

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

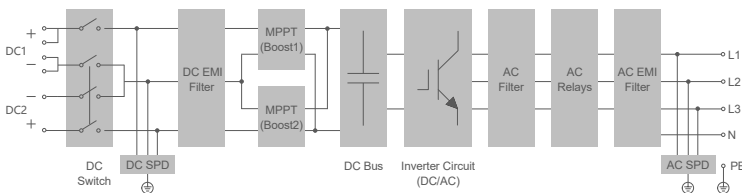
SAFE AND DURABLE

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

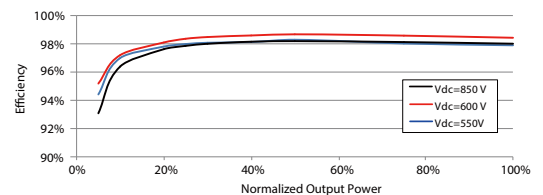
EASY AND USER FRIENDLY

- 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	180 V					
Nominal 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)			
Max. current for input connector	30 A					
Output (AC)						
Nominal AC power (@230 V, 50 Hz)	5000 W	6000 W	7000 W***	8000 W	10000 W	12000 W
Max. AC output power	5500 VA**	6600 VA**	7700 VA***	8800 VA**	11000 VA**	13200 VA**
Max. AC output current	8.3 A	10 A	11.7 A	13.3 A	16.7 A	20 A
Nominal AC voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V 3 / N / PE, 240 / 415 V					
AC voltage range	180 V – 276 V / 311 V – 478 V					
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz 60 Hz / 55 – 65 Hz					
Harmonic (THD)	<3 % (at nominal power)					
Power factor at nominal power / Adjustable power factor	>0.99 / 0.8 leading – 0.8 lagging					
Feed-in phases / AC connection	3 / 3					
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						
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					
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	0% – 100%					
Cooling method	Natural cooling					
Max. operating altitude	4000 m (> 2000 m derating)					
Noise(Typical)	35 dB (A)					
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 / EN62109-1/2, IEC 61727, IEC 62116, IEC 61683, EN50530, AS/NZS 4777.2:2015, VDE-AR-N-4105, DIN VDE0126-1-1, EN50549-1					

*: The inverter enters the standby state when the input voltage ranges between 1,000 V and 1,100 V. If the maximum DC voltage in the system can exceed 1000 V, the MC4 connectors included in the scope of delivery must not be used. In this case MC4 Evo2 connectors must be used.

** : For Australia & Belgium & Germany, max. AC output power: SG5.0RT is 5000 VA, SG6.0RT is 6000 VA, SG8.0RT is 8000 VA, SG10RT is 10000 VA, SG12RT is 12000 VA.

***: Australia: 6999 W, 6999 VA; Belgium & Germany: 7000 W, 7000 VA.

SG15/17/20RT

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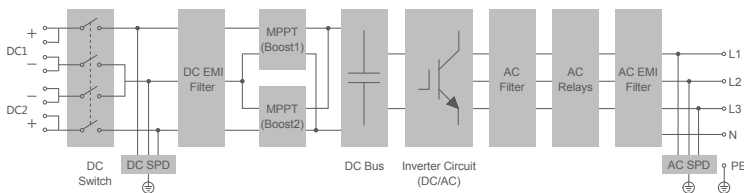
- Quick arc fault circuit interrupter
- Built-in Type II DC & AC SPD
- High anti-corrosion rating C5



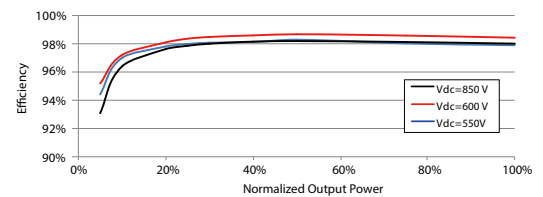
EASY AND USER FRIENDLY

- 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	22.5 kWp	25.5 kWp	30 kWp
Max. PV input voltage		1100 V*	
Min. PV input voltage / Start-up input voltage		180 V	
Nominal 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. current for input connector		30A	
Max. DC short-circuit current		64 A (32 A / 32 A)	
Output (AC)			
Nominal AC power (@230 V, 50 Hz)	15000 W	17000 W	20000 W
Max. AC output power	16500 VA**	18700 VA**	22000 VA**
Max. AC output current	25 A	28.3 A	31.9 A
Nominal AC voltage		3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V 3 / N / PE, 240 / 415 V	
AC voltage range		180 V – 276 V / 311 V – 478 V	
Nominal grid frequency / Grid frequency range		50 Hz / 45 – 55 Hz 60 Hz / 55 – 65 Hz	
Harmonic(THD)		<3 % (at nominal power)	
Power factor at nominal power / Adjustable power factor		>0.99 / 0.8 leading – 0.8 lagging	
Feed-in phases / AC connection		3 / 3	
Efficiency			
Max. efficiency		98.50 %	
European efficiency		98.10 %	
Protection			
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	
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		0% – 100%	
Cooling method		Smart forced air cooling	
Max. operating altitude		4000 m (> 2000 m derating)	
Noise (Typical)		45dB(A)	
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 / EN62109-1/2, IEC 61727, IEC 62116, IEC 61683, EN50530, AS/NZS 4777.2:2015, VDE-AR-N-4105, DIN VDE0126-1-1, EN50549-1	

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