

# 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

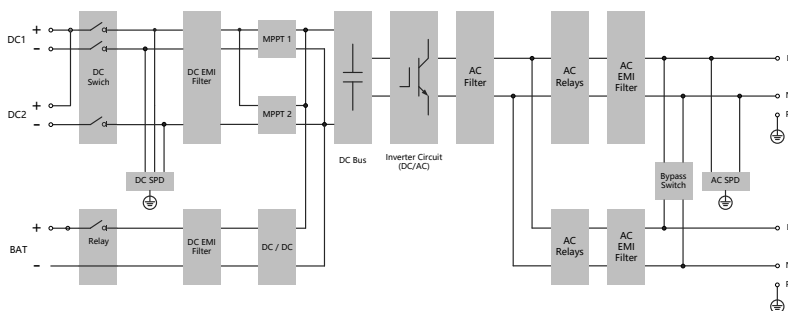
- Plug and play installation \*\*
- iSolarCloud monitoring available on App and Web
- Lightweight and compact, optimized for heat-dissipation



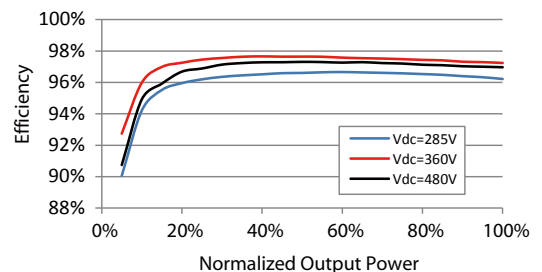
## SMART MANAGEMENT

- 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
<b>Input ( DC )</b>		
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
<b>Battery Data</b>		
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
<b>Input / Output ( AC )</b>		
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
<b>Backup Data ( on-grid mode )</b>		
Rated output power for backup load		6000 W
Rated output current for backup load		27.3 A
<b>Backup Data ( off-grid mode )</b>		
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
<b>Efficiency</b>		
Max. efficiency / European efficiency		97.7 % / 97.3 %
<b>Protection &amp; Function</b>		
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
<b>General Data</b>		
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

