

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                   |
|---|--|-------------------------------|----------------------------|
| <b>PV Input Data</b>                    |  |                               |                            |
| 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   |                               |                            |
| <b>AC Output Data</b>                   |  |                               |                            |
| Rated AC Power [W]                      | 4000   | 5000                          | 6000                       |
| Max. Output Power [VA]                  | 4400   | 5500                          | 6000                       |
| Max. AC Current [A]                     | 20   | 25                            | 27.3                       |
| 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%   |                               |                            |
| <b>Efficiency</b>                       |  |                               |                            |
| Max. Efficiency                         | 97.80%   | 97.80%                        | 97.80%                     |
| Euro Efficiency                         | 97.20%   | 97.20%                        | 97.20%                     |
| <b>General Data</b>                     |  |                               |                            |
| Size (Width * Height * Depth) [mm]      | 429 * 385 * 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   |                               |                            |
| <b>Certifications &amp; Standards</b>   |  |                               |                            |
| 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 |                               |                            |
| <b>Protection</b>                       |  |                               |                            |
|   | • 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 |