SUNGROW
Clean power for all

SH5RL/SH6RL
SBL060

NEW

SUPERIOR EFFICIENCY
Maximize Energy, Minimize Waste

- 20 A Input for Mainstream PV Panels
- Wide MPPT Range (40 V Min.)
- Patented PID Zero

ALWAYS POWERFUL
Master Energy In and Out, Anytime

- Full Power Backup at 45 ℃ , Good Operation at -20 ℃
- Up to 2 Inverters & Each Inverter Support 4 Battery Packs Parallel
- Peak backup output up to 200%, 10 s

EVEN MORE DURABLE
Power Your House for Longer!

- 314 Ah Cells with Battery Optimizer for Long Service Life
- IP65 Waterproof & C5-M Corrosion-Resistant

NEXT LEVEL BACKUP
System Flexibility in Every Scenario

- 4 ms Seamless Switch*
- Diesel Generator, Micro inverter & EV charger Compatibility**
- Retrofit or New Installation for Whole-Home Backup

UPGRADED SAFETY
Shield Your Home from Every Risk

- Patented Explosion-Proof Design
- Real-Time Battery Monitoring with Active Protection Kit
- AFCI Protection

INTELLIGENT ENERGY MANAGEMENT
Control Energy at Your Fingertips

- iHomeManager (iHM) with Smart Load***
- iSolarCloud App
- Intelligent IV Scanning & Fault Recording
- Battery Integrated BMS (battery management system)

Type designation	SH5RL	SH6RL
Input (DC)		
Recommended max. PV input power	10000 Wp	12000 Wp
Max. usable PV input power	8000 Wp	9600 Wp
Max. PV input voltage	500 V	
Min. PV input voltage / Startup input voltage	40 V / 50 V	
Rated PV input voltage	360 V	
MPPT operating voltage range****	40 V - 425 V	
No. of independent MPP trackers	2	
No. of PV strings per MPPT	1 / 1	
Max. PV input current	40 A (20 A / 20 A)	
Max. DC short-circuit current	50 A (25 A / 25 A)	
Max. current for input connector	25 A	
Battery data		
Battery type	Li-ion battery	
Battery voltage range	40 V – 60 V	
Max. charge / discharge current*****	120 A / 120 A	135 A / 135 A
Max. charge / discharge power	5000 W / 5000 W	6000 W / 6000 W
Input / Output (AC)		
Max. AC power from grid	8800 W	
Rated AC output power	5000 W	6000 W
Max. AC output apparent power	5000 VA	6000 VA
Max. AC output current	22.7 A	27.3 A
Rated AC voltage	220 V / 230 V / 240 V	
AC voltage range	154 V – 276 V	
Rated grid frequency	50 Hz / 60 Hz	
Grid frequency range	45 Hz – 55 Hz / 55 Hz – 65 Hz	
Harmonic (THD)	< 3% (of rated power)	
Power factor at rated power / Adjustable power factor	> 0.99 at default value at rated power / 0.8 leading to 0.8 lagging	
Feed-in phases / Connection phases	1 / 1	
Backup data (on grid mode)		
Max. output power for backup load ******	8800 W	
Max. output current for backup load	40 A	
Backup data (off-grid mode)		
Rated voltage	220 V / 230 V / 240 V	
Rated frequency	50 Hz / 60 Hz	
THDV (@ Linear load)	< 2%	
Backup switch time	≤ 4 ms	
Rated output power	5000 W	6000 W
Max. output power for backup load	5500 W	6600 W
Peak output power	2 times of rated power, 10 s	
Efficiency		
Max. efficiency / European efficiency	97.2% / 96.2%	
Protection & Function		
Grid monitoring	Yes	
DC reverse polarity protection	Yes	
AC short-circuit protection	Yes	
Leakage current protection	Yes	
DC switch (solar)	Yes	
Surge protection	DC Type II / AC Type II	
PID Zero	Yes	
Arc fault circuit interrupter (AFCI)	Yes	
Micro-inverter compatbility********	Optional	
General data		
Topology (Inverter)	Non-isolated	
Topology (Battery BDC)	Isolated	
Degree of protection	IP65	
Dimensions (W * H * D)	532 mm * 386 mm * 210 mm	
Weight	< 19 kg	
Mounting method	Wall-mounting bracket	
Operating ambient temperature range	-25 ℃ to 60 ℃	
Allowable relative humidity range	0% – 95%	
Cooling method	Natural convection	
Max. operating altitude	3000 m	
Noise (typical)	≤ 35 dB (A)	
Display	LED	
Communication	CAN, RS485, Ethernet, WLAN	
DI / DO	DI * 1 / DO * 1	
DC connection type	MC4 (Max.6 mm^2)	
Battery connection type	OT terminal (35 mm^2)	
AC connection type	Plug and Play (Max. 8 AWG)	
Grid compliance	IEC 62109-1/-2, IEC/EN 61000-6-1/-3, IEC 63027, IEC 62116, IEC 61727, EN 50549, VDE-AR-N 4105, G99, UNE, NTS, CEI 0-21, NRS 097-2-1	

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Type designation	SBL060
System data	
Battery type	LiFePO4
Nominal energy	6.0 kWh
Usable energy	5.8 kWh
Nominal voltage	51.2 V
Recommended charging/discharging power	3.0 kW / 2.9 kW
Peak charging/discharging power********	3.75 kW / 3.7 kW
Communication	
Display	LED
Communication interface	CAN
Protection	
Over / under voltage protection	Yes
Over current protection	Yes
Over / under temperature protection	Yes
Reverse connection protection	Yes
DC breaker	Yes
General data	
Dimensions (W * H * D)	650 mm * 490 mm * 225 mm
Weight	≤ 55 kg
Degree of protection	IP65
Mounting method	Wall-mounting bracket / Floor-standing bracket
Installation location	Indoor / Outdoor
Operating ambient temperature range	Charge / Discharge : -20 ℃ to 55℃
Allowable relative humidity range	5% – 95%
Cooling method	Natural convection
Scalability	4 in parallel
Certification	CE, CEC, IEC 62619, IEC 62040, UN 38.3, IEC 63056, IEC 62477

* Available in typical conditions

** EV charger is only available when configured with iHomeManager

*** Available in Q1 2026

**** Please refer to the user manual for the full load MPPT voltage range

*****The system's charging and discharging capability is also limited by the battery's charging and discharging performance

******Please refer to the user manual and modify the settings based on actual load power

*******For micro-inverter compatibility, it is only available for the grid-connection port of the inverter

********Peak charging/discharging power with a duration of 10 s

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