

POWER STORAGE DC 4.0 | 6.0



DC-COUPLED HYBRID INVERTER FOR RESIDENTIAL AND COMMERCIAL PV SYSTEMS



high efficiency



up to 2 roof
orientations



quick and easy
installation



everything needed
from one source

HIGH EFFICIENCY

- Two independent MPP-trackers, switchable to parallel mode
- Transformerless topology
- Very high efficiency
- Input for high voltage battery
- Suitable for dynamic power adjustment
- Intelligent energy storage management with forecast based charging

UNIQUE FLEXIBILITY

- 3-phase feed-in
- Wide MPP range for flexible string planning and easy repowering
- Max-Power Control - self-learning shade management
- Cascadable, expandable and combinable with existing PV-systems
- Hybrid-ready charging of the battery also with external AC sources
- Emergency power capability in conjunction with the RCT Power Switch
- Simple design with the RCT Power Designer - design tool

EASY INSTALLATION

- DC and AC connection with plug & play
- Integrated RCT Power APP solution
- No Internet access required for setup

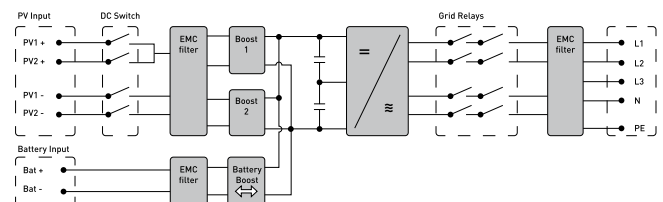
USER FRIENDLY COMMUNICATION

- Multi-information LCD-display
- LAN and WLAN
- RCT Power Portal for user-friendly system monitoring
- Multi-function communication board for connection of various devices
- Suitable for wallbox chargers, heating elements, heat pumps and energy management systems

INNOVATIVE DESIGN

- Silent, maintenance free cooling
- Durable aluminium housing
- IP42 protection: Suitable for indoor installation

BLOCK DIAGRAM



POWER STORAGE DC

4.0

6.0

DC INPUT

Max. recommended DC power (South / East-West) ¹⁾	5,4 kW / 6 kW	8,1 kW / 9 kW
MPPT	2 (paralleling possible)	
Input per MPPT	1	
Maximum DC current per MPPT	12 A (24 A in parallel mode)	
Max. Short circuit current PV input (Iscmax)	18 A (36 A in parallel mode)	
Rated DC voltage	700 V	
DC start up voltage / power	150 V / 40 W	
DC voltage range	140 V ... 1000 V	
MPP voltage range	265 V ... 800 V	
Maximum Voltage DC	1000 V	
Connector type	Weidmüller PV-Stick (MC4 compatible)	

BATTERY INPUT

DC Voltage Range	120 V ... 600 V	
Maximum charge / Discharge current	20 A / 20 A	
Maximum charge / Discharge power	9220 W / 4000 W	9220 W / 6000 W
Connector-type	Weidmüller PV-Stick (MC4 compatible)	

AC OUTPUT (GRID-MODE)

Real AC output power	4000 W	6000 W
Maximum active power	4000 W	6000 W
Maximum apparent power	6300 VA	6300 VA
Nominal AC current per phase	5,8 A	8,7 A
Maximum AC current per phase	9,1 A	9,1 A
Rated frequency	50 Hz / 60 Hz	
Frequency range	45 Hz ... 65 Hz	
Max. switch-on current	9,1 A, 0,1ms	
Max. fault current (RMS)	285 mA	
Rated AC voltage	230V / 400 V (L1, L2, L3, N, PE)	
AC voltage range	180 V ... 290 V	
Total harmonic distortion (THD)	< 2% at rated power	
Reactive power factor (cos phi)	1 (adjustable range 0,8 cap....0,8 ind)	
Anti-islanding operation	yes	
Earth fault protection	RCD	
DC current injection	< 0,5% In	
Required phases, grid connections	3 (L1, L2, L3, N, PE)	
Number of feed-in phases	3	
Grid voltage monitoring	3-phase	
Type of AC connection	spring clamps	

PERFORMANCE

Stand-by consumption	< 4,0 W	
Maximum efficiency (PV2AC)	98,16 %	98,16 %
European efficiency (PV2AC)	97,60 %	97,70 %
Average efficiency PV2AC ²⁾		96,30 %
Average efficiency PV2Bat ²⁾		96,60 %
Average efficiency Bat2AC ²⁾		95,40 %
Average delay time / settling time	0,1s / 0,4s	
Topology	transformerless	

OTHERS

PV - DC - switch	multifunctional dry contact	
DC overvoltage category	II	
AC overvoltage category	III	
Data interface	WLAN, LAN, RS485, multifunctional dry contact, 4 x digital in, 2 x digital in/out	
Display	LCD dot matrix 128 x 64 with backlight	
Cooling	convection	
IP degree of protection	IP 42	
Max. operating altitude	2000 m	
Max. relative humidity	5 - 85 % (non condensing)	
Typical noise	< 35 dB	
Operating temperature range	-25°C ... 60°C (40°C at full load)	
Dimensions (height x width x depth)	570 x 585 x 200 mm	
Weight	30 kg	

SAFETY / STANDARDS

Safety class	I	
Overload behaviour	working point adjustment	
Certificates	CE, VDE-AR-N 4105:2018-11, EN 50549	
EMC	EN61000-6-2, EN61000-6-3, EN61000-3-2, EN61000-3-3	
Safety	EN/IEC62109-1, EN/IEC62109-2	
Warranty	10 years	

¹⁾ Depending on orientation, inclination and location of installation.

²⁾ Average efficiencies in combination with a RCT Power Battery 11.5 and UmpnPenn