SH5.0/10RT

Residential Hybrid Three phase Inverter

AU



FLEXIBLE APPLICATION

- 150–600V wide battery voltage range
- Supports parallel connection with master-slave controlling
- Provides 100% power to 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

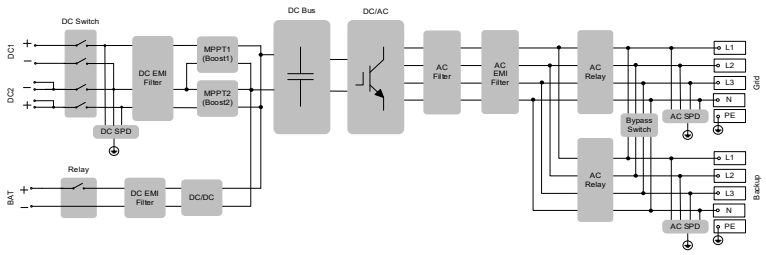
SMART MANAGEMENT

- 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

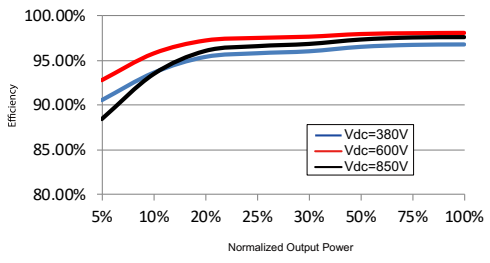
EASY INSTALLATION

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

CIRCUIT DIAGRAM



EFFICIENCY CURVE (SH5.0RT)



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Type designation	SH5.0RT	SH10RT
Input (DC)		
Recommended max. PV input power	7500 Wp	15000 Wp
Max. PV input voltage *	1000 V	
Min. PV input voltage / Startup input voltage	150 V / 180 V	200 V / 250 V
Rated PV input voltage	600 V	
MPPT operating voltage range **	150 V – 950 V	200 V - 950 V
No. of independent MPP trackers	2	
No. of PV strings per MPPT	1 / 1	1 / 2
Max. PV input current	25 A (12.5 A / 12.5 A)	37.5 A (12.5 A / 25 A)
Max. DC short-circuit current	36 A (18 A / 18 A)	54 A (18 A / 36 A)
Max. current for input connector	30 A	
Battery data		
Battery type	Li-ion battery	
Battery voltage range	150 V - 600 V	
Max. charge *** / discharge current ***	30 A / 30 A	
Max. charge / discharge power	7500 W / 6000 W	10600 W / 10600 W
Input / Output (AC)		
Max. AC input power	11600 W	14000 W
Max. AC power from grid	12500 VA	20600 VA
Rated AC output power	5000 W	9999 W
Max. AC output apparent power	5000 VA	9999 VA
Rated AC output apparent power	5000 VA	9999 VA
Rated AC ouput current	7.3 A	14.5 A
Max. AC output current	7.6 A	15.2 A
Rated AC voltage	3 / N / PE, 220 V / 380 V; 230 V / 400 V	
AC voltage range	270 V - 480 V	
Rated grid frequency	50 Hz	
Grid frequency range	45 Hz - 55 Hz	
Harmonic (THD)	< 3 % (of rated power)	
Power factor at rated power / Adjustable power factor	> 0.99 / 0.8 leading to 0.8 lagging	
Feed-in phases / Connection phases	3 / 3-N-PE	
Backup data		
Rated voltage	3 / N / PE, 220 Vac / 230 Vac	
THDV(@Linear load)	2 %	
Backup switch time	< 20 ms	
Rated output power	5000 W / 5000 VA	9999 W / 9999 VA
Peak output power ****	6000 W / 6000 VA, 5 min 10000 W / 10000 VA, 10 s	12000 W / 12000 VA, 5 min
Rated output current for backup load during on grid mode	3 * 18.5 A	
Efficiency		
Max. efficiency / European efficiency	98.0 % / 97.2 %	98.4 % / 97.9 %
PV to Bat to Grid efficiency	> 94 %	
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	
Parallel operation on grid port / Max. No of inverters	Master-slave mode / 5	
Battery input reverse polarity protection	Yes	
General data		
Topology (solar / battery)	Transformerless / Transformerless	
Degree of protection	IP65	
Dimensions (W * H * D)	460 mm * 540 mm * 170 mm	
Weight	27 kg	
Mounting method	Wall-mounting bracket	
Operating ambient temperature range	- 25 ℃ - 60 ℃	
Allowable relative humidity range (Non-condensing)	0% - 100%	
Cooling method	Natural convection	
Max. operating altitude	4000 m	
Noise (Typical)	30 dB (A)	
Display	LED	
Communication	RS485, WLAN, Ethernet, CAN, 4 × DI, 1 × DO	
DC connection type	MC4 (PV, Max.6 mm²) / Evo2 Compatible (Battery, Max.6 mm²)	
AC connection type	Plug and play connector (Grid Max.10 mm², Backup Max.6 mm²)	
Compliance	IEC 62109-1/2, IEC 62477-1, AS/NZS 4777.2:2020	
Country of manufacture	China	

* Input voltage exceeding the MPPT operating voltage range triggers inverter protection
** Please refer to the user manual for the full load MPPT voltage range
*** Depending on the connected battery
**** Can be reached only if PV and battery power is sufficient. Detail compatibility for backup under off-grid scenario can be referred to the user manual.

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