

# RHI-(3-5)K-48ES

## Solis Energy Storage Inverters



### Features:

- ▶ Dual MPPT design with precise MPPT algorithm
- ▶ Compatible with both lead-acid battery and 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-4.6K-48ES

RHI-3.6K-48ES

RHI-5K-48ES

## Datasheet

| Model Name                             | RHI-3K-48ES   | RHI-3.6K-48ES | RHI-4.6K-48ES | RHI-5K-48ES |
|--|---|---------------|---------------|-------------|
| <b>Input DC(PV side)</b>               |   |               |               |             |
| Max. input power                       | 4kW   | 5kW           | 6kW           | 6.5kW       |
| Max. input voltage                     | 600V  |               |               |             |
| Rated voltage                          | 330V  |               |               |             |
| Start-up voltage                       | 120V  |               |               |             |
| MPPT voltage range                     | 90-520V   |               |               |             |
| Max. input current                     | 11A/11A   |               |               |             |
| Max. Short Circuit current             | 17.2A/17.2A   |               |               |             |
| MPPT number/Max. input strings number  | 2/2   |               |               |             |
| <b>Battery</b>                         |   |               |               |             |
| Battery type                           | Li-ion  |               |               |             |
| Battery voltage range                  | 42 - 58V  |               |               |             |
| Battery capacity                       | 50 - 2000Ah   |               |               |             |
| Maximum charging power                 | 3kW   |               |               |             |
| Maximum charge/discharge current       | 62.5A/62.5A   |               |               |             |
| <b>Output AC(Back-up)</b>              |   |               |               |             |
| Rated output power                     | 3kW   |               |               |             |
| Max. apparent output power             | 4kVA, 10sec   |               |               |             |
| Back-up switch time                    | <10ms   |               |               |             |
| Rated grid voltage                     | 1/N/PE, 230V  |               |               |             |
| Rated frequency                        | 50/60Hz   |               |               |             |
| Rated output current                   | 13A   |               |               |             |
| THDv                                   | 2% (linear load)  |               |               |             |
| <b>Input AC (Grid side)</b>            |   |               |               |             |
| Input voltage range                    | 180~270Vac  |               |               |             |
| Max. input current                     | 23.9A   |               |               |             |
| Frequency range                        | 47-52Hz / 57-62Hz   |               |               |             |
| <b>Output AC(Grid side)</b>            |   |               |               |             |
| Rated output power                     | 3kW   | 3.6kW         | 4.6kW         | 5kW         |
| Max. apparent output power             | 3.3kVA  | 4kVA          | 4.6kVA        | 5.5kVA      |
| Rated grid voltage                     | 1/N/PE, 230V  |               |               |             |
| Rated grid frequency                   | 50/60Hz   |               |               |             |
| Rated grid output current              | 13A   | 15.7A         | 20.9A         | 21.7A       |
| Max. output current                    | 15.7A   | 17.3A         | 23A           | 23.9A       |
| Power Factor                           | >0.99 (Adjustable from 0.8 leading to 0.8 lagging)                      |               |               |             |
| THDi                                   | <2%   |               |               |             |
| <b>Efficiency</b>                      |   |               |               |             |
| Max. efficiency                        | >97.5%  |               |               |             |
| EU efficiency                          | >96.8%  |               |               |             |
| Max. efficiency of Battery inverting   | >95%  |               |               |             |
| Max. efficiency of Battery charging    | >95%  |               |               |             |
| <b>Protection</b>                      |   |               |               |             |
| Ground fault monitoring                | Integrated  |               |               |             |
| Residual current monitoring unit       | Integrated  |               |               |             |
| AFCI (DC arc-fault circuit protection) | Optional  |               |               |             |
| DC reverse polarity protection         | Yes   |               |               |             |
| Protection class/Over voltage category | I/II  |               |               |             |
| <b>General Data</b>                    |   |               |               |             |
| Dimensions (W*H*D)                     | 333mm*505mm*249mm   |               |               |             |
| Weight                                 | 17kg  |               |               |             |
| Topology                               | High frequency isolation (for battery)                                  |               |               |             |
| Operating ambient temperature range    | -25~60°C  |               |               |             |
| Ingress protector/ Pollution degree    | IP65/ PD3   |               |               |             |
| Cooling concept                        | Natural convection  |               |               |             |
| Max. operation altitude                | 2000m   |               |               |             |
| Grid connection standard               | EN50438, G98, G99, AS4777.2:2015, VDE0126-1-1, IEC61727, VDE N4105      |               |               |             |
| Safety/EMC standard                    | IEC62040-1, IEC62109-1/-2, AS3100, NB/T 32004, EN61000-6-2, EN61000-6-3 |               |               |             |
| <b>Features</b>                        |   |               |               |             |
| DC connection                          | MC4   |               |               |             |
| AC connection                          | Quick Connector   |               |               |             |
| Display                                | 7.0"LCD color screen display  |               |               |             |
| Communication                          | RS485; WiFi/GPRS (optional)   |               |               |             |