

SG3.0/5.0RS

Multi-MPPT String Inverter for 1000 Vdc System



HIGH YIELD

- Compatible with high power PV modules and bifacial modules
- Lower startup & wider MPPT voltage range
- Built-in smart PID Zero function

SMART MANAGEMENT

- Real time data (10 seconds refresh sample)
- 24/7 live monitoring both online and with integrated display
- Online IV curve scan and diagnosis

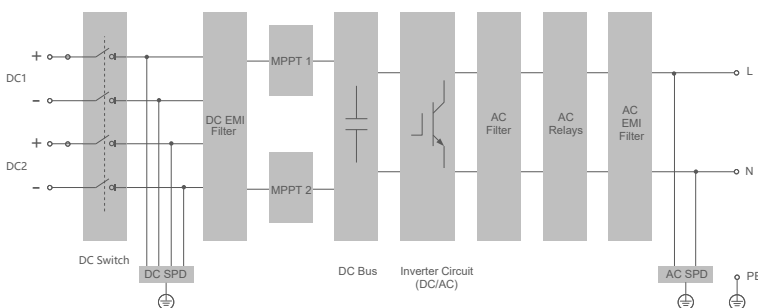
SAFE AND DURABLE

- Integrated arc fault circuit interrupter
- Built-in Type II DC&AC SPD
- Corrosion protection rating at C5

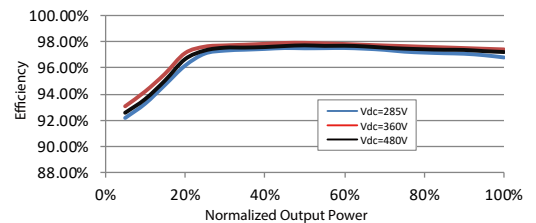
USER FRIENDLY STEUP

- Plug and play installation *
- One-click access to iSolarCloud monitoring platform
- Light and compact with optimized heat dissipation design

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG3.0RS	SG5.0RS
Input (DC)		
Recommended max. PV input power	4.5 kWp	7.5 kWp
Max. PV input voltage **	600 V	
Min. PV input voltage / Start-up input voltage	40 V / 50 V	
Rated PV input voltage	360 V	
MPPT operating voltage range ***	40 V – 560 V	
No. of independent MPP inputs	2	
No. of PV strings per MPPT	1	
Max. PV input current	32 A (16 A / 16 A)	
Max. DC short-circuit current	40 A (20 A / 20 A)	
Max. current for input connector	30 A	
Output (AC)		
Rated AC output power	3000 W	4999 W
Max. AC output apparent power	3000 VA	4999 VA
Rated AC output apparent power	3000 VA	4999 VA
Max. AC output current	13.7 A	21.7 A
Rated AC output current(at 230V)	13.1 A	21.7 A
Rated AC voltage	220 V / 230 V / 240 V	
AC voltage range	154 V – 276 V	
Rated grid frequency	50 Hz / 60 Hz	
Grid frequency range	45 Hz – 55 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 / Connection phases	1 / 1	
Efficiency		
Max. efficiency / European efficiency	97.9 % / 97.0 %	97.9 % / 97.3 %
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	Yes	
PV string current monitoring	Yes	
Arc fault circuit interrupter (AFCI)	Yes	
PID recovery function	Yes	
General data		
Dimensions (W*H*D)	410 mm * 270 mm * 150 mm	
Weight	10 kg	
Mounting method	Wall-mounting bracket	
Topology	Transformerless	
Degree of protection	IP65	
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 digital display & LED indicator	
Communication	Ethernet / WLAN / RS485 / DI (Ripple control & DRM)	
DC connection type	MC4 (Max. 6 mm ²)	
AC connection type	Plug and play connector (Max. 6 mm ²)	
Grid compliance	IEC / EN62109-1/2, IEC / EN 62116, IEC / EN 61727, IEC / EN 61000-6-2/3, EN 50549-1, AS/NZS 4777.2:2020, ABNT NBR 16149, ABNT NBR 16150, UNE 217002:2020, NTS V2 TypeA, CEI 0-21:2020, VDE0126-1-1/A1(VFR-2019), UTE C15-712, C10/11, G98/G99	
Grid Support	Active & reactive power control and power ramp rate control	
Country of manufacture	China	

* Country code needs to be set before grid connection

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

*** Please refer to the user manual for the full load MPPT voltage range

