

# PVN1M6I4SXFV101TXPX10

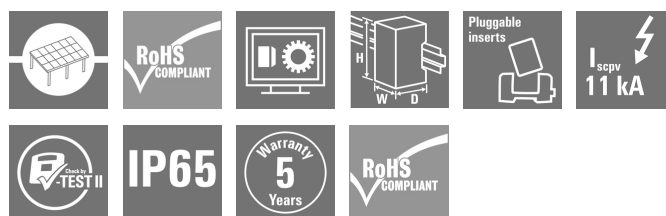
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://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 51643-32. 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, 6 MPP's, 2 Inputs / 1 Output per MPP, Surge protection I / II, WM4C
Order No.	<a href="#">2737620000</a>
Type	PVN1M6I4SXFV101TXPX10
GTIN (EAN)	4050118824896
Qty.	1 pc(s).
Replacement parts	<a href="#">2530600000</a> <a href="#">2534300000</a>

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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	558 mm	Width (inches)	21.968 inch
Net weight	6,947 g		

### Temperatures

Ambient temperature	-40 °C...50 °C	Humidity	5 - 90 %, no condensation
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### Approvals and norms

Approvals	EN 61439-2, IEC 61439-2
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### Guarantee

Time interval	5 years
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### Electrical characteristics

Current per Maximum Power Point, max. 30 A			
Rated DC voltage	1,000 V		
Rated short-term current resistance	Rated current	37.5 A	

### Enclosure

Connection type string	Plug WM4C	Enclosure attachment	Via mounting feet
Impact resistance	IK08 in accordance with IEC 62208, IK10 in accordance with IEC 62262	Insulating material	Polyester glass-fibre reinforced, Polycarbonate
Protection class	II	Type of mounting	Wall mounting, 4 screws

### General data

Installation location	Protected outdoor area (Land and Sea)	Protection degree	IP65
Standards	EN 61643-31		

### Inputs

Amount of maximum power points (MPP)	6		
DC Input + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable cross-section	EN 50618:2015
		Wire cross-section, min.	4 mm <sup>2</sup>
		Wire cross-section, max.	6 mm <sup>2</sup>
	Cable entry	Number of cable entries	12

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Functional earth connector	Cable entry	Number of cable entries	1
		Cable diameter, min.	5 mm
		Cable diameter, max.	10 mm
		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		
Fuses	No		
Max. number of DC inputs	per Maximum Power Point 2 inputs connected in parallel		
Number of conduit inlets	12		
Number of string inputs per MPP	≤ 2		
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	Cable diameter, min.	5 mm
		Cable diameter, max.	10 mm
		Cable glands	M 16
Number of inputs	12		

**Outputs**

DC Output + & -	Wire connection	Type of connection	WM4C plug-in connector
		Compatible cable cross-section	TÜV 2 Pfg 1169/08.07
		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 1 output		

**Surge protection DC side**

Discharge current $I_n$ (8/20 µs)	20 kA	Discharge current, max. (8/20 µs)	40 kA
Lightning test current $I_{imp}$ (10/350 µs)	6.25 kA	Maximum continuous operating voltage DC UCPV mode +/-, -/PE, +/-PE	1,100 V
PV system voltage, max. $U_{cpv}$	1,100 V	Protection level $U_p$ (+/-, -/PE, +/-PE)	≤ 3.8 kV
Protection level $U_p$ (+/-)	≤ 3.8 kV	Protection level $U_p$ (+/PE)	≤ 3.8 kV
Protection level $U_p$ (-/PE)	≤ 3.8 kV	Requirements class	Type I/II
Short-circuit current $I_{scpv}$	11,000 A	Standards	EN 61643-31
Standby power consumption $P_C$	<0.2 W	Total discharge current $I_{total}$ (8/20µs)	50 kA
Total discharge current $I_{total}$ (10/350µs)	12.5 kA		

**DC load break switch**

Switch disconnector execution	no switch
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## Technical data

### Classifications

ETIM 6.0	EC002928	ETIM 7.0	EC002928
ETIM 8.0	EC003857	ETIM 9.0	EC003857
ETIM 10.0	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
ECLASS 13.0	22-57-02-92	ECLASS 14.0	22-57-02-92
ECLASS 15.0	22-57-02-92		

### Tender specification sheets

#### Long specification

Combiner box for inverters with 6 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to EN 51543-32.

#### MPP1:

2 inputs, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg1 169/08.07 / EN 50618:2063

1 output, connection via WM4 C connector, compatible with cable type TÜV 2 Pfg1 169/08.07 / EN 50618:2063

MPP2 to 6:  
identical to MPP1

Max. string voltage Uoc:  
1000V

1 class/type I + II combined arrester with signal contact

Connection of the signal contact via cable glands (8-12mmØ) max. conductor cross-section: 1.5mm<sup>2</sup>

Connection of the functional earth via cable glands (8-12mmØ) Conductor cross-section: 16-25mm<sup>2</sup>

Protection class: IP65

All built into a glass fibre reinforced polyester housing. Dimensions HxWxD: 334x558x175 mm

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

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## Technical data

## Approvals

Approvals



Approvals MAMID	<a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/</a>
ROHS	Conform

## 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

## Important note

Product information	<p>The SCIP number was assigned due to a lead content of more than 0.1 % of the net weight.</p> <p>Safe use instruction according to ECHA:</p> <p>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>
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## Downloads

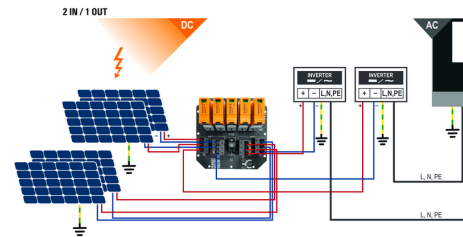
Approval/Certificate/Document of Conformity	<a href="#">EU Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – PV Next Schematic Diagram 2in1</a> <a href="#">CAD data – STEP</a>
Technical Documentation	<a href="#">Customer Drawing</a>
User Documentation	<a href="#">Manual PV Next String Combiner Box</a> <a href="#">MANUAL PV NEXT IT/ES/FR</a>
White paper	<a href="#">Fact Sheet DE PV CB Wie man Gebäude gegen Blitzeinschläge schützt</a> <a href="#">Fact Sheet DE PV Wie man die Lebensdauer eines GAK verlängert</a> <a href="#">Fact Sheet DE PV CB Wann Sicherungen zu installieren sind</a> <a href="#">Fact Sheet DE CB PV NEXT</a> <a href="#">Fact Sheet EN PV CB When DC fuses are mandatory to install</a> <a href="#">Fact Sheet EN CB PV NEXT</a> <a href="#">Fact Sheet EN PV How to protect buildings against lightning strikes</a> <a href="#">Fact Sheet EN PV How to extend the life time of a Combiner Box</a> <a href="#">Fact Sheet DE CB PV Strings kombinieren</a> <a href="#">Fact Sheet EN CB Combining PV strings</a> <a href="#">Fact Sheet EN PV Combiner Box earthing</a> <a href="#">Fact Sheet DE PV Combiner Box Erdung</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

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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>Powersupply</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 5x2	
<b>Level</b>		<b>Inputs</b>		<b>Switch</b>		<b>SPD</b>		<b>Fuses</b>	
1 = DC trunk box (L1)		1..12 inputs		x = n/a		0 = TYP II		x = n/a	
<b>Series</b>				0 = manual switch		1 = TYP I+II		3 = only fuse holders	
1 = 1 MPPT supported				1 = remote switch		X = No SPD			
2 = 2 MPPT supported									
3 = 3 MPPT supported									
4 = 4 MPPT supported									
6 = 6 MPPT supported									

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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.	<a href="#">1254870000</a>	Photovoltaics, Flat design
GTIN (EAN)	4050118047479	
Qty.	100 pc(s).	

**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 pc(s).	

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## Accessories

### 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 1.0X5.5X125	Version
Order No.	<a href="#">2749850000</a>	Screwdriver, Blade width (B): 5.5 mm, Blade length: 125 mm, Blade
GTIN (EAN)	4050118897050	thickness (A): 1 mm
Qty.	1 pc(s).	
Type	SDIS 0.6X3.5X100	Version
Order No.	<a href="#">2749810000</a>	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4050118897012	thickness (A): 0.6 mm
Qty.	1 pc(s).	

### 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.	<a href="#">2877860000</a>	Photovoltaics, Y-Connector Cable, 1x WM4 C Male, 2x MC4 Female,
GTIN (EAN)	4064675666424	6mm², 1100 V
Qty.	1 pc(s).	
Type	PVHYM-M-XXXX6W+11	Version
Order No.	<a href="#">2877850000</a>	Photovoltaics, Y-Connector Cable, 1x WM4 C Female, 2x MC4 Male,
GTIN (EAN)	4064675666417	6mm², 1100 V
Qty.	1 pc(s).	



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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.	<a href="#">1303490000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102529	
Qty.	10 pc(s).	
Type	PV-STICK+ VPE10	Version
Order No.	<a href="#">1303450000</a>	Photovoltaics, Plug-in connector
GTIN (EAN)	4050118102468	
Qty.	10 pc(s).	

### 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 pc(s).	

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## Accessories

### 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

### 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 pc(s).	

### 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:
GTIN (EAN)	4008190108595	72.5 mm, Width: 24 mm, Depth: 12 mm, Material: Polyamide, Deep
Qty.	1 pc(s).	black

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## Accessories

### Sealing sets



#### General ordering data

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

### 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 pc(s).	

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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****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 pc(s).	

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**Replacement parts****Spare Arrester****General ordering data**

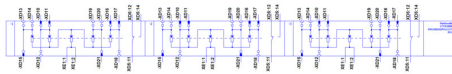
Type	VPU PV I+II O 1000	Version
Order No.	<a href="#">2530600000</a>	Surge voltage arrester, Low voltage, Accessories, Surge protection I /
GTIN (EAN)	4050118540819	II, Spare arrester
Qty.	9 pc(s).	
Type	VPU PV I+II OM 1000	Version
Order No.	<a href="#">2534300000</a>	Surge voltage arrester, Low voltage, Surge protection I / II, Spare
GTIN (EAN)	4050118545906	arrester
Qty.	9 pc(s).	

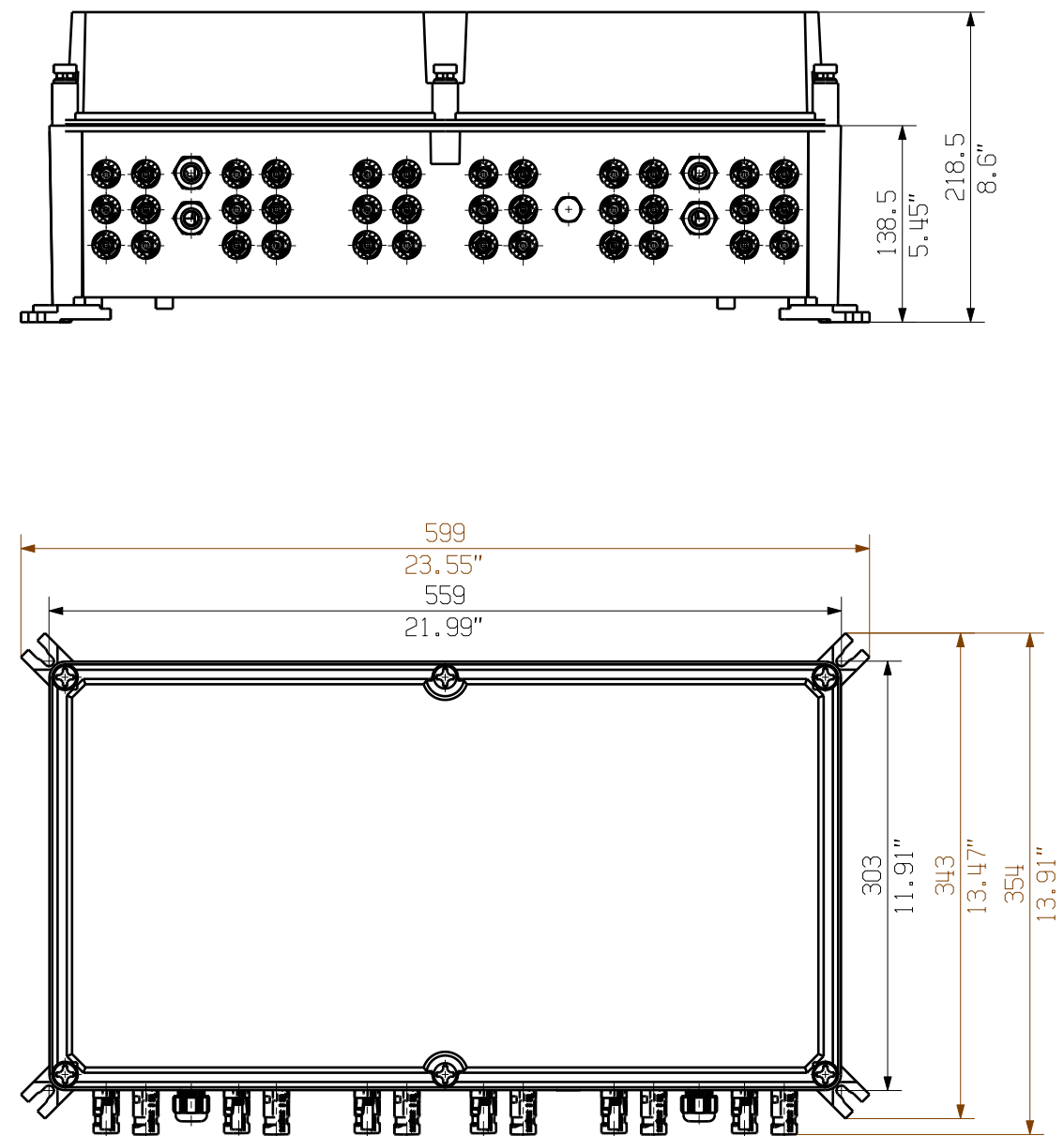
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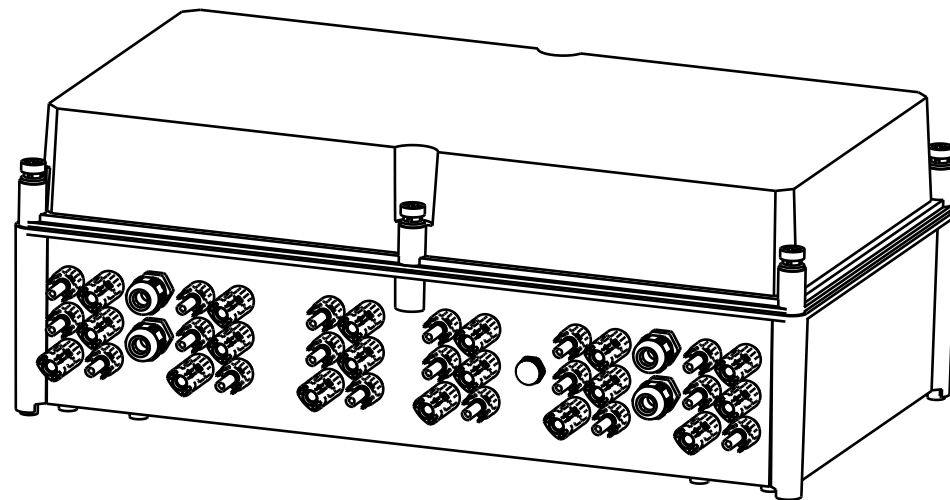
# Drawings







Darstellung mit Zubehoer  
Shown with accessory 0360800000 MF TBF

Nicht im Lieferumfang enthalten!  
Not included in delivery!



EC00004112				Prim PLM Part No.: 1230343		Prim ERP Part No.: 2737620000	
First Issue Date 27.03.2020		Max. nos.		<b>Weidmüller</b> 		<b>72139</b>	
		Modification				Drawing no. <span>Sheet 03</span> of <span>03</span> sheets <span>Issue no. 1</span>	
			Date	Name	<b>2737620000 PVN1M6I12SFXFV101TXPX10</b> COMBINERBOX RESIDENTIAL/COMMERCIAL COMBINERBOX RESIDENTIAL/COMMERCIAL		
		Drawn	22.10.2020	Brüntrup, Anna			
	Responsible		Wohlgemuth, Kl				
Scale: 1/5	Size: A3	Approved	22.10.2020	Püschner, Klau			
Drawing Customer					Product file:		