# SG5.0/10RT-P2

## Multi-MPPT String Inverter for 1000 Vdc System




### HIGH YIELD

- Lower startup & wider MPPT voltage
- Compatible with 500W+ PV modules
- Built-in PID recovery function

### SMART MANAGEMENT

- 24/7 live online monitoring and with integrated display
- Remote firmware updates
- PV module-level optimisation and safety

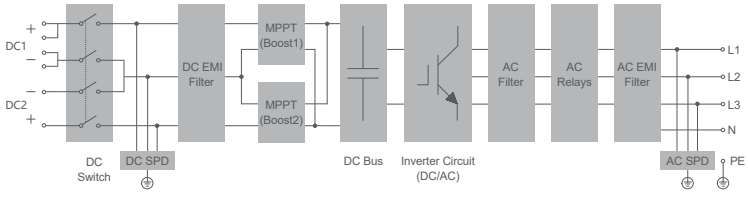
### SAFE AND DURABLE

- Quick arc fault circuit interrupter
- Build-in Type II DC&AC SPD
- C5 anti-corrosion & IP65

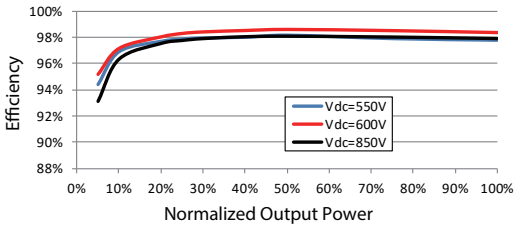
### EASY AND USER FRIENDLY

- Light and compact design
- Plug and play connectors
- Fast and easy commissioning via App

### CIRCUIT DIAGRAM(SG10RT)




### EFFICIENCY CURVE

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| Type designation | SG5.0RT-P2 | SG10RT-P2 |
|---|---|---|
| Input (DC) | | |
| Recommended max. PV input power | 7.5 kWp | 15 kWp |
| Max. PV input voltage* | 1100 V ** | |
| Min. PV input voltage / Startup input voltage | 160V / 180V | |
| Rated input voltage | 600 V | |
| MPPT operating voltage range*** | 160 V – 1000 V | |
| No. of independent MPP trackers | 2 | |
| No. of PV strings per MPPT | 1 / 1 | 2 / 1 |
| Max. PV input current | 32 A (16 A / 16 A) | 48 A (32 A / 16 A) |
| Max. DC short-circuit current | 40 A (20 A / 20 A) | 60 A (40 A / 20 A) |
| Output (AC) | | |
| Rated AC output power | 5000 W | 10000 W |
| Max. AC output apparent power | 5500 VA**** | 11000 VA**** |
| Rated AC output apparent power | 5500 VA**** | 11000 VA**** |
| Max. AC output current | 8.3 A | 16.7 A**** |
| Rated AC voltage | 3 / N / PE, 220 / 380 V<br>3 / N / PE, 230 / 400 V<br>3 / N / PE, 240 / 415 V | |
| AC voltage range | 175 V – 276 V / 304 V – 478 V | |
| Rated grid frequency | 50 Hz / 45 – 55 Hz<br>60 Hz / 55 – 65 Hz | |
| Harmonic (THD) | <3 % (at rated power) | |
| Power factor at rated power / Ajustable power factor | > 0.99 / 0.8 leading – 0.8 lagging | |
| Feed-in phases / AC connection | 3 / 3-PE | |
| Efficiency | | |
| Max. efficiency | 98.30% | 98.30% |
| European efficiency | 97.20% | 97.80% |
| Protection & function | | |
| Grid monitoring | Yes | |
| DC reverse polarity protection | Yes | |
| AC short-circuit protection | Yes | |
| Leakage current protection | Yes | |
| Surge protection | DC Type II / AC Type II | |
| DC switch | Yes | |
| Arc fault circuit interrupter (AFCI) | Yes | |
| PID recovery function | Yes | |
| Optimizer compatbility ***** | Optional | |
| General Data | | |
| Dimensions (W*H*D) | 370 mm * 480 mm * 195 mm | |
| Weight | 18 kg | |
| Mounting method | Wall-mounting bracket | |
| Topology | Transformerless | |
| Degree of protection | IP65 | |
| Operating ambient temperature range | -25 ℃ to 60 ℃ | |
| Allowable relative humidity range (non-condensing) | 0 % - 100 % | |
| Cooling method | Natural cooling | |
| Max. operating altitude | 4000 m | |
| Display | LED | |
| Communication | WLAN / Ethernet / RS485 / DI / DO | |
| DC connection type | MC4 (Max. 6 mm²) | |
| AC connection type | Plug and play | |
| Grid compliance | IEC / EN 61000-6-1/2/3/4, IEC 61000-3-2/3/11/12, IEC / EN62109-1/2, IEC 61727, IEC 62116, IEC 61683, IEC 60068-2-1/2/14/30/64/27,IEC TS 62910 , EN50530, AS/NZS 4777.2:2020, VDE-AR-N-4105, DIN VDE0126-1-1/A1, EN50549-1, DEWA, VFR 2019, UTE C15-712-1, PSE NC RfG, NTS 2.0, UNE 206006/7 IN, UNE 217002, MEA/PEA, G98 | |

* Input voltage exceeding the MPPT operating voltage range triggers inverter
** The inverter enters the standby state when the input voltage ranges between 1,000V and 1,100V. If the maximum DC voltage in the system can exceed 1000V, the MC4 connectors included in the scope of delivery must not be used. In this case MC4 Evo2 connectors must be used
*** Please refer to the user manual for the full load MPPT voltage range
**** For Belgium& Germany, Max. AC output power: SG5.0RT-P2 is 5000VA, SG6.0RT-P2 is 6000VA, SG7.0RT-P2 is 7000VA, SG8.0RT-P2 is 8000VA, SG10RT-P2 is 10000VA, SG12RT-P2 is 12000VA, SG15RT-P2 is 15000VA, SG17RT-P2 is 17000VA, SG20RT-P2 is 20000VA
**** For Jordan, Max. AC output current: SG10RT-P2 is 16A
***** For optimizer compatbility, please consult Sungrow before placing an order

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