SG5.0/7.0/8.0/10RT

Multi-MPPT String Inverter for 1000 Vdc System

HIGH YIELD

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

SMART MANAGEMENT

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

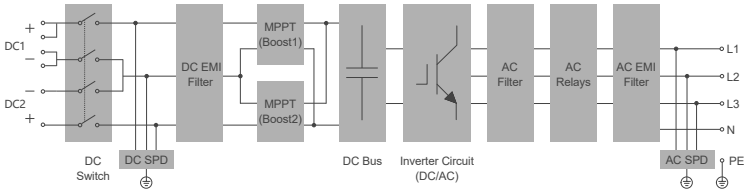
SAFE AND DURABLE

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

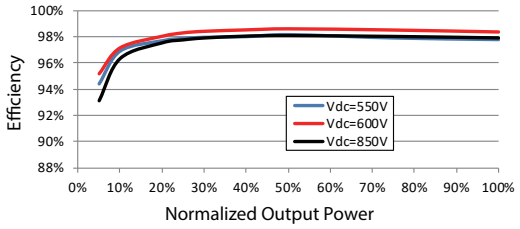
EASY AND USER FRIENDLY

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

CIRCUIT DIAGRAM(SG10RT)



EFFICIENCY CURVE



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SUNGROW
Clean power for all

Type designation	SG5.0RT	SG7.0RT	SG8.0RT	SG10RT
Input (DC)				
Recommended max. PV input power	7.5 kWp	10.5 kWp	12 kWp	15 kWp
Max. PV input voltage	1100 V *			
Min. PV input voltage / Start-up input voltage	180V / 180V			
Rated PV input voltage	600 V			
MPP voltage range	160 V – 1000 V			
No. of independent MPP inputs	2			
No. of PV strings per MPPT	1 / 1	2 / 1	2 / 1	2 / 1
Max. PV input current	25 A (12.5 A / 12.5 A)	37.5 A (25 A / 12.5 A)		
Max. DC short-circuit current	36 A (18 A / 18 A)	54 A (36 A / 18 A)		
Max. current for input connector	30 A			
Output (AC)				
Rated AC output power	5000 W	6999 W	8000 W	9999 W
Max. AC output apparent power	5500 VA	6999 VA	8000 VA	9999 VA
Rated AC output apparent power	5500 VA	6999 VA	8000 VA	9999 VA
Max. AC output current	7.6 A	10.6 A	12.2 A	15.2 A
Rated AC output current(at 230V)	7.2 A	10.1 A	11.6 A	14.5 A
Rated AC voltage	3 / N / PE, 230 / 400 V			
AC voltage range	180V – 276 V / 311 V – 478 V			
Rated grid frequency	50 Hz / 60 Hz			
Grid frequency range	45 – 55 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	3 / 3-N-PE			
Efficiency				
Max.efficiency / European efficiency	98.4% / 97.4%	98.4% / 97.7%	98.5% / 97.8%	98.5% / 97.9%
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			
Ground fault monitoring	Yes			
DC switch	Yes			
PV String current monitoring	Yes			
Arc fault circuit interrupter (AFCI)	Yes			
PID recovery function	Yes			
DC terminal protective cover	Yes			
General Data				
Dimensions (W*H*D)	370 * 480 * 195 mm			
Weight	18 kg			
Mounting method	Wall-mounting bracket			
Topology	Transformerless			
Degree of protection	IP65			
Corrosion	C5			
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			
Communication	WLAN / Ethernet / RS485 / DI / DO			
DC connection type	MC4 (Max. 6 mm^2)			
AC connection type	Plug and play			
Compliance	IEC 62109-1/2, AS/NZS 4777.2:2020			
Country of manufacture	China			

* The inverter enters the standby state when the input voltage ranges between1,000V 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.

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