



POWER INVERTER 4.0 | 6.0

GRID-TIED INVERTER FOR RESIDENTIAL 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
- Fast and precise MPP-tracking over whole power range
- Transformerless topology
- Overall efficiency • 98 %

UNIQUE FLEXIBILITY

- Allows up to 100 % power imbalance of MPP-trackers
- Possible input voltage range between 140 V and 1000 V
- Maximum input current: 2 x 12 A
- Max-Power Control - self learning shading management
- Easy 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

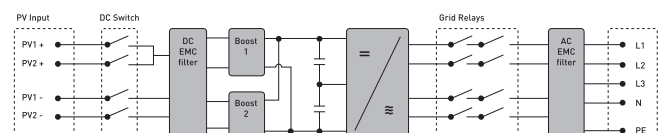
USER FRIENDLY COMMUNICATION

- Multi-information LCD-display
- LAN and WLAN
- Integrated data monitoring and alerts via APP
- Multi-function communication board for connection of various devices

INNOVATIVE DESIGN

- Silent and maintenance free cooling
- Durable aluminium housing
- IP65 protection: Suitable for indoor and outdoor

BLOCK DIAGRAM



POWER INVERTER

4.0

6.0

DC INPUT

Max. recommended DC power (South / East-West) ¹⁾	4,6 kW / 5,2 kW	6,9 kW / 7,8 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 / 25 W	
DC voltage range	140 V ... 1000 V	
MPP voltage range	200 V ... 800 V	265 V ... 800 V
Maximum voltage DC	1000 V	
Connector-type	Weidmüller PV-Stick	

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	13 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 (battery - grid)	98,16 %	
European efficiency (grid - battery)	97,60 %	97,70 %
Topology	transformerless	

OTHERS

DC-switch	integrated
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 65
Max. operating altitude	2000 m
Max. relative humidity	4 - 100 % (non condensing)
Typical noise	< 35 dB
Operating temperature range	-25°C ... 60°C (40°C at full load)
Type of installation	wall mounting
Dimensions (height x width x depth)	570 x 440 x 200 mm
Weight	22 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.