

On-Grid Inverters

R1 Macro Series

3.68kW / 4kW / 5kW / 6kW
Single Phase, 2 MPPTs



-  Compatible with 500W+ PV modules
-  Optional AFCI protection function
-  150% DC input oversizing
-  Remote firmware upgrade
-  Type II SPD for both DC and AC
-  Build-in zero export function



| Model | R1-3.68K | R1-4K | R1-5K-A | R1-5K | R1-6K |
|---------------------------------------|--|-------|---------|-------|-------|
| PV Input | | | | | |
| Max. Recommended PV Power [Wp] | 5500 | 6000 | 7500 | 7500 | 9000 |
| Max.PV power for single MPPT [Wp] | 2800 | 3000 | 3750 | 3750 | 4500 |
| Max.PV Input Voltage [V] | 600 | | | | |
| MPPT Voltage Range [V] | 80 ~ 550 | | | | |
| Rated PV Input Voltage [V] | 360 | | | | |
| Start-up Voltage [V] | 100 | | | | |
| No. of MPP Trackers | 2 | | | | |
| No. of Input Strings per Tracker | 1 / 1 | | | | |
| Max. PV Input Current [A] | 16 / 16 | | | | |
| Max. Short-circuit Current [A] | 20 / 20 | | | | |
| AC Output | | | | | |
| Rated AC Output Power [W] | 3680 | 4000 | 5000 | 5000 | 6000 |
| Max. AC Output Apparent Power [VA] | 3680 | 4400 | 5000 | 5500 | 6000 |
| Max. AC Output Current [A] | 16 | 20 | 21.7 | 25 | 27.3 |
| Rated AC Voltage / Range [V] | L / N / PE, 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) | < 3% | | | | |
| Efficiency | | | | | |
| Max. Efficiency | 97.9% | 97.9% | 97.9% | 97.9% | 97.9% |
| Euro Efficiency | 97.2% | 97.2% | 97.2% | 97.2% | 97.2% |
| Protection | | | | | |
| DC Insulation Monitoring | Integrated | | | | |
| Input Reverse Polarity Protection | Integrated | | | | |
| Anti-island Protection | Integrated | | | | |
| Residual Current Monitoring | Integrated | | | | |
| AC Overcurrent Protection | Integrated | | | | |
| AC Short-circuit Protection | Integrated | | | | |
| DC Surge Protection | Integrated(Type II) | | | | |
| AC Surge Protection | Integrated(Type II) | | | | |
| AFCI Protection | Optional | | | | |
| DC Switch | Optional | | | | |
| General Data | | | | | |
| Dimensions (W * H * D) [mm] | 353 * 320 * 150 | | | | |
| Weight [kg] | 10 | | | | |
| Display | LED + OLED | | | | |
| Communication | RS485, USB Upgrade, Optional: WiFi, 4G, Ethernet | | | | |
| Ambient Temperature Range [°C] | -25 ~ +60 | | | | |
| Relative Humidity | 0 ~ 100% | | | | |
| Operating Altitude [m] | ≤ 2000 | | | | |
| Night Self-consumption [W] | < 1 | | | | |
| Topology | Transformerless | | | | |
| Cooling | Natural | | | | |
| Ingress Protection | IP65 | | | | |
| Noise [dB] | < 25 | | | | |
| Certifications & Standards | | | | | |
| Grid Regulation | VDE 0126-1-1, ORDINANCE No.140, G98/G99 | | | | |
| Safety Regulation | IEC 62109-1, IEC 62109-2, EN 62919-1, EN 62619-2 | | | | |
| EMC | EN IEC 61000-6-1, EN IEC 61000-6-3 | | | | |