SUNGROW
Clean power for all

NEW

SH8RL/SH10RL

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	SH8RL	SH10RL
Input (DC)		
Recommended max. PV input power	16000 Wp	20000 Wp
Max. usable PV input power	12800 Wp	16000 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	3	
No. of PV strings per MPPT	1 / 1 / 1	
Max. PV input current	60 A (20 A / 20 A / 20 A)	
Max. DC short-circuit current	75 A (25 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	190 A / 190 A	220 A / 220 A
currentMax. charge / discharge	8000 W / 8000 W	10000 W / 10000 W
power		
Input / Output (AC) from grid	13860 W	
Output (AC)		
Rated AC output power	8000 W	10000 W
Max. AC output apparent power	8000 VA	10000 VA
Max. AC output current	36.4 A	45.5 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	13860 W	
Max. output current for backup load	63 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	8000 W	10000 W
Max. output power for backup load	8800 W	11000 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)	552 mm * 448 mm * 250 mm	
Weight	< 27 kg	
Mounting method	Wall-mounting bracket	
Operating ambient temperature range	-25 ℃ to 60 ℃	
Allowable relative humidity range	0% – 95%	
Cooling method	Fan cooling	
Max. operating altitude	3000 m	
Noise (typical)	≤ 45 dB (A)	
Display	LED	
Communication	CAN, RS485, Ethernet, WLAN	
DI / DO	DI * 1 / DO * 1	
DC connection type	MC4 (Max.6 mm²)	
Battery connection type	OT terminal (35 mm²)	
AC connection type	OT terminal (Max. 16 mm²)	
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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