

RHI-(3-5)K-48ES

Solis Energy Storage Inverters



360 degree

Features:

- ▶ MPPT design with precise MPPT algorithm
- ▶ Compatible with li-ion battery
- ▶ Off-grid backup function
- ▶ Export Control
- ▶ UPS function
- ▶ Intelligent EMS function
- ▶ Multiple protection functions
- ▶ CAN, RS485 (optional)
- ▶ Various work mode for different application scenario
- ▶ Natural cooling without external fan



Model:

RHI-3K-48ES RHI-3.6K-48ES
RHI-4.6K-48ES RHI-5K-48ES

Datasheet

Model Name	RHI-3K-48ES	RHI-3.6K-48ES	RHI-4.6K-48ES	RHI-5K-48ES
Input DC (PV side)				
Recommended max. PV power	7 kW	7 kW	8 kW	8 kW
Max. input voltage	600 V			
Rated voltage	330 V			
Start-up voltage	120 V			
MPPT voltage range	90-520 V			
Max. input current	11 A / 11 A			
Max. short circuit current	17.2 A / 17.2 A			
MPPT number/Max. input strings number	2/2			
Battery				
Battery type	Li-ion			
Battery voltage range	42 - 58 V			
Battery capacity	50 - 2000 Ah			
Max. charge / discharge power	3 kW			
Max. charge / discharge current	62.5 A			
Communication	CAN/RS485			
Output AC (Back-up)				
Rated output power	3 kW			
Max. apparent output power	4 kVA			
Back-up switch time	<20 ms			
Rated output voltage	1/N/PE, 220 V / 230 V			
Rated frequency	50 Hz / 60 Hz			
Rated output current	13.6 A / 13 A			
THDv (linear load)	2%			
Input AC (Grid side)				
Input voltage range	184-264 V			
Max. input current	23.9 A			
Frequency range	45-55 Hz / 55-65 Hz			
Output AC (Grid side)				
Rated output power	3 kW	3.6 kW	4.6 kW	5 kW
Max. apparent output power	3.3 kVA	4 kVA	4.6 kVA	5.5 kVA
Operation phase	1/N/PE			
Rated grid voltage	220 V / 230 V			
Rated grid frequency	50 Hz / 60 Hz			
Rated grid output current	13.6 A / 13 A	16.3 A / 15.7 A	20.9 A / 20 A	22.7 A / 21.7 A
Max. output current	15.7 A	17.3 A	23 A	23.9 A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)			
THDi	<2%			
Efficiency				
Max. efficiency	>97.5%			
EU efficiency	>96.8%			
Protection				
Ground fault monitoring	Yes			
Integrated AFCI (DC arc-fault circuit protection)	Yes			
DC reverse-polarity protection	Yes			
Protection class/Over voltage category	I/II			
General Data				
Dimensions (W*H*D)	333*505*249 mm			
Weight	17 kg			
Topology	High frequency isolation (for battery)			
Operating ambient temperature range	-25 ~ +60°C			
Ingress protection	IP65			
Cooling concept	Natural convection			
Max. operation altitude	2000 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, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA			
Safety/EMC standard	IEC/EN 62109-1/-2, EN 61000-6-2/-3			
Features				
DC connection	MC4 connector			
AC connection	Quick connection plug			
Display	7.0"LCD color screen display			
Communication	RS485, Optional: Wi-Fi, GPRS			