

## PVN1M1I2SXFV2O0TXPX11

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

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[www.weidmueller.com](http://www.weidmueller.com)



PV Next: PV-Next, PV generator junction box for combination of 1-6 strings (input and output side) and connection to the inverter. Intelligent innovative design individual for every customer application. Advanced overvoltage protection, optional fuses and switch-disconnectors for optimum operation and safety for the system. In addition, all PV generator junction boxes comply with IEC/EN 61439-2 for maximum reliability of each component.

### General ordering data

|                   |                                                                                                             |
|-------------------|-------------------------------------------------------------------------------------------------------------|
| Version           | Photovoltaics, Combiner Box, 1100 V, 1 MPPT, 2 Inputs / 1 Output per MPPT, Surge protection II, Cable gland |
| Order No.         | <a href="#">2791950000</a>                                                                                  |
| Type              | PVN1M1I2SXFV2O0TXPX11                                                                                       |
| GTIN (EAN)        | 4064675072997                                                                                               |
| Qty.              | 1 pc(s).                                                                                                    |
| Replacement parts | <a href="#">2530660000</a>                                                                                  |

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Catalogue status 18.11.2022 / We reserve the right to make technical changes.

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**Technical data**

**Dimensions and weights**

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 132 mm  | Depth (inches)  | 5.197 inch |
| Height     | 228 mm  | Height (inches) | 8.976 inch |
| Width      | 200 mm  | Width (inches)  | 7.874 inch |
| Net weight | 1,513 g |                 |            |

**Temperatures**

|                     |                 |          |                           |
|---------------------|-----------------|----------|---------------------------|
| Ambient temperature | -25 °C...+50 °C | Humidity | 5 - 90 %, no condensation |
|---------------------|-----------------|----------|---------------------------|

**Guarantee**

|               |         |
|---------------|---------|
| Time interval | 5 years |
|---------------|---------|

**Electrical characteristics**

|                                 |                              |          |                        |
|---------------------------------|------------------------------|----------|------------------------|
| Current per MPPT, max.          | 30 A                         |          |                        |
| Rated DC current per connection | Current per string, max.     | 30 A     |                        |
|                                 | Short-circuit at main output | Factor   | 1.25 * I <sub>nc</sub> |
|                                 |                              | Duration | 10 h                   |
| Rated DC voltage                | 1,100 V DC                   |          |                        |

**Enclosure**

|                        |                                                   |                               |                                           |
|------------------------|---------------------------------------------------|-------------------------------|-------------------------------------------|
| Connection type String | Internal terminal (with cable gland feed-through) | Enclosure attachment          | Via the four holes under the cover screws |
| Insulating material    | Polycarbonate                                     | Switch disconnecter execution | no switch                                 |
| Type of mounting       | Wall mounting, 4 screws                           |                               |                                           |

**General data**

|                       |                                         |                   |      |
|-----------------------|-----------------------------------------|-------------------|------|
| Installation location | Protected outdoor area (>1 km from sea) | Protection degree | IP65 |
| Standards             | IEC 61439-2 ed 2.0, EN 61439-2:2011     |                   |      |

**Inputs**

|                                        |                 |                                |                                    |
|----------------------------------------|-----------------|--------------------------------|------------------------------------|
| Amount of Maximum Power Point Tracking | 1 MPPT          |                                |                                    |
| DC Input + & -                         | Wire connection | Type of connection             | PUSH IN                            |
|                                        |                 | Compatible cable cross-section | EN 50618:2015, TÜV 2 Pfg1169/08.07 |
|                                        |                 | Wire cross-section, min.       | 2.5 mm <sup>2</sup>                |
|                                        |                 | Wire cross-section, max.       | 16 mm <sup>2</sup>                 |
|                                        | Cable entry     | Number of cable entries        | 2                                  |

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| Functional earth connector         | Cable entry                                                     | Number of cable entries                   | 1                                      |
|                                    | Wire connection                                                 | Type of connection                        | Tension clamp connection with actuator |
|                                    |                                                                 | 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>                     |
| Fuse type                          | Neither fuse cartridge nor holder                               |                                           |                                        |
| Max. number of DC inputs           | per Maximum Power Point Tracking 2 inputs connected in parallel |                                           |                                        |
| Surge protection auxiliary contact | 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>                    |
|                                    | Cable entry                                                     | Number of cable entries                   | 1                                      |

**Outputs**

|                           |                                           |                                |                                     |
|---------------------------|-------------------------------------------|--------------------------------|-------------------------------------|
| DC Output + & -           | Wire connection                           | Type of connection             | PUSH IN                             |
|                           |                                           | Compatible cable cross-section | TÜV 2 Pfg 1169/08.07, EN 50618:2015 |
|                           |                                           | Wire cross-section, min.       | 2.5 mm <sup>2</sup>                 |
|                           |                                           | Wire cross-section, max.       | 16 mm <sup>2</sup>                  |
| Max. number of DC outputs | per Maximum Power Point Tracking 1 output |                                |                                     |

**Surge protection DC side**

|                                                                 |               |                                        |                                     |
|-----------------------------------------------------------------|---------------|----------------------------------------|-------------------------------------|
| Discharge current $I_n$ (8/20 $\mu$ s)                          | 20 kA         | Discharge current, max. (8/20 $\mu$ s) | 40 kA                               |
| Maximum continuous operating voltage UCPV mode +/-, -/PE, +/-PE | 1,100 V DC    | PV system voltage, max. $U_{cpv}$      | 1,100 V                             |
| Protection level $U_p$ (+/-)                                    | $\leq 3.8$ kV | Protection level $U_p$ (+/PE)          | $\leq 3.8$ kV                       |
| Protection level $U_p$ (-/PE)                                   | $\leq 3.8$ kV | Requirements class                     | Type II                             |
| Short-circuit current $I_{SCPV}$                                | 11,000 A      | Standards                              | IEC 61439-2 ed 2.0, EN 61439-2:2011 |
| Total discharge current $I_{total}$ (8/20 $\mu$ s)              | 50 kA         |                                        |                                     |

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002928    | ETIM 7.0    | EC002928    |
| ETIM 8.0    | EC003857    | ECLASS 9.0  | 22-57-92-03 |
| ECLASS 9.1  | 22-57-02-90 | ECLASS 10.0 | 22-57-02-90 |
| ECLASS 11.0 | 22-57-02-92 | ECLASS 12.0 | 22-57-02-92 |

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**Tender specification sheets**

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Long specification | <p>Combiner box for inverters with 1 Mpp tracker, used to protect the DC side. Max. String voltage Uoc:1000 V<br/>                 MPPT1:<br/>                 Up to 2 inputs, connected via M25 cable gland with 3x7mm Ø cable entry (for positive and negative one each)<br/>                 PUSH IN connection / 2.5 - 6mm<sup>2</sup> single-wire, multi-wire, with/without ferrule<br/>                 1 output connected via M25 cable gland with 3x7mm Ø cable entry (for positive and negative one each)<br/>                 PUSH IN connection / 2.5 - 6mm<sup>2</sup> single-wire, multi-wire, with/without ferrule without DC switch<br/>                 1 surge protection 1000 V type II with remote contact<br/>                 Connection of the signal contact via cable glands (8-12mm Ø) max. cable cross-section: 1.5mm<sup>2</sup><br/>                 Connection of functional earth via cable glands (8-12mm Ø) cable cross-section: 16mm<sup>2</sup><br/>                 Protection class: IP65<br/>                 Plastic enclosure<br/>                 Dimensions<br/>                 HxWxD:200x228x132 mm<br/>                 According to standard, Low-voltage switchgear assemblies - Part 1:<br/>                 General specifications, (IEC 61439-1:2011), BS EN 61439-2:2011</p> |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Approvals**

Approvals



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## Technical data

### Downloads

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">PV Next Mini EU Declaration of Conformity</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Engineering Data                            | <a href="#">CAD data – PV NEXT Mini CG Step</a><br><a href="#">CAD data – STEP</a><br><a href="#">Application notes – Schematic Diagram for PV Next Mini</a>                                                                                                                                                                                                                                                                                                                                                                                                |
| Technical Documentation                     | <a href="#">Customer drawing</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| User Documentation                          | <a href="#">MANUAL PV NEXT IT/ES/FR</a><br><a href="#">MANUAL PV NEXT MINI DE/EN</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| White paper                                 | <a href="#">Application notes – Fact Sheet DE PV CB Wie man Gebäude gegen Blitzeinschläge schützt</a><br><a href="#">Application notes – Fact Sheet DE PV Wie man die Lebensdauer eines GAK verlängert</a><br><a href="#">Application notes – Fact Sheet DE CB PV NEXT</a><br><a href="#">Application notes – Fact Sheet EN CB PV NEXT</a><br><a href="#">Application notes – Fact Sheet EN PV How to protect buildings against lightning strikes</a><br><a href="#">Application notes – Fact Sheet EN PV How to extend the life time of a Combiner Box</a> |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

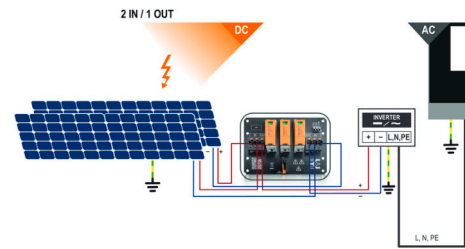
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Drawings

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>Power supply</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 = EG<br>1 = VMAC<br>2 = MCA-Exp 2 |
| <b>Switch</b><br>x = n/a<br>0 = manual switch<br>1 = remote switch                                                                    | <b>SPD</b><br>0 = TYP II<br>1 = TYP I+II<br>X = No SPD    |
|                                                                                                                                       | <b>Fuses</b><br>x = n/a<br>3 = only fuse holders          |