

## RAI-3K-48ES-5G

# Solis Energy Storage Inverters

### Features:

- Uninterrupted power supply, 20ms reaction
- Compatible with both lead-acid battery and li-ion battery
- Compatible with any existing grid-tied PV system, option to upgrade
- Off-grid backup function
- EPS function
- Intelligent EMS function
- Intelligent debugging APP which support one-click inverter configuration
- Various work mode for different application scenario
- Natural cooling without external fan

### Models:

RAI-3K-48ES-5G



360° View



# DATASHEET

# RAI-3K-48ES-5G

Models	3K
<b>Output AC (Grid side)</b>	
Rated output power	3 kW
Max. output power	3 kW
Max. apparent output power	3.3 kVA
Operation phase	1/N/PE
Rated grid voltage	220 V / 230 V
Grid voltage range	184-264 V
Rated grid frequency	50 Hz / 60 Hz
Rated grid output current	13.6 A / 13 A
Max. output current	20 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)
THDi	<3%
<b>Battery</b>	
Battery type	Li-ion / Lead-acid
Battery voltage range	40-60 V
Battery capacity	50-2000 Ah
Max. charge / discharge current	60 A
Communication	CAN
<b>Output AC (Back-up)</b>	
Rated output power	3kW (Requires battery voltage higher than 55 V)
Max. apparent output power	4.5 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)	<3%
<b>Input AC (Grid side)</b>	
Input voltage range	184-264 V
Max. input current	23 A
Frequency range	45-55 Hz / 55-65 Hz
<b>Efficiency</b>	
Max. battery charge efficiency	94.0%
Max. battery discharge efficiency	94.5%
<b>Protection</b>	
Battery reverse protection	Yes
Battery over and under voltage protection	Yes
Short circuit protection	Yes
Output over current protection	Yes
Temperature protection	Yes
<b>General Data</b>	
Dimensions (W*H*D)	405*510*150 mm
Weight	12.1 kg
Topology	High frequency isolation
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, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, MEA, PEA
Safety/EMC standard	IEC 62477, EN 61000-6-2/-3
<b>Features</b>	
DC connection	Screw terminal
AC connection	Screw clamp terminal (max. 6 mm <sup>2</sup> )
Display	LCD
Communication	RS485, CAN, Optional: Wi-Fi, GPRS