

RAI-3K-48ES-5G

Solis Energy Storage Inverters



360 degree

Features:

- ▶ Uninterrupted power supply, 10ms 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
- ▶ CAN, RS485 (Optional)
- ▶ Various work mode for different application scenario
- ▶ Natural cooling without external fan



Model:

RAI-3K-48ES-5G

Datasheet

| Model Name | RAI-3K-48ES-5G |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output AC (Grid side) | |
| Rated output power | 3000 W |
| Max. apparent output power | 3.6 kVA, 30 s; 4.5 kVA, 10 s |
| 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% |
| Battery | |
| Battery type | Li-ion / Lead-acid |
| Battery voltage range | 40-60 V |
| Battery capacity | 50-2000 Ah |
| Max. charge / discharge power | 3 kW |
| Max. charge / discharge current | 60 A |
| Communication | CAN |
| Output AC (Back-up) | |
| Rated output power | 3kW (Requires battery voltage higher than 55 V) |
| Max. apparent output power | 4.5 kVA |
| Back-up switch time | <10 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% |
| Input AC (Grid side) | |
| Input voltage range | 184-264 V |
| Max. input current | 32 A |
| Frequency range | 45-55 Hz / 55-65 Hz |
| Efficiency | |
| Max. battery charge efficiency | 94.0% |
| Max. battery discharge efficiency | 94.5% |
| Protection | |
| Battery reverse protection | Yes |
| Battery over and under voltage protection | Yes |
| Short circuit protection | Yes |
| Output over current protection | Yes |
| Temperature protection | Yes |
| General Data | |
| Dimensions (W*H*D) | 403*525*170 mm |
| Weight | 15 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, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, MEA, PEA |
| Safety/EMC standard | IEC 62477, EN 61000-6-2/-3 |
| Features | |
| DC connection | Screw terminal |
| AC connection | Screw clamp terminal (max. 6 mm ²) |
| Display | LCD |
| Communication | RS485, CAN, Optional: Wi-Fi, GPRS |