

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

Residential Hybrid Single Phase Inverter

NEW



## 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

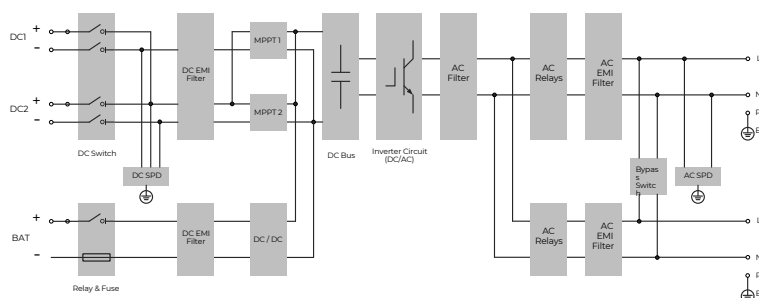
- Plug and play installation
- iSolarCloud monitoring available on App and Web
- Lightweight and compact, optimized for heat-dissipation



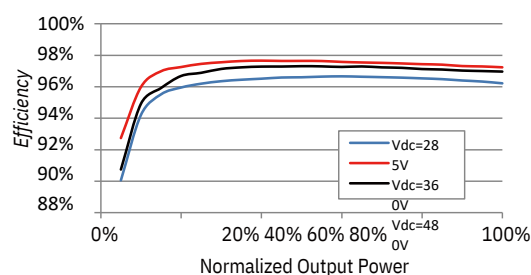
## SMART MANAGEMENT

- 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
Input (DC)					
Recommended max. PV input power	10000 Wp	10700 Wp	11000 Wp	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		
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)		
Input / Output (AC)					
Max. AC input power from grid	10000 VA	10700 VA	11000 VA	12000 VA	13000 VA
Rated 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
Rated AC output current (at 230 V)	13.1 A	16 A	17.4 A	21.8 A**	26.1 A
Max. AC output current	13.7 A	16 A	18.2 A	22.8 A**	27.3 A
Rated AC voltage			220 / 230 / 240 V		
AC voltage range			154 V – 276 V		
Rated grid frequency /			50 Hz / 45 – 55 Hz		
Grid frequency range			60 Hz / 55 – 65 Hz		
Harmonic (THD)			<3 % (of rated power)		
Power factor at rated power /		>0.99 at default value at rated power			
Adjustable power factor		(adj. 0.8 overexcited/leading to 0.8 underexcited/lagging)			
Feed-in phases / connection phases			1 / 1		
Efficiency					
Max. efficiency / European efficiency	97.4 % / 97.0 %	97.5 % / 97.1 %	97.6 % / 97.2 %	97.7 % / 97.3 %	97.7 % / 97.3 %
Protection & Function					
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		
PID recovery function			Yes		
Battery input reverse polarity protection			Yes		
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		
General Data					
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				
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			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		
Rated 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			8400 VA, 10s		

\* AS4777.2 4999W, 4999VA \*\* AS 4777.2 :Rated and Max. AC current is 21.7A