

SH5.0/6.0RS

Residential Hybrid Single Phase Inverter



FLEXIBLE APPLICATION

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



USER FRIENDLY SETUP

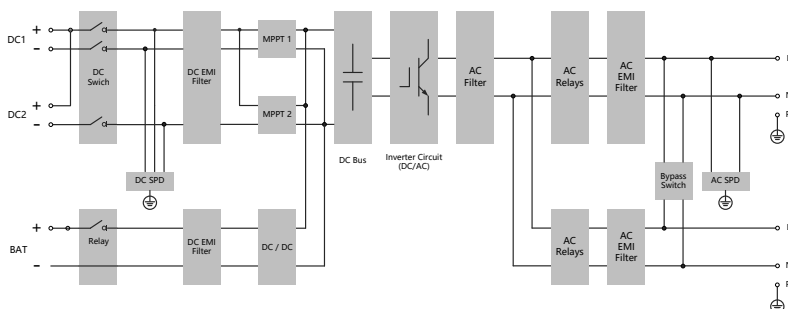
- Plug and play installation **
- iSolarCloud monitoring available on App and Web
- Lightweight and compact, optimized for heat-dissipation



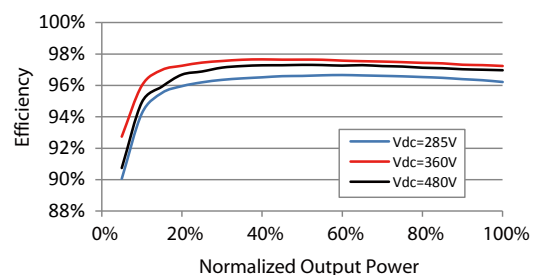
SMART MANAGEMENT

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

CIRCUIT DIAGRAM



EFFICIENCY CURVE (SH6.0RS)



Type designation	SH5.0RS		SH6.0RS	
Input (DC)				
Recommended max. PV input power	12000 Wp		13000 Wp	
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			40V – 560 V	
No. of independent MPP inputs			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			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 VA		6000 VA	
Rated AC output apparent power	4999 VA		6000 VA	
Rated AC output current (at 230V)	21.7 A		26.1 A	
Max. AC output current	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)				
Rated output power for backup load			6000 W	
Rated output current for backup load			27.3 A	
Backup Data (off-grid mode)				
Rated voltage			230V (±2 %)	
Rated grid frequency			50 Hz / 60 Hz (±0.2 %)	
Output voltage harmonic (THD)			< 2 %	
Switch time to emergency mode			< 10 ms	
Rated output power	5000 W / 5000 VA		6000 W / 6000 VA	
Peak output power			8400 VA, 10 s	
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	
DC Overcurrent Protection (Battery)			Yes	
Surge Protection			DC Type II / AC Type II	
PID recovery function			Yes	
Parallel operation on grid port / Max. No of inverters			Master-slave mode / 3	
Battery input reverse polarity protection			Yes	
General Data				
Topology (Solar / Battery)			Transformerless / Transformerless	
Degree of protection			IP65	
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(Non-condensing)			0 % – 100 %	
Cooling method			Natural convection	
Max. operating altitude			4000 m	
Display			LED digital display & LED indicator	
Communication			RS485 / Ethernet / WLAN / CAN	
DI / DO			DI * 4 / DO * 1 / DRM	
DC connection type			MC4 (PV) / Evo2 Compatible (Battery)	
AC connection type			Plug and Play ***	
Grid compliance			IEC 62109-1/2, IEC 62477-1, AS/NZS 4777.2:2020	
Country of manufacture			China	

* Only for P-type PV module

** Country code needs to be set before grid connection

*** AC Connector brand is Phoenix Contact and compatible brand