

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

Multi-MPPT string inverter for 1000 V DC system



## HIGH YIELD INTELLIGENT

- Lower starting voltage and wider MPPT voltage range
- Compatible with double-sided modules
- Built-in PID inversion function



## MANAGEMENT

- Intelligent I-V curve scanning
- Real-time monitoring 24 hours a day, 7 days a week
- Remote software updates



## SAFETY AND DURABILITY EASY

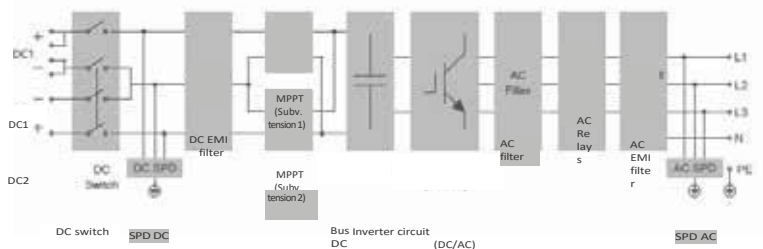
- High-speed circuit breaker in the event of an arc discharge
- Built-in Type II DC/AC SPD protection
- Excellent corrosion protection - C5



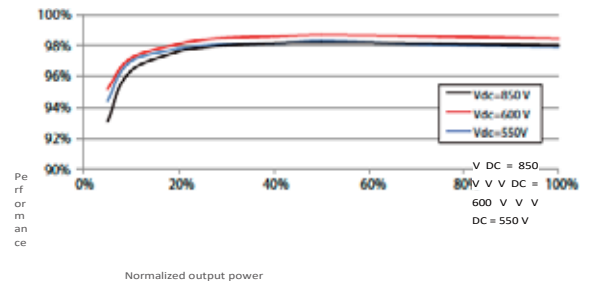
## AND FRIENDLY TO USE

- Compact design, only 18 kg Unique plug-in connectors
- Quick and easy startup via app

## INTERNAL CURVE



## CIRCUIT DIAGRAM PERFORMANCE



Type designation	SG5.0RT	SG6.0RT	SG7.0RT	SG8.0RT	SG10RT	SG12RT
<b>Input (DC)</b>						
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 / Input voltage at startup	180 V					
Nominal input voltage	600 V					
MPP voltage range	160 V - 1000 V					
Number of independent MPP inputs	2					
Number of PV chains 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. short circuit current DC	32 A (16 A / 16 A)		48 A (32 A / 16 A)			
Max. input connector current	30 A					
<b>Output (AC)</b>						
Rated AC power (at 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**	11,000 VA**	13,200 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					
Rated supply frequency / Supply frequency range	50 Hz / 45 - 55 Hz 60 Hz / 55 - 65 Hz					
Harmonic content (THD)	< 3 % (at rated power)					
Power factor at rated power / Adjustable power factor	> 0,99 / 0,8 leading - 0,8 lagging					
Supply phases / AC connection	3/3					
<b>Performance</b>						
Max capacity	98,40%	98,40%	98,40%	98,50%	98,50%	98,50%
Performance according to European standards	97,40%	97,40%	97,70%	97,80%	97,90%	97,90%
<b>Security</b>						
Network monitoring	Yes					
DC reverse connection protection	Yes					
AC short circuit protection	Yes					
Leakage current protection	Yes					
Overvoltage protection	DC Type II / AC Type II					
DC switch	Yes					
Arc Flash Circuit Interrupter (AFCI)	Yes					
PID reduction function	Yes					
<b>General data</b>						
Dimensions (W x H x D)	370 x 480 x 195 mm					
Installation method	Wall mounting bracket					
Mass	18 kg					
Topology	Transformerless					
Degree of protection	IP65					
Ambient operating temperature range	- 25°C - 60°C					
Allowable relative humidity range	0% - 100%					
Cooling method	Natural cooling					
Max. working height	4000 m (lower performance > 2000 m)					
Noise (typical)	35 dB (A)					
Display	LED					
Communication	WLAN / Ethernet / RS485 / DI / DO					
DC connection type	MC4 (Max. 6 mm <sup>2</sup> )					
Type of AC connection	Plug and play					
Compliance with standards	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 standby mode when the input voltage range is 1000 V to 1100 V. The MC4 connectors provided in the scope of delivery cannot be used if the maximum DC voltage in the system may exceed 1000 V. In this case, use MC4 Evo2 connectors.

\*\* : For Australia and Belgium and Germany, maximum AC output power: for SG5.0RT is 5000 VA, for SG6.0RT is 6000 VA, for SG8.0RT is 8000 VA, for SG10RT is 10,000 VA, for the SG12RT it is 12,000 VA.

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

