

# I1000-RH1 Series

3kW / 3.68kW / 5kW / 6kW

Single Phase, 2 MPPTs High Voltage Hybrid Inverter



150% DC input oversizing



Charging / discharging efficiency >97%



Support VPP / FFR function



Up to 6000W charging / discharging rate



Remote firmware upgrade & work mode setting



EU standard certified by TÜV Rheinland

# TECHNICAL PARAMETERS

| Model                                   | I1000-RH1-3K-M1  | I1000-RH1-3.68K-M1 | I1000-RH1-5K-M1 | I1000-RH1-6K-M1 |
|---|--|--------------------|-----------------|-----------------|
| <b>PV Input Data</b>                    |  |                    |                 |                 |
| Recommended Max. PV Power [Wp]          | 4500   | 5000               | 7500            | 9000            |
| Max. PV Input Voltage [V]               | 600  |                    |                 |                 |
| MPPT Voltage Range [V]                  | 120 ~ 550  |                    |                 |                 |
| Rated PV Input Voltage [V]              | 360  |                    |                 |                 |
| Start-up Voltage [V]                    | 150  |                    |                 |                 |
| No. of MPP Trackers                     | 2  |                    |                 |                 |
| No. of Input Strings per Tracker        | 1  |                    |                 |                 |
| Max. Input Current per MPPT [A]         | 13.5 / 13.5  |                    |                 |                 |
| Max. Short-circuit Current per MPPT [A] | 17 / 17  |                    |                 |                 |
| Backfeed Current to array [A]           | 0  |                    |                 |                 |
| DC Switch                               | Integrated   |                    |                 |                 |
| <b>AC Output Data(on-grid)</b>          |  |                    |                 |                 |
| Rate AC Power [W]                       | 3000   | 3680               | 5000            | 6000            |
| Rated Apparent Power [VA]               | 3000   | 3680               | 5000            | 6000            |
| Rated AC Current [A]                    | 13   | 16                 | 21.7            | 26.1            |
| Max. AC Current [A]                     | 13   | 16                 | 21.7            | 26.1            |
| Rated AC Voltage / Range [V]            | 220 / 230; 160 ~ 290   |                    |                 |                 |
| Grid Frequency / Range [Hz]             | 50 / 60; ±5  |                    |                 |                 |
| Adjustable Power Factor [cosφ]          | 0.8 leading ~ 0.8 lagging  |                    |                 |                 |
| Output THDi (@Rated Output)             | < 2%   |                    |                 |                 |
| AC Inrush Current [A]                   | 35   |                    |                 |                 |
| AC Max. Output Fault Current [A]        | 80   |                    |                 |                 |
| <b>Output DC (Battery)</b>              |  |                    |                 |                 |
| Battery Type                            | Lithium  |                    |                 |                 |
| Battery Voltage Range [V]               | 80 ~ 450   |                    |                 |                 |
| Max. Charging / Discharging Current [A] | 25   |                    |                 |                 |
| Max. Charging / Discharging Power [W]   | 4500 / 3000  | 5000 / 3680        | 6000 / 5000     | 6000 / 6000     |
| Communication Interface                 | CAN  |                    |                 |                 |
| <b>EPS Output Data (With Battery)</b>   |  |                    |                 |                 |
| EPS Rated Power [W]                     | 3000   | 3680               | 5000            | 6000            |
| EPS Rated Voltage [V]                   | 220 / 230  |                    |                 |                 |
| EPS Rated Frequency [Hz]                | 50 / 60  |                    |                 |                 |
| EPS Rated Current [A]                   | 13   | 16                 | 21.7            | 26.1            |
| Output THDi (@Rated Output)             | < 2%   |                    |                 |                 |
| Automatic Switch Time [s]               | < 0.5  |                    |                 |                 |
| Peak Apparent Power, Duration [VA, s]   | 3600, 600  | 4416, 600          | 6000, 600       | 7200, 600       |
| <b>Efficiency</b>                       |  |                    |                 |                 |
| Max. Efficiency                         | 97.42%   | 97.45%             | 97.50%          | 97.50%          |
| Euro Efficiency                         | 97.15%   | 97.17%             | 97.20%          | 97.20%          |
| MPPT Efficiency                         | 99.90%   | 99.90%             | 99.90%          | 99.90%          |
| Battery Charge / Discharge Efficiency   | 97.15%   | 97.17%             | 97.20%          | 97.20%          |
| <b>Protection</b>                       |  |                    |                 |                 |
| DC Insulation Monitoring                | Integrated   |                    |                 |                 |
| Input Reverse Polarity Protection       | Integrated   |                    |                 |                 |
| Anti-island Protection                  | Integrated   |                    |                 |                 |
| Residual Current Monitoring             | Integrated   |                    |                 |                 |
| Over-heat Protection                    | Integrated   |                    |                 |                 |
| AC Overcurrent Protection               | Integrated   |                    |                 |                 |
| AC Short-circuit Protection             | Integrated   |                    |                 |                 |
| AC Overvoltage Protection               | Integrated   |                    |                 |                 |
| DC Surge Protection                     | Integrated (Type III)  |                    |                 |                 |
| AC Surge Protection                     | Integrated (Type III)  |                    |                 |                 |
| <b>General Data</b>                     |  |                    |                 |                 |
| Size (Width * Height * Depth) [mm]      | 520 * 412 * 170  |                    |                 |                 |
| Weight [kg]                             | 20   |                    |                 |                 |
| User Interface                          | LED + OLED   |                    |                 |                 |
| Communication                           | RS485 and USB (Standard), Wifi or 4G or Ethernet (Optional)  |                    |                 |                 |
| Ambient Temperature Range [°C]          | -30 ~ +60  |                    |                 |                 |
| Relative Humidity                       | 0 ~ 95%  |                    |                 |                 |
| Operating Altitude [m]                  | ≤ 2000   |                    |                 |                 |
| Standby Self Consumption [W]            | < 15   |                    |                 |                 |
| Topology                                | Transformerless  |                    |                 |                 |
| Cooling                                 | Natural  |                    |                 |                 |
| Enclosure                               | IP65   |                    |                 |                 |
| Protective Class                        | I  |                    |                 |                 |
| Overvoltage Category                    | III (Mains) II (DC)  |                    |                 |                 |
| Noise [dB]                              | <35  |                    |                 |                 |
| Warranty [years]                        | 5 / 7 / 10   |                    |                 |                 |
| <b>General Data</b>                     |  |                    |                 |                 |
| Grid Regulation                         | AS 4777, EN 50549-1, EN 50549-PL, EN 50549-GR, IEC 61727, CEI 0-21, IEC 62116, C10/C11, VDE0126, ORDINANCE 140 |                    |                 |                 |
| Safety Regulation                       | IEC 62109-1, IEC 62109-2   |                    |                 |                 |
| EMC                                     | EN/IEC 61000-6-1, EN/IEC 61000-6-3   |                    |                 |                 |