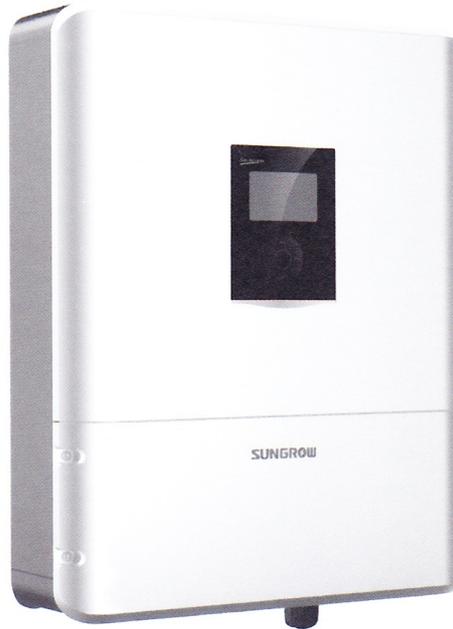


## SH5K

Residential Energy Storage System



### Reliable

- Integrate high frequency isolation battery charge and discharge circuit, 48V battery voltage, Max charge and discharge current 65A
- Protection rate at IP65
- Off-grid emergency output, output capacity of 3000w in battery mode



### Intelligent Design

- Off-grid emergency output function, output capacity of 3000w in battery mode,
- active and reactive power function
- Communication via RS485/Ethernet/Wi-Fi/CAN



### Integrated Design

- Integrated EMS system and DI/DO port
- Compatible to both lithium and lead acid battery



**Input Side Data**

Max. PV input power	6500W
Max. PV input voltage	600V
Startup voltage	125V
Nominal input voltage	360V
MPP voltage range	125-560V
MPP voltage range for nominal power	260-520V
No. of MPPTs	2
Max. number of PV strings per MPPT	1/1
Max. PV input current	20A(10A/10A)
Max. current for input connector	12A
Short-circuit current of PV input	

**Protection**

Anti-islanding protection	Yes
AC short circuit protection	Yes
Leakage current protection	Yes
DC switch(solar)	Optional
DC fuse	No
Overvoltage protection	III

**Battery Side Data**

Battery type	Li-battery / Lead-acid battery
Battery voltage	48V(32-70V)
Max charge/discharge current	65A/65A

**Backup Data**

Nominal voltage	230Vac ± 2%
Total harmonic factor output voltage	4%(full load)
Frequency range	50Hz ± 0.2%
Switch time to emergency mode	10s
Power factor	0.8 overexited ~0.8 underexited
Max. output power	5kW/5kVA
Max. output power(battery)	3kW/5kVA

**STB5K[Backup box]**

Max input/output current	25A
Nominal AC voltage	230-240Vac
AC voltage range	196-264Vac
Operating ambient temperature range	-25-60°C
Power consumption	<8VA/2W

**Output Side Data**

Nominal AC output power	4990W
Nominal AC output current	21.6A
Max. AC output apparent power	5000VA
Max. AC output current	21.7A
Nominal AC voltage	230Vac
AC voltage range	180-276Vac (May vary as per corresponding country's grid standard)
Nominal grid frequency	50Hz
Grid frequency range	45-55Hz (May vary as per corresponding country's grid standard)
THD	<3 % (Nominal power)
DC current injection	<0.5 %In
Power factor	>0.99@default value at nominal power, (adj. 0.8 overexited ~0.8 underexited)

**Mechanical Data**

Dimensions ( W×H×D )	447×510×150mm
Mounting method	Wall bracket
Weight	20kg

**System Data**

Max. efficiency	>97.8%
Max. European efficiency	>97.2%
Max. charge/discharge efficiency	>94.0%
Isolation method(solar)	Transformerless
Isolation method(battery)	HF
Ingress protection rating	IP65
Night power consumption	<1W
Noise emission	30dB
Operating ambient temperature range	-25-60℃(>45℃ derating)
Allowable relative humidity range	0-100% non-condensation
Cooling method	Natural convection
Max. operating altitude	4000m(>2000m derating)
Display	Graphic LCD
Communication	2×RS485,Wifi(optional),CAN,NET
Analogue inputs	PT1000
Power management	1×Digital Output
Earth alarm	1×Digital Output /Email/ Buzzer inside
DC connection type	MC4
AC connection type	Clamping yoke connector
Certification	AS4777,AS/NZS3100,IEC 62109-1,IEC62109-2,IEC 62619,IEC 62040,EN 61000-6-2/-3

**System Diagram**

