

Beta RHI Series

3P(5-10)K v2

HYBRID INVERTER



Features

Highly Flexible

- Integrated 3 to 4 MPPTs, suitable for residential rooftop installations with multiple array orientations.
- Supports Unbalanced and Half-Wave Loads on the Grid Port and on the Backup Port.
- Compatible with multiple brands of battery models giving customers multiple battery options.

Intelligent Function

- Supports pure off grid applications with generator communication support.
- Multiple working modes to meet different use case scenarios.
- Controllable and Upgradeable via the SolisCloud App to avoid site visits.

Outstanding Performance

- Up to 16A of MPPT current input to support 182mm solar panels.
- Supports 1.6 DC:AC ratio to connect more PV capacity to the energy storage system.
- Up to 50A/10kW max charge/discharge rating with industry highest level 10kW of backup loads support capability.
- UPS level switching time (<10ms) supporting critical loads all the time.
- High PV charge efficiency to prevent excess PV loss.

Safe and Reliable

- Safety protection with integrated AFCI function, which actively detects arc faults in the PV Array.
- Natural convection design without external fans.

Technical Specifications				
MODEL	5K	6K	8K	10K
INPUT DC (PV SIDE)				
Recommended Maximum PV Power	8 kW	9.6 kW	12.8 kW	16 kW
Maximum Input Voltage	1000 V			
Rated Voltage	600 V			
Start-Up Voltage	160 V			
MPPT Voltage Range	200 - 850 V			
Maximum Input Current	16 A / 16 A / 16 A		16 A / 16 A / 16 A / 16 A	
Maximum Short Circuit Current	24 A / 24 A / 24 A		24 A / 24 A / 24 A / 24 A	
MPPT Number/Maximum Input Strings Number	3 / 3		4 / 4	
BATTERY				
Battery Type	Ion-litio			
Battery Voltage Range	120 - 600 V			
Maximum Charge/Discharge Power	5 kW	6 kW	8 kW	10 kW
Maximum Charge/Discharge Current	25 A		50 A	
Communication	CAN / RS-485			
OUTPUT AC (GRID SIDE)				
Rated Output Power	5 kW	6 kW	8 kW	10 kW
Maximum Apparent Output Power	5.5 kVA	6.6 kVA	8.8 kVA	11 kVA
Rated Grid Voltage	3 / N / PE, 380 V / 400 V			
Rated Grid Frequency	50 Hz / 60 Hz			
Rated Grid Output Current	7.6 A / 7.2 A	9.1 A / 8.7 A	12.2 A / 11.5 A	15.2 A / 14.4 A
Maximum Output Current	8.4 A / 7.9 A	10 A / 9.6 A	13.4 A / 12.7 A	16.7 A / 15.8 A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)			
THDi	< 3%			
INPUT AC (GRID SIDE)				
Maximum Input Power	7.5 kW	9 kW	12 kW	15 kW
Rated Input Current	11.4 A	13.8 A	18.2 A	22.8 A
Rated Input Voltage	3 / N / PE, 380 V / 400 V			
Rated Input Frequency	50 Hz / 60 Hz			
OUTPUT AC (BACK-UP)				
Rated Output Power	5 kW	6 kW	8 kW	10 kW
Maximum Apparent Output Power	8 kVA, 60 sec	9.6 kVA, 60 sec	12.8 kVA, 60 sec	16 kVA, 60 sec
Back-Up Switch Time	<10 ms			
Rated Output Voltage	3 / N / PE, 380 V / 400 V			
Rated Frequency	50 Hz / 60 Hz			
Rated Output Current	7.6 A / 7.2 A	9.1 A / 8.7 A	12.2 A / 11.5 A	15.2 A / 14.4 A
THDv (@linear load)	< 2%			

MODEL	5K	6K	8K	10K
EFFICIENCY				
Maximum Efficiency	97.87%	97.91%	98.03%	98.04%
EU Efficiency	96.77%	97.1%	97.41%	97.51%
BAT Charged by PV Max. Efficiency	98.37%	98.45%	98.22%	98.31%
BAT Charged/Discharged to AC Max. Efficiency	97.32%	97.34%	97.5%	97.5%
PROTECTION				
Anti-islanding Protection				Yes
Output Over Current Protection				Yes
Short Circuit Protection				Yes
Integrated AFCI (DC arc-fault circuit protection)				Yes ⁽¹⁾
Integrated DC Switch				Yes
DC Reverse-polarity Protection				Yes
PV Over Voltage Protection				Yes
Battery Reverse Protection				Yes
GENERAL DATA				
Dimensions (W*H*D)	600*500*230 mm			
Weight	32.6 kg			
Topology	Transformerless			
Self-consumption (Night)	< 25 W			
Operating Ambient Temperature Range	-25 ~ +60°C			
Ingress Protection	IP66			
Cooling Concept	Natural convection			
Maximum Operation Altitude	4000 m			
Grid Connection Standard	G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15/VFR:2019, RD 1699/RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA			
Safety / EMC Standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-3			
FEATURES				
PV Connection	MC4 connector			
Battery Connection	Quick connection plug			
AC Connection	Quick connection plug			
Display	LED + Bluetooth + APP			
Communication	CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN			

(1) Activation required.

Product specifications are subject to change without further notice.