SUNGROW
Clean power for all

SH8.0 - 10RS

Residential Hybrid Single Phase Inverter

FLEXIBLE APPLICATION

- 200 % DC / AC PV input 16 A * 4 MPPTs
- Ideal for both new installation and retrofit scenario
- Built-in smart PID recovery function

ENERGY INDEPENDENCE

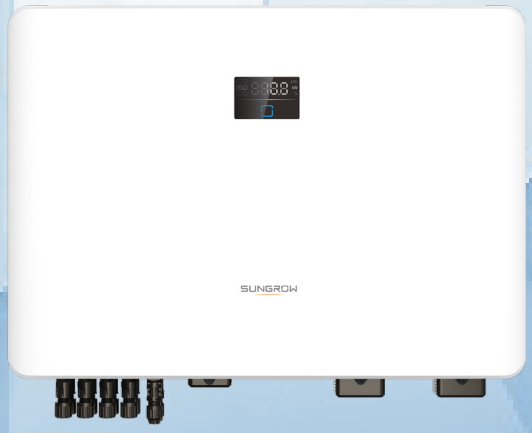
- Seamless transition to backup mode, for protection against power outages
- Fast Charging or discharging, enabling higher self-consumption results
- Built-in EMS with advanced customization

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

USER FRIENDLY

- Plug and play installation
- iSolarCloud monitoring available on App and Web
- whole home backup available



Type designation	SH8.0RS	SH10RS
Input (DC)		
Recommended max. PV input power	16000 Wp	20000 Wp
Max. PV input voltage*	600 V	
Min. PV input voltage / Startup 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	4	
No. of PV strings per MPPT	1 / 1 / 1 / 1	
Max. PV input current	64 A (16 A / 16 A / 16 A / 16 A)	
Max. DC short-circuit current	100 A (25 A / 25 A / 25 A / 25 A)	
Max. current for input connector	20 A	
Battery data		
Battery type	Li-ion battery	
Battery voltage range	80 V – 460 V	
Max. charge / discharge current	50 A*** / 50 A***	
Max. charge / discharge power	10000 W / 10000 W	
Input and Output (AC)		
Max. AC power from grid	14500 VA	
Rated AC output power	8000 W	9999 W
Max. AC output apparent power	8000 VA	9999 VA
Rated AC output apparent power	8000 VA	9999 VA
Max. AC output current	36.4 A	45.5 A
Rated AC output current	34.78 A	43.48 A
Rated AC voltage	230 V	
AC voltage range	154 V – 276 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	1 / 1	
Backup data(on grid mode)		
Rated output power for backup load	14500 W	
Rated output current for backup load	63 A	
Backup data(off-grid mode)		
Rated voltage	230 V	
Rated grid frequency	50 Hz / 60 Hz (± 2 %)	
Output voltage harmonic (THD)	< 2 %	
Switch time to emergency mode	< 10 ms	
Rated output power	8000 W / 8000 VA	9999 W / 9999 VA
Peak output power	13680 VA, 10 s	
Efficiency		
Max. efficiency / European efficiency	97.4 % / 96.8 %	97.5 % / 97.1 %
Protection & function		
Grid monitoring	Yes	
DC reverse polarity protection	Yes	
AC short-circuit protection	Yes	
Leakage current protection	Yes	
DC switch (solar)	Yes	
Surge protection	DC type II / AC type II	
PID Zero	Yes	
Battery input reverse polarity protection	Yes	
AFCI	Yes	
IV scan aand diagnosis	Yes	
General data		
Topology (solar / battery)	Transformerless / Transformerless	
Degree of protection	IP65	
Dimensions (W * H * D)	605 mm * 435 mm * 181 mm	
Weight	29 kg	
Mounting method	Wall-mounting bracket	
Operating ambient temperature range	- 25 ℃ ~ 60 ℃	
Allowable relative humidity range (non-condensing)	0 % – 100 %	
Cooling method	Natural cooling	
Max. operating altitude	4000 m	
Noise (typical)	45 dB (A)	
Display	LED digtal display and LED indicator	
Communication	RS485, WLAN, Ethernet, CAN	
DI / DO	DI * 1 / DO * 2 / DRM	
DC connection type	MC4 (PV) / Plug and play connector (battery)	
AC connection type	Plug and play connector	
Grid compliance	IEC 62109-1:2010, IEC 62109-2, IEC 62477-1,IEC61000-6-1/-2/-3/-4, IEC62920 EN55011,CISPR 11,AS/NZS 4777.2:2020	
Country of manufacture	China	

* Input voltage exceeding the MPPT operating voltage range triggers inverter protection
** Please refer to the user manual for the full load MPPT voltage range
*** Depending on the connected battery

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