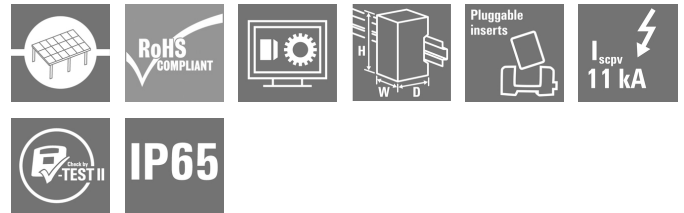


## PVN DC 2I 1O 1MPP SPD1R EVO 11

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 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, 1100 V, 1 MPP, 2 Inputs / 1 Output per MPP, Surge protection I / II, MC4-Evo 2
Order No.	<a href="#">2866300000</a>
Type	PVN DC 2I 1O 1MPP SPD1R EVO 11
GTIN (EAN)	4064675603986
Qty.	1 pc(s).
Replacement parts	<a href="#">2530530000</a>

Creation date July 4, 2024 2:36:39 PM CEST

Catalogue status 29.06.2024 / 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	236 mm	Height (inches)	9.291 inch
Width	200 mm	Width (inches)	7.874 inch
Net weight	1,660 g		

### Temperatures

Ambient temperature	-40 °C...+50 °C	Humidity	5...95 %, 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 current per connection	Current per string, max.	30 A
Rated short-term current resistance	Rated current	37.5 A
Rated DC voltage	1,100 V	

### Enclosure

Connection type string	Plug MC4-Evo 2	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, Polycarbonate
Protection class	II	Switch disconnecter execution	no switch
Type of mounting	Wall mounting		

### General data

Installation location	Protected outdoor area (Land and Sea)	Protection degree	IP65
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### Inputs

Amount of maximum power points	1 MPP		
DC Input + & -	Wire connection	Type of connection	Stäubli MC4-Evo 2 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>

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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 2 inputs connected in parallel		
Surge protection auxiliary contact	Cable entry	Number of cable entries	1
	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	Stäubli MC4-Evo 2 connector
		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 $\mu$ s)	20 kA	Discharge current, max. (8/20 $\mu$ s)	40 kA
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 I/II	Short-circuit current $I_{SCPV}$	11,000 A
Surge protection DC side	1000 V type I + II	Total discharge current $I_{total}$ (8/20 $\mu$ s)	50 kA

### Classifications

ETIM 6.0	EC002928	ETIM 7.0	EC002928
ETIM 8.0	EC003857	ETIM 9.0	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

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## Technical data

### Tender specification sheets

#### Long specification

Combiner box for inverters with 1 MPP tracker, suitable for protecting the DC side of a photovoltaic system according to EN 51543-32.

MPP1:  
2 inputs, connection via MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg 1 169/08.07 / EN 50618:2063  
1 output, connection via MC4-Evo 2 connector, compatible with cable type TÜV 2 Pfg 1 169/08.07 / EN 50618:2063

Max. string voltage Uoc: 1100V  
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: 236x200x132 mm

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

### Environmental Product Compliance

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. Safe use instruction according to ECHA: 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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## Technical data

## Approvals

Approvals



## Downloads

Approval/Certificate/Document of Conformity

[PV Next Mini EU Declaration of Conformity](#)

Engineering Data

[Application notes – Schematic Diagram for PV Next Mini](#)  
[CAD data – STEP](#)

Technical Documentation

[Customer Drawing](#)  
[2932700000\\_00\\_03-2023\\_DRILL-TEMP\\_PV-Next\\_20-20](#)

User Documentation

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

White paper

[Fact Sheet DE PV CB Wie man Gebäude gegen Blitzeinschläge schützt](#)  
[Fact Sheet DE PV Wie man die Lebensdauer eines GAK verlängert](#)  
[Fact Sheet DE PV CB Wann Sicherungen zu installieren sind](#)  
[Fact Sheet DE CB PV NEXT](#)  
[Fact Sheet EN PV CB When DC fuses are mandatory to install](#)  
[Fact Sheet EN CB PV NEXT](#)  
[Fact Sheet EN PV How to protect buildings against lightning strikes](#)  
[Fact Sheet EN PV How to extend the life time of a Combiner Box](#)  
[Fact Sheet DE CB PV Strings kombinieren](#)  
[Fact Sheet DE PV CB Richtig verbinden](#)  
[Fact Sheet EN CB Combining PV strings](#)  
[Fact Sheet EN PV CB connection](#)  
[Fact Sheet EN PV Combiner Box earthing](#)  
[Fact Sheet DE PV Combiner Box Erdung](#)

Catalogues

[Catalogues in PDF-format](#)

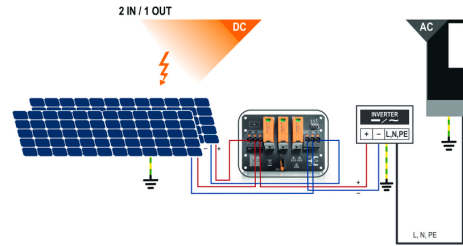
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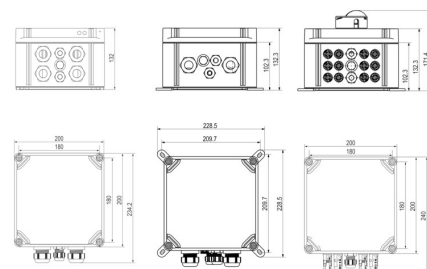
**Drawings**

**PCB design**



**PVN 1 M2 I6 S0 F3 V1 Q1 TX PX 10**

<b>Series</b> PVN - PV Next VPU - PV Protect	<b>Voltage</b> 10 - 1kV 11 - 1.1kV 15 - 1.5kV
<b>Level</b> 1 - DC trunk box (L1)	<b>Power supply</b> x = n/a
<b>Series</b> 1 = 1 MPPT supported 2 = 2 MPPT supported 3 = 3 MPPT supported 4 = 4 MPPT supported 6 = 6 MPPT supported	<b>Monitoring</b> x = n/a
<b>Inputs</b> 1..12 inputs	<b>Output Type</b> 0 = EG 1 = VMAC 2 = MCA-Exp 2
<b>Switch</b> x = n/a 0 = manual switch 1 = remote switch	<b>SPD</b> 0 = TYP II 1 = TYP I+II X = No SPD
	<b>Fuses</b> x = n/a 3 = only fuse holders



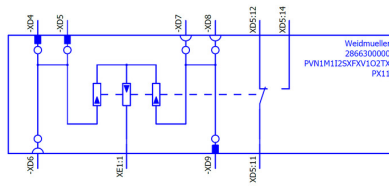
**Data sheet**

**PVN DC 2I 10 1MPP SPD1R EVO 11**

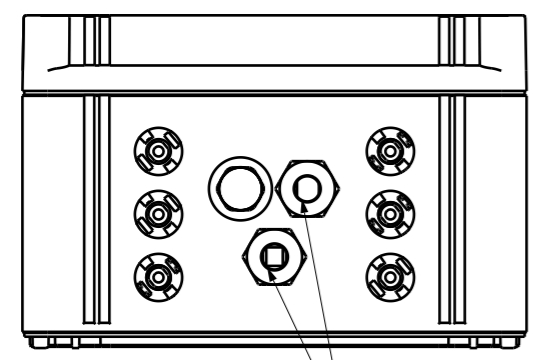
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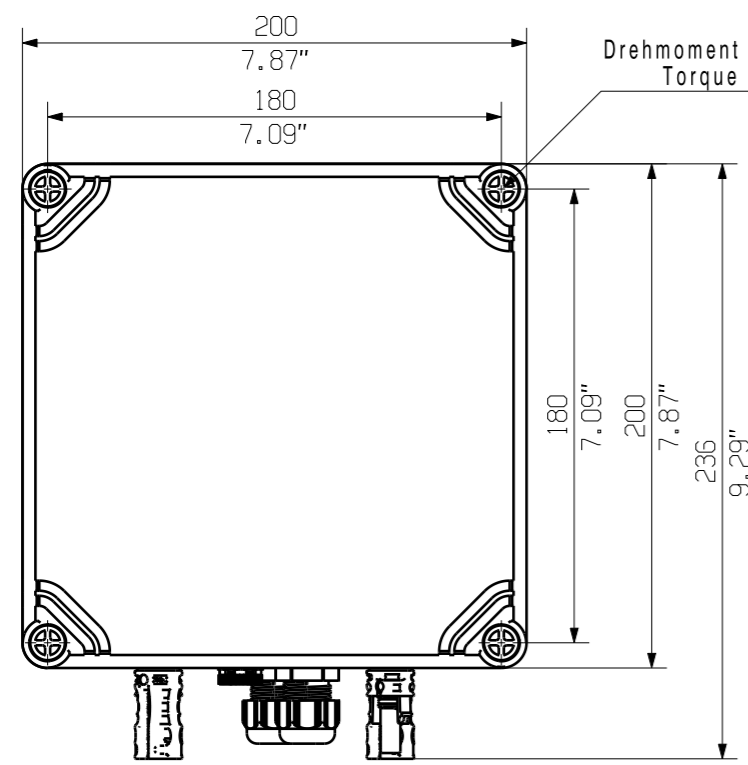
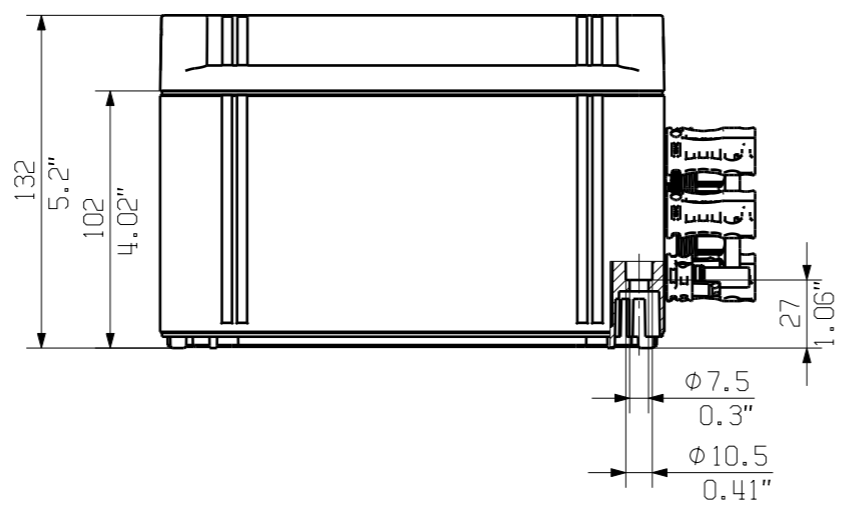
**Drawings**



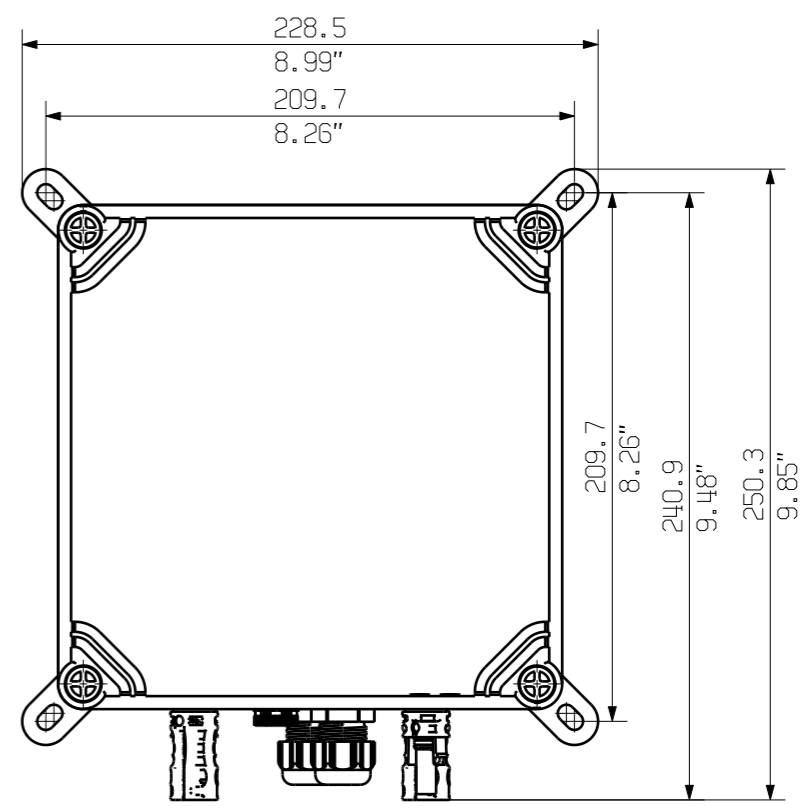
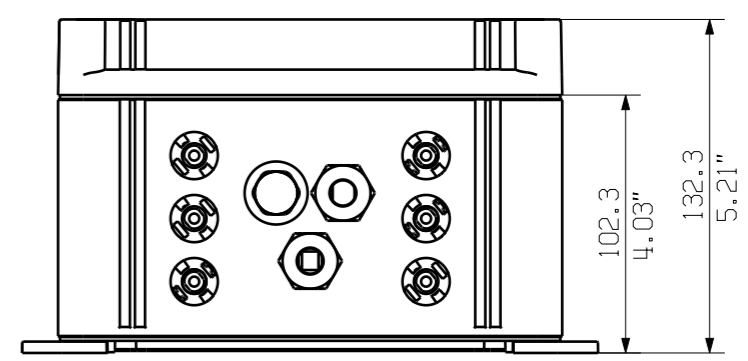
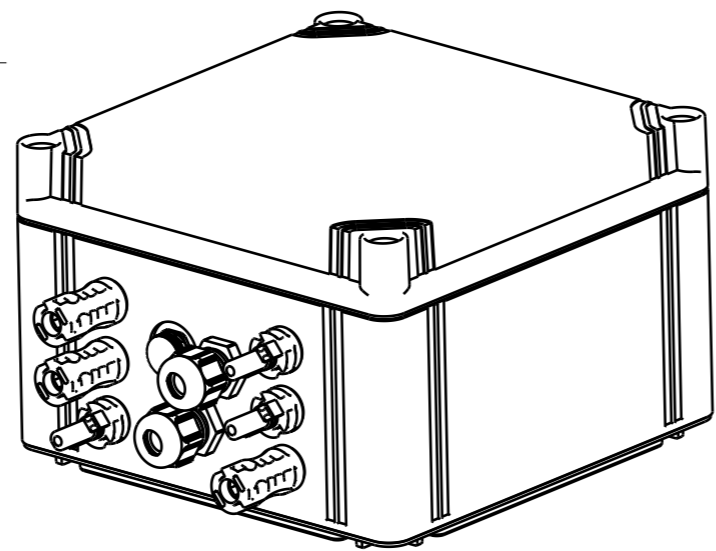
The English version is binding



Drehmoment  
Torque 2.5 Nm ±0.5



Drehmoment  
Torque 0.8 Nm ±0.08



Darstellung mit Zubehoer  
Shown with accessory 9536040000 MF FPC

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Responsible	Wohlgemuth, Klaus	2866300000 PVN1M112SXFV102TXPX11	
Approved	Püschner, Klaus	COMBINERBOX RESIDENTIAL/COMMERCIAL	
06.12.2022		COMBINERBOX RESIDENTIAL/COMMERCIAL	

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