

YOUR GREEN ENERGY MANUFACTURER



Residential Series (for EU)

Energy Storage Solution



KOWINT ENERGY

Kowint Energy (Shenzhen) Co., Ltd.

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KOWINT

YOUR GREEN ENERGY MANUFACTURER

Established in 2014, KOWINT ENERGY is a high-tech enterprise focusing on the R&D, design, production, and sales of lithium battery energy storage systems, BMS, EMS, and lithium battery modules.

We have continuous independent innovation capabilities, excellent lithium battery module development & design abilities, and advanced manufacturing technology. Our products have passed UL, CE, ROHS, TUV, PSE, and other related certifications. Our factory has passed ISO9001 and ISO14000 system certifications.

Our products are designed to meet the needs of a wide range of applications, from residential and commercial buildings to industrial facilities and utility-scale projects. Whether you're looking to reduce your energy bills, increase your energy independence, or support your sustainability goals, KOWINT has the right solution for you.

10⁺

Years Experience
in the energy storage

4

Countries with
warehouse deployment

3GWh/year

Global
Production Capacity

MAIN BUSINESS



Residential Solution



C&I Solution



UPS Solution



CONTENTS

To produce world-class energy storage products.
To serve the consumers in the global market.



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Modular LV ESS

S40K

10.24 — 40.96kWh



HIGH PERFORMANCE

- >6000 Life Cycles.
- Each cluster is up to 40.96 kwh(8 battery modules), maximum 15 clusters in parallel to get 614.4 kWh.



SMART MANAGEMENT

- Display Screen allows for real-time monitoring.
- Cloud platform / APP remote monitor.



SAFE AND RELIABLE

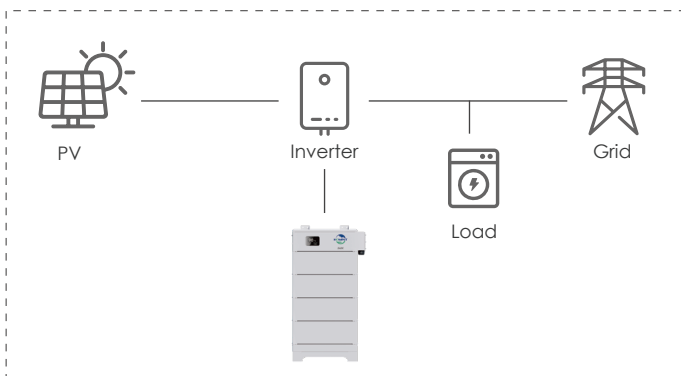
- IP65 design, available for indoor / outdoor.



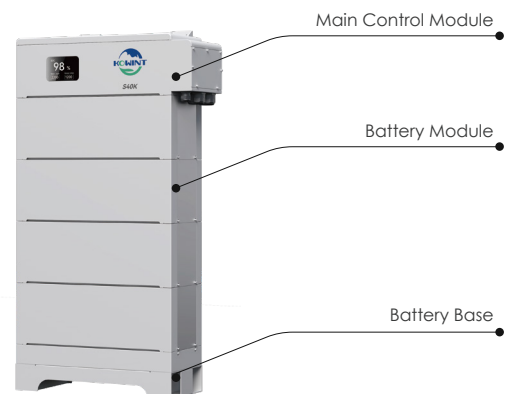
EASY INSTALLATION

- Modular design for ease of expansion.

System Layout



System Demonstration



● Product Specifications

Battery Energy Storage

Product Module QTY	2	3	4	5	6	7	8
Nominal Energy(kWh)	10.24	15.36	20.48	25.6	30.72	35.84	40.96
Output Power(kW)	9.7	14.6	15.4	15.4	15.4	15.4	15.4
Max. Operation Current(A)	190	285	300	300	300	300	300
Peak for 10s(A)	196	297	392	490	500	500	500
Peak for 2s(A)	240	360	480	500	500	500	500
Max. Charging Voltage(Vdc)	58.4						
Discharge Cut-off(Vdc)	43.2						
Nominal Voltage(Vdc)	51.2						
Recommend Charging Voltage(Vdc)	56.8						
Battery Chemistry	LiFePO4						
Dimension - W*D(mm/in)	635*268/25*10.6						
Dimension - H(mm/in)	795/31.3	1023/40.3	1250/49.2	1478/58.2	1706/67.1	1934/76	2162/85
Net Weight(kg/lb)	~141/~311	~194/~428	~247/~545	~300/~661	~353/~778	~406/~895	~459/~1012

General Parameters

Scalability	Max. 15 systems in parallel
Storage Conditions	−4°F ~ 131°F(32°F ~ 95°F Recommended) Up to 90%RH, non-condensing Initial SoC: 50%
Operating Temperature	Charge: 32°F ~ 122°F Discharge: −4°F ~ 122°F
Cooling	Natural Cooling
Max. Altitude	4000m/13123ft
Cycle Life	8000 Cycles
Communication	RS485, CAN, WiFi

System Characteristic

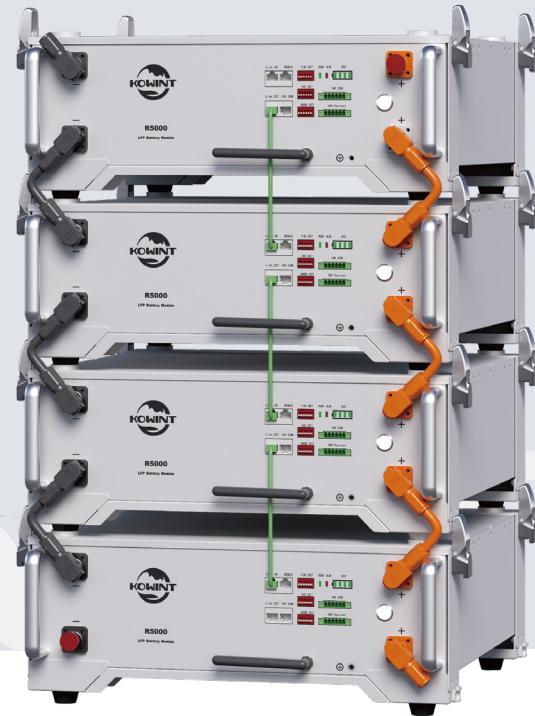
Battery Compliances	UL9540, 9540A, IEC62619, UN38.3, MSDS, UKCA, CE, UL1973
Installation Method	Stack Mounting
Installation Scene	Indoor or Outdoor
IP Rating	IP65
Warranty [1]	10 Years

[1] Please refer to the warranty letter for details

Rack-Mount ESS

R5000

5.12 — 158.72kWh



HIGH PERFORMANCE

- >6000 Life Cycles.
- Max. 31 units in parallel.



USER FRIENDLY SETUP

- RS485 and CAN compatible.
- Cloud platform / APP remote monitor.



SAFE AND RELIABLE

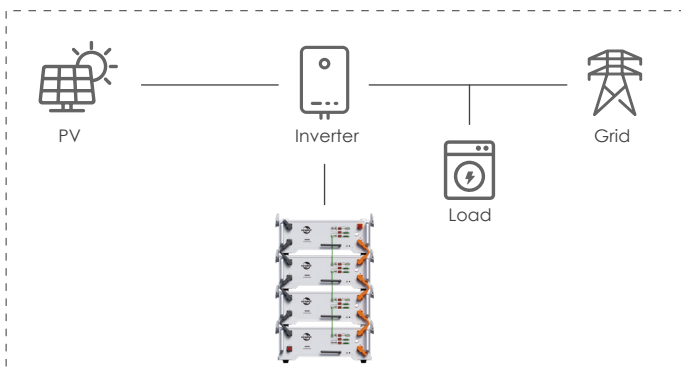
- Intelligent BMS protecting battery cells.
- Advanced safety mechanisms ensure reliable operation.



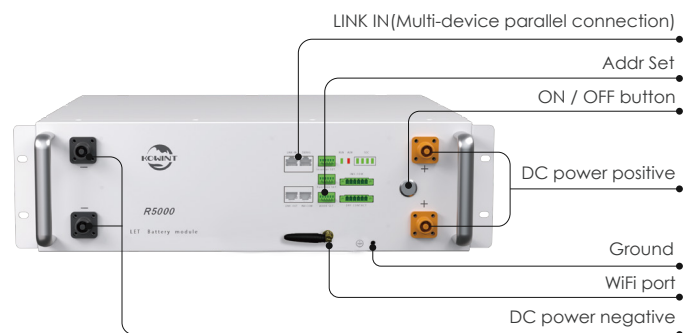
EASY INSTALLATION

- Rack mount design.
- Lightweight and convenient, single person installation.

System Layout



System Demonstration



● Product Specifications

Battery Parameters

Nominal Energy(kWh)	5.12
Max. Continuous Charging / Discharging(A)	95
Nominal Capacity(Ah)	100
Nominal Voltage(V)	51.2
Recommend Charging Voltage(V)	56.8
Max. Charging Voltage(V)	58.4
Discharge Cut-off Voltage(V)	43.2
Cell Model	3.2V 100Ah
Combination Mode	1P16S
Initial Internal Resistanc(mΩ)	<50
Standard Charging Current(A)	50
Standard Discharging Current(A)	50

System Characteristics

BESS Certifications	UKCA, UL1973, CE, UN 38.3, IEC62619
Emission	FCC Part 15 Class B
Surge Protection	DC Type II
Warranty	10 Years

General Parameters

Dimensio - W*D*H(mm/in)	440*420*132/17.3*16.5*5.2
Net Weight(kg/lb)	~45/~99.2
Enclosure	IP20
Operating Temperature(°C)	Discharging -20 ~ 50, Charging 0 ~ 50
Relative Humidity Range(RH)	Up to 95 %, non-condensing
Cooling	Natural Cooling
Communication	CAN, RS485, WiFi
Warranty [1]	10 Years

[1] Please refer to the warranty letter for details

Wall-Mount ESS

W5000

5.12 kWh



HIGH PERFORMANCE

- >8000 Life Cycles.
- 100 Cell Capacity.



SAFE AND RELIABLE

- IP55 protection degree.



USER FRIENDLY SETUP

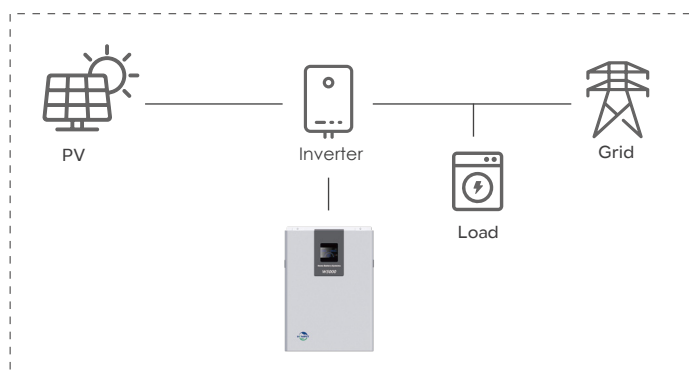
- Display Screen allows for real-time monitoring.
- Could platform / APP remote monitor.



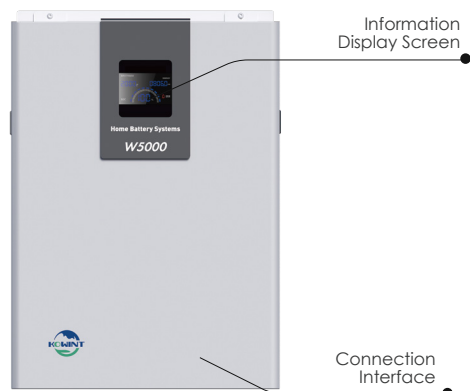
EASY INSTALLATION

- Wall-mount design saves installation space.
- Lightweight and convenient ,Easy to install.

System Layout



System Demonstration



● Product Specifications

System Characteristics

Battery Type	LiFePO4
Rated Energy(kWh)	5.12
Cell Capacity(Ah)	100
Rated Voltage(V)	51.2
Cell Model	3.2V 100Ah
Combination Mode	16S1P
Discharge Cut-off Voltage(V)	43.2
Recommend Charding(V)	56.8
Max. Charging / Discharging Curent(A)	95
Primary Overcurrent Protection(A)	98A@10S
Secondary Overcurrent Protection(A)	120A@2S
Communication	RS485 / CAN / RS232
Compatible Inverter Brand	SMA, Growatt, Solax, Solis, DEYE, Sofar, Voltronic, Studer, etc
Cycle life	≥8000 times@25°C
Dimension - W*D*H(mm/in)	450*180*635/17.7*7.1*25.0
Net Weight(kg/lb)	~116.8/~257.6
Protection Degree	IP55
Cooling	Natural Cooling
Installation	Wall-Mount In
Discharge Temperature(°C)	- 20 ~ 50
Charge Temperature(°C)	0 ~ 50
Storage Conditions	-20 ~ 55°C(0 ~ 35°C Recommended)Up to 95 % RH, non-condensing, Initial So: 50 %
Battery Compliances	IEC 62619, UN 38.3, UL1973, UKCA, CEI 0-21, EN-62311, EN-61000
Warranty [1]	10 Years

[1] Please refer to the warranty letter for details

Wall-Mount ESS

W16K

16kWh



HIGH PERFORMANCE

- >8000 Life Cycles.
- 314Ah Cell Capacity.



SAFE AND RELIABLE

- IP65 protection degree.



USER FRIENDLY SETUP

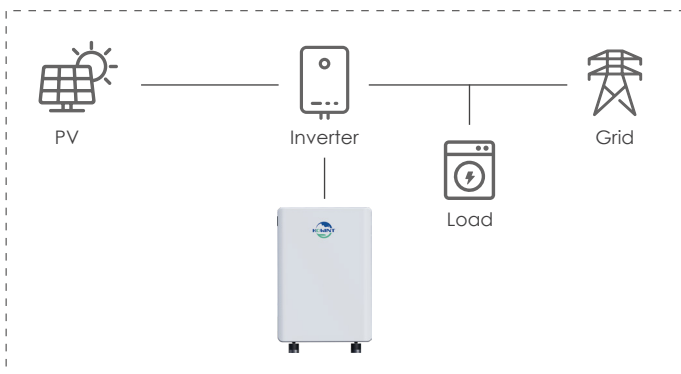
- Display Screen allows for real-time monitoring.
- Could platform / APP remote monitor.



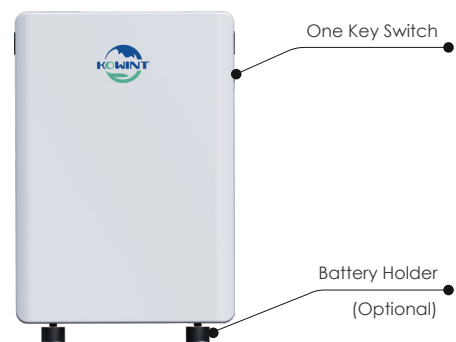
EASY INSTALLATION

- Wall-mount design saves installation space.
- Lightweight and convenient ,Easy to install.

System Layout



System Demonstration



● Product Specifications

System Characteristics

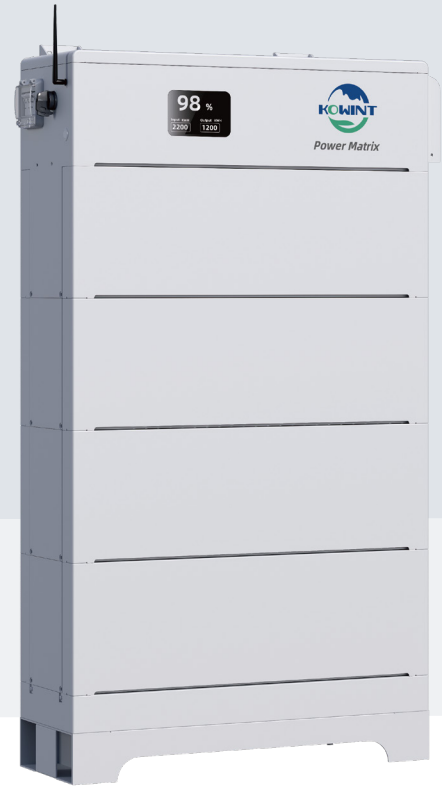
Battery Type	LiFePO4
Rated Energy(kWh)	16
Cell Capacity(Ah)	314
Rated Voltage(V)	51.2
Cell Model	3.2V 314Ah
Combination Mode	16S1P
Discharge Cut-off Voltage(V)	43.2
Recommend Charding(V)	56.8
Max. Charging / Discharging Curent(A)	200
Primary Overcurrent Protection(A)	210A@10S
Secondary Overcurrent Protection(A)	250A@500mS
Communication	RS485 / CAN / RS232
Compatible Inverter Brand	SMA, Growatt, Solax, Solis, DEYE, Sofar, Voltronic, Studer, etc
Cycle life	≥8000 times @ 25°C
Dimension - W*D*H(mm)	560*200*800/22*7.8*31.5
Net Weight(kg/lb)	~126/~278
Protection Degree	IP65
Cooling	Natural Cooling
Installation	Wall-Mount In
Discharge Temperature(°C)	- 20 ~ 50
Charge Temperature(°C)	0 ~ 50
Storage Conditions	-20 ~ 55°C(0 ~ 35°C Recommended)Up to 95 % RH, non-condensing, Initial So : 50 %
Battery Compliances	IEC 62619, UN 38.3, CEI 0-21, EN-61000
Warranty [1]	10 Years

[1] Please refer to the warranty letter for details

Modular HV ESS

Power Matrix

10.24 — 30.72 kWh



HIGH PERFORMANCE

- >6000 Life Cycles.
- Each cluster is up to 29 kW (6 battery modules) .



SAFE AND RELIABLE

- IP55 design , available for indoor / outdoor.



USER FRIENDLY SETUP

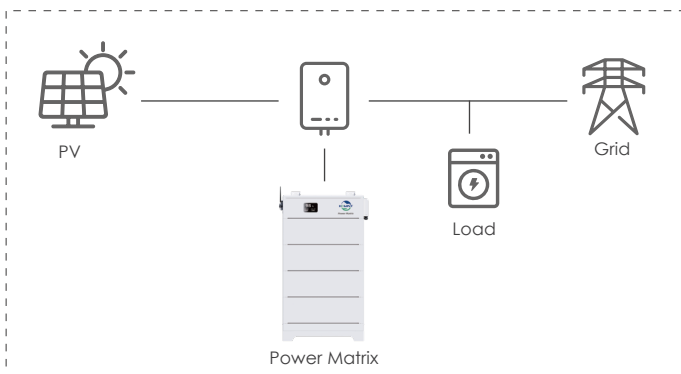
- Cloud platform / APP remote monitor.



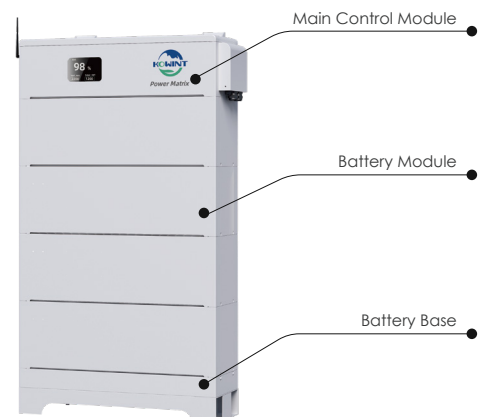
EASY INSTALLATION

- Modular design facilitate installation.

System Layout



System Demonstration



● Product Specifications

System Characteristics

BESS Compliances	IEC62619, UN38.3, MSDS, UKCA, CE, UL1973
Installation Method	Stack Mounting
Installation Scene	Indoor or Outdoor
Ingress Protection	IP55
Warranty	10 Years

BESS Specifications

Battery Module	1P32S				
Cell Capacity(Ah)	50				
Module Amount	2	3	4	5	6
Nominal Energy(kWh)	10.24	15.36	20.48	25.6	30.72
Nominal Voltage(V)	204.8	307.2	409.6	512	614.4
Nominal Power(kW)	9.83	14.57	19.66	24.58	29.5
Operating Voltage Range(V)	172.8 ~ 233.6	259.2 ~ 350.4	345.6 ~ 467.2	432 ~ 584	518.4 ~ 700.8
Max.Continuous Current(A)	48				
Max. Current	≤75A@10S				

General Parameters

Dimension - W*D*H(mm/in)	820*269.5*996 32.3*10.6*39.2	820*269.5*1282 32.3*10.6*50.5	820*269.5*1568 32.3*10.6*61.7	820*269.5*1854 32.3*10.6*73.0	820*269.5*2140 32.3*10.6*84.2
Net Weight(kg/lb)	~151.5/~334.0	~211.5/~466.4	~271.5/~598.6	~331.5/~730.8	~391.5/~863.0
Operating Temperature(°C)	-20~ 50				
Operating Humidity	Up to 92 % non-condensing				
Cycle Life	6000 times@25°C				
Communication Method	CAN, RS485, WiFi				
Warranty [1]	10 Years				

[1] Please refer to the warranty letter for details

LV Inverter

KSL-E



HIGH PERFORMANCE

- Supports 6 machines in parallel.
- Max 8kW power output.
- VPP coordination.



USER FRIENDLY SETUP

- Display Screen allows for real-time monitoring.
- Could platform / APP remote monitor.



SAFE AND RELIABLE

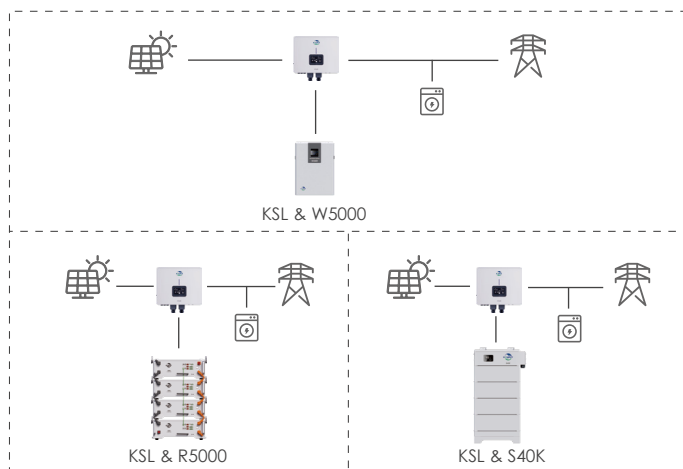
- IP65 design , available for indoor / outdoor.
- Built-in protection against backflow.



EASY INSTALLATION

- Wall-mount design saves installation space.
- Lightweight and convenient ,Easy to install.

System Layout



System Demonstration



● Product Specifications

PV Input Data	KSL3E	KSL3.68E	KSL4E	KSL4.6E	KSL5E	KSL6E	KSL8E
Max.Input Power(kW)	4.5	5.4	6	6.9	7.5	9	12
Start-up Voltage(V)	100						
Max. PV Input Voltage(V)	550						
MPPT Range / Nominal(V)	80 ~ 500 / 360						
Max.Input Current of Single MPPT(A)	16 / 16	16 / 16	16 / 16	16 / 16	16 / 16	16 / 16	16 / 16
MPPT Tracker Quantity	2	2	2	2	2	2	2
MPPT Quantity / The number of Input Strings Supported by Each Mppt	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
AC Output Data							
Rated Power (kW)	3	3.68	4	4.6	5	6	8
Rated AC Current Output to Grid(A)	13	16	17.4	20	21.7	26	35
Nominal Voltage / Range(V)	230 / 176 ~ 270						
Frequency (Hz)	50 / 60						
Power Factor	1 (0.8 leading ~ 0.8 lagging)						
THDi	<3%						
AC Grid Type	L+N+PE						
Battery Data							
Battery Voltage Range (V)	40 ~ 58						
Max.Charging Voltage (V)	58						
Max.Charge / Discharge Current(A)	60 / 60	72 / 72	80 / 80	92 / 92	100 / 100	120 / 120	160 / 160
Battery Type	Lithium / Lead-acid						
Communication Interface	CAN						
EPS Output							
Rated Power(kW)	3	3.68	4	4.6	5	6	8
Rated Voltage(V)	230						
Rated AC Current Output to Grid(A)	13	16	17.4	20	21.7	26	35
Rated Frequency(Hz)	50/60						
Automatic Switchover Time(ms)	<10						
THDu	<2%						
Overload Capacity	100%, 60s / 120%, 30s / 150%, 10s						
General Data							
Battery Charge / Discharge Efficiency	96%						
Max.Efficiency	98%						
Europe Efficiency	97%						
Mppt Efficiency	99.9%						
Ingress Protection	IP65						
Noise Emission(dB)	<35						
Operation Temperature(°C)	-25 ~ 60						
Cooling	Natural						
Relative Humidity	0 ~95% (non-condensing)						
Operating Altitude(m)	0~2000(No Derating Below 2000)						
Dimensions-W*D*H(mm/in)	454.5*200 *467 8*7.8*18.3						467*200*484 18.3*7.8*19
Net Weight(kg/lb)	~18/~40						~20/~44
Topology	non-isolated						
Self-consumption at Night(W)	<20						
Display & Communication							
Display	Optional (Colorful Touch Screen / No Screen)						
Interface	RS485 / WiFi / 4G / CAN / DRM						
Certifications							
Certifications	EMC, EN50549-1, IEC 62109-1, IEC 62109-2 , EN62109-1, EN62109-2, CE, NRS, G99						

HV Inverter KSH



HIGH PERFORMANCE

- Compatible with high-intensity PV modules at 18A.
- VPP / FFR function available.



FLEXIBLE APPLICATION

- Rapid UPS-level shift in <10ms.
- Fully supports unbalanced loads.



USER FRIENDLY SETUP

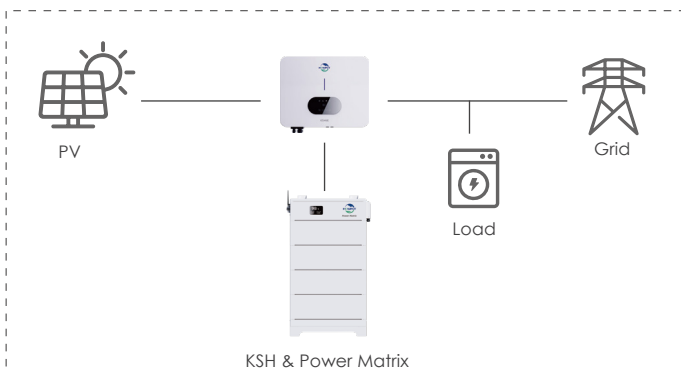
- Display Screen allows for real-time monitoring.
- Remote adjustments and upgrades.



EASY INSTALLATION

- Wall-mount design saves installation space.
- Lightweight and convenient ,Easy to install.

System Layout



System Demonstration

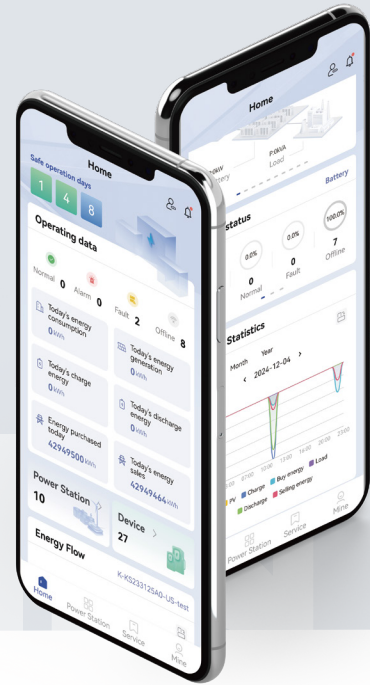


● Product Specifications

PV Input Data	KSH5E	KSH6E	KSH8E	KSH10AE	KSH10E
Recommended Max. PV Power(Wp)	7500	9000	12000	15000	15000
Max. PV Input Voltage(V)			1000		
MPPT Voltage Range(V)			160 ~ 950		
Rated PV Input voltage(V)			600		
Start-up Voltage(V)			180		
No. of MPP Trackers			2		
No. of Input Strings Per Tracker			1		
Max. Input Current Per MPPT(A)			36 (18 / 18)		
Max. Short-circuit Current Per MPPT(A)			46 (23 / 23)		
DC Switch			Integrated		
AC Output Data					
Maximum Apparent Power(VA)	5500	6600	8800	10000	11000
Rated AC Power(W)	5000	6000	8000	10000	10000
Maximum AC Current(A)	7.6	9.1	12.2	14.4	15.2
Rated AC Current(A)	7.2	8.7	11.5	14.4	14.4
Rated AC Voltage / Range(V)			3/N / PE, 220 /380, 230 / 400; ±20%		
Grid Frequency / Range(Hz)			50 / 60; ±5		
Adjustable Power Factor(cosφ)			0.8 leading ~ 0.8 lagging		
Output THDi(@Rated Output)			<3%		
AC Input Data					
Max. apparent AC Power(VA)	10000	12000	16000	20000	20000
Max. AC Current(A)	15.2	18.2	24.4	28.8	30.4
Rated AC Voltage / Range(V)			3/ N / PE,220 /380,230 / 400; ±20%		
Grid Frequency / Range(Hz)			50 / 60; ±5		
Battery Data					
Battery Type			Lithium		
Battery Voltage Range(V)			160 ~ 700		
Max. Charging / Discharging Current(A)			30 / 30		
Communication Interface			CAN		
EPS Output Data (With Battery)					
EPS Rated Power(W)	5000	6000	8000	10000	10000
EPS Rated Voltage (V)			3 / N / PE, 220 / 380 , 230 / 400		
EPS Rated Frequency(Hz)			50 / 60		
EPS Rated Current(A)	7.6	9.1	12.2	14.4	15.2
Output THDi(@Rated Output)			< 3%		
Automatic Switch Time(ms)			10		
Peak Apparent Power, Duratio (VA, s)	7500, 60	9000, 60	12000, 60	15000, 60	15000, 60
Efficiency					
Max.Efficiency	98.00%	98.00%	98.00%	98.00%	98.00%
Euro Efficiency	97.70%	97.70%	97.70%	97.70%	97.70%
Max.Battery Charge / Discharge Efficiency	97.60%	97.60%	97.60%	97.60%	97.60%
Protection					
DC Insulation Monitoring			Integrated		
Input Reverse Polarity Protection			Integrated		
Anti-island Protection			Integrated		
Residual Current Monitoring			Integrated		
Over-heat Protection			Integrated		
AC Overcurrent Protection			Integrated		
AC Short-circuit Protection			Integrated		
AC Overvoltage Protection			Integrated		
DC Surge Protection			Integrated (Type II)		
AC Surge Protection			Integrated (Type II)		
General Data					
Dimension - W*D*H(mm/in)			520*188*412/20.5*7.4*16.2		
Net Weight (kg/lb)			~27/~59.5		
User Interface			LED + OLED		
Communication			RS485 and USB or Wifi or 4G (Optional)		
Operating Temperature Range(°C)			-25 ~ + 60		
Relative Humidity			0 ~100%		
Standby Self Consumption (W)			<15		
Topology			Transformerless		
Cooling			Natural		
Enclosure			IP65		
Noise(dB)			<35		
Warranty			5 Years		
Certifications & Standards					
Grid Regulation	VDE 4105, EN 50549-1, VDE 0126 , CEI 0-21, EN 50549-GR , EN 50549-PL , TOR Erzeuger , EN50549-CZ, AS4777, UNE217002				
Safety Regulation	IEC 62109-1, IEC 62109-2				
EMC	IEC 61000-6-1, IEC 61000-6-3				

KOWINT CLOUD

Monitoring System



Instant Clarity With Remote Data Monitoring And Analysis

- Remote data monitoring, automatic curve generation, and big data analysis management make the product operation status clear at a glance.



Enhanced Security With Distributed Architecture And Data Encryption

- Distributed architecture deployment and data security encryption ensure that cloud data is more secure and reliable.



Seamless Connections With Intelligent Mall And Trial Applications

- Intelligent mall application and new product trial application enable users to contact source manufacturers directly, making product promotion faster and more accurate.



Boost Customer Satisfaction With Remote Firmware Upgrades

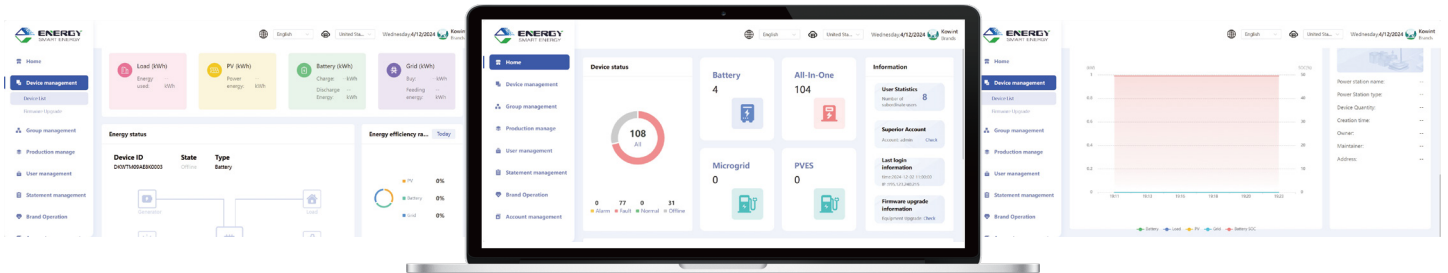
- Remote firmware upgrading and intelligent operation and maintenance report generation effectively improve customer satisfaction.



Optimized Channel Construction With Six-level Distribution System

- The six-level distribution system, from the brand owner to end users, is more conducive to robust product channel construction.

Interface Details



Memo No. _____

Date / /



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