

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

Multi-MPPT String Inverter for 1000 Vdc System



## HIGH YIELD

- Lower startup & wider MPPT voltage
- Compatible with 500W+ PV modules



## EASY AND USER FRIENDLY

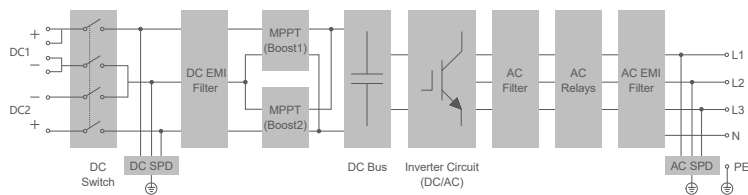
- 18kg compact design
- Plug and play connectors
- Fast and easy commissioning via iSolarCloud App



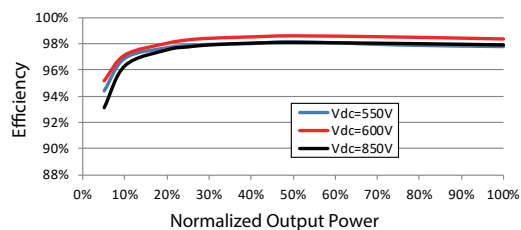
## SAFE AND RELIABLE

- Build-in Type II DC & AC SPD
- C5 anti-corrosion & IP65
- Remote firmware updates

## CIRCUIT DIAGRAM(SG10RT)



## EFFICIENCY CURVE



Type designation	SG5.0RT-P2	SG6.0RT-P2	SG8.0RT-P2	SG10RT-P2	SG12RT-P2
<b>Input (DC)</b>					
Recommended max. PV input power	7.5 kWp	9 kWp	12 kWp	15 kWp	18 kWp
Max. PV input voltage*	1100 V **				
Min. PV input voltage / Start-up input voltage	160 V / 180 V				
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	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)		
<b>Output (AC)</b>					
Rated AC power	5000 W	6000 W	8000 VA	10000 W	12000 W
Max. AC output apparent 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 Hz – 55 Hz 60 Hz / 55 Hz – 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				
<b>Efficiency</b>					
Max. efficiency	98.3 %				
European efficiency	97.2 %	97.4 %	97.7 %	97.8 %	97.9 %
<b>Protection &amp; Function</b>					
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				
<b>General Data</b>					
Dimensions (W*H*D)	370 mm * 480 mm * 195 mm				
Weight	18 kg				
Mounting method	Wall-mounting bracket				
Topology	Transformerless				
Degree of protection	IP 65				
Night power consumption	< 1 W				
Operating ambient temperature range	-25 °C – 60 °C				
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 Compatible Connector ( Max. 6 mm <sup>2</sup> )				
AC connection type	Plug and play				
Grid compliance	PORTARIA N° 140, DE 21 DE MARÇO DE 2022, EC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4 EMC, IEC 61727, IEC 62116, IEC 61683, EN 50530, IEC 60068-1/-2/-14/-27/-30/-64, IEC 61000-3-2:2006 IEC/EN - 61000-3-12, IEC 60529 IP				
Country of manufacture	China				

\* Input voltage exceeding the MPPT operating voltage range triggers inverter protection

\*\* 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

# SG15/20RT-P2

Multi-MPPT String Inverter for 1000 Vdc System



## HIGH YIELD

- Lower startup & wider MPPT voltage
- Compatible with 500W+ PV modules

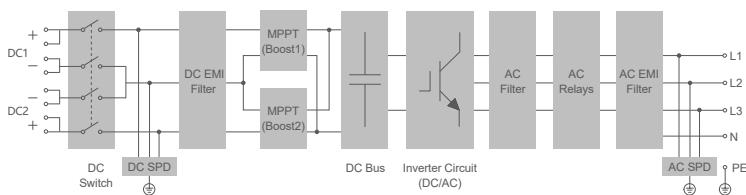
## EASY AND USER FRIENDLY

- 18kg compact design
- Plug and play connectors
- Fast and easy commissioning via iSolarCloud App

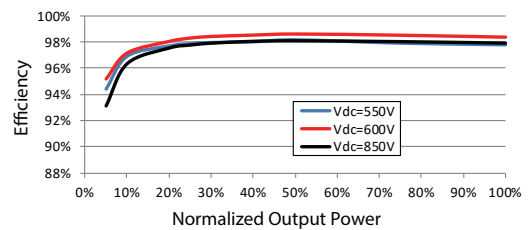
## SAFE AND RELIABLE

- Build-in Type II DC & AC SPD
- C5 anti-corrosion & IP65
- Remote firmware updates

## CIRCUIT DIAGRAM



## EFFICIENCY CURVE



Type designation	SG15RT-P2	SG20RT-P2
<b>Input (DC)</b>		
Recommended max. PV input power	22.5 kWp	30 kWp
Max. PV input voltage*	1100 V **	
Min. PV input voltage / Start-up 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 ( 32 A / 40 A )	
<b>Output (AC)</b>		
Rated AC 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 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 Hz – 55 Hz 60 Hz / 55 Hz – 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	
<b>Efficiency</b>		
Max. efficiency	98.3 %	
European efficiency	97.9 %	
<b>Protection &amp; Function</b>		
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	
<b>General Data</b>		
Dimensions (W*H*D)	370 mm * 480 mm * 195 mm	
Weight	22 kg	
Mounting method	Wall-mounting bracket	
Topology	Transformerless	
Degree of protection	IP 65	
Night power consumption	< 1 W	
Operating ambient temperature range	-25 °C – 60 °C	
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 Compatible Connector (Max. 6 mm <sup>2</sup> )	
AC connection type	Plug and play	
Grid compliance	PORTARIA N° 140, DE 21 DE MARÇO DE 2022, EC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4 EMC, IEC 61727, IEC 62116, IEC 61683, EN 50530, IEC 60068-1/-2/-14/-27/-30/-64, IEC 61000-3-2:2006 IEC/EN - 61000-3-12, IEC 60529 IP	
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