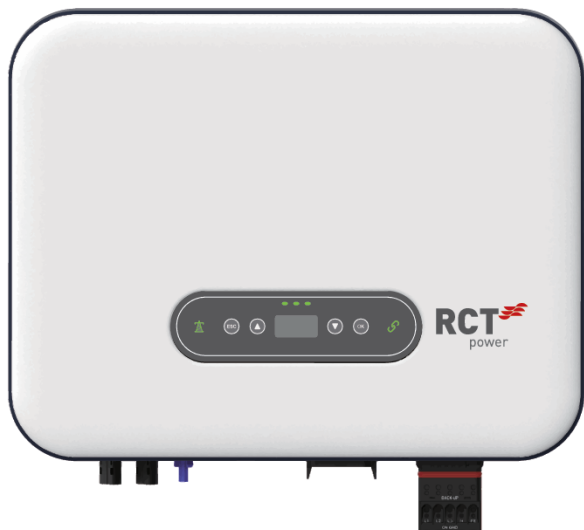




POWER STORAGE FLEX 15.0 | 20.0 | 24.9 | 29.9

THREE-PHASE HYBRID INVERTER FOR RESIDENTIAL AND COMMERCIAL PV SYSTEMS



High Efficiency



Backup power supply



Up to 4 roof directions



Modular and space-
saving design



Quick and easy
installation



Everything from a single
source

EFFICIENT

- 4 MPPTs with a maximum of 20 A per input
- Up to 97.8% efficiency
- Optimized for high-performance solar modules
- Max. 80 A battery charge / discharge current

ROBUST

- Supports 100% unbalanced loads.
- Maximum 150% PV oversizing

EXPANDABLE

- Support for AC retrofit applications
- Support for parallel connection of multiple devices

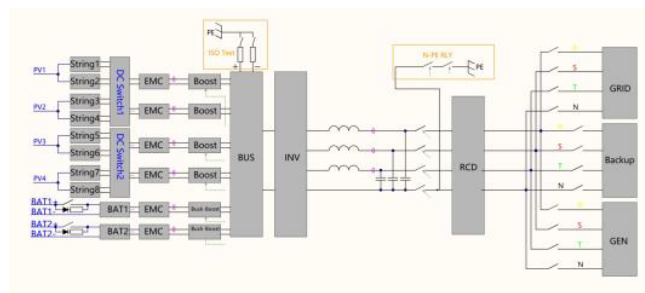
FLEXIBLE

- Convenient remote monitoring via app and portal
- Flexible configuration, time- and worksaving
- Supports up to two battery input strings per inverter
- Supports generator connection
- Internal switching to backup mode in case of grid outage

PREMIUM DESIGN

- Compact and lightweight hardware design
- IP66: suitable for indoor and outdoor use

BLOCK DIAGRAM



BATTERY INPUT

Battery technology	LiFePO ₄			
Battery voltage range	150 ... 840 V			
Number of battery inputs	2			
Maximum charging/discharging current per input	40 A / 40 A			

PV INPUT

Maximum recommended DC power (South / East-West)*	20,25 / 22,5 kW	27,0 / 30,0 kW	33,75 / 37,5 kW	40,5 / 45,0 kW
MPPT	4			
Input per MPPT	1			
Maximum PV current per MPPT	20 A			
Maximum short-circuit current PV input (Iscmax)	25 A			
PV nominal voltage	620 V			
PV start-up voltage	135 V			
MPPT voltage range	120 ... 950 V			
Maximum PV voltage	1000 V*			

AC OUTPUT (Grid operation)

AC rated power	15.0 kW	20.0 kW	24.9 kW	29.9 kW
Maximum AC input apparent power**	30.0 kVA	40.0 kVA	50.0 kVA	50.0 kVA
Maximum AC output apparent power	15.0 kVA	20.0 kVA	24.9 kVA	29.9 kVA
Maximum AC input current per phase	45.5 A	60.4 A	75.8 A	75.8 A
Nominal AC output current per phase	21.7 A	28.8 A	36.2 A	43.3 A
Maximum AC output current per phase	22.7 A	30.2 A	37.7 A	45.3 A
Nominal frequency	50 Hz / 60 Hz			
AC rated voltage	230/400 V (3L, N, PE)			
Total Harmonic Distortion (THDi)	< 3% at rated power			
Power factor (cos phi)	0,99 (adjustment range 0,8 cap....0,8 ind)			

AC OUTPUT (Off-grid operation)

AC rated power	15.0 kW	20.0 kW	24.9 kW	29.9 kW
Peak AC output apparent power	30.0 kVA/10s	40.0 kVA/10s	50.0 kVA/10s	50.0 kVA/10s
AC rated voltage	230/400 V (3L, N, PE)			
Nominal frequency	50 Hz / 60 Hz			
Nominal AC output current per phase	21.7 A	28.8 A	36.1 A	43.3 A
Total Harmonic Distortion (THDv)	< 3% at rated power			
On/off-grid switching time	< 10ms			

PERFORMANCE DATA

Self-consumption in standby mode	< 15 W
MPPT efficiency	99.90 %
Maximum efficiency PV2AC	97.60 %
European Efficiency PV2AC	97.10 %
Maximum efficiency BAT2AC	97.50 %
Maximum efficiency PV2BAT	98.50 %

GENERAL DATA

PV DC disconnect switch	Integrated
Overvoltage category	II (PV+Battery) / III (AC)
Protection class	I
Topology	Transformerless
Display	LED & OLED
Cooling	Smart fan
IP protection class	66
Ambient temperature range	-30 ... +60 °C
Relative humidity	0 ... 100 %
Maximum installation height above sea level	3000 m
Dimensions (width x height x depth)	580 x 525 x 240 mm
Weight	36 kg
Communication	WiFi, Bluetooth, CAN, RS485, Multifunction relay
Integrated protection	DC reverse polarity protection / Battery reverse polarity protection / Insulation monitoring / Surge protection / Overtemperature protection / Residual current protection / Protection against islanding/ AC short-circuit protection / Overload protection / AC overvoltage protection

*Maximum PV input voltage is 950V, otherwise inverter will be waiting

**Maximum apparent power means the maximum power imported from grid used to satisfy the backup loads and charge battery