

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

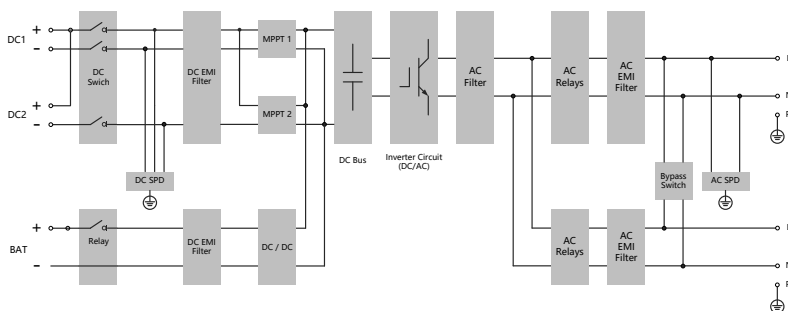
- Plug and play installation **
- iSolarCloud monitoring available on App and Web
- Lightweight and compact, optimized for heat-dissipation



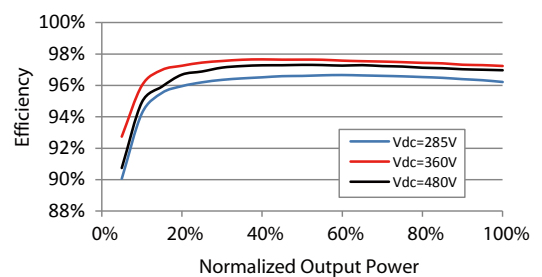
SMART MANAGEMENT

- 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