# SH5.0/6.0RS

Residential Hybrid Single Phase Inverter



## FLEXIBLE APPLICATION

- 80 V 460 V wide battery voltage range
- Ideal for both retrofitting and new installations
- Built-in smart PID Zero function

## USER FRIENDLY SETUP

- Plug and play installation
- iSolarCloud monitoring available on App and Web
- Lightweight and compact, optimized for heatdissipation

## ENERGY INDEPENDENCE

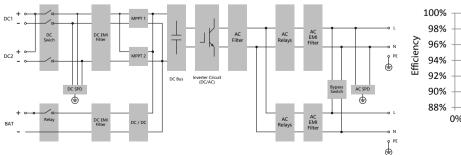
- Seamless transition to backup mode, for protection against power outages
- Fast Charging or discharging, enabling higher self-consumption results
- Built-in EMS with advanced customization

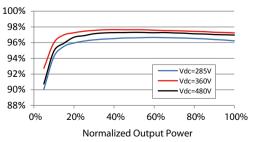


#### SMART MANAGEMENT

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

#### EFFICIENCY CURVE (SH6.0RS)





#### CIRCUIT DIAGRAM



Type designation	SH5.0RS	SH6.0RS	
Input ( DC )			
Recommended max. PV input power	12000 Wp	13000 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 trackers	2		
No. of PV strings per MPPT	1/1		
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	20 A		
Battery data			
Battery type	Li-ion battery		
Battery voltage range	80 V - 460 V		
Max. charge *** / discharge current ***	30 A / 30 A		
Max. charge / discharge power	6600 W		
Input / Output ( AC ) Max. AC power from grid	12000 VA	13000 VA	
Rated AC output power	4999 W	6000 W	
Max. AC output apparent power	4999 W 4999 VA	6000 W 6000 VA	
Rated AC output apparent power	4999 VA 4999 VA	6000 VA	
Rated AC output apparent power Rated AC output current ( at 230 V )	21.7 A	26.1 A	
Max. AC output current	21.7 A 22.7 A	27.3 A	
Rated AC voltage	230 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 % ( of rated power )		
Power factor at rated power / Adjustable power factor	> 0.99 at default value at rated power		
Feed-in phases / connection phases	1/1		
Backup data ( on-grid mode )			
Max. output power for backup load ****	6000 W		
Max. output current for backup load *****	27.3 A		
Backup data (off-grid mode)			
Rated voltage	230V (±2%)		
Rated frequency	50 Hz / 60 Hz ( ± 0.2 % )		
THDV ( @Linear load ) Backup switch time	< 2 % < 10 ms		
Rated output power	5000 W / 5000 VA	6000 W / 6000 VA	
Peak output power	8400 VA, 10 s	0000 W / 0000 VA	
Efficiency			
Max. efficiency / European efficiency	97.7 % / 97.3 %		
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		
Parallel operation on grid port / Max. No of inverters	Master-slave mode / 3		
Battery input reverse polarity protection	Yes		
General data	T		
Topology ( Solar / Battery ) Degree of protection	Transformerless / Transformerle	55	
Dimensions ( W * H * D )	490 mm * 340 mm * 170 mm		
Weight	18.5 kg		
Mounting method	Wall-mounting bracket		
Operating ambient temperature range	-25 °C − 60 °C		
Allowable relative humidity range	0 % - 100 %		
Cooling method	Natural convection		
Max. operating altitude	4000 m		
Noise (typical)	< 45 dB ( A )		
Display	LED digital display & LED indicator		
Communication	RS485 / Ethernet / WLAN / CAN		
DI / DO	DI * 4 / DO * 1 / DRM		
DC connection type	MC4 ( PV, Max.6 mm² ) / Evo2 Compatible ( Battery, Max.6 mm² )		
AC connection type *****	Plug and Play ( Grid Max.16 mm², Backup Max.6 mm² )		
Grid compliance	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 62477-1, 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 \*\*\*\* Please refer to the user manual and modify the settings based on actual load power \*\*\*\*\* Calculated based on 220V grid voltage \*\*\*\*\*\* AC Connector brand is Phoenix Contact and compatible brand. Country code needs to be set before grid connection

