SG3.0/6.0RS

Double-MPPT String Inverter for 600 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

SAFE AND RELIABLE

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

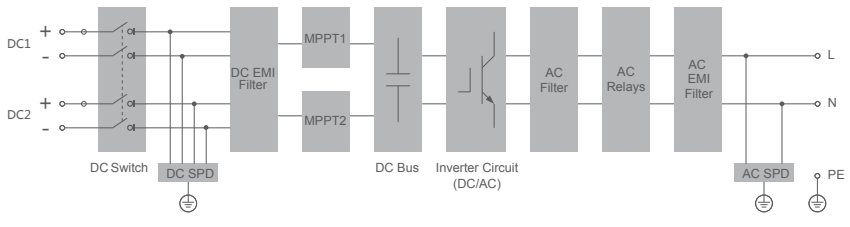
USER FRIENDLY SETUP

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

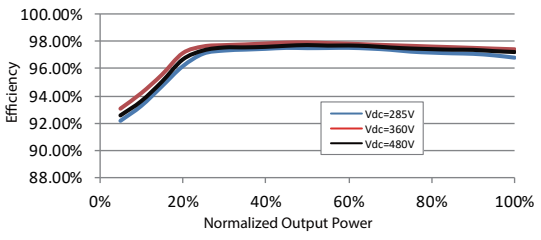
SMART MANAGEMENT

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

CIRCUIT DIAGRAM



EFFICIENCY CURVE (SG5.0RS)



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Type designation	SG3.0RS	SG6.0RS
Input (DC)		
Recommended max. PV input power	4.5 kWp	9 kWp
Max. PV input voltage	600 V	
Min. operating PV voltage / Start-up input voltage	40 V / 50 V	
Rated PV input voltage	360 V	
MPP voltage range	40 – 560 V	
No. of independent MPP inputs	2	
Default 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)	
Output (AC)		
Rated AC output power	3000 W	6000 W
Max. AC Output power	3000 VA	6000 VA
Rated AC output current (at 230 V)	13.1 A	26.1 A
Max. AC output current	13.7 A	27.3 A
Rated AC voltage	220 / 230 / 240 V	
AC voltage range	154 – 276 V	
Rated grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 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	97.9 %	
European efficiency	97.0 %	97.5 %
Protection		
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	
PV string current monitoring	Yes	
Arc fault circuit interrupter (AFCI)	Yes	
PID Zero function	Yes	
Optimizer compatibility ***	Optional	
General Data		
Dimensions (W*H*D)	410*270*150 mm	
Weight	10 kg	
Mounting method	Wall-mounting bracket	
Topology	Transformerless	
Degree of protection	IP65	
Operating ambient temperature range	-25 to 60℃	
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 mm²)	
AC connection type	Plug and play connector (Max. 6 mm²)	
Grid compliance	IEC / EN62109-1/2, IEC / EN62116, IEC / EN61727, IEC / EN61000-6-2/3, EN50549-1, AS4777.2, ABNT NBR 16149, ABNT NBR 16150, UNE 217002:2020, NTS V2 TypeA, CEI 0-21:2019, VDE0126-1-1/A1 (VFR-2019), UTE C15-712, C10/11, G98/G99	
Grid Support	Active & reactive power control and power ramp rate control	

* AS 4777.2 4999 W , 4999 VA
** AS 4777.2 :Rated and Max. AC current is 21.7 A
*** For optimizer compatbility, please consult Sungrow before placing an oder

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