

PVN DC 3IF 30 2MPP SPD1R EVO 10

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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 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, 2 MPP's, 3 Inputs / 3 Outputs per MPP, Surge protection I / II, With fuse holder, MC4-Evo 2 |
| Order No. | 2925840000 |
| Type | PVN DC 3IF 30 2MPP SPD1R EVO 10 |
| GTIN (EAN) | 4099986642065 |
| Qty. | 1 items |

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Technical data

Approvals

Approvals



ROHS Conform

Dimensions and weights

| | | | |
|------------|--------|-----------------|--------------|
| Depth | 132 mm | Depth (inches) | 5.1968 inch |
| Height | 340 mm | Height (inches) | 13.3858 inch |
| Width | 600 mm | Width (inches) | 23.622 inch |
| Net weight | 5598 g | | |

Temperatures

| | | | |
|---------------------|----------------|----------|----------------------------|
| Ambient temperature | -40 °C...45 °C | Humidity | 5 to 95 % (non-condensing) |
|---------------------|----------------|----------|----------------------------|

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 | 1 |

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 | removeable | 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 |

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Technical data

| | | | |
|------------------------|--------------------|------------------|----|
| Enclosure attachment | Via mounting foots | Protection class | II |
| Connection type string | Plug MC4-Evo 2 | | |

General data

| | | | |
|-----------------------|---------------------------------------|-------------------|------|
| Standards | IEC 61439-2 ed 3.0, EN 61643-31 | 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 | 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 |
| | | Cable gland | M 16 |
| DC Input + & - | Wire connection | 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 |
| Surge protection auxiliary contact | Wire connection | Type of connection | Stäubli MC4-Evo 2 connector |
| | | Wire cross-section, min. | 4 mm ² |
| | | Wire cross-section, max. | 6 mm ² |
| 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 |
| | | Cable gland | M 16 |
| DC Input + & - | Wire connection | Type of connection | PUSH IN 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 3 outputs connected in parallel | | |
| DC Output + & - | Wire connection | Type of connection | Stäubli MC4-Evo 2 connector |
| | | Wire cross-section, min. | 4 mm ² |
| | | Wire cross-section, max. | 6 mm ² |

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Technical data

Surge protection DC side

| | | | |
|--|---------------------------------|---|--------------------|
| Standards | IEC 61439-2 ed 3.0, 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 |
| 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) | 6.25 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 |
| Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/-PE | 1100 V | | |

DC load break switch

| | | | |
|--------------|----|-------------------------------|-----------|
| Voltage type | DC | Switch disconnecter execution | no switch |
|--------------|----|-------------------------------|-----------|

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 | <p>Combiner box for inverters with 2 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to DIN CLC/TS 51643-32. MPP1: 3 inputs, connection via MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2063</p> <p>3 outputs, connection via MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2063</p> <p>MPP2: identical to MPP1</p> <p>Max. string voltage Uoc: 1000 VDC</p> <p>1 class/type I + II combined arrester with signal contact</p> <p>Fuse holders for inputs and outputs (fuses 10x38 to be ordered separately)</p> <p>Connection of the signal contact via M16 cable glands (Clamping range 5-10 mmØ) max. conductor cross-section: 1.5 mm²</p> <p>Connection of the functional earth via M16 cable glands (Clamping range 5-10 mmØ) Conductor cross-section: ≥ 16 mm²</p> |
|--------------------|---|

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Technical data

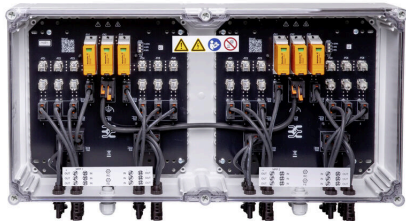
Protection class: IP65
All built into a glas fibre reinforced polyester housing. Dimensions
HxWxD: 346x600x132 mm
Approval according to low voltage switchgear and controlgear IEC 61439-1 and EN 61439-2

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Drawings

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Accessories

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

General ordering data

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

Crosshead screwdriver Phillips



VDE insulated crosshead screwdriver, for Phillips screws, SDIK PH DIN 7438, ISO 8764/2-PH, output to ISO 8764-PH, SoftFinish grip

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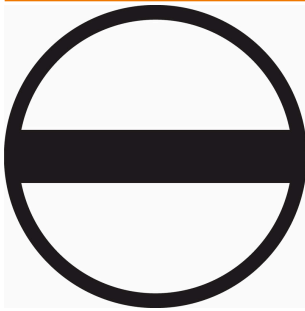
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Accessories

General ordering data

| | | | |
|------------|----------------------------|--|--|
| Type | SDIK PH3 X 150 | Version | |
| Order No. | 2749910000 | Screwdriver, Blade width (B): 3 mm, 150 mm, Blade thickness (A): 3 | |
| GTIN (EAN) | 4050118897210 | | |
| Qty. | 1 ST | | |

Slotted screwdriver



VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

| | | | |
|------------|----------------------------|---|--|
| Type | SDIS 0.6X3.5X100 | Version | |
| Order No. | 2749810000 | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm | |
| GTIN (EAN) | 4050118897012 | | |
| Qty. | 1 ST | | |
| Type | SDIS 1.0X5.5X125 | Version | |
| Order No. | 2749850000 | Screwdriver, Blade width (B): 5.5 mm, Blade length: 125 mm, Blade thickness (A): 1 mm | |
| GTIN (EAN) | 4050118897050 | | |
| Qty. | 1 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

PV-Stick field connectors



Faster is better. This also applies to the cabling of solar systems. Our handy connectors stay firmly in your grip even in frosty temperatures and can be installed very quickly and easily without a crimping tool.

You don't need crimp contacts and crimping tools and you avoid assembly errors. This saves up to 50% installation time – without affecting quality. The new photovoltaic connectors are TÜV-approved and comply with IEC 62852.

Our "SNAP IN" technology enables safe connections with minimal effort – insert, turn: current!

- 1.500 V DC (DE) / 1,500 V DC (EN)
- SNAP IN technology
- Standard-compliant quality in accordance with IEC 62852
- Ergonomic, prize-winning design
- Fastest PV connector currently available
- Reliable latching

General ordering data

| | | |
|------------|----------------------------|--|
| Type | PV-STICK+ VPE10 | Version |
| Order No. | 1303450000 | Photovoltaics, Plug-in connector, DC version |
| GTIN (EAN) | 4050118102468 | |
| Qty. | 10 ST | |
| Type | PV-STICK- VPE10 | Version |
| Order No. | 1303490000 | Photovoltaics, Plug-in connector, DC version |
| GTIN (EAN) | 4050118102529 | |
| Qty. | 10 ST | |

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 | |

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Accessories

UV-resistant cable ties

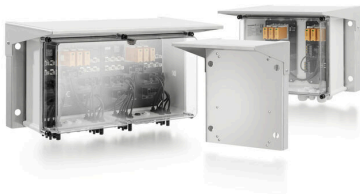


UV-resistant polyamide 6.6 ensures long durability of our special cable ties even with strong UV radiation. Ideal for continuous outdoor use.

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 | | |

PV Weather protection



General ordering data

| | | | |
|------------|----------------------------|---------|--------------------------|
| Type | PV SUNCOVER 30/60/13 | Version | |
| Order No. | 8000143255 | | Photovoltaics, Sun cover |
| GTIN (EAN) | 4099987111942 | | |
| Qty. | 1 ST | | |

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 | PVHYW-XXW+XX06W+15 | Version | |
| Order No. | 2814180000 | | Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x WM4 C Female, 6mm ² , 1500 V |
| GTIN (EAN) | 4064675298861 | | |
| Qty. | 1 ST | | |

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Accessories

| | | | |
|------------|----------------------------|---|--|
| Type | PVHYW+XXW-XX06W-15 | Version | |
| Order No. | 2814190000 | Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x WM4 C | |
| GTIN (EAN) | 4064675298878 | Male, 6mm ² , 1500 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 | | |