

# Single Phase String Inverter

SUN-1/1.5/2/2.5/3/K-G04



-  1 MPP tracker, Max. efficiency up to 97.5%
-  Zero export application, VSG application
-  String intelligent monitoring (optional)
-  Wide output voltage range
-  Anti-PID function (Optional)
-  Low start-up voltage of 80V

## Technical Data

| Model                                                | SUN-1K-G04                                                                                     | SUN-1.5K-G04 | SUN-2K-G04 | SUN-2.5K-G04 | SUN-3K-G04 |
|------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------|------------|--------------|------------|
| PV String Input Data                                 |                                                                                                |              |            |              |            |
| Max. PV Input Power (kW)                             | 1.3                                                                                            | 2            | 2.6        | 3.3          | 3.9        |
| Max. PV Input Voltage (V)                            | 550                                                                                            |              |            |              |            |
| Start-up Voltage (V)                                 | 80                                                                                             |              |            |              |            |
| MPPT Voltage Range (V)                               | 70-500                                                                                         |              |            |              |            |
| Rated PV Input Voltage (V)                           | 360                                                                                            |              |            |              |            |
| Max. Operating PV Input Current (A)                  | 20                                                                                             |              |            |              |            |
| Max. Input Short Circuit Current (A)                 | 30                                                                                             |              |            |              |            |
| No. of MPPT Trackers/No. of Strings per MPPT Tracker | 1/1                                                                                            |              |            |              |            |
| AC Output Data                                       |                                                                                                |              |            |              |            |
| Rated AC Output Active Power(kW)                     | 1                                                                                              | 1.5          | 2          | 2.5          | 3          |
| Max. AC Output Apparent Power(kVA)                   | 1.1                                                                                            | 1.65         | 2.2        | 2.75         | 3.3        |
| Rated AC Output current (A)                          | 4.5/4.3                                                                                        | 6.8/6.5      | 9.1/8.7    | 11.4/10.9    | 13.6/13    |
| Max. AC Output Current(A)                            | 5/4.8                                                                                          | 7.5/7.2      | 10/9.6     | 12.5/12      | 15/14.3    |
| Rated Output voltage/range (V)                       | 220/230 0.85Un-1.1Un                                                                           |              |            |              |            |
| Grid Connection Form                                 | L/N/PE                                                                                         |              |            |              |            |
| Rated Output Grid Frequency/range(Hz)                | 50/45-55, 60/55-65                                                                             |              |            |              |            |
| Power Factor Adjustment Range                        | 0.8 leading to 0.8 lagging                                                                     |              |            |              |            |
| Total Current Harmonic Distortion THDi               | <3%                                                                                            |              |            |              |            |
| DC Injection Current                                 | <0.5%In                                                                                        |              |            |              |            |
| Efficiency                                           |                                                                                                |              |            |              |            |
| Max. Efficiency                                      | 97.3%                                                                                          |              |            |              |            |
| Euro Efficiency                                      | 96.3%                                                                                          |              |            |              |            |
| MPPT Efficiency                                      | >99%                                                                                           |              |            |              |            |
| Equipment Protection                                 |                                                                                                |              |            |              |            |
| DC Polarity Reverse Connection Protection            | Yes                                                                                            |              |            |              |            |
| AC Output Overcurrent Protection                     | Yes                                                                                            |              |            |              |            |
| AC Output Overvoltage Protection                     | Yes                                                                                            |              |            |              |            |
| AC Output Short Circuit Protection                   | Yes                                                                                            |              |            |              |            |
| Thermal Protection                                   | Yes                                                                                            |              |            |              |            |
| DC Terminal Insulation Impedance Monitoring          | Yes                                                                                            |              |            |              |            |
| DC Component Monitoring                              | Yes                                                                                            |              |            |              |            |
| Ground Fault Current Monitoring                      | Yes                                                                                            |              |            |              |            |
| Power Network Monitoring                             | Yes                                                                                            |              |            |              |            |
| Island Protection Monitoring                         | Yes                                                                                            |              |            |              |            |
| Earth Fault Detection                                | Yes                                                                                            |              |            |              |            |
| Overvoltage Load Drop Protection                     | Yes                                                                                            |              |            |              |            |
| Residual Current (RCD) Detection                     | Yes                                                                                            |              |            |              |            |
| Surge Protection Level                               | TYPE II(DC), TYPE III(AC)                                                                      |              |            |              |            |
| Interface                                            |                                                                                                |              |            |              |            |
| Communication Interface                              | RS485/RS232 /WiFi/LAN                                                                          |              |            |              |            |
| General Data                                         |                                                                                                |              |            |              |            |
| Operating Temperature Range (°C)                     | -25 to +65°C, >45°C Derating                                                                   |              |            |              |            |
| Permissible Ambient Humidity                         | 0-100%                                                                                         |              |            |              |            |
| Permissible Altitude (m)                             | 2000m                                                                                          |              |            |              |            |
| Noise (dB)                                           | ≤ 35 dB(A)                                                                                     |              |            |              |            |
| Ingress Protection(IP) Rating                        | IP 65                                                                                          |              |            |              |            |
| Inverter Topology                                    | Non-Isolated                                                                                   |              |            |              |            |
| Over Voltage Category                                | OVC II(DC), OVC III(AC)                                                                        |              |            |              |            |
| Cabinet Size ( mm)                                   | 280W×310H×184 D (Excluding Connectors and Brackets)                                            |              |            |              |            |
| Weight (kg)                                          | 4.8                                                                                            |              |            |              |            |
| Warranty                                             | 12 Years                                                                                       |              |            |              |            |
| Type of Cooling                                      | Natural Cooling                                                                                |              |            |              |            |
| Grid Regulation                                      | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, G98, G99, VDE-AR-N 4105 |              |            |              |            |
| Safety EMC/Standard                                  | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2                                         |              |            |              |            |