SG15/20RT-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

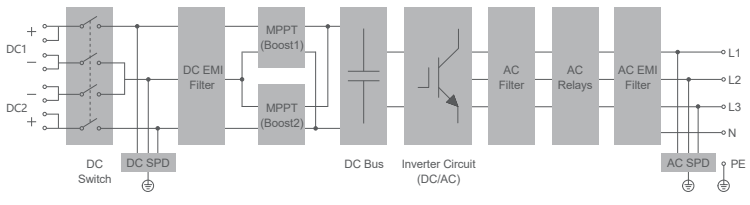
SAFE AND DURABLE

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

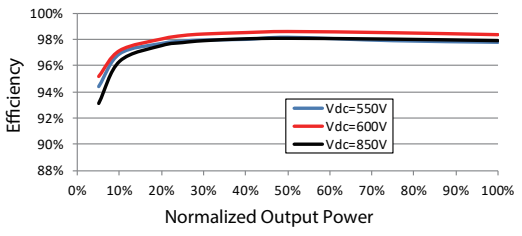
EASY AND USER FRIENDLY

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

CIRCUIT DIAGRAM



EFFICIENCY CURVE



© 2026 Sungrow Power Supply Co., Ltd. All rights reserved. Subject to change without notice. Version 1.1

Type designation	SG15RT-P2	SG20RT-P2
Input (DC)		
Recommended max. PV input power	22.5 kWp	30 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	2 / 2	
Max. PV input current	64 A (32 A / 32 A)	
Max. DC short-circuit current	80 A (40 A / 40 A)	
Output (AC)		
Rated AC output power	15000 W	20000 W
Max. AC output apparent power	16500 VA****	22000 VA****
Rated AC output apparent power	16500 VA****	22000 VA****
Max. AC output current	25.0 A	31.9 A
Rated AC voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V 3 / N / PE, 240 / 415 V	
AC voltage range	175 V – 276 V / 304 V – 478 V	
Rated grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz 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 %	
European efficiency	97.90 %	
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	22 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	Smart forced air 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	
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

© 2026 Sungrow Power Supply Co., Ltd. All rights reserved. Subject to change without notice. Version 1.1