

SH5.0/6.0/8.0/10RT Preliminary

Residential Hybrid Three Phase Inverter



FLEXIBLE APPLICATION

- 150~600V wide battery voltage range
- Supports parallel connection with full communication between inverters
- Provides 100% unbalance loads in backup mode

ENERGY INDEPENDENCE

- Seamless transition to backup mode for protection against power outages
- Fast charging/discharging to meet the demand of higher consumption and energy trading

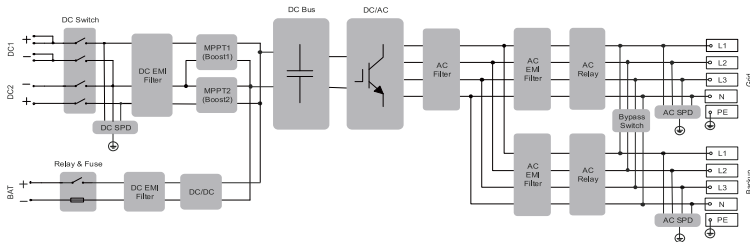
SMART MANAGEMENT

- High self-consumption with optimised built-in EMS
- Free online monitoring to enhance energy management for end user, installer and retailer
- Remote firmware update and customisable settings

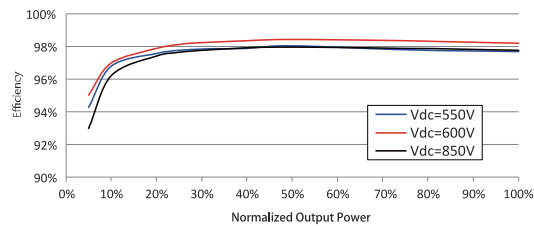
EASY INSTALLATION

- Unique push-in connectors for time-saving installation
- Touch free commissioning with smartphone
- Lightweight and compact

CIRCUIT DIAGRAM



EFFICIENCY CURVE (SH10RT)



Type designation	SH5.0RT	SH6.0RT	SH8.0RT	SH10RT
PV Input				
Max. PV input power	7500W	9000W	12000W	15000W
Max. PV input voltage	1000V	1000V	1000V	1000V
Startup voltage	180V	250V	250V	250V
Nominal input voltage	600V	600V	600V	600V
MPP voltage range	150V - 950V	200V - 950V	200V - 950V	200V - 950V
MPP voltage range for nominal power	210V - 850V	250V - 850V	330V - 850V	280V - 850V
No. of MPPTs	2	2	2	2
Max. number of PV strings per MPPT	1/1	1/1	1/1	1/2
Max. PV input current	25A (12.5A/12.5A)	25A (12.5A/12.5A)	25A (12.5A/12.5A)	37.5A (12.5A/25A)
Max. current for input connector	16A	16A	16A	16A
Short-circuit current of PV input	32A (16A/16A)	32A (16A/16A)	32A (16A/16A)	48A (16A/32A)
AC Input and Output				
Nominal AC output power	5000W	6000W	8000W	10000W
Nominal AC output current	7.3A	8.7A	11.6A	14.5A
Max. AC output apparent power	5000VA	6000VA	8000VA	10000VA
Max. AC output current	8.5A	10A	13.5A	17A
Nominal AC voltage	3 / N / PE, 220 / 380 V; 230 / 400 V; 240 / 415 V			
AC voltage range	270 - 480Vac			
Nominal grid frequency	50Hz/60Hz			
Grid frequency range	45 - 55Hz/55 - 65Hz			
THD	<3 % (of nominal power)			
DC current injection	<0.5 % In			
Power factor	>0.99 / 0.8 leading to 0.8 lagging			
Protection				
LVRT	Yes			
Anti-islanding protection	Yes			
AC short circuit protection	Yes			
Leakage current protection	Yes			
DC switch (solar)	Yes			
DC fuse (battery)	Yes			
Overvoltage Protection	DC Type II / AC Type II			
Battery Data				
Battery type	Li-ion battery			
Battery voltage	150V - 600V			
Max charge / discharge current	25A/25A			
Max charge / discharge power	7500W/6600W	9000W/7200W	10600W/10600W	10600W/10600W
System Data				
Max. efficiency / European efficiency	98.0% / 97.2%	98.2% / 97.5%	98.4% / 97.9%	98.4% / 97.9%
Max. charge / discharge efficiency	98.5%			
Isolation method (solar) / (battery)	Transformerless / Transformerless			
Ingress protection rating	IP65			
Operating ambient temperature range	-25 °C – 60 °C			
Allowable relative humidity range (non-condensing)	0% – 100%			
Cooling method	Natural convection			
Max. operating altitude	4000m			
Display	LED			
Communication	RS485, WLAN, Ethernet, CAN, 4 X DI, 1 X DO			
DC connection type	MC4 (PV) / Sunclix (Battery)			
AC connection type	Plug and play connector			
Compliance	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-3-11, IEC/EN 61000-3-12, EN 62477-1, VDE0126-1-1/4105, CEI 0-21, AS 4777.2, EN50549-1			
Mechanical Data				
Dimensions (W * H * D)	460mm×540mm×170mm			
Mounting method	Wall-mounting bracket			
Weight	26kg			
Backup Data				
Nominal voltage	3 / N / PE, 220Vac/230Vac/240Vac			
Frequency range	50Hz/60Hz			
Total harmonic factor output voltage	2%			
Switch time to emergency mode	<20ms			
Nominal output power	5000W/5000VA (100% unbalance load)	6000W/6000VA (100% unbalance load)	8000W/8000VA (100% unbalance load)	10000W/10000VA (100% unbalance load)
Peak output power	6000W/6000VA, 5min 10000W/10000VA, 10s	7200W/7200VA, 5min 10000W/10000VA, 10s	12000W/12000VA, 5min	12000W/12000VA, 5min
Parallel operation	Yes/2			