

SH5K-30

Residential Hybrid Single Phase Inverter



FLEXIBLE APPLICATION

- Suitable for new install and retrofit
- Supports parallel connection with full communication between inverters
- Energy trading ready with 3rd-party EMS to maximise ROI

SAFE AND RELIABLE

- Seamless transition to backup mode to protect against power outages
- Finish maintained for long term with high anti-corrosion enclosure
- Build-in Certified PV Isolator

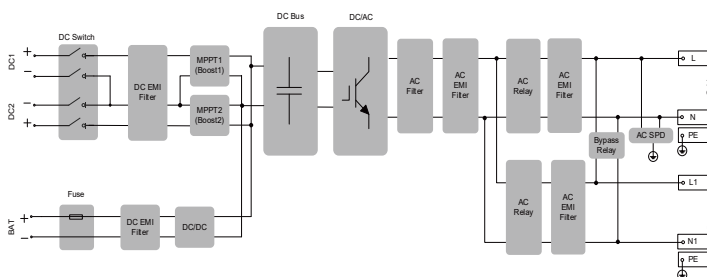
SMART MANAGEMENT

- Optimised energy management and battery usage strategies
- Feature-rich online monitoring to enhance energy management for end user, installer and retailer
- Remote firmware update and customisable settings

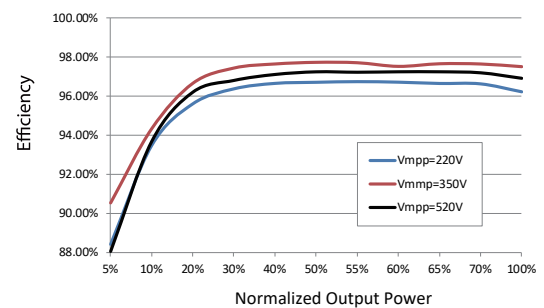
EASY INSTALLATION

- Cleaner and simpler install with EPS built-in to inverter
- Mounting plate with built-in level
- Fast and easy commissioning via front panel LCD or App

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SH5K-30
DC Input Data	
Recommended max. PV input power	6700 W
Max. PV input voltage	600 V
Startup voltage	125 V
Rated input voltage	350 V
MPP voltage range	125 V – 560 V
MPP voltage range for rated power	240 V – 520 V
No. of MPPTs	2
Max. number of PV strings per MPPT	1 / 1
Max. PV input current	22 A (11 A / 11 A)
Max. current for input connector	15A
Short-circuit current of PV input	30 A (15 A / 15 A)
AC Input and Output Data	
Rated AC output power	5000 W ^{*1}
Rated AC output current	22.7 A ^{*2}
Max. AC output apparent power	5000 VA
Rated AC output apparent power	5000VA
Max. AC output current	22.7 A ^{*2}
Max. AC input power	8000 W
Max. AC input current	36.4 A ^{*3}
Rated AC voltage	220 Vac / 230 Vac / 240 Vac
AC voltage range	176 Vac – 276 Vac
Rated grid frequency	50Hz
Grid frequency range	45 – 55Hz (this may vary with grid standards)
THD (Total Harmonic Distortion)	<3 % (of rated power)
DC current injection	<0.5 % (of rated current)
Power factor	> 0.99 / 0.8 leading – 0.8 lagging
Protection	
Anti-islanding protection	Yes
AC short circuit protection	Yes
Leakage current protection	Yes
DC switch (solar)	Yes
DC fuse (battery)	Yes
Overvoltage Category	III [MAIN], II [PV] [BATTERY]
Battery Data	
Battery type	Li-ion battery / Lead-acid battery
Battery voltage	48 V (32 V–70 V)
Max. charge / discharge current	65 A / 65 A
System Data	
Max. efficiency	97.7 %
European efficiency	97.1 %
Max. charge / discharge efficiency	94.0 %
Isolation method (solar)	Transformerless
Isolation method (battery)	HF
Ingress protection rating	IP65
Operating ambient temperature range	-25 °C to 60 °C (>45 °C derating)
Relative humidity range	0%–100%
Cooling method	Natural convection
Max. operating altitude	2000m
Display	Graphic LCD
Communication	2 × RS485, WiFi, CAN, Ethernet
Power management	1 × Digital Output
Earth alarm	email, buzzer inside
PV connection type	MC4
AC connection type	Clamping yoke connector
Certification	AS/NZS 4777.2:2020, IEC 62109-1, IEC62109-2, IEC62477-1, IEC 62040-1, EN 61000-6-1/-3, ABNT NBR 16149: 2013, ABNT NBR 16150: 2013
Country of manufacture	China
Mechanical Data	
Dimensions (W * H * D)	457 * 515 * 170 mm
Mounting method	Wall-mounting bracket
Weight	22 kg
Backup Data	
Rated voltage	220 Vac / 230 Vac / 240 Vac (±2%)
Total harmonic factor output voltage	2% (full resistive load)
Frequency range	50 Hz (± 0.2 %)
Switch time to emergency mode	<20 ms
Power factor	0.8 overexcited/leading to 0.8 underexcited/lagging
Backup Rated AC output power	3000 W / 3000 VA
Max. output power	5000W / 5000 VA
Max. output power (battery)	3000 W / 3000 VA
Peak output power, Duration	6000 VA, 10S

*1: AS4777 : 4990 W, 4990 VA

*2: AS4777 : 21.7 A

*3: AS4777 : 34.8 A

