



POWER STORAGE PREMIUM 6.0 | 8.0 | 10.0 | 12.0

3-PHASE HYBRID INVERTER FOR RESIDENTIAL AND SMALL COMMERCIAL PV SYSTEMS



High efficiency



Up to 2
roof orientations



Quick and easy installation



Everything needed
from one source

HIGH EFFICIENCY

- 2 MPPT with max. 16 A per input
- Max-Power Control – self learning shade management
- Exact and fast control behaviour
- Intelligent energy storage management with forecast based charging
- Optimized for high-efficiency pv modules
- European efficiency >98%

FLEXIBLE

- Supports 100 % unbalanced loads
- Supports up to 2 battery inputs
- Wide MPP range for flexible string planning
- Cascadable, expandable and combinable with existing PV-systems
- Hybrid-ready, charging of battery also with external AC sources
- Backup power capability in conjunction with RCT Power Switch

EINFACHE INSTALLATION

- Plug & Play, simplified device connection
- No internet access required for setup

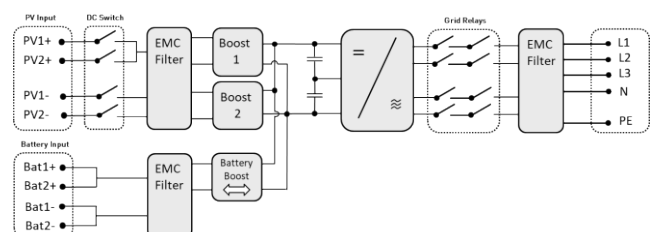
USER FRIENDLY COMMUNICATION

- Convenient remote monitoring via app and portal
- Secure communication in accordance with the highest cybersecurity requirements
- Multi information display
- Multifunctional communication unit
- Compatible with heating element solutions and energymangement systems

INNOVATIVE DESIGN

- Compact and lightweight hardware design
- Silent and maintenance free cooling
- Made in Germany

BLOCK DIAGRAM



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BATTERY INPUT

Battery technology	LiFePO ₄			
Battery voltage range	120 ... 650 V			
Number of battery inputs	2			
Plug type	Weidmüller PV-Stick			
Maximum charge / discharge current	25 A / 25A			
Maximum charge-/discharge power	11.52 kW / 6.0 kW	11.52 kW / 8.0 kW	11.52 kW / 10.0 kW	11.52 kW / 12.0 kW

PV INPUT

Max. recommended DC-power (south / east-west)	8.1 kW / 9.0 kW	10.8 kW / 12.0 kW	13.5 kW / 15.0 kW	16.2 kW / 18.0 kW
MPPT	2			
Input per MPPT	1			
Maximum PV- current per MPPT	16 A			
Max. shortcircuit current per PV input (Iscmax)	20 A			
PV rated voltage	740 V			
PV rated voltage / power	150V / 40W			
MPP voltage range	140V ... 950 V			
Maximum PV voltage	1000 V			
Plug type	Weidmüller PV-Stick			

AC OUTPUT (grid operation)

AC rated power	6.0 kW	8.0 kW	10.0 kW	12.0 kW
Nominal AC output current per phase	8.7 A	11.6 A	14.5 A	17.4 A
Maximum AC apparent power	12.65 kVA			
Reactive power factor (cos phi)	1 (0,4 cap...0,4 ind)			
Maximum AC output current per phase	18.3 A			
Maximum inrush current	18.3 A / 0.1s	18.3 A / 0.1s	18.3 A / 0.1s	18.3 A / 0.1s
Rated frequency	50 Hz / 60 Hz			
AC rated voltage	230/400 V (3L, N, PE)			
AC voltage range	180 V... 290 V			
Distortion factor (THDi)	< 2% @ rated power			
DC current feed	< 0.5% In			
AC connection	AC plug			

PERFORMANCE DATA

Self consumption @ standby	<10W			
MPPT efficiency	99.90 %			
Maximum efficiency PV2AC	98.60 %			
European efficiency PV2AC	98.33	98.30	98.35	98.40
Average efficiency PV2AC	N/A	N/A	N/A	N/A
Average efficiency PV2BAT	N/A	N/A	N/A	N/A
Average efficiency AC2BAT	N/A	N/A	N/A	N/A
Average efficiency BAT2AC	N/A	N/A	N/A	N/A
Mean dead time / settling time	0.1s / 0.4s			

GENERAL

PV- DC load break switch	integrated			
Overvoltage category	II (PV+battery) / III (AC)			
Protection class	I			
Topology	transformerless			
Display	LCD			
Cooling	free convection			
IP protection class	42			
Ambient temperature range	-25°C ... +50 °C (+40°C @ max. power)			
Max. relative humidity	5 ... 85 % (not condensing)			
Max. installation height above sea level	2000 m			
Dimensions (width x height x depth)	585 x 595 x 185 mm			
Weight	35 kg			
Type of installation	wall mounting			
Typical noise level	< 35dB(A)			
Communication	WiFi, Ethernet, CAN, RS485, MFR, 4 x Digital in, 2 x Digital in/out			
Warranty	5 years / 10 years with use of RCT Portal			
Integrated protection	Battery reverse polarity protection / Insulation monitoring / Overvoltage protection / Overtemperature protection / Residual current protection / Protection against islanding / Overload protection / AC overvoltage protection			

Standards

Security: EN/IEC 62109-1, EN/IEC 62109-2
EMV: EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3
Cybersecurity: EN 18031