

SG5.0/6.0/7.0/8.0/10/12RT

Multi-MPPT String Inverter for 1000 Vdc System

NEW



HIGH YIELD

- Lower startup & wider MPPT voltage
- Compatible with bifacial modules
- Built-in PID recovery function

SMART MANAGEMENT

- Smart IV curve scanning
- 24 / 7 Live monitoring
- Remote firmware updates

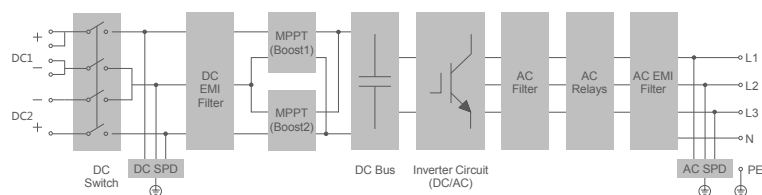
SAFE AND DURABLE

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

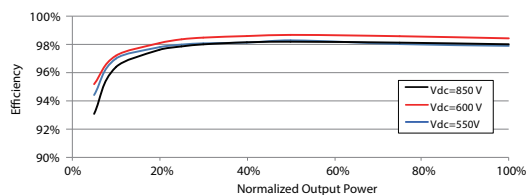
EASY AND USER FRIENDLY

- 18 kg compact design
- Unique push-in connectors
- Fast and easy commissioning via App

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG5.0RT	SG6.0RT	SG7.0RT	SG8.0RT	SG10RT	SG12RT
Input (DC)						
Recommended max. PV input power	7.5 kWp	9.0 kWp	10.5 kWp	12 kWp	15 kWp	18 kWp
Max. PV input voltage	1100 V *					
Min. PV input voltage / Start-up input voltage	180V / 180V					
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	1 / 1	2 / 1	2 / 1	2 / 1	2 / 1
Max. PV input current	25 A (12.5 A / 12.5 A)		37.5 A (25 A / 12.5 A)			
Max. DC short-circuit current	32 A (16 A / 16 A)		48 A (32 A / 16 A)			
Output (AC)						
Rated AC power (@230V,50Hz)	5000 W	6000 W	6999 W	8000 W	10000 W	12000 W
Max. AC output power	5000 VA	6000 VA	6999 VA	8000 VA	10000 VA	12000 VA
Rated AC output apparent power	5000 VA	6000 VA	6999 VA	8000 VA	10000 VA	12000 VA
Max. AC output current	7.6 A	9.1A	10.6A	12.2A	15.2A	18.2A
Rated AC voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V 3 / N / PE, 240 / 415 V					
AC voltage range	180V – 276V / 311V - 478V					
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 nominal power / Adjustable power factor	>0.99 / 0.8 leading – 0.8 lagging					
Feed-in phases / Connection phases	3 / 3-PE					
Efficiency						
Max. efficiency	98.40%	98.40%	98.40%	98.50%	98.50%	98.50%
European efficiency	97.40%	97.40%	97.70%	97.80%	97.90%	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	Optional					
Arc fault circuit interrupter (AFCI)	Yes					
PID recovery function	Yes					
General Data						
Dimensions (W*H*D)	370*480*195 mm					
Mounting method	Wall-mounting bracket					
Weight	18 kg					
Topology	Transformerless					
Degree of protection	IP65					
Operating ambient temperature range	-25 °C to 60 °C					
Allowable relative humidity range (non-condensing)	0% – 100%					
Cooling method	Natural cooling					
Max. operating altitude	4000 m (> 2000 m derating)					
Display	LED					
Communication	WLAN, Ethernet, RS485, DI, DO					
DC connection type	MC4 (Max. 6 mm ²)					
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.

SG15/17/20RT

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HIGH YIELD

- Lower startup & wider MPPT voltage
- Compatible with bifacial modules
- Built-in PID recovery function

SMART MANAGEMENT

- Smart IV curve scanning
- 24/7 Live Monitoring
- Over-the-air firmware updates

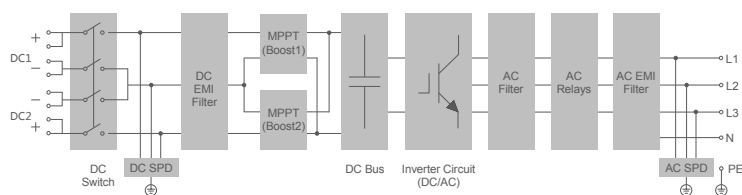
SAFE AND DURABLE

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

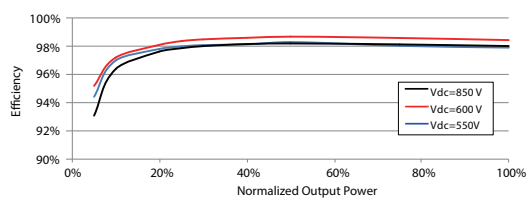
EASY AND USER FRIENDLY

- 21 kg compact design
- Unique push-in connectors
- Fast and easy commissioning via App

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG15RT	SG17RT	SG20RT
Input (DC)			
Recommended max. PV input power	22.5kWp	25.5 kWp	30 kWp
Max. PV input voltage		1100 V*	
Min. PV input voltage / Start-up input voltage		180V / 180V	
Rated input voltage		600 V	
MPP voltage range		160 V – 1000 V	
No. of independent MPP inputs		2	
No. of PV strings per MPPT		2 / 2	
Max. PV input current		50 A (25 A / 25 A)	
Max. DC short-circuit current		64 A (32 A / 32 A)	
Output (AC)			
Rated AC power (@230V,50Hz)	15000 W	17000 W	20000 W
Max. AC output power	15000 VA	17000 VA	20000 VA
Rated AC output apparent power	15000 VA	17000 VA	20000 VA
Max. AC output current	22.7 A	25.8 A	30.3 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		180V – 276V / 311V - 478V	
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 / Adjustable power factor		>0.99 / 0.8 leading – 0.8 lagging	
Feed-in phases / AC connection		3 / 3-PE	
Efficiency			
Max. efficiency		98.50 %	
European efficiency		98.10 %	
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		Optional	
Arc fault circuit interrupter (AFCI)		Yes	
PID recovery function		Yes	
General Data			
Dimensions (W*H*D)		370*480*195 mm	
Mounting method		Wall-mounting bracket	
Weight		21 kg	
Topology		Transformerless	
Degree of protection		IP65	
Operating ambient temperature range		-25 °C to 60 °C	
Allowable relative humidity range (non-condensing)		0% – 100%	
Cooling method		Smart forced air cooling	
Max. operating altitude		4000 m (> 2000 m derating)	
Display		LED	
Communication		WLAN, Ethernet, RS485, DI, DO	
DC connection type		MC4	
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		
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