



ENERGY STORAGE PRODUCT CATALOG

All-in-One Systems | Residential ESS | Commercial & Industrial ESS
Off-Grid & Grid-Tied Systems

Contact: sales@solhon.com | www.solhon.com

Specifications are for reference only and subject to change without prior notice.

About Solhon

Solhon positions itself as an energy storage solutions and supply chain integrator, not merely an equipment manufacturer. We provide global clients with one-stop services covering solution design, product selection, supply chain matching, production follow-up, and export delivery.

Core Services

Solution Design

Tailored energy storage system designs based on each client's application scenario — residential, commercial & industrial, off-grid, and microgrid — rather than simply selling standard products.

Supply Chain Integration

Leveraging a mature supply chain network to match high-quality products from different manufacturers, enabling flexible cross-brand and cross-category combinations with optimized cost.

One-on-One Technical Support

Dedicated technical guidance throughout the entire process — from pre-sales consultation, system configuration, and technical parameter confirmation, to installation and commissioning support.

End-to-End Follow-Up from Production to Export

Full-process tracking from factory production scheduling, quality inspection, and certification verification, to customs clearance, logistics, and export delivery, ensuring on-time and on-spec project delivery.

Certification & Compliance

All products meet export standards and hold relevant certifications such as CE, IEC, and UL, satisfying market access requirements in different regions.

ODM / OEM Support

Flexible ODM and OEM cooperation, including custom branding, custom appearance, and custom functionality.

Our Value

We do not just deliver a device — we deliver an energy storage solution that is deployable, repeatable, and sustainable.

Catalog Notice

The products and specifications listed in this catalog are for reference only and represent only a selection of Solhon's product series — not a complete energy storage solution.

All product data, configurations, and technical parameters are subject to one-on-one solution matching and confirmation by the Solhon team, based on the client's actual application scenario, project requirements, and target market access standards.

This catalog does not constitute a final delivery solution. Actual supplied products, system configurations, and technical specifications shall be governed by the formally confirmed solution and contractual agreement between both parties.

1. All-in-One Energy Storage Systems

Highly integrated solar-storage all-in-one systems combining PV, battery, inverter and power distribution in a single unit. Flexible scheduling maximizes PV self-use; off-grid mode supplies critical loads with <10ms switching. Available from 3.5kW/5kWh indoor to 50kW/112kWh outdoor platforms.

1.1 SH-AI1 Series — Indoor All-in-One (3.5-50kW)

For residential and light commercial indoor installations. HD touch screen, mobile APP remote access, EU 230V single-phase / 400V three-phase, US 120/240V split-phase. Battery 0.5C, IP20.

Table 1. SH-AI1 series key specifications

Model	Rated Power	Peak Power	Battery	MPPT	Max PV	Switch
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					Array	Time
SH-AI1-3.5K-5	3,500W	6,000W	5kWh	1	4,000W	10ms
SH-AI1-6.6K-10	6,600W	10,000W	10kWh	1	5,500W	10ms
SH-AI1-10.5K-16	6,600/10,500W	10,000/15,000W	16kWh	1/2	5,500×2W	10ms
SH-AI1-12.5K-32	12,500W	19,000W	30/32kWh	2	6,600×2W	10ms
SH-AI1-25K-64	25,000W	38,000W	48/64kWh	4	9,000×4W	10ms
SH-AI1-37.5K-80	37,500W	57,000W	64/80kWh	6	9,000×6W	10ms
SH-AI1-50K-112	50,000W	76,000W	96/112kWh	8	9,000×8W	10ms

Common: EU 230V single-phase / 400V three-phase (configurable 200–240V); US 120/240V split-phase; 50/60Hz; inverter & bypass switching <10ms; 0.5C charge/discharge; IP20.

1.2 SH-AO1 Series — Outdoor All-in-One (25–50kW)

Outdoor-rated all-in-one system for commercial rooftops, small C&I and island applications. IP54 weatherproof, compact integrated design, 51.2V LFP battery platform.

Table 2. SH-AO1 series key specifications

Model	Rated Power	Peak Power	Battery	MPPT	Max PV Array	Switch Time
SH-AO1-25K-64	25,000W	38,000W	48/64kWh	4	9,000×4W	10ms
SH-AO1-37.5K-80	37,500W	57,000W	64/80kWh	6	9,000×6W	10ms
SH-AO1-50K-112	50,000W	76,000W	96/112kWh	8	9,000×8W	10ms

Common: EU 230V/400V; US 120/240V split-phase; 50/60Hz; switching <10ms; 0.5C; IP54 outdoor.

2. Residential Energy Storage

Complete home energy solutions pairing SH-I hybrid inverters with SH-BP lithium iron phosphate batteries. Four charging modes, emergency power capability, up to 9 units in parallel, 99.9% MPPT efficiency and 6,000+ cycle batteries.

2.1 SH-I1 Single-Phase Hybrid Inverter (3.5–12.5kW)

Supports battery-less output and independent PV startup; four charging strategies; 9 units max parallel (single-phase or three-phase output); cloud & APP monitoring; CE (IEC62109-1) & EN61000 certified.

Table 3. SH-I1 single-phase series

Model	Rated	Peak	AC Output	MPPT	Max PV	Switch
SH-I1-3.5K	3,500W	7,000W	230V (adj. 200-240)	1	4,000W	10ms
SH-I1-6.6K	6,600W	13,200W	230V (adj. 200-240)	1	6,600W	10ms
SH-I1-8.5K	8,500W	17,000W	230V (adj. 200-240)	2	6,600×2W	10ms
SH-I1-10.5K	10,500W	21,000W	230V (adj. 200-240)	2	6,600×2W	10ms
SH-I1-12.5K	12,500W	25,000W	230V (adj. 200-240)	2	6,600×2W	10ms

MPPT tracking efficiency 99.9%; battery inversion efficiency 93%; 50/60Hz.

2.2 SH-I3 Three-Phase Hybrid Inverter (8.5–12.5kW)

400VAC three-phase hybrid inverter for larger homes and small businesses; up to 9 units in parallel.

Table 4. SH-I3 three-phase series

Model	Rated	Peak	MPPT	Max PV
SH-I3-8.5K	8,500W	17,000W	2	6,600×2W
SH-I3-10.5K	10,500W	21,000W	2	7,500×2W
SH-I3-12.5K	12,500W	25,000W	2	9,000×2W

AC output 400VAC 3-phase, 50/60Hz; battery inversion efficiency $\geq 93\%$.

2.3 SH-IU US-Standard Hybrid Inverter (6.6–12.5kW)

US-market version with 120VAC or 120/240V split-phase output; parallel up to 9 units for single-phase, split-phase or three-phase.

Table 5. SH-IU US-standard series

Model	Rated	Peak	AC Output	MPPT
SH-IU-6.6K	6,600W	13,200W	120VAC	1
SH-IU-8.5K	8,500W	17,000W	120/240V split-phase	2
SH-IU-10.5K	10,500W	21,000W	120/240V split-phase	2
SH-IU-12.5K	12,500W	25,000W	120/240V split-phase	2

MPPT efficiency 99.9%; 50/60Hz.

2.4 SH-BP Battery Series (LFP, 6,000+ Cycles)

Low-voltage LFP batteries with intelligent BMS, compatible with mainstream inverters. Four form factors to fit every installation: Pro (low-voltage module), W (wall-mounted), L (wheeled), R (rack, UL certified models available).

Table 6. SH-BP battery family

Series	Form Factor	Capacity	Cycle Life	Parallel	Cert. Notes
SH-BP1 / SH-BP2	Module / stack	2.56–16.1kWh	$\geq 6,000$	Up to 20 (48 special)	CAN/RS485
SH-BW	Wall-mounted	2.56–10.24kWh	6,000+ @80% DOD	Auto-addressing	—
SH-BL	Wheeled	15.1–32.1kWh	6,000+ @80% DOD	Parallel supported	—
SH-BR	Rack-mounted	2.56–16.1kWh	6,000+ @80% DOD	Auto-addressing	UL (SH-BR-51.2-100 / -314)

Voltage platforms 24V / 48V / 51.2V; 0.5C standard rate; IP20; CAN/RS485 communication.

3. Commercial & Industrial Energy Storage

Scalable C&I storage from 15kWh outdoor cabinets to 819kWh platforms, including 261kWh liquid-cooled integrated cabinets. Peak shaving, demand response, backup power and PV self-consumption.

3.1 SH-CB Series — Low-Voltage Outdoor Cabinet (15–96kWh)

Compact low-voltage outdoor cabinet; IP54 rainproof/dustproof/sun-proof; modular and independently expandable.

Table 7. SH-CB series capacity platforms

Model	Energy	Model	Energy
SH-CB-5K-3	15kWh	SH-CB-10K-2	20kWh
SH-CB-5K-6	30kWh	SH-CB-10K-4	40kWh
SH-CB-5K-10	50kWh	SH-CB-10K-6	60kWh
SH-CB-15K-2	32kWh	SH-CB-15K-4	64kWh
SH-CB-15K-6	96kWh		

48/51.2V platform; 0.5C; overcurrent/overvoltage/short-circuit/lightning protection.

3.2 SH-CS Series — Outdoor Cabinet Platform (204.8–819.2kWh)

High-voltage outdoor cabinet platform built on 16kWh LFP packs (3.2V/314Ah, 16S1P); industrial air conditioning; IP54 (key components IP65); optional aerosol / Novec 1230 fire suppression.

Table 8. SH-CS series (excerpt)

Model	Energy	Operating Range	Dimensions (mm)	Weight (t)
SH-CS4	204.8kWh	192–227.2V	1300×750×1675	0.9
SH-CS6	307.2kWh	288–340.8V	1300×750×2185	1.1
SH-CS8	409.6kWh	384–454.4V	1300×1183×1675	1.7
SH-CS10	512kWh	480–568V	1300×1183×1930	2.0
SH-CS12	614.4kWh	576–681.6V	1300×1183×2185	2.3
SH-CS15	768kWh	720–852V	1300×1183×2440	2.6

Full range SH-CS4 to SH-CS16 (819.2kWh); 0.5P; 5000m altitude (derate >2000m).

3.3 SH-CL1 — Liquid-Cooled Outdoor Cabinet (261kWh / 125kW)

High-energy-density liquid-cooled cabinet operating from -30°C to 55°C; grid-tied & off-grid switching <10ms; optional PV input up to 250kWp; IP55 battery compartment.

Table 9. SH-CL1 key parameters

Item	Value	Item	Value
Battery	LFP 261kWh (1P260S)	Rated Power	125kW
Voltage Range	728–923V	Rate	≤0.5C
Grid	220/380V, 230/400V	Switching	<10ms
Power Factor	>0.99	THDi	<3%
Max PV	250kWp / 1000V	Protection	IP55
Cooling	Liquid cooling	Temp	-30~55°C

Fire protection: temperature & smoke detectors, aerosol (pack & system), water fire protection.

3.4 SH-CL2 — Liquid-Cooled Cabinet with AI (261kWh / 125kW)

Advanced liquid-cooled cabinet with AI early-warning and 3D fire protection (detection, prevention, ventilation, suppression). Self-evolution algorithm keeps temperature difference ≤5°C; max efficiency 90%; THDi <2%.

Table 10. SH-CL2 key parameters

Item	Value	Item	Value
Battery	LFP 261kWh (1P260S)	Rated Power	125kW (grid-tied & off-grid)
Voltage Range	728–923V	Efficiency	up to 90%
THDi	<2%	Protection	IP54
Power Factor	-1 ~ 1	Cooling	Liquid cooling
Temp	-30~55°C (derate >45°C)	Weight	≈2.7t

Cloud Web/APP real-time monitoring; one-click upgrade; on-site & remote wireless control.

3.5 Battery Cluster Platforms (102.4–819.2kWh)

Modular cluster platforms for C&I systems.

Table 11. Battery cluster platforms

Series	Type	Capacity	Notes
SH-CP-H2	Battery cluster	9.6–12kWh / cluster	Independent display; auto ID; DTU remote upgrade; 6,000 cycles
SH-CP-PC	Cluster platform	102.4–819.2kWh	SH-CP-PC2 to SH-CP-PC16; 51.2V pack platform

Compatible with mainstream inverters, wind power controllers and chargers; TCP/IP, CAN, RS485, dry/wet contacts.

4. Off-Grid & Grid-Tied Systems

Complete solutions for remote, island and weak-grid applications: containerized energy storage with black start, microgrid controllers, and system accessories for seamless on/off-grid operation.

4.1 Containerized Energy Storage (10ft / 20ft / 40ft)

Flexible, customizable container ESS with modular industrial-frequency PCS. On-grid & off-grid operation with seamless switching and black start; unattended EMS with dual local & cloud monitoring; automatic fire detection and gas suppression.

Table 12. Containerized ESS

Item	10ft	20ft	40ft
Output Power	50–100kW	50–500kW	250–630kW
Battery Capacity	50–400kWh	200–1,500kWh	800–3,000kWh
Output Voltage	380/400V ±15%	380/400V ±15%	380/400V ±15%
Frequency	50/60Hz (±2.5)	50/60Hz (±2.5)	50/60Hz (±2.5)
Battery	LFP	LFP	LFP
Protection	IP54	IP54	IP54
Operating Temp	-20~50°C	-20~50°C	-20~50°C

Power frequency isolation; connection 3P4W; power factor -1~1.

4.2 SH-MG — Microgrid Controller

Industrial microgrid controller, type-test and CE certified. Rich interfaces for on-site data collection, transmission and equipment control in electrical systems, integrated energy systems and enterprise parks.

Table 13. SH-MG key parameters

Item	Spec	Item	Spec
CPU	ARM Cortex-A7 Quad 1.2GHz	RS485	5× (magnetic isolation)
RAM / ROM	1G DDR3 / 8GB eMMC	CAN	2× (magnetic isolation)
Ethernet	2× RJ45 100Mbps	Digital I/O	5 DI / 5 DO (relay isolation)
4G / Wi-Fi	4G full network + GNSS; 802.11b/g/n	Power	24VDC ±10%
Voltage/Freq	AC 10-380V, 40-70Hz direct	RTC	≥7 days (supercapacitor)
Display	7"/10"/15" touchscreen ext.	Size	190×170×46mm

4.3 Battery Combiner Box

Parallel connection of multiple battery units with quick, easy installation.

Table 14. Battery combiner boxes

Type	Models	Connected Batteries	Max Current
Standard (SH-BB)	SH-BB-3-250A ~ SH-BB-6-1250A	3–20 units	250–1,250A
Custom (SH-BB-C)	SH-BB-C2-5-100A ~ SH-BB-C11-16-500A	2–16 units	100–500A

Overcurrent & overvoltage protection; -10~55°C operating temperature.

4.4 SH-PV Series — PV Combiner Box

Indoor/outdoor PV combiner box; up to 16 PV strings; PV-special fuses and surge protection on both poles; IP65.

Table 15. SH-PV PV combiner boxes

Model	Max Voc	Input Channels	Rated Current	Protection
SH-PV-A	500VDC	2–16 (customizable)	20A/channel	IP65
SH-PV-B	1,000VDC	2–16 (customizable)	20A/channel	IP65

Operating altitude 5,000m (derate >2,000m); -25~65°C.

5. Contact

For inquiries, quotations, and technical support, please contact us:

- Email: sales@solhon.com
- Website: www.solhon.com
- We respond to all inquiries within 24 hours on business days.