

More efficiency for string inverters
PV Next – combiner boxes of a new generation
Let's connect.



Easy.
Fast.
Safe.

Easy, fast, and safe wiring of photovoltaic systems

PV Next combiner boxes: Easy. Fast. Safe.

Economy and safety during installation and operation are central requirements in photovoltaics. PV Next is the new generation of standardised, highly scalable combiner boxes for private and commercial photovoltaic applications.

With PV Next, Weidmüller offers the world's first combiner box concept based on a standardised printed circuit board design. The advantages: simplicity, safety, time savings, and cost reduction. The innovative concept covers approximately 75 % of today's standard requirements, enabling PV installers to work faster and more cost-effectively. The integrated PUSH IN technology reduces assembly times and minimises the risk of errors and the resulting consequences.





Your special advantages

- Scalable and extensible design
- Easy installation without crimping and without special tools
- Avoidance of wrong connections and reduction of risks



The new benchmark for residential and commercial combiner boxes

Simplicity + time savings + security = reduction of the total costs of ownership

<p>Easy</p> <p>The unique PCB design allows quick and easy integration of additional functions. For example, a switch can be integrated or a second MPPT can be connected directly to the first PCB.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  Excellent </div> <div style="text-align: center;">  Easy </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  Intelligent </div> <div style="text-align: center;">  Circuit Board </div> </div>	+	<p>Fast</p> <p>With the PUSH IN connection technology, PV Next offers the most straightforward and safest connection concept for cabling. The installation can be carried out without crimping and without special tools.</p>	+	<p>Safe</p> <p>The intuitive design and PUSH IN connection technology make installation safer and quality assurance easier. The risk of screw connections with incorrect torque is eliminated, which is one of the main risks for fires.</p>
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Easy
Simple operation with PUSH IN technology. Intuitive and maintenance free.



Fast
Plug & Play with the optional WM4C connections. The alternative are cable glands.



Safe
The remote signalling contact enables safe monitoring. Always inside.

Outstanding efficiency with a standardised, extendable design

The first combiner box with a unique PCB concept

The standardised PCB design of PV Next is the key to the most simple, fast, and safe connection of the strings. The enclosures of our innovative combiner boxes are available in a variety of designs to reduce your workload.

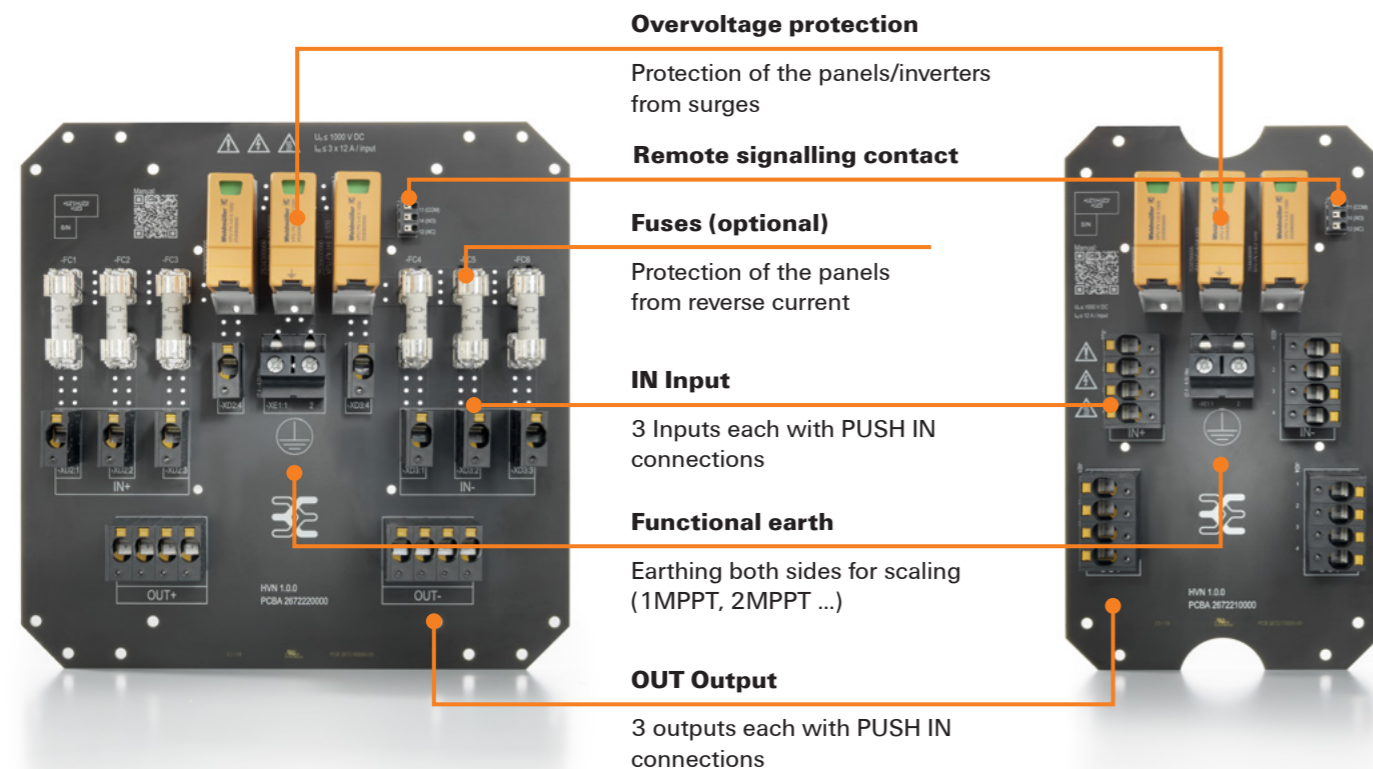
PCBs

PV Next is available in two versions and with PCBs for one to three MPPTs because one PCB is required for each Maximum Power Point Tracking charge controller.

- Wide version: With fuses (fused) and PCBs for 1 or 2 MPPTs
- Narrow version: Without fuses (non-fused) and printed circuit boards for 1, 2 or 3 MPPTs

Each PCB has comprehensive standard equipment:

- State-of-the-art PUSH IN connection technology
- Overvoltage protection as standard – optionally with Type 1/2 or Type 2 arrester
- High EM compatibility due to functional earth
- Integrated remote signalling contact
- Distinct labelling – including QR code for further information



Enclosures

PV Next is available in five different enclosure sizes – each available in two versions suitable for different connection scenarios:

- Plug-and-play solution: Designed as a pre-wired box with WM4C plug connectors
- Self wiring solution: version with cable glands and PUSH IN connection technology for efficient wiring

The standardised concept of PV Next covers a large number of today's requirements for combiner boxes and sets new standards for safety and efficiency. Choose from 40 variants that are easy to handle and can be flexibly scaled. If you require an extension, select the appropriate box from our standard range and add it to your configuration.

Easy. Fast. Safe.



Your special advantages

- Fast selection and easy installation due to the standardised concept
- Reduced workload and fewer errors due to PUSH IN connection technology
- Reduction of project duration by avoiding customising
- Immediate availability from stock through standardisation of products



Rely on longevity and resilience

Our laboratory ensures the highest product quality

Our laboratory is accredited according to international standards. It operates independently and is recognised by institutions, registration services, and other institutions and authorities. As a member of the CTD program, Weidmüller is regularly audited by UL, especially about test methods, quality management and documentation.

PV Next combiner boxes are tested according to IEC 61439 -1/2. The following tests are carried out:

- Testing of transition resistances before and after vibrations to detect weak points
- High-voltage test for dielectric strength of the overall structure
- Vibration and shock testing to simulate transports and bad handling
- Checking the self-heating to identify the maximum permissible power dissipation – essential for the selection of fuses
- IP65 test for protection against dust and moisture



3 IN / 3 OUT fused

Type	Arrester	Connection	Switch	Fuses	MPPT	Dimension	Order No.
PVN1M113SXF3V101TXPX10	1R	WM4C	-	FH	1	302x302x175 mm	2683070000
PVN1M216SXF3V101TXPX10	1R	WM4C	-	FH	2	558x302x210 mm	2683080000
PVN1M113SOF3V101TXPX10	1R	WM4C	SW	FH	1	302x302x175 mm	2683090000
PVN1M216SOF3V101TXPX10	1R	WM4C	SW	FH	2	558x302x210 mm	2683100000



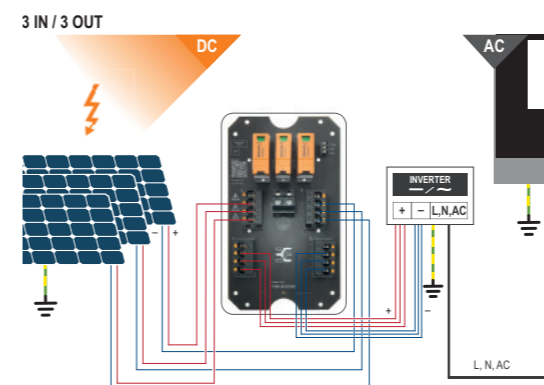
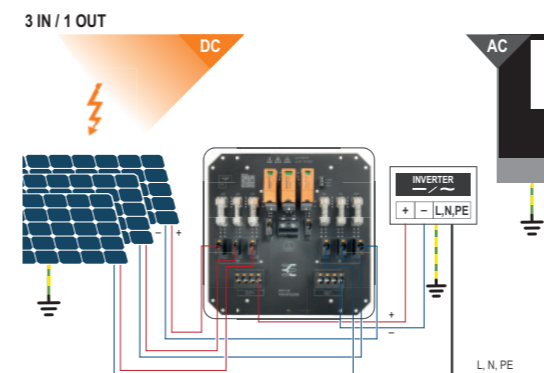
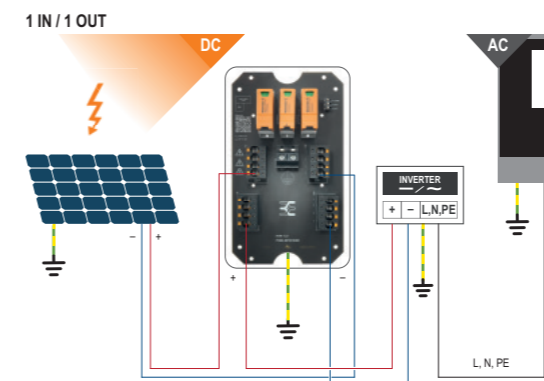
3 IN / 3 OUT non-fused

Type	Arrester	Connection	Switch	Fuses	MPPT	Dimension	Order No.
PVN1M113SXFV100TXPX10	1R	CG	-	-	1	186x302x175 mm	2683110000
PVN1M216SXFV100TXPX10	1R	CG	-	-	2	372x302x175 mm	2683120000
PVN1M319SXFV100TXPX10	1R	CG	-	-	3	558x302x210 mm	2683130000
PVN1M113SOFV100TXPX10	1R	CG	SW	-	1	186x302x175 mm	2683140000
PVN1M216SOFV100TXPX10	1R	CG	SW	-	2	372x302x175 mm	2683150000
PVN1M319SOFV100TXPX10	1R	CG	SW	-	3	558x302x210 mm	2683160000
PVN1M113SXFV101TXPX10	1R	WM4C	-	-	1	558x302x210 mm	2683170000
PVN1M216SXFV101TXPX10	1R	WM4C	-	-	2	372x302x175 mm	2683180000
PVN1M319SXFV101TXPX10	1R	WM4C	-	-	3	558x302x210 mm	2683190000
PVN1M113SOFV101TXPX10	1R	WM4C	SW	-	1	186x302x175 mm	2683200000
PVN1M216SOFV101TXPX10	1R	WM4C	SW	-	2	372x302x175 mm	2683210000
PVN1M319SOFV101TXPX10	1R	WM4C	SW	-	3	558x302x210 mm	2683220000

Note: All items are available from stock.



Connection examples



Protect the investment of your PV systems

We support you with innovative and future-proof solutions

Large photovoltaic parks are associated with enormous costs and risks for owners and operators. Their goal is a long-term focused return-on-investment. Total operating costs are, therefore, a critical success factor. The requirement for the development and construction of today's photovoltaic systems is to operate them efficiently - economically and without downtimes. In addition, upcoming technological improvements such as decentralisation, IoT, and data analysis play an important role in future photovoltaic ecosystems.

Our customers benefit from our many years of experience in the photovoltaic industry, our know-how, our comprehensive range of services, and our global presence. We prove this with more than 162,000 installed combiner boxes, around 70 million connected panels with 14.2 GW, over 11 years of market experience, and our global support in more than 100 countries. We combine finely attuned components to create innovative solutions that precisely match your requirements.

The best for your photovoltaic plant:

- Customer-centric service and support
 - Broad portfolio and permanent improvements
 - Reliable and future-proof solution applications
 - Highest quality in production and engineering
- www.weidmueller.com/pvnext

Weidmüller – Your partner in Industrial Connectivity

As experienced experts we support our customers and partners around the world with products, solutions and services in the industrial environment of power, signal and data. We are at home in their industries and markets and know the technological challenges of tomorrow. We are therefore continuously developing innovative, sustainable and useful solutions for their individual needs. Together we set standards in Industrial Connectivity.

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