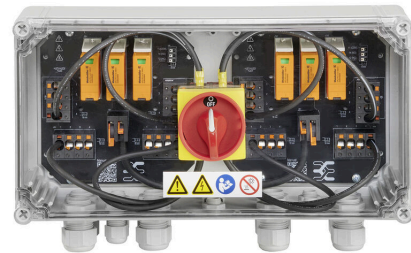
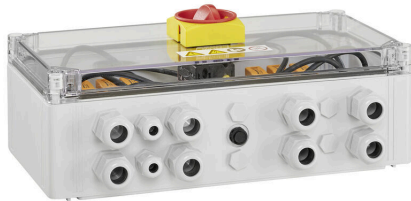
| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 8.0 | EC003857 | ETIM 9.0 | EC003857 |
| ETIM 10.0 | EC003857 | ECLASS 14.0 | 22-57-02-92 |
| ECLASS 15.0 | 22-57-02-92 | | |

Tender specification sheets

Long specification
 Combiner box for inverters with 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 - 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 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: 1.5mm²

Technical data

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: 235x200x172 mm
Approval according to low voltage switchgear and controlgear IEC 61439-1:2011 and EN 61439-2:2011

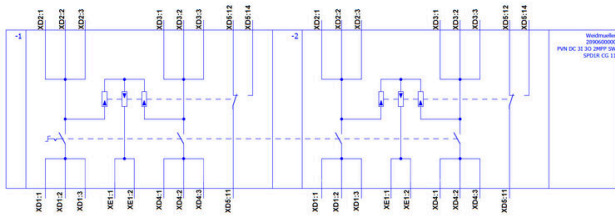


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Drawings

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Accessories

PV Sun Covers



General ordering data

| | | | |
|------------|----------------------------|-----------------------------------------------|--|
| Type | PV SUNCOVER 20/40/13 SW | Version | |
| Order No. | 8000143248 | Photovoltaics, Sun cover, Switch disconnecter | |
| GTIN (EAN) | 4099987 111874 | | |
| 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



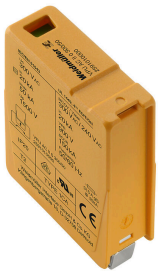
The dust protection cap "Dustcap VSSO" protects the Weidmüller and type 4 solar connectors against dust and dirt.

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 | | |

Spare Arrester



General ordering data

| | | | |
|------------|----------------------------|------------------------------------------------------------------------|--|
| Type | VPU PV I+II O 1000 | Version | |
| Order No. | 2530600000 | Surge voltage arrester, Low voltage, Accessories, Surge protection I / | |
| GTIN (EAN) | 4050118540819 | II, Spare arrester | |
| Qty. | 9 ST | | |
| Type | VPU PV I+II OM 1000 | Version | |
| Order No. | 2534300000 | Surge voltage arrester, Low voltage, Surge protection I / II, Spare | |
| GTIN (EAN) | 4050118545906 | arrester | |
| Qty. | 9 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.

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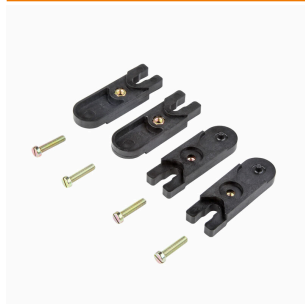
www.weidmueller.com

Accessories

General ordering data

| | | | |
|------------|----------------------------|---------|-----------------------------------------------|
| Type | CB-UVR 290/4,5 BK | Version | |
| Order No. | 2659350000 | Version | 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 | Version | FPC (polycarbonate empty enclosure), Mounting foot, Fixing lugs, |
| GTIN (EAN) | 4032248009442 | Version | Height: 40 mm, Width: 19 mm, Depth: 35.5 mm, Basic material: |
| Qty. | 1 ST | Version | Polyamide, Polyamide 66, Light Grey |

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-XXXX6W+11 | Version | |
| Order No. | 2877850000 | Version | Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x MC4 Male, |
| GTIN (EAN) | 4064675666417 | Version | 6mm ² , 1100 V |
| Qty. | 1 ST | | |
| Type | PVHYM+M+XXXX6W-11 | Version | |
| Order No. | 2877860000 | Version | Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x MC4 Female, |
| GTIN (EAN) | 4064675666424 | Version | 6mm ² , 1100 V |
| Qty. | 1 ST | | |

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Accessories

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 | | |