

SG5.0/6.0RS

Suitable for 50Hz / 60Hz grid, could be used in Asia, Africa, South America, Australia and Europe. Available for hand installation, no need for lifting machinery assistance



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

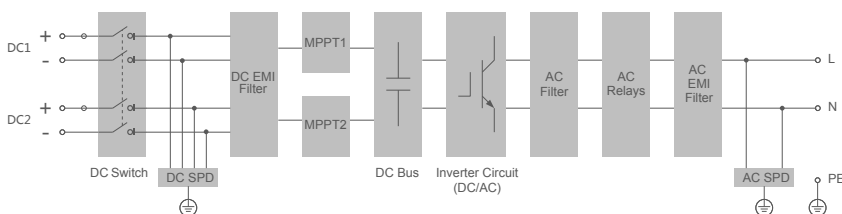
USER FRIENDLY SETUP

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

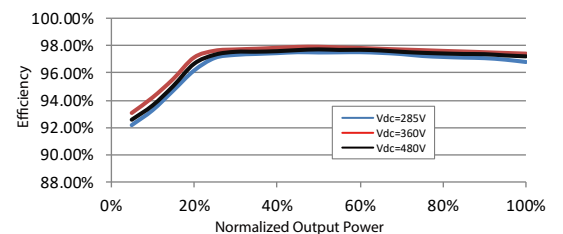
SMART MANAGEMENT

- 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)



Type designation	SG5.0RS	SG6.0RS
Input (DC)		
Recommended max. PV input power	7.5 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 V – 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	5000 W *	6000 W
Max. AC Output power	5000 VA *	6000 VA
Rated AC output current (at 230 V)	21.8 A **	26.1 A
Max. AC output current	22.8 A **	27.3 A
Rated AC voltage	220 V / 230 V / 240 V	
AC voltage range	154 V – 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 / European efficiency	97.9 % / 97.3 %	97.9 % / 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 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 to 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 / 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 0-21:2020, VDE0126-1-1/A1 (VFR-2019), UTE C15-712, C10/11, C98/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 compatibility, please consult Sungrow before placing an order



SG3.0/3.6/4.0RS

Suitable for 50Hz / 60Hz grid, could be used in Asia, Africa, South America, Australia and Europe. Available for hand installation, no need for lifting machinery assistance



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

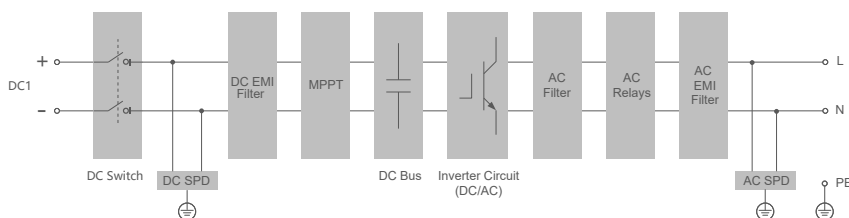
USER FRIENDLY SETUP

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

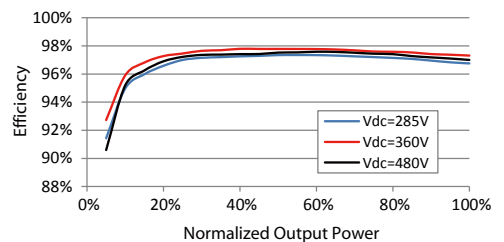
SMART MANAGEMENT

- 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 (SG3.0RS)



Type designation	SG3.0RS	SG3.6RS	SG4.0RS
Input (DC)			
Recommended max. PV input power	4.5 kWp	5.4 kWp	6 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 V – 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	3680 W	4000 W
Max. AC Output power	3000 VA	3680 VA	4000 VA
Rated AC output current (at 230 V)	13.1 A	16 A	17.4 A
Max. AC output current	13.7 A	16 A	18.2 A
Rated AC voltage		220 V / 230 V / 240 V	
AC voltage range		154 V - 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 / European efficiency	97.9 % / 97.0 %	97.9 % / 97.0 %	97.9 % / 97.2 %
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 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 to 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 / 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 0-21:2020, VDE0126-1-1/A1 (VFR-2019), UTE C15-712, C10/11, G98/G99,	
Grid Support		Active & reactive power control and power ramp rate control	

* For optimizer compatibility, please consult Sungrow before placing an order

