

# SG3.0RT/SG4.0RT

Multi-MPPT String Inverter for 1000 Vdc System



## ☀️ HIGH YIELD

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

## 🛡️ SAFE AND DURABLE

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

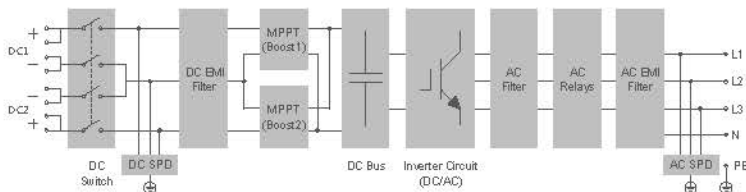
## ⚙️ SMART MANAGEMENT

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

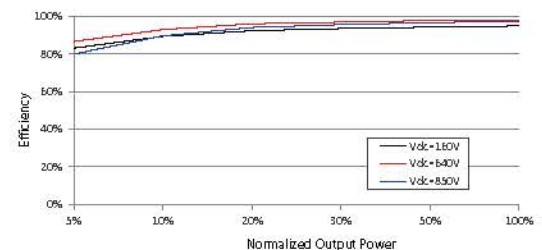
## ⚙️ EASY AND USER FRIENDLY

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

## CIRCUIT DIAGRAM



## EFFICIENCY CURVE (SG4.0RT)



Type designation	SG3.0RT	SG4.0RT
<b>Input (DC)</b>		
Recommended max. PV input power	4.5 kWp	6.0 kWp
Max. PV input voltage	1100 V *	
Min. PV input voltage / Start-up input voltage	180 V / 180 V	
Nominal input voltage	600 V	
MPP voltage range	160 V – 1000 V	
MPP voltage range for nominal power	160 V – 850 V	
No. of independent MPP inputs	2	
No. of PV strings per MPPT	1 / 1	
Max. PV input current	25 A (12.5 A / 12.5 A)	
Max. current for input connector	30 A	
Max. DC short-circuit current	32 A (16 A / 16 A)	
<b>Output (AC)</b>		
Nominal AC power (@230V, 50Hz)	3000 W	4000 W
Max. AC output power	3300 VA	4400 VA
Max. AC output current	5.1 A	6.8 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 /	50 Hz / 45 – 55 Hz	
Grid frequency range	60 Hz / 55 – 65 Hz	
Harmonic (THD)	<5 % (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	
<b>Efficiency</b>		
Max. efficiency	98.2 %	
European efficiency	96.5 %	97.0 %
<b>Protection &amp; Function</b>		
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	
<b>General Data</b>		
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	4000m (> 2000 m derating)	
Noise (Typical)	35 dB (A)	
Display	LED	
Communication	WLAN / Ethernet / RS485 / DI / DO	
DC connection type	MC4 (Max. 6 mm <sup>2</sup> )	
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, EN50549-1	

\*: The inverter enters the standby state when the input voltage range is between 1,000V to 1,100V. 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.