

Hailei®

www.haileienergy.com

Residential Energy Storage, Commercial ESS, Industrial ESS



Hailei®

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PROFESSIONAL MANUFACTURER
OF ENERGY STORAGE SYSTEM



COMPANY PROFILE

Shenzhen Hailei New Energy Co., Ltd., founded in 2012, is a national high-tech enterprise that integrates the R&D, design, manufacturing and sales of lithium-battery packs.

We focus on residential and C&I energy-storage systems, power batteries and consumer batteries, delivering professional, integrated and customized energy solutions to customers worldwide.

Recognized as both a National High-Tech Enterprise and a “Specialized & Innovative Little Giant,” Hailei operates two intelligent manufacturing bases and one R&D center in Shenzhen, building an efficient, tightly linked industrial ecosystem.

With a robust portfolio of proprietary intellectual property and core patents, Hailei has helped draft multiple national and telecom-tower standards for energy-storage and power-battery applications. Guided by the principle “Innovation-Driven, Customer-Centric,” we independently develop the HAILEI series of power and storage products, consistently delivering high-performance, highly reliable solutions that enable a greener, low-carbon energy future.

Smart Energy, Greener Power

2012
FOUNDED IN

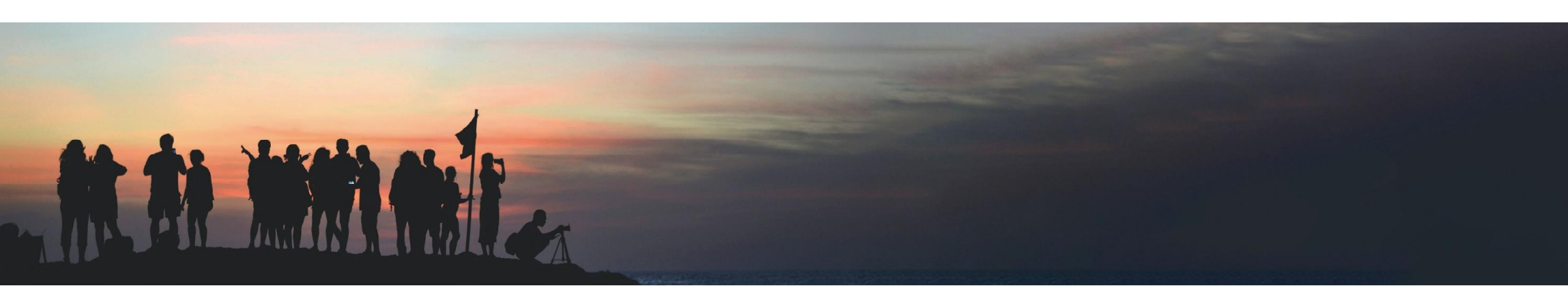
700 +
EMPLOYEES

1000 m²
DEDICATED LABORATORY

43000 m²
OPERATIONAL SPACE

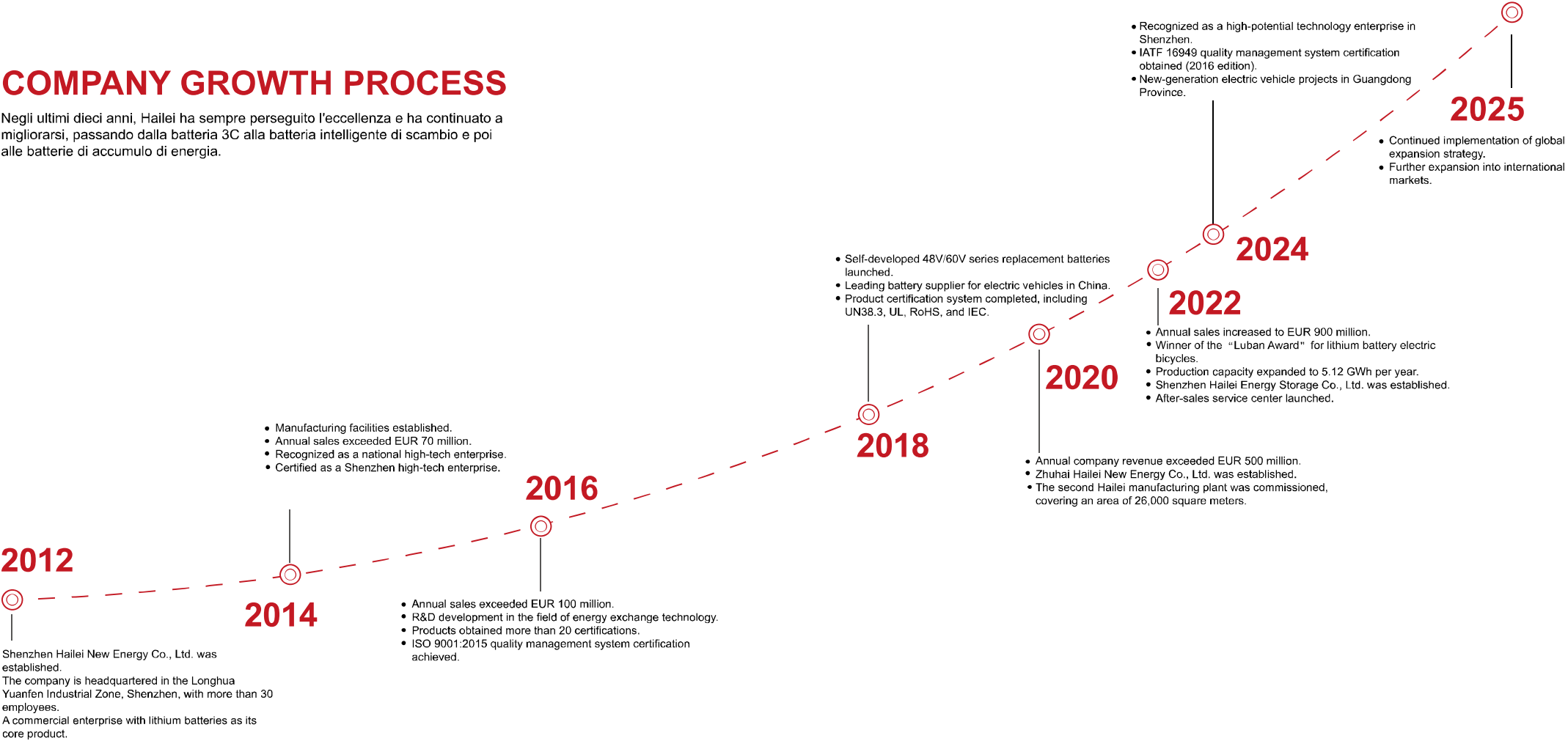
6.12 GWh
ANNUAL PRODUCTION CAPACITY

\$900.6 M
ANNUAL TURNOVERANNUO



COMPANY GROWTH PROCESS

Negli ultimi dieci anni, Hailei ha sempre perseguito l'eccellenza e ha continuato a migliorarsi, passando dalla batteria 3C alla batteria intelligente di scambio e poi alle batterie di accumulo di energia.



HONOR & CERTIFICATION

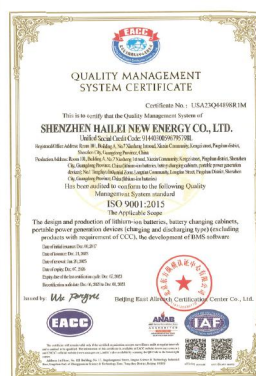
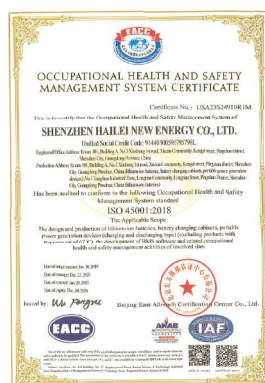
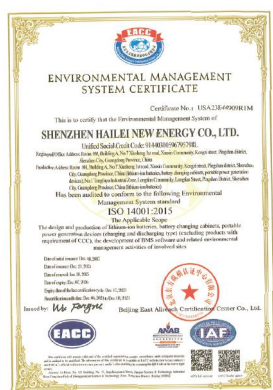
Recognition Reflects Strength, Certification Builds Trust



Hailei New Energy has earned multiple national and provincial honors through years of deep industry expertise and technological innovation, including: National High-Tech Enterprise, National “Little Giant” Specialized and Innovative Enterprise, Engineering Research Center. Also, Hailei has obtained multiple product patents and built industry-leading technological barriers.

Hailei New Energy lithium battery products have been certified through international testing organizations, including TÜV (Germany), SGS, and others. We have successively obtained: UN38.3, MSDS, KC, PSE, UL, IEC62133, CE, CQC, VDE, and many more.

ISO Certificates



Production Qualification





SCALE CAPACITY & PRODUCTION STRENGTH

From Scale to Strength,
From Intelligence to Excellence



ANNUAL PRODUCTION CAPACITY 6.12GWH

Modern Manufacturing Base

A 43,000m² factory forms the foundation of our one-stop smart manufacturing system, supporting large-scale and efficient battery production.

Automated Production Lines

Equipped with 9 battery lines and 4 packaging lines, integrated with 200+ automated devices to ensure stable, high-quality output.

Aging Test Capacity

1,500 test points support 3,000–5,000 battery packs per day, with high- and low-voltage zone aging for application-level reliability.

Independent Lab Facility

A 1,000m² in-house lab enables full-spectrum testing—performance, safety, and protection—ensuring quality through a “build & verify” loop.



GLOBAL LAYOUT

From China to the World, Empowering
the Future with Energy Storage



RESIDENTIAL ENERGY
STORAGE BATTERY

ATOM WALL-MOUNTED BATTERY – ATOM WB

ATOM Wall-mounted Battery Series features a smart BMS, app monitoring, and remote upgrade capabilities. Its newly designed enclosure offers C4+ corrosion resistance and IP65 protection. Supports both wall-mounted and floor-standing installations. It widely used in residential PV energy storage systems.

- Intelligent BMS
- Active Balance
- 6000+ long cycle life
- IP65 waterproof/dust-proof & C4 anti-corrosion grade



Performance		
Parameters	ATOM WB51200-2	ATOM-WB512100H-2
Battery Type	LiFePO4	LiFePO4
Rated Capacity	100Ah	100Ah
Nominal Capacity	5.12kWh	5.12kWh
Nominal Voltage	51.2V	51.2V
Operating Voltage Range	44.8 ~ 57.6V	44.8 ~ 57.6V
Cut-off Charging Voltage	57.6V	57.6V
Standard Charging Current	50A	50A
Maximum Charging Current	100A	100A
Standard Discharging Current	50A	50A
Maximum Continuous Discharging Current	100A	100A
Cut-off Discharge Voltage	44.8V	44.8V
Recommended Discharge DOD (Depth of Discharge)	80%	80%
Cycle Life	6000/0.5C	6000/0.5C
Designed Lifespan	10 Years	10 Years

General Specification		
Communication	CAN / RS485	CAN / RS485
Efficiency	96%	96%
Maximum Parallel Units	≤ 15 Units	≤ 15 Units
Charging Temperature	0°Cto 50°C	-20°Cto 50°C
Discharging Temperature	-20°C to 55°C	-20°C to 55°C
Recommended storage temperature	10°C to 30°C	10°C to 30°C
Terminal Type	Quick Plug	Quick Plug
Enclosure Material	SPCC	SPCC
Ingress Protection Rating	IP65	IP65
Corrosion Protection Rating	C4	C4
Funzione di riscaldamento ausiliario	Optional	Optional
Dimensions (W*H*D)	520*500*165mm	520*500*165mm
Net Weight / Gross Weight	51/53kgs	51/53kgs
Packing Quantity	480PCS/40HQ	480PCS/40HQ
Certifications	CE/UKCA/IEC62619/RoHS/CEI-021/UN38.3/MSDS	

RESIDENTIAL ENERGY STORAGE SYSTEM



IP65
Indoor and outdoor
installation options



Cycle Life
Up to 6000+ cycles



C4 class
Anti-corrosion battery housing



WIFI & Bluetooth
monitoring available



Heating function
Improved the low temperature
performance



Fire protection function
More safety

Technical Specification	LV51200H 	LV51314H 
Performance		
Nominal Capacity	10.24kWh	16.076kWh
Rated Capacity	200Ah	314Ah
Max.charging and discharging power	7kW	7kW
Nominal voltage	51.2V	
Operating voltage range	44.8V-57.6V	
Cycles	6000/0.5C	10 years
Communication		
Display	SOC status indicator ,LED indicator	
Communication	RS485/CAN	
General Specification		
Dimensions (W*H*D)	530*670*240mm	580*710*240mm
Net Weight/Gross Weight	90/107kgs	119/137kgs
Installation	Floor- standing	Floor-standing
Operating temperature	Charging Temperature:0°C to 50°C,Discharge Temperature:-20°C to 60°C	
Max operating altitude	3000m(9842ft.)	
Environment	Indoor /outdoor	
Relative humidity	5%-95%RH	
Cooling	Natural	
IP rating	IP65	
Noise emission	< 29db	
Cell technology	Lithium-ion phosphate (LiFePO4)	
Packing Qty	235pcs/40HQ	175pcs/40HQ
Certifications	CE/UKCA/IEC62619/RoHS/CEI-021/UN38.3/MSDS	

1 .Test conditions: 100% depth of discharge (DoD, 0.2c rate charge & discharge at 25°C, at the beginning of life. if no PV modules are installed or the system has not detected sunlight for at least 24 hours, the minimum end of discharge SOC is 15%.

2 .The Max. power can maintain 15s, under the conditions: 80%SOC , work temperature between 25 °C to 40 °C.

3 .Refer to battery warranty letter for conditional application.

4 .Indoor installation is recommended. For outdoor installation, refer to the user manual for instruction.

Disclaimer: the preceding values are measured by an internal laboratory of Hailei in a specific environment. The actual values may vary with products, software versions,usage conditions, and environmental factors.

RESIDENTIAL ENERGY
STORAGE BATTERY

ATOM HIGH-VOLTAGE STACKABLE BATTERY – ATOM HS

Equipped with high-stability A-grade LiFePO4 cells for enhanced safety and reliability, the ATOM HVS Battery features built-in Bluetooth and WiFi for APP monitoring and remote upgrades. With a conversion efficiency of up to 97%, its modular design allows flexible expansion to meet diverse power configuration needs.

- Active Balance
- IP65 waterproof/dust-proof & C4 anti-corrosion grade
- Intelligent BMS
- 6000+ long cycle life
- APP Real-time Monitor & Remote
- High Power & High Safety



Parameters	ATOM-HS 15.36kWh	ATOM-HS 20.48kWh	ATOM-HS 25.6kWh	ATOM-HS 30.72kWh	ATOM-HS 35.84kWh	ATOM-HS 40.96kWh
Module	3	4	5	6	7	8
Battery Type	LiFePO4					
Rated Capacity	100Ah	100Ah	100Ah	100Ah	100Ah	100Ah
Nominal Capacity	15.36kWh	20.48kWh	25.6kWh	30.72kWh	35.84kWh	40.96kWh
Nominal Voltage	153.6V	204.8V	256V	307.2V	358.4V	409.6V
Operating Voltage Range	136.8 ~ 172.81V	182.4 ~ 230.4V	228 ~ 288V	273.6 ~ 345.6V	319.2 ~ 403.2V	364.8 ~ 460.8V
Standard Charging Current	50A					
Maximum Charging Current	100A					
Standard Discharging Current	50A					
Maximum Continuous Discharging Current	100A					
Cut-off Discharge Voltage	136.8V	182.4V	228V	273.6V	319.2V	364.8V
Recommended Discharge DOD (Depth of Discharge)	80%					
Cycle Life	6000/0.5C					
Designed Lifespan	10 Years					

General Specification	
Communication	CAN/RS485
Maximum Parallel Units	≤ 5 Units
Operating temperature range	-10° C to 50° C (with heating function)
IP Rating	IP65
Corrosion Protection Rating	C4
Auxiliary Heating Function	Opzionale
Dimensions (W*D)	590*405mm
Dimensions (H)	675mm 835mm 995mm 1155mm 1315mm 1475mm
Net Weight/Gross Weight	42.2/44.5kgs per battery,19.4/22.8kgs per controller box
Packing Qty	392pcs batteries+108 controller boxes/40HQ
Certifications	CE/UKCA/IEC62619/RoHS/CEI-021/UN38.3/MSDS

Single Phase Hybrid Storage Inverter

1-3.6 kW



The Afore AF low voltage series storage Inverters are designed to increase energy independence for homeowners. The power range is from 1kW to 3.6kW, compatible with low voltage (40-60V) batteries.

Energy management is based on time-of-use and demand charge rate structures, which significantly reduce the amount of energy purchased from the public grid.

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



AI EMS
Electricity Pricing
& Automation



PV OVERSIZE
2 Times PV Oversize



MPPT CHANNELS
Up to 2 MPPT Channels



UPS FUNCTION
Switch Time < 10ms



PARALLEL
Max. 6 Parallel Stacking



INPUT
Support Generator

Support for Time-of-use Optimization

Configurable Operation Modes

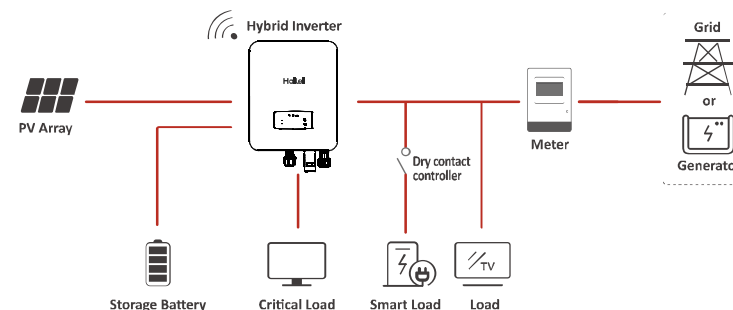
AFCI (Optional) & Rapid Shutdown Ready (Optional)

Build in Anti-feed-in Function

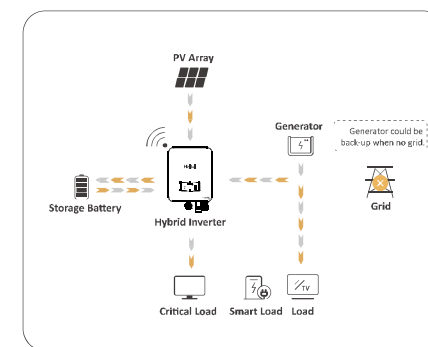
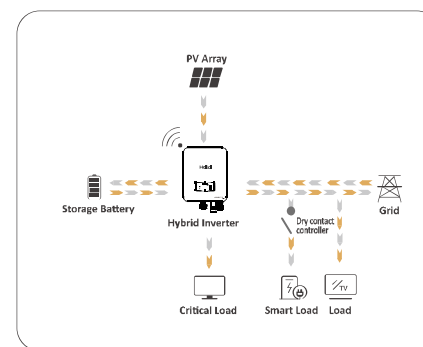
Compact Size and Easy Installation

Smart Monitoring & Remote Firmware Upgrade

For New Storage System:

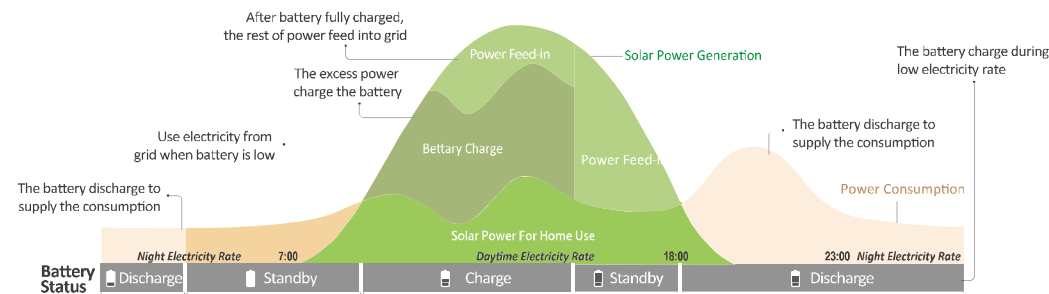


Optimizing Self-Consumption (on-grid) + Emergency Power Supply(off-grid)



Optimizing Self-Consumption Mode

With home energy storage installed, home owners may also be able to change from a flat rate electricity tariff to a time-of-use tariff. For the areas and regions, where peak shaving can be applied.



Technical Data	HL1K-SL-1	HL1.5K-SL-1	HL2K-SL-1	HL2.5K-SL-1
PV Input				
Nominal Max. Input Power (kW)	2	3	4	5
Max. PV Voltage (V)			550	
MPPT Range (V)			80 - 500	
Normal Voltage (V)			360	
Startup Voltage (V)			100	
Max. Input Current (A)			18.5 x 1	
Max. Short Current (A)			26 x 1	
No. of MPP Tracker / No. of PV String			1 / 1	
Battery Port				
Max. Charge/Discharge Power (kW)	1.0	1.5	2.0	2.5
Max. Charge/Discharge Current (A)	25	40	50	63
Battery Normal Voltage (V)			51.2	
Battery Voltage Range (V)			40 - 60	
Battery Type		Li-ion / Lead-acid etc.		
AC Grid				
Max Continuous Current (A)	5.0	7.0	10.0	12.0
Max Continuous Power (kVA)	1.0	1.5	2.0	2.5
Nominal Grid Current (A)	4.6 / 4.4	6.9 / 6.6	9.1 / 8.7	11.4 / 10.9
Nominal Grid Voltage (V)		198 to 242 @ 220 / 207 to 253 @ 230		
Nominal Grid Frequency (Hz)		50 / 60		
Power Factor		1 default (adjustable from 0.8 leading to 0.8 lagging)		
Current THD (%)		< 3		
AC Load Output				
Max Continuous Current (A)	5.0	7.0	10.0	12.0
Max Continuous Power (kVA)	1.0	1.5	2.0	2.5
Max Peak Current (A) (10s)	6.9 / 6.6	10.5 / 10.0	13.7 / 13.1	17.3 / 16.6
Max Peak Power (kVA) (10s)	1.5	2.3	3.0	3.8
Nominal AC Voltage L-N (V)		220 / 230		
Nominal AC Frequency (Hz)		50 / 60		
Switching Time (ms)		< 10		
Voltage THD (%)		< 3		
Efficiency				
CEC Efficiency (%)		97.0		
Max. Efficiency (%)		97.6		
PV to Bat. Efficiency (%)		98.1		
Bat. between AC Efficiency (%)		96.8		
Protection				
PV Reverse Polarity Protection		Yes		
Over Current/Voltage Protection		Yes		
Anti-Islanding Protection		Yes		
AC Short Circuit Protection		Yes		
Residual Current Detection		Yes		
Ground Fault Monitoring		Yes		
Insulation Resister Detection		Yes		
PV Arc Detection		Optional		
Enclosure Protect Level		IP65 / NEMA4X		
AC/DC surge protection		Type II		
General Data				
Dimensions (W x H x D, mm)		370 x 535 x 192		
Weight (kg)		17		
Topology		Transformerless		
Cooling		Natural Convection		
Relative Humidity		0 - 100 %		
Operating Temperature Range (°C)		- 25 to 60		
Operating Altitude (m)		< 4000		
Standby Consumption (W)		< 10		
Mounting		Wall Bracket		
Communication with RSD		SUNSPEC		
Display & Communication Interfaces		LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G, Sunspec		
Certification & Approvals	NRS097, G98, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, IEC62109-1, IEC62109-2, IEC62477-1			
EMC	EN61000-6-2, EN61000-6-3			
Compliant with UK standard	G98 ENA list			

■ Technical Data	HL3K-SL-1	HL3.6K-SL-1	HL3K-SL	HL3.6kW-SL
PV Input				
Nominal Max. Input Power (kW)	6	7.2	6	7.2
Max. PV Voltage (V)			550	
MPPT Range (V)			80 - 500	
Normal Voltage (V)			360	
Startup Voltage (V)			100	
Max. Input Current (A)	18.5 x 1			18.5 x 2
Max. Short Current (A)	26 x 1			26 x 2
No. of MPP Tracker / No. of PV String	1 / 1			2 / 2
Battery Port				
Max. Charge/Discharge Power (kW)	3.0	3.6	3.0	3.6
Max. Charge/Discharge Current (A)			80	
Battery Normal Voltage (V)			51.2	
Battery Voltage Range (V)			40 - 60	
Battery Type		Li-ion / Lead-acid etc.		
AC Grid				
Max Continuous Current (A)	14.0	17.0	14.0	17.0
Max Continuous Power (kVA)	3.0	3.6	3.0	3.6
Nominal Grid Current (A)	13.7 / 13.1	16.4 / 15.7	13.7 / 13.1	16.4 / 15.7
Nominal Grid Voltage (V)		198 to 242 @ 220 / 207 to 253 @ 230		
Nominal Grid Frequency (Hz)		50 / 60		
Power Factor		1 default (adjustable from 0.8 leading to 0.8 lagging)		
Current THD (%)		< 3		
AC Load Output				
Max Continuous Current (A)	14.0	17.0	14.0	17.0
Max Continuous Power (kVA)	3.0	3.6	3.0	3.6
Max Peak Current (A) (10s)	20.5 / 19.6	24.6 / 23.5	20.5 / 19.6	24.6 / 23.5
Max Peak Power (kVA) (10s)	4.5	5.4	4.5	5.4
Nominal AC Voltage L-N (V)		220 / 230		
Nominal AC Frequency (Hz)		50 / 60		
Switching Time (ms)		< 10		
Voltage THD (%)		< 3		
Efficiency				
CEC Efficiency (%)		97.0		
Max. Efficiency (%)		97.6		
PV to Bat. Efficiency (%)		98.1		
Bat. between AC Efficiency (%)		96.8		
Protection				
PV Reverse Polarity Protection		Yes		
Over Current/Voltage Protection		Yes		
Anti-Islanding Protection		Yes		
AC Short Circuit Protection		Yes		
Residual Current Detection		Yes		
Ground Fault Monitoring		Yes		
Insulation Resister Detection		Yes		
PV Arc Detection		Optional		
Enclosure Protect Level		IP65 / NEMA4X		
AC/DC surge protection		Type II		
General Data				
Dimensions (W x H x D, mm)		370 x 535 x 192		
Weight (kg)		17		
Topology		Transformerless		
Cooling		Natural Convection		
Relative Humidity		0 - 100 %		
Operating Temperature Range (°C)		- 25 to 60		
Operating Altitude (m)		< 4000		
Standby Consumption (W)		< 10		
Mounting		Wall Bracket		
Communication with RSD		SUNSPEC		
Display & Communication Interfaces		LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G, Sunspec		
Certification & Approvals	NRS097, G98, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, IEC62109-1, IEC62109-2, IEC62477-1			
EMC	EN61000-6-2, EN61000-6-3			
Compliant with UK standard	G98 ENA list			

Single Phase Hybrid Storage Inverter

4-6 kW Plus Series



The Afore AF low voltage series storage Inverters are designed to increase energy independence for homeowners. The power range is from 4kW to 6kW, compatible with low voltage (40-60V) batteries.

Energy management is based on time-of-use and demand charge rate structures, which significantly reduce the amount of energy purchased from the public grid.

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



AI EMS
Electricity Pricing
& Automation



MAX. 120A
Max. Charge/
Discharge Current 120A



PV OVERSIZE
2 Times PV Oversize



MPPT CHANNELS
Up to 2 MPPT Channels



UPS FUNCTION
Switch Time < 10ms



PARALLEL
Max.6 Parallel Stacking

Support for Time-of-use Optimization

Configurable Operation Modes

AFCI (Optional) & Rapid Shutdown Ready (Optional)

The charging and discharging power of the battery is greater

Build in Anti-feed-in Function

Compact Size and Easy Installation

Smart Monitoring & Remote Firmware Upgrade

Off-grid mode, with a larger load capacity,
the maximum load can be 6KVA

■ Technical Data	HL4K-SL-P	HL4.6K-SL-P	HL5kW-SL-P	HL5.5K-SL-P	HL6kW-SL-P
PV Input					
Nominal Max. Input Power (kW)	8	9.2	10	11	12
Max. PV Voltage (V)	550				
MPPT Range (V)	80 - 500				
Normal Voltage (V)	360				
Startup Voltage (V)	100				
Max. Input Current (A)	18.5 x 2				
Max. Short Current (A)	26 x 2				
No. of MPP Tracker / No. of PV String	2 / 2				
Battery Port					
Max. Charge/Discharge Power (kW)	4.0	4.6	5.0	5.5	6.0
Max. Charge/Discharge Current (A)	120				
Battery Normal Voltage (V)	51.2				
Battery Voltage Range (V)	40 - 60				
Battery Type	Li-ion / Lead-acid etc.				
AC Grid					
Max Continuous Current (A)	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	4.0	4.6	5.0	5.5	6.0
Nominal Grid Current (A)	18.2 / 17.4	21.0 / 20.0	22.8 / 21.8	25.0 / 24.0	27.3 / 26.1
Nominal Grid Voltage (V)	198 to 242 @ 220 / 207 to 253 @ 230				
Nominal Grid Frequency (Hz)	50 / 60				
Power Factor	1 default (adjustable from 0.8 leading to 0.8 lagging)				
Current THD (%)	< 3				
AC Load Output					
Max Continuous Current (A)	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	4.0	4.6	5.0	5.5	6.0
Max Peak Current (A) (10s)	27.3 / 26.1	31.4 / 30	34.1 / 32.7	37.8 / 36.1	41.0 / 39.2
Max Peak Power (kVA) (10s)	6.0	6.9	7.5	8.3	9.0
Nominal AC Voltage L-N (V)	220 / 230				
Nominal AC Frequency (Hz)	50 / 60				
Switching Time (ms)	< 10				
Voltage THD (%)	< 3				
Efficiency					
CEC Efficiency (%)	97.0				
Max. Efficiency (%)	97.6				
PV to Bat. Efficiency (%)	98.1				
Bat. between AC Efficiency (%)	96.8				
Protection					
PV Reverse Polarity Protection	Yes				
Over Current/Voltage Protection	Yes				
Anti-Islanding Protection	Yes				
AC Short Circuit Protection	Yes				
Residual Current Detection	Yes				
Ground Fault Monitoring	Yes				
Insulation Resister Detection	Yes				
PV Arc Detection	Optional				
Enclosure Protect Level	IP65 / NEMA4X				
AC/DC surge protection	Type II				
General Data					
Dimensions (W x H x D, mm)	370 x 535 x 192				
Weight (kg)	20.5				
Topology	Transformerless				
Cooling	Intelligent Fan				
Relative Humidity	0 - 100 %				
Operating Temperature Range (°C)	- 25 to 60				
Operating Altitude (m)	< 4000				
Standby Consumption (W)	< 10				
Mounting	Wall Bracket				
Communication with RSD	SUNSPEC				
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G, Sunspec				
Certification & Approvals	NRS097, G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, IEC62109-1, IEC62109-2, IEC62477-1				
EMC	EN61000-6-2, EN61000-6-3				
Compliant with UK standard	G99 ENA list				

Three Phase Hybrid Storage Inverter

3-30 kW



The Afore AF series three phase storage inverters are designed to increase energy independence for homeowners and commercial users. The power range is from 3.0kW to 30kW, compatible with high voltage (150-800V) batteries.

Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from public grid.

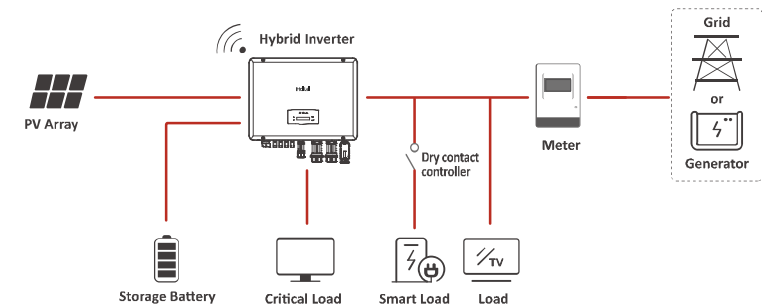
Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.

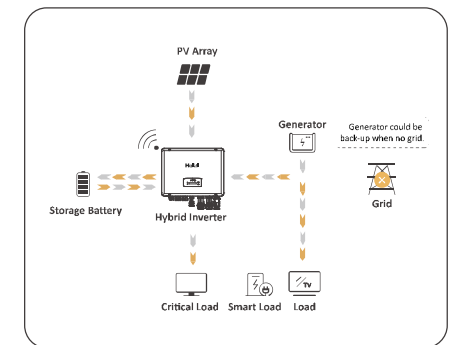
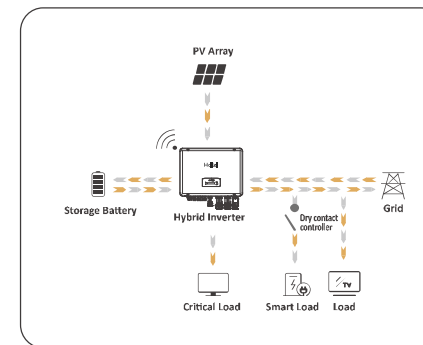
						
AI EMS Electricity Pricing & Automation	BATTERY Support Sodium metal chloride battery	WIDE RANGE Voltage Range (150-800V)	100% UNBALANCE Support Unbalance Load	MAX. 40A String Current Up To 40A	UPS FUNCTION Switch Time < 10ms	INPUT Support Generator

Support for Time-of-use Optimization 	Build in Anti-feed-in Function 
Configurable Operation Modes 	100% unbalanced output, each phase; 200% unbalanced output, each phase (≤ 10kW) 
AFCI (Optional) & Rapid Shutdown Ready (Optional) 	Smart Monitoring & Remote Firmware Upgrade 

For New Storage System:

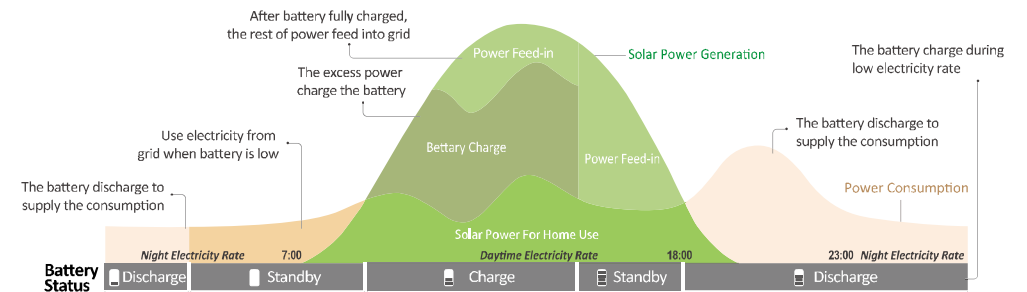


Optimizing Self-Consumption (on-grid) + Emergency Power Supply (off-grid)



Optimizing Self-Consumption Mode

With energy storage system installed, users may also be able to change from a flat rate electricity tariff to a time-of-use tariff. For the areas and regions, where peak shaving can be applied.



■ Technical Data	HL3K-TH	HL4K-TH	HL5K-TH	HL6K-TH	HL8K-TH	HL10KW-TH
PV Input						
Nominal Max. DC Input Power (kW)	6	8	10	12	16	20
Max. PV Voltage (V)	1000					
Rated DC Input Voltage (V)	620					
DC Input Voltage Range (V)	150 - 1000					
MPPT Voltage Range (V)	150 - 850					
Start-up Voltage (V)	160					
Max. DC Input Current (A)	20 x 2					
Max. Short Current(A)	30 x 2					
No. of MPPT Tracker / Strings	2/2					
Battery Port						
Battery Nominal Voltage (V)	200	200	200	250	300	400
Battery Voltage Range (V)	150 - 800					
Max. Charge/Discharge Current (A)	30					
Max. Charge/Discharge Power (kW)	3	4	5	6	8	10
Charging Curve	3 Stages					
Compatible Battery Type	Li-ion / Lead-acid / Sodium metal chloride battery					
AC Grid						
Nominal AC Output Power (kW)	3	4	5	6	8	10
Max. AC Input/Output Power (kVA)	4.5 / 3.3	6 / 4.4	7.5 / 5.5	9 / 6.6	12 / 8.8	15 / 11
Max. AC Output Current (A)	5.3	7	8.5	10.5	13.5	17
Nominal AC Voltage (V)	230 / 400					
Nominal AC Frequency (Hz)	50 / 60					
Power Factor	1 (-0.8-0.8 adjustable)					
Current THD (%)	<3%					
AC Load Output (Back-up)						
Nominal Output Power (kVA)	3	4	5	6	8	10
Nominal Output Voltage (V)	230 / 400					
Nominal Output Frequency (Hz)	50 / 60					
Nominal Output Current (A)	4.4	5.8	7.3	8.7	11.6	14.5
Peak Output Power	3.3kVA, 60s	4.4kVA, 60s	5.5kVA, 60s	6.6kVA, 60s	8.8kVA, 60s	11kVA, 60s
THDV (with linear load)	<3%					
Switching Time (ms)	<10					
Efficiency						
Europe Efficiency	97.50%					
Max. Efficiency	98.00%			98.20%		
Battery Charge/Discharge Efficiency	98.00%					
Protection						
Reverse Polarity Protection	Yes					
Over Current / Voltage Protection	Yes					
Anti-islanding Protection	Yes					
AC Short-circuit Protection	Yes					
Leakage Current Detection	Yes					
Ground Fault Monitoring	Yes					
Grid Monitoring	Yes					
Enclosure Protect Level	IP65					
AC/DC surge protection	Type II					
General Data						
Dimensions (W x H x D, mm)	558 x 535 x 260 mm					
Weight (kg)	29kg					
Topology	Transformerless					
Cooling Concept	Natural Convection			Intelligent Fan		
Relatively Humidity	0 - 100%					
Operating Temperature Range (°C)	- 25 to 60 °C					
Operating Altitude (m)	< 4000					
Standby Consumption (W)	< 5					
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G, Sunspec					
Certification & Approvals	NRS097, G98, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, IEC62109-1, IEC62109-2, IEC62477-1					
EMC	EN61000-6-2, EN61000-6-3					
Compliant with UK standard	G98 ENA list					

■ Technical Data	HL12K-TH	HL15KW-TH	HL17K-TH	HL20K-TH	HL25K-TH	HL30K-TH
PV Input						
Nominal Max. DC Input Power (kW)	24	30	34	40	50	51
Max. PV Voltage (V)	1000					
Rated DC Input Voltage (V)	620					
DC Input Voltage Range (V)	150-1000					
MPPT Voltage Range (V)	150-850					
Start-up Voltage (V)	160					
Max. DC Input Current (A)	20×2	20+32	32×2		40×2	
Max. Short Current(A)	30×2	30+48	48×2		60×2	
No. of MPPT Tracker / Strings	2/2	2/3	2/4		2/4	
Battery Port						
Battery Nominal Voltage (V)	450	500	400	500	500	550
Battery Voltage Range (V)	150-800					
Max. Charge/Discharge Current (A)	30	50	50	50	60	60
Max. Charge/Discharge Power (kW)	12	15	17	20	25	30
Charging Curve	3 Stages					
Compatible Battery Type	Li-ion / Lead-acid / Sodium metal chloride battery					
AC Grid						
Nominal AC Output Power (kW)	12	15	17	20	25	30
Max. AC Input/Output Power (kVA)	18 / 13.2	22.5 / 16.5	25.5 / 18.7	30 / 22	37.5 / 27.5	45 / 33
Max. AC Output Current (A)	21.5	27	30	32	40	48
Nominal AC Voltage (V)	230/400					
Nominal AC Frequency (Hz)	50/60					
Power Factor	1 (-0.8-0.8 adjustable)					
Current THD (%)	<3%					
AC Load Output (Back-up)						
Nominal Output Power (kVA)	12	15	17	20	25	30
Nominal Output Voltage (V)	230/400					
Nominal Output Frequency (Hz)	50/60					
Nominal Output Current (A)	17.4	21.8	24.7	29	36.3	43.5
Peak Output Power	13.2kVA, 60s	16.5kVA, 60s	18.7kVA, 60s	22kVA, 60s	27.5kVA, 60s	33kVA, 60s
THDV (with linear load)	<3%					
Switching Time (ms)	<10					
Efficiency						
Europe Efficiency	97.50%		97.80%		98.00%	98.10%
Max. Efficiency	98.30%				98.50%	
Battery Charge/Discharge Efficiency						
	98.00%					
Protection						
Reverse Polarity Protection	Yes					
Over Current / Voltage Protection	Yes					
Anti-islanding Protection	Yes					
AC Short-circuit Protection	Yes					
Leakage Current Detection	Yes					
Ground Fault Monitoring	Yes					
Grid Monitoring	Yes					
Enclosure Protect Level	IP65					
AC/DC surge protection	Type II					
General Data						
Dimensions (W x H x D, mm)	558 x 535 x 260 mm					
Weight (kg)	29kg				36kg	
Topology	Transformerless					
Cooling Concept	Intelligent Fan					
Relatively Humidity	0-100%					
Operating Temperature Range (°C)	-25 to 60 °C					
Operating Altitude (m)	<4000					
Standby Consumption (W)	<5					
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G, Sunspec					
Certification & Approvals	NRS097, G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, IEC62109-1, IEC62109-2, IEC62477-1					
EMC	EN61000-6-2, EN61000-6-3					
Compliant with UK standard	G99 ENA list					

OUR INSTALLATION CASES



Hailei-Power Your Future