

# PVN1M2I4SXFV101TXPX10

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[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, 1000 V, 2 MPPT's, 2 Inputs / 1 Output per MPPT, Surge protection I / II, WM4C |
| Order No.  | <a href="#">2737580000</a>                                                                                 |
| Type       | PVN1M2I4SXFV101TXPX10                                                                                      |
| GTIN (EAN) | 4050118824865                                                                                              |
| Qty.       | 1 pc(s).                                                                                                   |

Creation date September 18, 2022 1:41:40 AM CEST

Catalogue status 09.09.2022 / We reserve the right to make technical changes.

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## Technical data

## Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 175 mm  | Depth (inches)  | 6.89 inch  |
| Height     | 334 mm  | Height (inches) | 13.15 inch |
| Width      | 186 mm  | Width (inches)  | 7.323 inch |
| Net weight | 2,626 g |                 |            |

## Temperatures

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

## Environmental Product Compliance

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

## Guarantee

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

## Electrical characteristics

|                                 |                              |                 |                        |
|---------------------------------|------------------------------|-----------------|------------------------|
| Current per MPPT, max.          |                              | 30 A            |                        |
| Rated DC current per connection | Current per string, max.     | 30 A            |                        |
|                                 | Ambient temperature          | -25 °C...+50 °C |                        |
|                                 | Short-circuit at main output | Factor          | 1.25 * I <sub>nc</sub> |
|                                 |                              | Duration        | 10 h                   |
| Rated DC voltage                |                              | 1,000 V DC      |                        |

## Enclosure

|                        |                                                 |                               |                                           |
|------------------------|-------------------------------------------------|-------------------------------|-------------------------------------------|
| Connection type String | Plug WM4C                                       | Enclosure attachment          | Via the four holes under the cover screws |
| Insulating material    | Polyester glass-fibre reinforced, 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 | 2 MPPT          |                              |                                    |
| DC Input + & -                         | Wire connection | Type of connection           | WM4C plug-in connector             |
|                                        |                 | Compatible cable crossection | EN 50618:2015, TÜV 2 Pfg1169/08.07 |
|                                        |                 | Wire cross-section, min.     | 4 mm <sup>2</sup>                  |
|                                        |                 | Wire cross-section, max.     | 6 mm <sup>2</sup>                  |
|                                        | Cable entry     | Number of cable entries      | 4                                  |

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|                                    |                                                                 |                                           |                                        |
|------------------------------------|-----------------------------------------------------------------|-------------------------------------------|----------------------------------------|
| Functional earth connector         | Cable entry                                                     | Number of cable entries                   | 1                                      |
|                                    |                                                                 | Cable diameter, min.                      | 5                                      |
|                                    |                                                                 | Cable diameter, max.                      | 10                                     |
|                                    |                                                                 | Cable glands                              | 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>                     |
| 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 | Cable entry                                                     | Number of cable entries                   | 1                                      |
|                                    |                                                                 | Cable diameter, min.                      | 5                                      |
|                                    |                                                                 | Cable diameter, max.                      | 10                                     |
|                                    |                                                                 | Cable glands                              | 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>                    |

**Outputs**

|                           |                                           |                                |                                     |
|---------------------------|-------------------------------------------|--------------------------------|-------------------------------------|
| DC Output + & -           | Wire connection                           | Type of connection             | WM4C plug-in connector              |
|                           |                                           | Compatible cable cross-section | TÜV 2 Pfg 1169/08.07, EN 50618:2015 |
|                           |                                           | Wire cross-section, min.       | 4 mm <sup>2</sup>                   |
|                           |                                           | Wire cross-section, max.       | 6 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                                                      |
| Lightning test current $I_{imp}$ (10/350 $\mu$ s)  | 6.25 kA       | Maximum continuous operating voltage UCPV mode +/-, -/PE, +/-PE | 1,100 V DC                                                 |
| PV system voltage, max. $U_{cpv}$                  | 1,100 V       | Protection level $U_p$ (+/-, -/PE, +/-PE)                       | $\leq 3.8$ kV                                              |
| 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 I/II                                                  |
| Short-circuit current $I_{scpv}$                   | 11,000 A      | Standards                                                       | IEC 61439-2 ed 2.0, EN 61439-2:2011                        |
| Standby power consumption $P_c$                    | $< 0.2$ W     | Surge protection DC side                                        | 1000 V type I + II with remote contact, 1000 V type I + II |
| Total discharge current $I_{total}$ (8/20 $\mu$ s) | 50 kA         | Total discharge current $I_{total}$ (10/350 $\mu$ s)            | 12.5 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

Combiner box for inverters with 2Mpp tracker, used to protect the DC side. Max. String voltage Uoc: 1000 V MPPT1: Up to 2 inputs, connected via WM4 C connector compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2015 1 output connected via WM4 C connector compatible with cable type TÜV 2 Pfg1169/08.07 / EN 50618:2015 MPPT 2 is identical to MPPT 1 without DC switch 2 surge protection 1000 V type I + II with remote contact Connection of the signal contact via cable glands (8-12mmØ) max. cable cross-section: 1.5mm<sup>2</sup> Connection of functional earth via cable glands (8-12mmØ) cable cross-section: 16mm<sup>2</sup> Protection class: IP65 Plastic enclosure Dimensions HxWxD: 186x334x175 mm According to standard, Low-voltage switchgear assemblies - Part 1: General specifications, (IEC 61439-1:2011), BS EN 61439-2:2011

### Approvals

#### Approvals



### Downloads

#### Approval/Certificate/Document of Conformity

[EU Declaration of Conformity](#)

#### Engineering Data

[CAD data – STEP](#)
[CAD data – PV Next Schematic Diagram 2in1](#)
[Application notes – Fact Sheet DE PV CB Wie man Gebäude gegen Blitzeinschläge schützt](#)
[Application notes – Fact Sheet DE PV Wie man die Lebensdauer eines GAK verlängert](#)
[Application notes – Fact Sheet DE PV CB Wann Sicherungen zu installieren sind](#)
[Application notes – Fact Sheet DE CB PV NEXT](#)
[Application notes – Fact Sheet EN PV CB When DC fuses are mandatory to install](#)
[Application notes – Fact Sheet EN CB PV NEXT](#)
[Application notes – Fact Sheet EN PV How to protect buildings against lightning strikes](#)
[Application notes – Fact Sheet EN PV How to extend the life time of a Combiner Box](#)

#### Technical Documentation

[Customer Drawing](#)

#### User Documentation

[Manual PV Next String Combiner Box](#)
[MANUAL PV NEXT IT/ES/FR](#)

#### Catalogues

[Catalogues in PDF-format](#)

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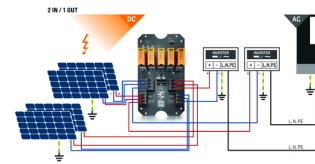
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# Drawings

## PCB design

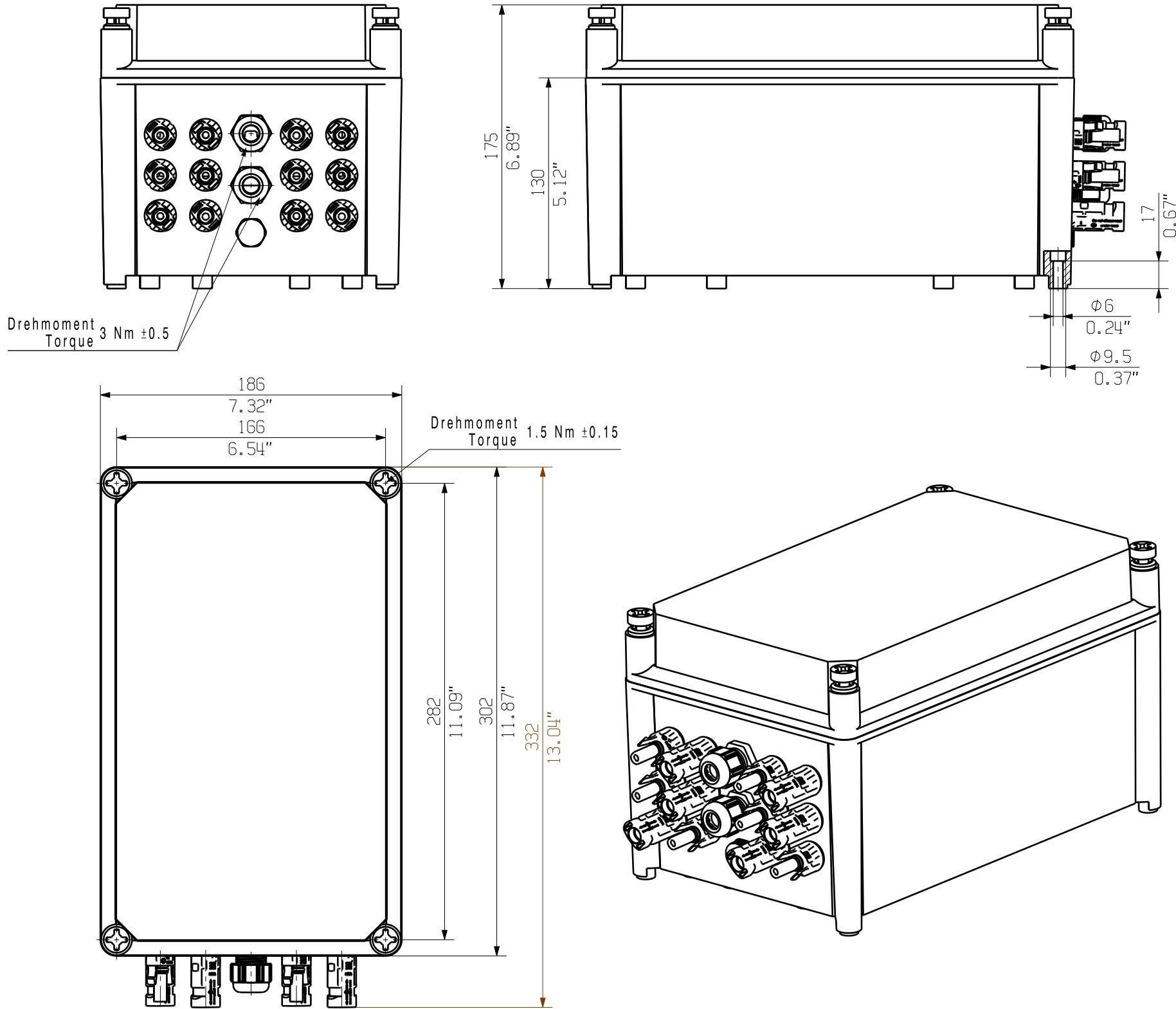


| PVN 1 M2 I6 S0 F3 V1 01 TX PX 10 |  |                |  |                     |  |                       |  |                    |  |
|----------------------------------|--|----------------|--|---------------------|--|-----------------------|--|--------------------|--|
| <b>Series</b>                    |  | <b>Voltage</b> |  | <b>Power supply</b> |  | <b>Monitoring</b>     |  | <b>Output Type</b> |  |
| PVN = PV Next                    |  | 10 ~ 1kV       |  | x = n/a             |  | x = n/a               |  | 0 = DG             |  |
| VPU = PV Protect                 |  | 11 ~ 1.1kV     |  |                     |  |                       |  | 1 = VVAC           |  |
|                                  |  | 15 ~ 1.5kV     |  |                     |  |                       |  | 2 = MCA-5m 2       |  |
| <b>Level</b>                     |  | <b>Inputs</b>  |  | <b>SPD</b>          |  | <b>Fuses</b>          |  |                    |  |
| 1 = DC trunk box (L1)            |  | 1..12 inputs   |  | 0 = TYP II          |  | x = n/a               |  |                    |  |
| <b>Series</b>                    |  |                |  | 1 = TYP I-II        |  | 3 = only fuse holders |  |                    |  |
| 1 = 1 MPPT supported             |  |                |  | X = No SPD          |  |                       |  |                    |  |
| 2 = 2 MPPT supported             |  |                |  |                     |  |                       |  |                    |  |
| 3 = 3 MPPT supported             |  |                |  |                     |  |                       |  |                    |  |
| 4 = 4 MPPT supported             |  |                |  |                     |  |                       |  |                    |  |
| 6 = 6 MPPT supported             |  |                |  |                     |  |                       |  |                    |  |
| <b>Switch</b>                    |  |                |  |                     |  |                       |  |                    |  |
| x = n/a                          |  |                |  |                     |  |                       |  |                    |  |
| 0 = manual switch                |  |                |  |                     |  |                       |  |                    |  |
| 1 = remote switch                |  |                |  |                     |  |                       |  |                    |  |

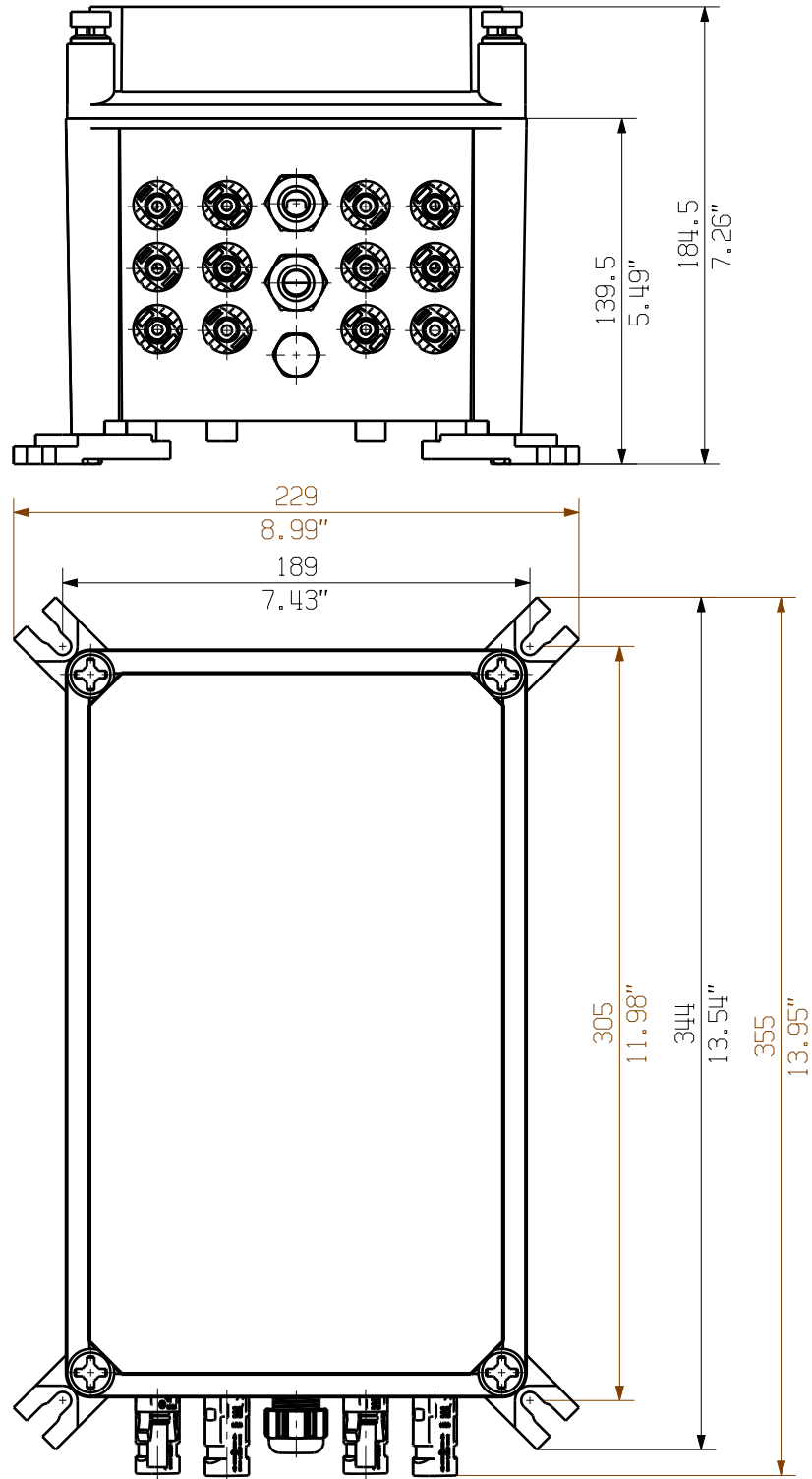
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Dimensions without tolerances are no check dimensions



The English version is binding



Darstellung mit Zubehoer  
Shown with accessory 0360800000 MF TBF

Nicht im Lieferumfang enthalten!  
Not included in delivery!

|                                                                                       |                                                                                  |                                                                                                                                      |
|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| EC00004112                                                                            | Prim PLM Part No.: 1230338                                                       | Prim ERP Part No.: 2737580000                                                                                                        |
| First Issue Date<br>01.04.2020                                                        | Max. nos.<br>Modification                                                        | <b>Weidmüller</b>                               |
|  | Drawn<br>22.10.2020<br>Responsible<br>22.10.2020<br>Approved<br>22.10.2020       | <b>72145</b><br>Drawing no.<br>Sheet 03 of 03 sheets<br>Issue no.<br>1                                                               |
| Scale: 1/3<br>Size: A3<br>Drawing Customer                                            | Date<br>22.10.2020<br>Name<br>Brüntrup, Anna<br>Wohlgemuth, Kl<br>Püschner, Klau | <b>2737580000 PVN1M2I4SXFV101TXPX10</b><br>Combinerbox Residential/Commercial<br>Combinerbox Residential/Commercial<br>Product file: |

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