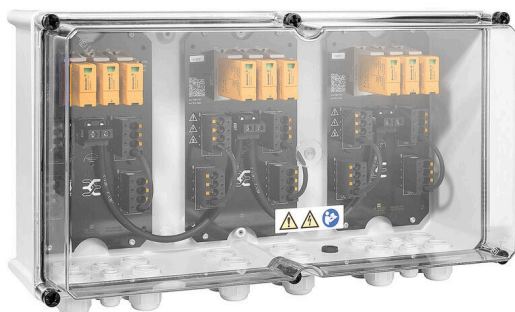


## PVN1M3I9SXFV100TXX10

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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, 3 MPP's, 3 Inputs / 3 Outputs per MPP, Surge protection I / II, Cable gland |
| Order No.           | <a href="#">2683130000</a>  |
| Type                | PVN1M3I9SXFV100TXX10  |
| GTIN (EAN)          | 4050118699876   |
| Qty.                | 1 items   |
| Delivery status     | This article will no longer be available in the future.   |
| Available until     | 2025-12-31T00:00:00+01:00   |
| Alternative product | <a href="#">PVN DC 3I 3O 3MPP SPD1R CG 11</a>   |

# PVN1M3I9SXFV100TXPX10

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## Technical data

### Approvals

Approvals



ROHS Conform

### Dimensions and weights

|            |        |                 |              |
|------------|--------|-----------------|--------------|
| Depth      | 210 mm | Depth (inches)  | 8.2677 inch  |
| Height     | 330 mm | Height (inches) | 12.9921 inch |
| Width      | 558 mm | Width (inches)  | 21.9685 inch |
| Net weight | 6600 g |                 |              |

### Temperatures

Ambient temperature -40 °C...50 °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 |

### Included in delivery

|                      |          |              |
|----------------------|----------|--------------|
| Included accessories | Article  | Sealing plug |
|                      | Quantity | 24           |

### 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 |

### 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) |                     |  |

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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) | 3  |   |  |  |
| Functional earth connector           | Cable entry  | Number of cable entries                   | 2                                      |  |
|                                      |  | 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 <sup>2</sup>                     |  |
|                                      |  | w. wire end ferrule, DIN 46228 pt 1, max. | 16 mm <sup>2</sup>                     |  |
|                                      |  | 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 <sup>2</sup>                    |  |
|                                      |  | Wire cross-section, max.                  | 16 mm <sup>2</sup>                     |  |
| 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                                      |  |
|                                      |  | 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 <sup>2</sup>                    |  |
|                                      |  | w. wire end ferrule, DIN 46228 pt 1, max. | 1.5 mm <sup>2</sup>                    |  |
|                                      |  | Number of inputs                          | 9                                      |  |

**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 <sup>2</sup> |
|                           |   | Wire cross-section, max.       | 16 mm <sup>2</sup>  |

## PVN1M3I9SXFV100TXPX10

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## Technical data

### 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 I <sub>total</sub> (8/20µs)                | 50 kA       | Discharge current I <sub>n</sub> (8/20 µs)            | 20 kA    |
| Requirements class   | Type I/II   | Total discharge current I <sub>total</sub> (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 <sub>cpv</sub>              | 1100 V   |
| Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/-PE | 1100 V      |   |          |

### DC load break switch

|                               |           |
|-------------------------------|-----------|
| Switch disconnecter execution | no switch |
|-------------------------------|-----------|

### Important note

|                     |  |
|---------------------|--|
| Product information | <p>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:<br/>         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</p> |
|---------------------|--|

### 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 3 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to EN 51543-32. MPP1:<br/>         3 inputs, connection via M25 cable gland with 3x7mm Ø cable entry. PUSH IN connection / 2.5 - 6mm<sup>2</sup> single-wire, multi-wire, with/without ferrule.<br/>         3 outputs, connection via M25 cable gland with 3x7mm Ø cable entry. PUSH IN connection / 2.5 - 6mm<sup>2</sup> single-wire, multi-wire, with/without ferrule.<br/>         MPP2 to 3:<br/>         identical to MPP1 Max. string voltage U<sub>oc</sub>: 1000V<br/>         1 class/type I + II combined arrester with signal contact<br/>         Connection of the signal contact via cable glands (8-12mmØ) max. conductor cross-section: 1.5mm<sup>2</sup><br/>         Connection of the functional earth via</p> |
|--------------------|--|

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cable glands (8-12mmØ)  
Conductor cross-section:  
16-25mm<sup>2</sup>  
Protection class: IP65  
All built into a glas 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

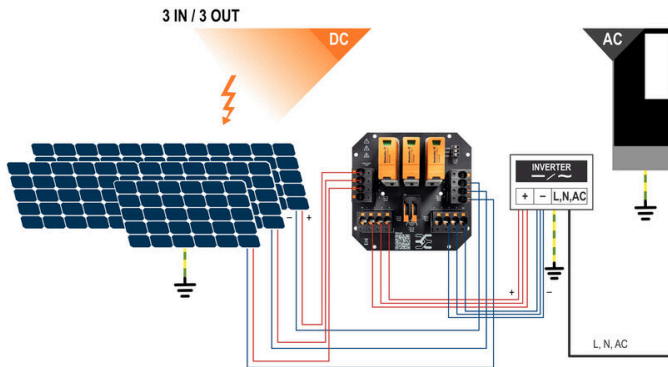
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Drawings

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PCB design



PVN 1 M2 I6 S0 F3 V1 Q1 TX PX 10

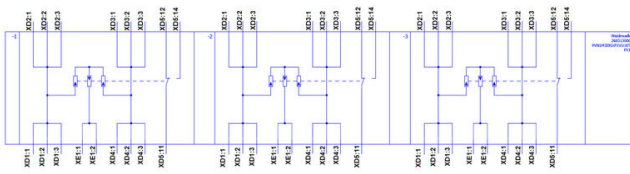
|   |   |
|---|---|
| <b>Series</b><br>PVN = PV Next<br>VPU = PV Protect  | <b>Voltage</b><br>10 = 1kV<br>11 = 1,1kV<br>15 = 1,5kV    |
| <b>Level</b><br>1 = DC trunk box (L1)   | <b>Powersupply</b><br>x = n/a                             |
| <b>Series</b><br>1 = 1 MPPT supported<br>2 = 2 MPPT supported<br>3 = 3 MPPT supported<br>4 = 4 MPPT supported<br>6 = 6 MPPT supported | <b>Monitoring</b><br>x = n/a                              |
| <b>Inputs</b><br>1...12 inputs  | <b>Output Type</b><br>0 = CG<br>1 = WM4C<br>2 = MC4-Evo 2 |
| <b>Switch</b><br>x = n/a<br>0 = manual switch<br>1 = remote switch  | <b>SPD</b><br>2/0 = TYP II<br>1 = TYP I+II<br>X = No SPD  |
|   | <b>Fuses</b><br>x = n/a<br>3 = only fuse holders          |

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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.  | <a href="#">1157820000</a> | 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.  | <a href="#">1190490000</a> | 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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## Accessories

### General ordering data

|            |                            |  |  |
|------------|----------------------------|--|--|
| Type       | SDIK PH3 X 150             | Version  |  |
| Order No.  | <a href="#">2749910000</a> | 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.  | <a href="#">2749810000</a> | 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.  | <a href="#">2749850000</a> | 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



The enclosures of the TBF series are made of extremely tough glass fibre-reinforced polyester. These enclosures are ideal for applications that call for low weight coupled with high shock resistance. The weather-resistant TBF enclosures are designed for a wide range of applications. Together with their comprehensive range of accessories, they provide universal solutions for accommodating built-in items such as regulators, measuring instruments, valves and other equipment.

Features:

- 9 sizes in 2 versions, with grey and transparent lids
- Cover with nylon screws
- Fixing holes outside the sealed area
- Thread for fitting to terminal rails and mounting plates
- Comprehensive accessories
- Weidmüller can manufacture and supply this enclosure to match customer specifications, fitted with all necessary terminals and cable glands.

### General ordering data

|            |                            |   |  |
|------------|----------------------------|---|--|
| Type       | MF TBF                     | Version   |  |
| Order No.  | <a href="#">0360800000</a> | TBF (polyester empty enclosure), Mounting foot, Fixing lugs, Height: 72.5 mm, Width: 24 mm, Depth: 12 mm, Basic material: Polyamide, Polyamide 66, Deep black |  |
| GTIN (EAN) | 4008190108595              |   |  |
| Qty.       | 1 ST                       |   |  |

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## Accessories

### Sealing sets



### General ordering data

|            |                            |               |  |
|------------|----------------------------|---------------|--|
| Type       | SL SET PV NEXT             | Version       |  |
| Order No.  | <a href="#">2729230000</a> | Photovoltaics |  |
| GTIN (EAN) | 4050118804508              |               |  |
| Qty.       | 1 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.  | <a href="#">2659350000</a> | Cable ties, 4.5 x 290 mm, Polyamide 66, 220 N |  |
| GTIN (EAN) | 4050118682816              |   |  |
| Qty.       | 100 ST                     |   |  |

### PV Sun Covers



### General ordering data

|            |                            |               |  |
|------------|----------------------------|---------------|--|
| Type       | PV SUN COVER 56/30/21      | Version       |  |
| Order No.  | <a href="#">8000087025</a> | Photovoltaics |  |
| GTIN (EAN) | 4064675845188              |               |  |
| Qty.       | 1 ST                       |               |  |

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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.  | <a href="#">2877850000</a> | Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x MC4 Male, |  |
| GTIN (EAN) | 4064675666417              | 6mm <sup>2</sup> , 1100 V                                       |  |
| Qty.       | 1 ST                       |   |  |
| Type       | PVHYM+M+XXX6W-11           | Version   |  |
| Order No.  | <a href="#">2877860000</a> | Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x MC4 Female, |  |
| GTIN (EAN) | 4064675666424              | 6mm <sup>2</sup> , 1100 V                                       |  |
| Qty.       | 1 ST                       |   |  |

### Sealing sets



### General ordering data

|            |                            |   |  |
|------------|----------------------------|---|--|
| Type       | BLINDPLUG SET5 7X28MM      | Version   |  |
| Order No.  | <a href="#">3077670000</a> | Photovoltaics, Blind plug                                     |  |
| GTIN (EAN) | 4099987081894              |   |  |
| Qty.       | 1 ST                       |   |  |
| Type       | BLINDPLUG SET50 7X28MM     | Version   |  |
| Order No.  | <a href="#">3077650000</a> | Photovoltaics, Blind plug, Accessories, Blind plug, 50 pieces |  |
| GTIN (EAN) | 4099987081870              |   |  |
| Qty.       | 1 ST                       |   |  |

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**Accessories**

**Spare Arrester**



**General ordering data**

|            |                            |  |  |
|------------|----------------------------|--|--|
| Type       | VPU PV I+II O 1000         | Version  |  |
| Order No.  | <a href="#">2530600000</a> | 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.  | <a href="#">2534300000</a> | Surge voltage arrester, Low voltage, Surge protection I / II, Spare    |  |
| GTIN (EAN) | 4050118545906              | arrester   |  |
| Qty.       | 9 ST                       |  |  |