

On-grid Inverters

# R1 Macro Series

4kW / 5kW / 6kW

Single Phase, 2 MPPTs



## FEATURES



Natural cooling for mute operation



130% DC input oversizing



Remote firmware upgrade



IP65 outdoor design



Up to 97.8% max. efficiency



Built-in zero export function

| Model                                   | NAC4K-DS                                                                                                                             |  | NAC5K-DS                      |  | NAC6K-DS                   |  |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------|--|----------------------------|--|
| PV Input Data                           |                                                                                                                                      |  |                               |  |                            |  |
| Recommended Max. PV Power [Wp]          | 6000                                                                                                                                 |  | 7500                          |  | 9000                       |  |
| Max. PV Power for Single MPPT [Wp]      | 4000                                                                                                                                 |  | 4000                          |  | 4000                       |  |
| Max. PV Input Voltage [V]               | 600                                                                                                                                  |  |                               |  |                            |  |
| MPPT Voltage Range [V]                  | 100 ~ 550                                                                                                                            |  |                               |  |                            |  |
| Rated Input Voltage [V]                 | 360                                                                                                                                  |  |                               |  |                            |  |
| Start-up Voltage [V]                    | 120                                                                                                                                  |  |                               |  |                            |  |
| No. of MPP Trackers                     | 2                                                                                                                                    |  |                               |  |                            |  |
| No. of Input Strings per Tracker        | 1 / 1                                                                                                                                |  | 1 / 1                         |  | 1 / 1                      |  |
| Max. Input Current per MPPT [A]         | 16 / 16                                                                                                                              |  | 16 / 16                       |  | 16 / 16                    |  |
| Max. Short-circuit Current per MPPT [A] | 20 / 20                                                                                                                              |  | 20 / 20                       |  | 20 / 20                    |  |
| DC Switch                               | Optional                                                                                                                             |  |                               |  |                            |  |
| AC Output Data                          |                                                                                                                                      |  |                               |  |                            |  |
| Rated AC Power [W]                      | 4000                                                                                                                                 |  | 5000                          |  | 6000                       |  |
| Max. Output Power [VA]                  | 4400                                                                                                                                 |  | 5000                          |  | 6600                       |  |
| Max. AC Current [A]                     | 19.2                                                                                                                                 |  | 24                            |  | 28.7                       |  |
| 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)             | < 3%                                                                                                                                 |  |                               |  |                            |  |
| Efficiency                              |                                                                                                                                      |  |                               |  |                            |  |
| Max. Efficiency                         | 97.80%                                                                                                                               |  | 97.80%                        |  | 97.80%                     |  |
| Euro Efficiency                         | 97.20%                                                                                                                               |  | 97.20%                        |  | 97.20%                     |  |
| General Data                            |                                                                                                                                      |  |                               |  |                            |  |
| Size (Width * Height * Depth) [mm]      | 330 * 395 * 185                                                                                                                      |  |                               |  |                            |  |
| Weight [kg]                             | 12                                                                                                                                   |  |                               |  |                            |  |
| User Interface                          | LCD                                                                                                                                  |  |                               |  |                            |  |
| Communication                           | RS485 or Wifi or 4G (optional)                                                                                                       |  |                               |  |                            |  |
| Ambient Temperature Range [ C ]         | -25 ~ +60                                                                                                                            |  |                               |  |                            |  |
| Relative Humidity                       | 0 ~ 100%                                                                                                                             |  |                               |  |                            |  |
| Operating Altitude [m]                  | ≤ 2000                                                                                                                               |  |                               |  |                            |  |
| Standby Self Consumption [W]            | < 1                                                                                                                                  |  |                               |  |                            |  |
| Topology                                | Transformerless                                                                                                                      |  |                               |  |                            |  |
| Cooling                                 | Natural                                                                                                                              |  |                               |  |                            |  |
| Enclosure                               | IP65                                                                                                                                 |  |                               |  |                            |  |
| Noise [dB]                              | < 25                                                                                                                                 |  |                               |  |                            |  |
| Warranty [years]                        | 5 / 7 / 10                                                                                                                           |  |                               |  |                            |  |
| Certifications & Standards              |                                                                                                                                      |  |                               |  |                            |  |
| Grid Regulation                         | VDE 0126-1-1, C10 / 11, G99, PEA, MEA, AS 4777, EN 50549, CEI 0-21, IEC 61727, IEC 62116, IEC 60068, IEC 61683, ABNT NBR 16150       |  |                               |  |                            |  |
| Safety Regulation                       | IEC 62109-1, IEC 62109-2                                                                                                             |  |                               |  |                            |  |
| EMC                                     | EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12, EN 61000-6-2, EN 61000-6-3, IEC 61000-4-16, IEC 61000-4-18, IEC 61000-4-29 |  |                               |  |                            |  |
| Protection                              |                                                                                                                                      |  |                               |  |                            |  |
|                                         | • DC Insulation Monitoring                                                                                                           |  | • AC Overvoltage Protection   |  | • Anti-island Protection   |  |
|                                         | • Residual Current Monitoring                                                                                                        |  | • AC Overcurrent Protection   |  | • Over-heat Protection     |  |
|                                         | • Input Reverse Polarity Protection                                                                                                  |  | • AC Short-circuit Protection |  | • DC / AC Surge Protection |  |