SG5.0/6.0/8.0/10/12RT-P2

Multi-MPPT String Inverter for 1000 Vdc System

NEW



HIGH YIELD

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

SMART MANAGEMENT

- 24/7 Live Monitoring
- Remote firmware updates
- PV module-level optimisation and safety

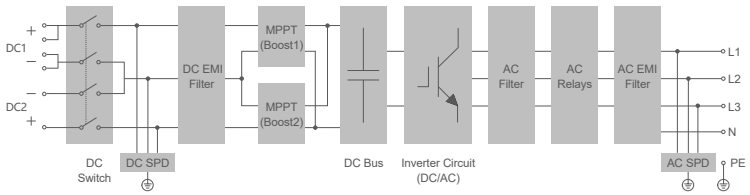
SAFE AND DURABLE

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

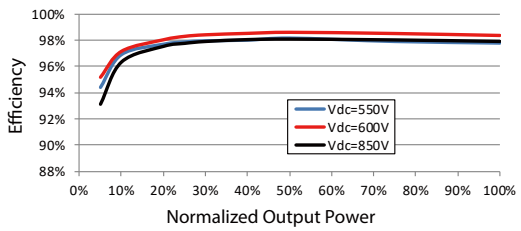
EASY AND USER FRIENDLY

- 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	SG6.0RT-P2	SG8.0RT-P2	SG10RT-P2	SG12RT-P2
Input (DC)					
Recommended max. PV input power	7.5 kWp	9.0 kWp	12 kWp	15 kWp	18 kWp
Max. PV input voltage	1100 V *				
Min. PV input voltage / Start-up input voltage	180 V / 180 V				
Rated input voltage	600 V				
MPP voltage range	160 V – 1000 V				
No. of independent MPP inputs	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 power (@230V,50Hz)	5000 W	6000 W	8000 W	10000 W	12000 W
Max. AC output power	5500 VA**	6600 VA**	8800 VA**	11000 VA**	13200 VA**
Rated AC output apparent power	5500 VA**	6600 VA**	8800 VA**	11000 VA**	13200 VA**
Max. AC output current	8.3 A	10 A	13.3 A	16.7 A**	20 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 / Connection phases	3 / 3-PE				
Efficiency					
Max. efficiency	98.30 %	98.30 %	98.40 %	98.30 %	98.30 %
European efficiency	97.20 %	97.40 %	97.70 %	97.80 %	97.90 %
Protection&Function					
Grid monitoring	Yes				
DC reverse connection 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				
Mounting method	Wall-mounting bracket				
Weight	18 kg				
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				
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				
Country of manufacture	China				

* 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.
** 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 oder

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