

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 — 30.72kWh



HIGH PERFORMANCE

- >6000 Life Cycles.
- Each cluster is up to 30.72kwh (6 battery modules) , maximum 15 clusters in parallel to get 460.8 kWh.



SMART MANAGEMENT

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



SAFE AND RELIABLE

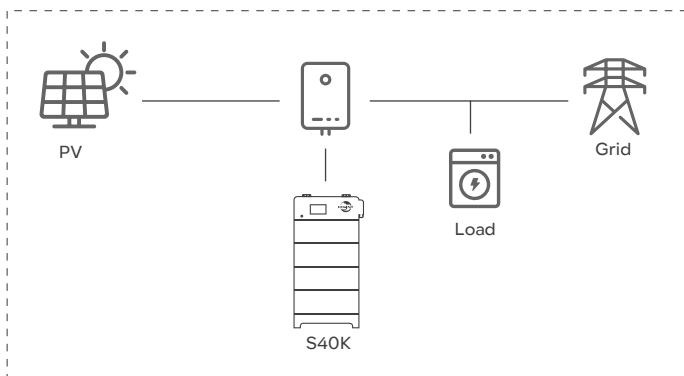
- IP55 design , available for indoor / outdoor.



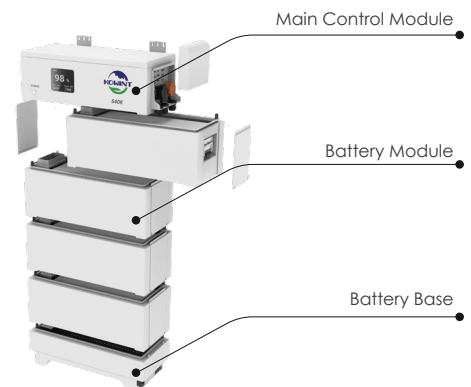
EASY INSTALLATION

- Modular design for ease of expansion.

● System Layout



● System Demonstration



● Product Specifications

System Characteristics

BESS Compliances	UL9540 / 9540A / IEC62619 / UN38.3 / MSDS / UKCA / CE / UL1973				
Installation Method	Stack Mounting				
Installation Scene	Indoor or Outdoor				
Enclosure	IP55				
Warranty(Years)	10				

BESS Specifications

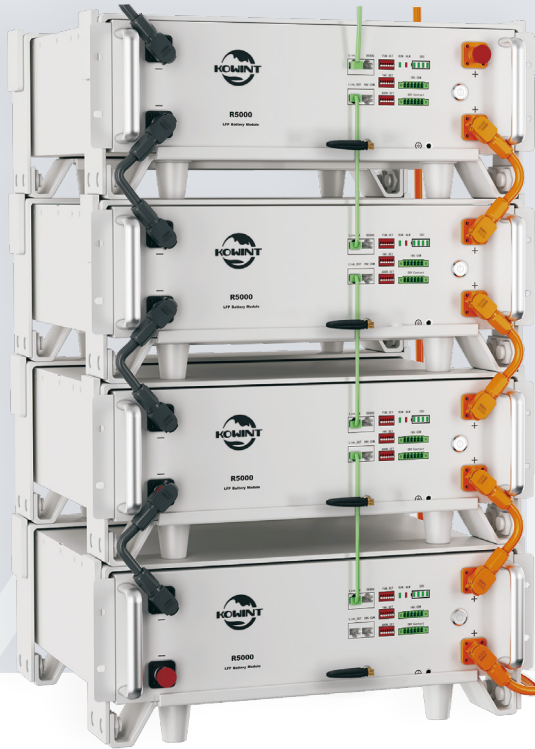
Battery Module Type	C-UMO5-L01				
Main Control Module	CM300-S40K				
Module Amount	2	3	4	5	6
Nominal Energy(kWh)	10.24	15.36	20.48	25.6	30.72
Max Charging / Discharging current(A)	190	285	300	300	300
Module Amount Max	1+2	1+3	1+4	1+5	1+6
Operating Current(kg)	132.5	183.5	234.5	285.5	336.5
Nominal Voltage(V)	51.2				
Operating Voltage Range(V)	43.2 ~ 58.4				

General Parameters

Scalability	Maximum 15 Systems in Parallel				
Dimension (W*H*D)(mm)	645*869*268	645*1106*268	645*1343*268	645*1580*268	645*1817*268
Max. Operating Current (A)	300				
Operating Temperature (°C)	Discharging: -20 ~ 50 Charging: 0 ~ 50				
Storage Conditions	-20 ~ 55°C /(0 ~ 35°C Recommended), Up to 95% RH, Non-condensing , Initial So : 50%				
Cooling	Natural Cooling				
Max. Altitude	2000m (6561ft)				
Cycle Life	6000 times @ 25°C				
Communication Method	CANRS , 485 , WiFi				

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.

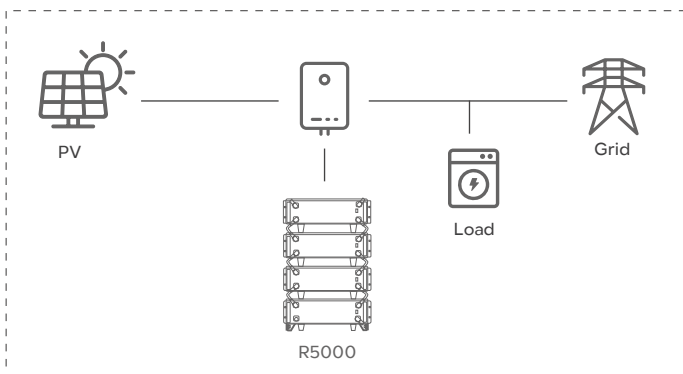
💡 SAFE AND RELIABLE

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

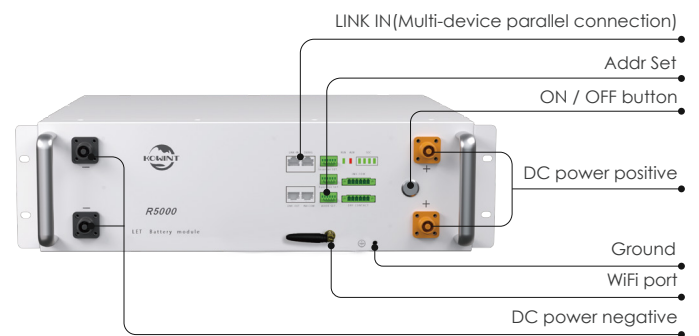
⚙️ EASY INSTALLATION

- 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(Years)	10

General Parameters

Dimensio (W*H*D)(mm)	440*132*420(Standard 3U Size)
Net Weigh (Approximate)(kg)	45
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

Wall-Mount ESS

W5000

5.12 kWh



HIGH PERFORMANCE

- >8000 Life Cycles.
- 100(W5000) / 314 (W16K) Cell Capacity.

USER FRIENDLY SETUP

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

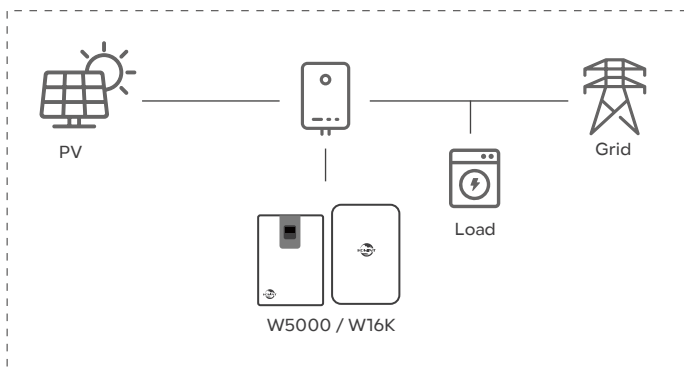
SAFE AND RELIABLE

- IP55 (W5000) / IP65 (W16K) protection degree.

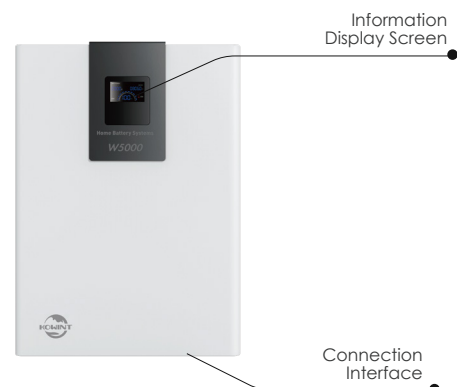
EASY INSTALLATION

- 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 Charging(V)	56.8
Max. Charging / Discharging Current(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*H*D)(mm)	450 * 635 * 180
Net Weight(kg)	53
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

Wall-Mount ESS

W16K

16.0kWh



HIGH PERFORMANCE

- >8000 Life Cycles.
- 100(W5000) / 314 (W16K) Cell Capacity.

USER FRIENDLY SETUP

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

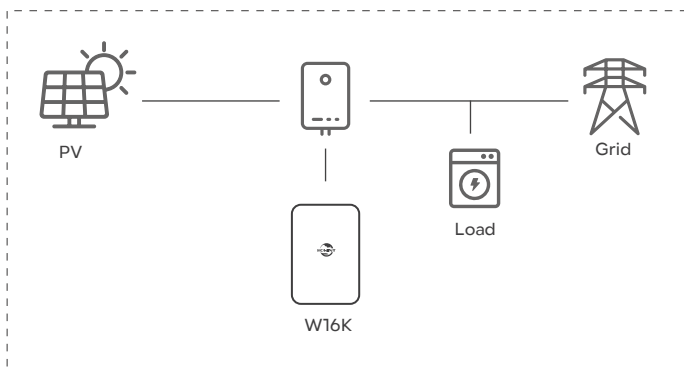
SAFE AND RELIABLE

- IP55 (W5000) / IP65 (W16K) protection degree.

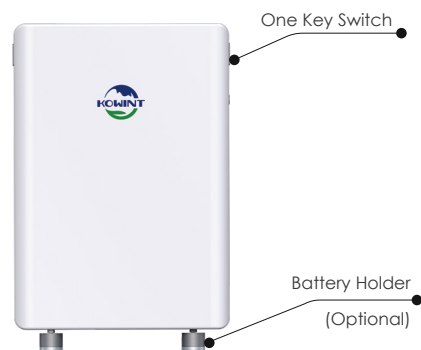
EASY INSTALLATION

- 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 Charging(V)	56.8
Max. Charging / Discharging Current(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*H*D)(mm)	560 * 800 * 200
Net Weight(kg)	133
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

Balcony Energy Storage System

BalcoPower

10.24 — 30.72 kWh



KOWINT



HIGH PERFORMANCE

- Quick wiring using MC4 standard.
- Zero-export(anti-reverse flow)function.



SAFE AND RELIABLE

- Adopt LFP battery.
- IP65 design, available for indoor / outdoor.



USER FRIENDLY SETUP

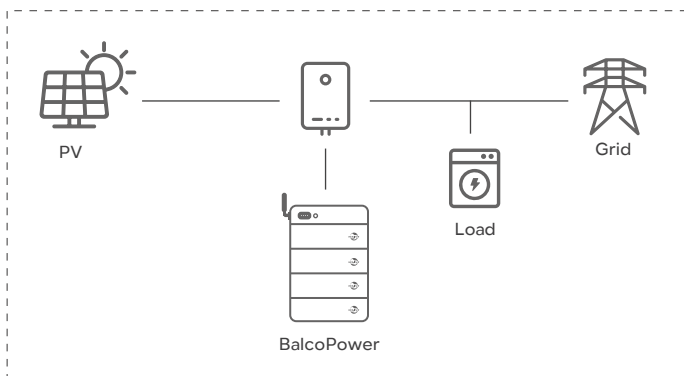
- RS485 and CAN compatible.
- Cloud platform / APP remote monitor.



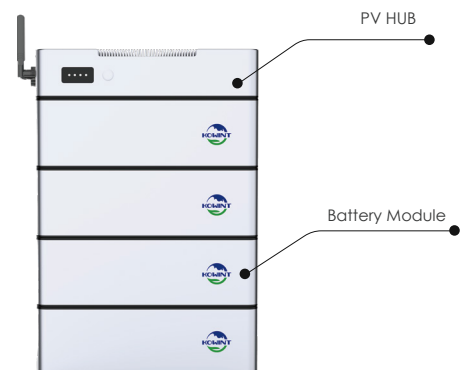
EASY INSTALLATION

- Modular design for ease of expansion.
- Lightweight and convenient, single person installation.

System Layout



System Demonstration



● Product Specifications

Battery Parameters

Nominal Energy(Wh)	2400
PV Input Rate(V)	12 ~ 60
PV Input Power (W)	Max.800 * 2
Output Connector Model	MC4
Voltage Range(V)	18 ~ 55
Output Power(W)	Max.800*2
Output Connector Model	MC4
Maximum Efficiency	0.98
Maximum Short-Circuit Current(A)	66
Battery Type	LiFePO4
Maximum Supported Expansion Quantity	6
Expansion Method	Stacking

General Parameters

Charging Temperature(°C)	0 ~ 55	
Discharging Temperature(°C)	-20 ~ 55	
Operating Altitude (m)	2000	
Ambient Humidity (RH)	5% ~ 95%	
Protection Rating	IP65	
Size	PV HUB(mm)	400*480*105
	Battery(mm)	400*480*150
Weight	PV HUB(kg)	10.5
	Battery(kg)	24.2
Warranty (years)	10	
Certification	CE, ROHS, WEEE, verpackG(Lucid), BattG	
Communication Type	RS485 / CAN / WiFi /Bluetooth	

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

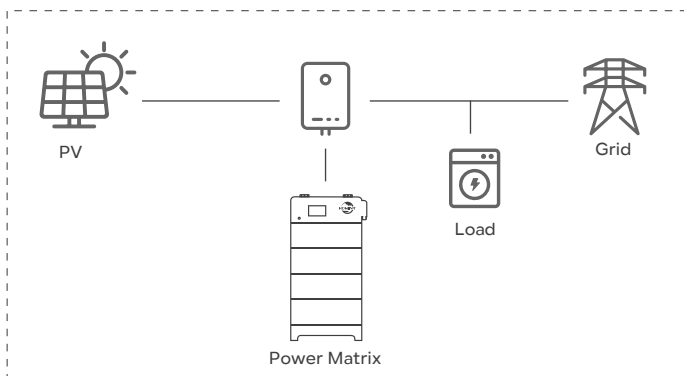
- Cloud platform / APP remote monitor.



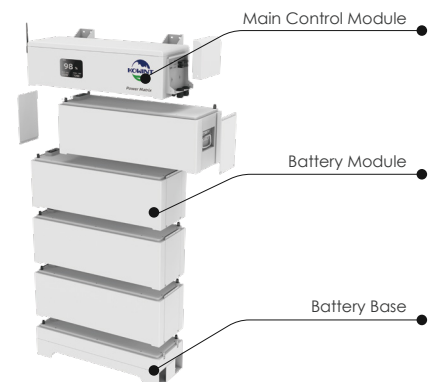
EASY INSTALLATION

- Modular design facilitate installation.

● System Layout



● System Demonstration



● Product Specifications

System Characteristics

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

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)	820 * 269.5 * 996	820 * 269.5 * 1282	820 * 269.5 * 1568	820 * 269.5 * 1854	820 * 269.5 * 1854
Net Weight(kg)	151.5	211.5	271.5	331.5	391.5
Operating Temperature (°C)	-20~ 50				
Operating Humidity	Up to 92 % Non-condensing				
Cycle Life	6000 times @ 25°C				
Communication Method	CAN , RS485 , WiFi				

ALL IN ONE

E-BOX

10.24 kWh



☀️ HIGH PERFORMANCE

- ≥8000 Life Cycles.
- High-efficiency system provides excellent energy conversion.
- Warranty 10 Years.

☰ USER FRIENDLY SETUP

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

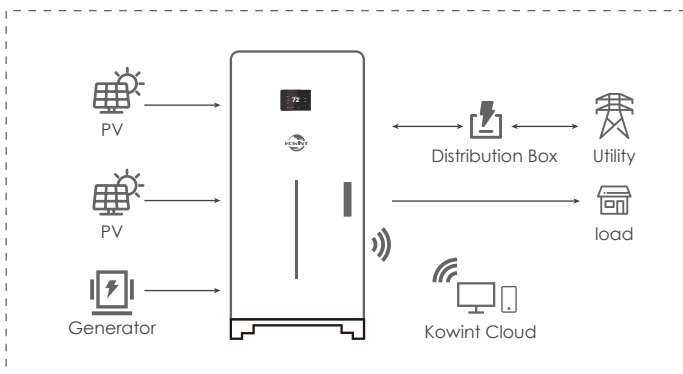
💡 SAFE AND RELIABLE

- IP54 design , available for indoor / outdoor.
- Advanced safety mechanisms ensure reliable operation.

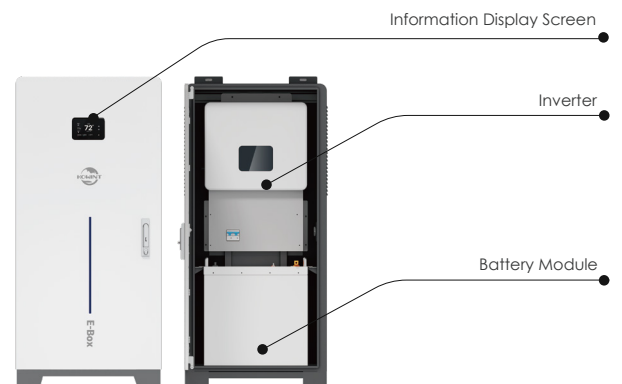
⚙️ EASY INSTALLATION

- Integrated design of battery and inverter for easier installation.

● System Layout



● System Demonstration



● Product Specifications

PV INPUT (DC)

Max PV Input Voltage(Vdc)	500
Nominal DC Input Voltage(Vdc)	360
DC Input Voltage Range(Vdc)	120 ~ 500
Start-up Voltage(V)	100
MPPT Number	2
Strings per MPPT	1 / 1
Max DC Input Current(A)	16 / 16
Max PV Input Power(W)	9000

AC Parameters

Phase	Single Phase
Nominal Voltage(Vac)	230
Input Voltage Range(Vac)	176 ~ 270
Frequency(Hz)	50 / 60
Max AC Current(A)	28.7
Rated AC Power(W)	6000

Battery Parameters

Nominal Energy(kWh)	10.24
Max Charging Voltage(Vdc)	58.4
Discharge Cut-off Voltage(Vdc)	43.2
Cycle Life	≥8000times@80% DOD
Warranty(Years)	10

General Parameters

Dimensions (W*D*H)(mm)	600*320*1360
Net Weight (Approximate)(kg)	185
Level of Protection	IP54
Operating Temperature(°C)	-20 ~ +50
Relative Humidity Range(RH)	10% ~ 90%
Cooling	FAN+Free convection
Communication	RS485 / Wi-Fi / CAN
Certifications for Battery	UKCA / UL1973 / CE / UN 38.3 / IEC62619
Certifications for Inverter	CE / TUV / SAA / IEC62166; 2014 / IEC61683: 1999

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.
- Cloud platform / APP remote monitor.



SAFE AND RELIABLE

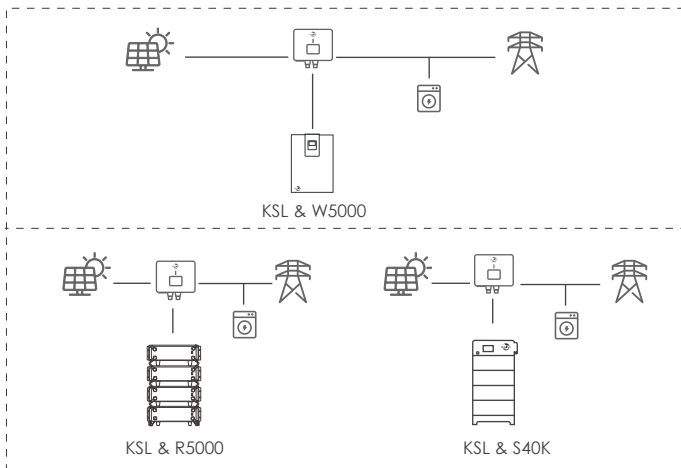
- IP65 design , available for indoor / outdoor.
- Built-in protection against backflow.



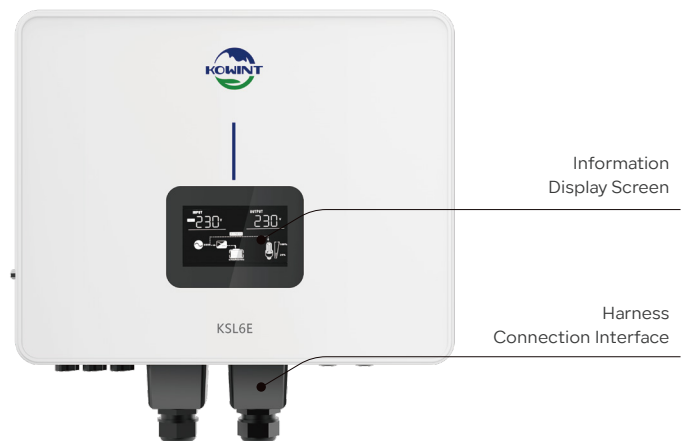
EASY INSTALLATION

- 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)	454.5*200 *467mm 8*7.8*18.3in					467*200*484mm 18.3*7.8*19in	
Weight	18kg / 40lb					20kg / 44lb	
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 VPP / FFR function available.

USER FRIENDLY SETUP

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

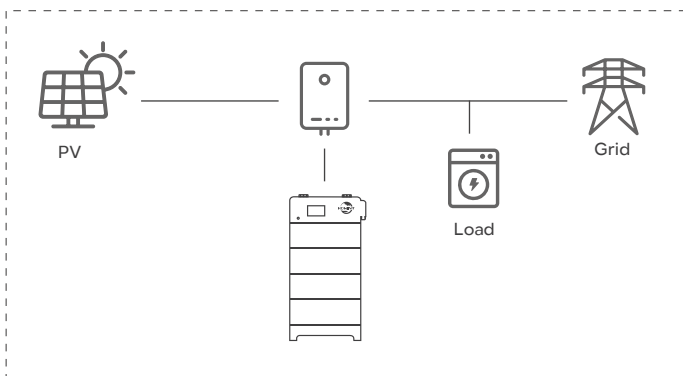
FLEXIBLE APPLICATION

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

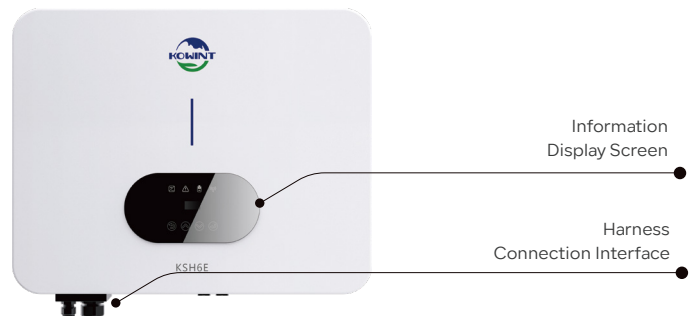
EASY INSTALLATION

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

● System Layout



● System Demonstration

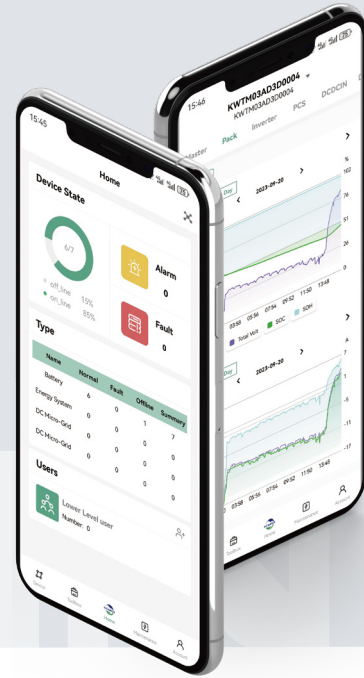


● Product Specifications

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					
Size(W*H*D)(mm)			520*412*188		
Weight(Kg)			27		
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(Years)			5		
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				

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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.

Boost Customer Satisfaction With Remote firmware Upgrades

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

Enhanced Security With Distributed Architecture And Data Encryption

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

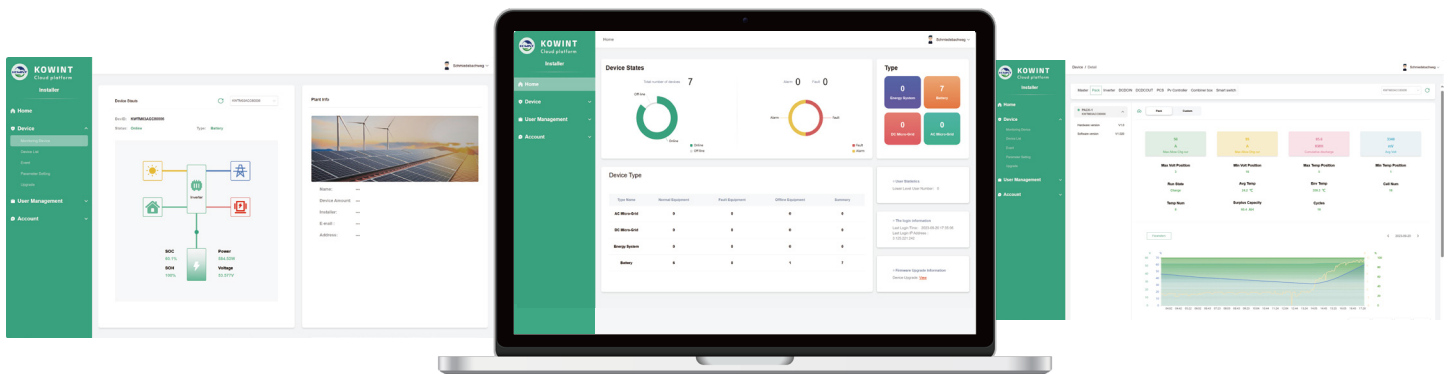
Optimized Channel Construction With Six-level Distribution System

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

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.

System Layout



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