

Three Phase String Inverter

SUN-40 / 45 / 50K-G03



Max. 4 MPP trackers,
Max. efficiency up to 98.7%



Zero export application, VSG application



String intelligent monitoring



Wide output voltage range



Anti-PID function (Optional)

Technical Data

| Model | SUN-40K-G03 | SUN-45K-G03 | SUN-50K-G03 |
|---|---|-------------|-------------|
| Input Side | | | |
| Max. DC Input Power (kW) | 52 | 58.5 | 65 |
| Max. DC Input Voltage (V) | 1100 | | |
| Start-up DC Input Voltage (V) | 250 | | |
| MPPT Operating Range (V) | 200-1000 | | |
| Max. DC Input Current (A) | 40+40+40 | | 40+40+40+40 |
| Max. Short Circuit Current (A) | 60+60+60 | | 60+60+60+60 |
| No. of MPP Trackers | 3 | | 4 |
| No. of Strings per MPP Tracker | 3+3+3 | | 3+3+3+3 |
| Output Side | | | |
| Rated Output Power (kW) | 40 | 45 | 50 |
| Max. Active Power (kW) | 44 | 49.5 | 55 |
| Rated Output Voltage/Range (V) | 3L/N/PE 220/380V, 230/400V 0.85Un-1.1Un (this may vary with grid standards) | | |
| Rated Grid Frequency (Hz) | 50 / 60 (Optional) | | |
| Operating Phase | Three Phase | | |
| Rated AC Grid Output Current (A) | 60.6/58 | 68.2/65.2 | 75.8/72.5 |
| Max. AC Output Current (A) | 66.7/63.8 | 75/71.7 | 83.3/79.7 |
| Output Power Factor | 0.8 leading to 0.8 lagging | | |
| Total Harmonics Current Distortion (THDi) | <3% | | |
| DC Injection Current (mA) | <0.5% | | |
| Grid Frequency Range | 45-55 or 55-65 (Optional) | | |
| Efficiency | | | |
| Max. Efficiency | 98.7% | | |
| Euro Efficiency | 98% | | |
| MPPT Efficiency | >99% | | |
| Protection | | | |
| DC Reverse-Polarity Protection | Yes | | |
| AC Short Circuit Protection | Yes | | |
| AC Output Overcurrent Protection | Yes | | |
| Output Overvoltage Protection | Yes | | |
| Insulation Resistance Protection | Yes | | |
| Ground Fault Monitoring | Yes | | |
| Anti-islanding Protection | Yes | | |
| Temperature Protection | Yes | | |
| Integrated DC Switch | Yes | | |
| Remote Software Upload | Yes | | |
| Remote Change of Operating Parameters | Yes | | |
| Surge Protection | DC Type II / AC Type II | | |
| General Data | | | |
| Cabinet Size (WxHxD mm) | 434x570x243 (Excluding Connectors and Brackets) | | |
| Weight (kg) | 37.1 | | |
| Topology | Transformerless | | |
| Internal Consumption | <1W (Night) | | |
| Running Temperature | -25 to +60°C, >45°C Derating | | |
| Ingress Protection | IP65 | | |
| Noise Emission (Typical) | ≤50 dB | | |
| Cooling Concept | Smart Cooling | | |
| Permissible Altitude (m) | 4000 | | |
| Warranty | 8 Years | | |
| Grid Connection Standard | IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105 | | |
| Operating Surroundings Humidity | 0-100% | | |
| Safety EMC / Standard | IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2 | | |
| Features | | | |
| Display | LCD 240 x 160 | | |
| Interface | RS485/RS232/Wifi/LAN | | |