

# SH3.0/3.6/4.0/5.0/6.0RS

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 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



## USER FRIENDLY SETUP

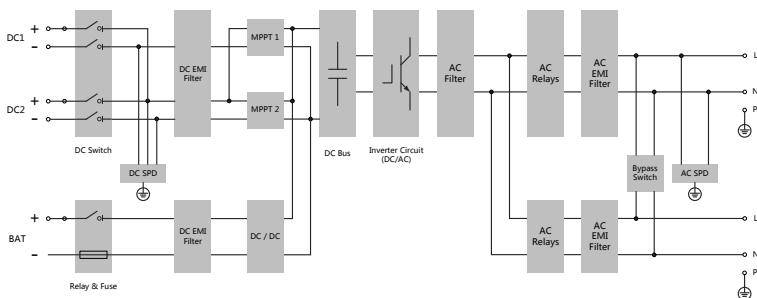
- Plug and play installation
- iSolarCloud monitoring available on App and Web
- Lightweight and compact, optimized for heat-dissipation



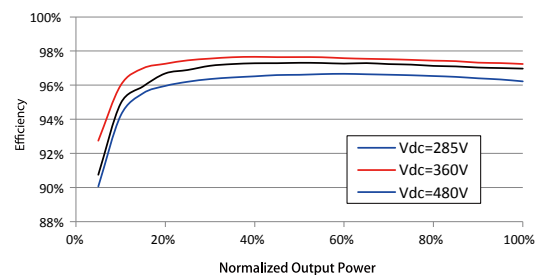
## SMART MANAGEMENT

- 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



Type designation	SH3.0RS	SH3.6RS	SH4.0RS	SH5.0RS	SH6.0RS
<b>Input (DC)</b>					
Recommended max. PV input power	10000 Wp	10700 Wp	11000 Wp	12000 Wp	13000 Wp
Max. PV input voltage	600 V				
Min. PV input voltage / Start-up input voltage	40 V / 50 V				
Nominal PV input voltage	360 V				
MPP voltage range	40V – 560 V				
No. of independent MPP inputs	2				
Default No. of PV strings per MPPT	1				
Max. PV input current	32 A (16 A/16 A)				
Max. DC short-circuit current	40 A (20 A/20 A)				
<b>Input / Output (AC)</b>					
Max. AC input power from grid	10000 VA	10700 VA	11000 VA	12000 VA	13000 VA
Nominal AC output power	3000 W	3680 W	4000 W	5000 W*	6000 W
Max. AC output power	3000 VA	3680 VA	4000 VA	5000 VA*	6000 VA
Max. AC output current	13.7 A	16 A	18.2 A	22.8 A**	27.3 A
Nominal AC voltage	220 / 230 / 240 V				
AC voltage range	154 – 276 V				
Nominal grid frequency /	50 Hz / 45 – 55 Hz				
Grid frequency range	60 Hz / 55 – 65 Hz				
Harmonic (THD)	<3 % (of rated power)				
Power factor at nominal power /	>0.99 at default value at nominal power				
Ajustable power factor	(adj. 0.8 overexcited/leading to 0.8 underexcited/lagging)				
Feed-in phases / connection phases	1 / 1				
<b>Efficiency</b>					
Max. efficiency / European efficiency	97.4 % / 97.0 %	97.5 % / 97.1 %	97.6 % / 97.2 %	97.7 % / 97.3 %	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				
Surge Protection	DC Type II / AC Type II				
DC switch(solar)	Yes				
DC fuse(battery)	Yes				
Arc fault circuit interrupter (AFCI)	Yes				
PID recovery function	Yes				
Battery input reverse polarity protection	Yes				
<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>General Data</b>					
Dimensions (W * H * D)	490 * 340 * 170 mm				
Weight	18.5 kg				
Mounting method	Wall-mounting bracket				
Topology (Solar / Battery)	Transformerless / Transformerless				
Degree of protection	IP65				
Operating ambient temperature range	-25 °C to 60 °C				
Allowable relative humidity range	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) / Sunclix (Battery)				
AC connection type	Plug and Play				
Grid compliance	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-3-11, IEC/EN 61000-3-12, EN 62477-1, AS/NZS 4777.2, EN 50549-1, CEI 0-21, G98 / G99				
<b>Backup Data (off-grid mode)</b>					
Nominal voltage	220 V / 230 V / 240 V (±2 %)				
Frequency range	50 Hz / 60 Hz (±0.2 %)				
Total output THDv for linear load	< 2 %				
Switch time to emergency mode	< 10 ms				
Nominal output power	3000 W / 3000 VA	3680 W / 3680 VA	4000 W / 4000 VA	5000 W / 5000 VA	6000 W / 6000 VA
Peak output power	8400VA, 10s	8400VA, 10s	8400VA, 10s	8400VA, 10s	8400VA, 10s
<b>Backup Data (on grid mode)</b>					
Rated output power for backup load	6000 W				
Rated output current for backup load	27.3 A				

\*: AS4777.2 4999W, 4999VA

\*\* : AS 4777.2 :21.7A

