www.kowint.com
info@kowint.com

Your Green Energy Manufacturer

KOWINT

KOWINT ENERGY

Your Green Energy Manufacturer

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2024.05.11.NO.3

Product Specifications

www.kowint.com

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ENERGY

Microgrid + Products Introduction

Kowint KS-38D

K-KS038015D0

- High Security
- Full Seamless Parallel Separation Switching
- High Degree of Integration
- Fast Installation
- Cabinet Level Scalability
- Flexible Deployment
- Direct Solar Panel Connection
- Long Cycle Life
- Easy Maintenance

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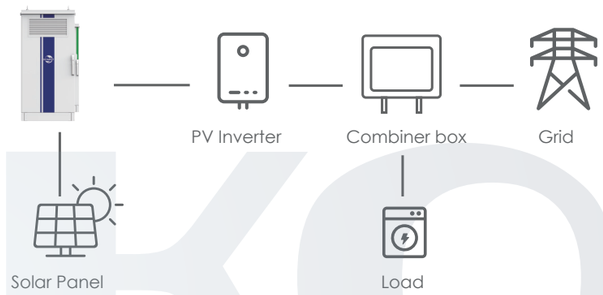
System Layout



Product Specifications

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Battery Specifications

Cell Type	LFP 3.2V/100AH
Module Combination	1P30S
System Combination	4 modules in series
Capacity (kWh)	38
Nominal Voltage (V)	384
Voltage Range (Vdc)	351~426
Discharge Depth	80% DoD
Service Life	>8000 cycles@80%DoD

PV Input

Topology	Isolation
Input Voltage(V)	300~825
Starting Voltage(V)	375
Max Input Current(A)	50
Rated Power (kW)	30
Number of MPPT	1
No. of PV Strings per MPP Trackers	4

DC-DC Output

Voltage Range (V)	351.6~426	150~1000
Current Range(A)	0~95	0~100
Rated Current (A)	95	50
Maximum Load Power(kW)	20	15
Load Regulation		<+0.5%
Stable Currenf Accuracy		<+1% (output load 20%~100% rated range)

System Characteristic

Communication Interface	CAN, RS485, Wi-Fi, LTE
Cycle Life	8000 times @ 80% DoD
Warranty	3 years free, paid from the 4th to the 15th year
Protective Function	Overcharge, Overdischarge, Overcurrent, High Temperature Low Temperature, Short Circuit, etc.

Alarm & Protection

Input/Output Voltage Protection	Over/under voltage will automatic shut down and restart when voltage return to normal
Over Current/ Short Circuit Protection	Automatic shutdown and lock, need power off to restart to unlock
Over Temperature Protection	Automatic shutdown, automatic restart when the temperature return to normal

General Parameters

Dimensions(W*D*H)	657*780*1570mm / 26*31*62in
Total Weight	660kg / 1455lb
Operation Altitude	2000m / 6561ft
IP Rating	IP54
Operating Temperature	0°C to 55°C (Optional: –20°C to 55°C)
Operating Humidity (RH)	0 to 95%
Storage Conditions	–20°C to 30°C Up to 95% RH, non-condensing State of Energy (SoE): 50% initial

Kowint

48kWh Platforms

K-KS048030A0
K-KS048020D0

48kWh Platforms
A cutting-edge microgrid energy storage solution designed for businesses prioritizing optimized energy utilization. With unparalleled efficiency, reliability, and scalability, it meets the diverse needs of modern enterprises.

AC System
Versatile Input Sources: The ECube seamlessly integrates power from various sources, including the grid and solar panels, utilizing MPPT technology for maximum efficiency.
Grid Integration: Equipped with a Power Conversion System (PCS), it effortlessly connects to the grid, importing power as needed and exporting excess energy, thereby enhancing efficiency and potential revenue generation.

DC System
Diverse Input Channels: Beyond grid connectivity, it efficiently captures energy from photovoltaic sources through MPPT technology, ensuring sustainable energy intake.
Wide Voltage Range: With adjustable output voltage, the system offers adaptability and versatility, catering to a wide array of applications and operational scenarios.

Your Green Energy Manufacturer

Product Specifications

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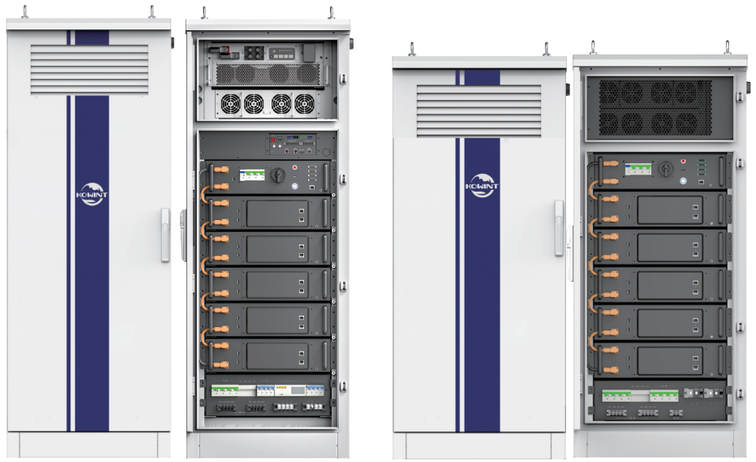
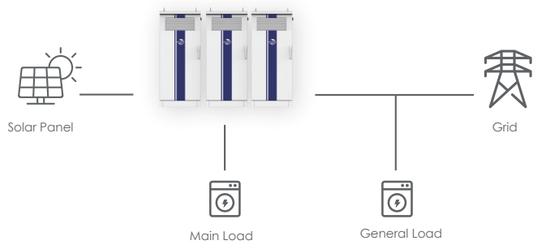
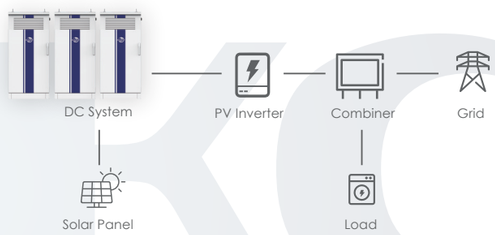


System Layout

AC System



DC System



48 kWh ESS Platforms

Battery Energy Storage

Cell Type	LFP 3.2V/100AH
Module Combination	1P30S
System Combination	5 modules in series
Capacity (kWh)	48
Nominal Voltage (V)	480
Voltage Range (Vdc)	405~547.5
Discharge Depth	90% DoD

General Parameters

Operation Altitude	2000m / 6561ft
IP Rating	IP54
Operating Temperature	0°C to 55°C (Optional: –20°C to 55°C)
Operating Humidity (RH)	0 to 95%
Storage Conditions	–20°C to 30°C Up to 95% RH, non-condensing State of Energy (SoE): 50% initial

Alarm & Protection

Input/Output Voltage Protection	Over/under voltage will automatic shut down and restart when voltage return to normal
Over Current/ Short Circuit Protection	Automatic shutdown and lock, need power off to restart to unlock
Over Temperature Protection	Automatic shutdown, automatic restart when the temperature return to normal

PV Input

Topology	Isolation
Input Voltage(V)	300~825
Starting Voltage(V)	375
Max Input Current(A)	50
Rated Power (kW)	30
Number of MPPT	1
No. of PV Strings per MPP Trackers	4

AC System(With PCS)(optional)

Dimensions(W*D*H)	657*780*1803mm / 26*31*71in
Total Weight	720kg / 1587lb

AC Output	US	EU
Rated Output Power(kW)	30	30
Maximum Apparent Power(kVA)	33	33
Maximum Active Power(kW)	33	33
Rated Grid Voltage(Vac)	3L+PE,480(±15%)	3L+N+PE,400(±15%)
Rated Frequency(Hz)	60(±5)	50(±2.5)

System Characteristic

Communication Interface	CAN, RS485, Wi-Fi, LTE
Cycle Life	8000 times @ 80% DoD
Warranty	3 years free, paid from the 4th to the 15th year

DC System(With DCDC)(optional)

Dimensions(W*D*H)	657*780*1570mm / 26*31*62in
Total Weight	660kg / 1455lb

DCDC Output	Optional 1	Optional 2
Voltage Range (V)	405~547.5	150~1000
Current Range(A)	0~95	0~100
Rated Current (A)	95	50
Maximum Load Power(kW)	20	15
Load Regulation	\	<+0.5%
Stable Current Accuracy	\	<+1% (output load 20%~100% rated range)

System Characteristic

Communication Interface	CAN, RS485, Wi-Fi, LTE
Cycle Life	8000 times @ 80% DoD
Warranty	3 years free, paid from the 4th to the 15th year

Kowint
KS-60A

K-KS060030A0
K-KS060060A0

Full Power Temperature Control:
Ecube maintains battery temp below 40°C during full power, ensuring safe performance.

Versatile Power Management:
Redundant design enables black start, off-grid ops for intense charging/discharging demands.

Safety Features:
Includes gas, smoke detection, temp variation detection, active exhaust, fire alarms for multi-layered safety.

High-Rate Energy Cycling:
Ecube ideal for frequent, intensive energy cycling apps, ensuring reliability, efficiency.

Your Green Energy Manufacturer

Product Specifications

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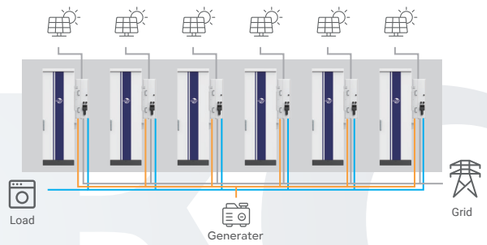
System Layout



Battery Energy Storage

Cell Chemistry	LiFePO4
Module Energy (kWh)	5.12
Module Nominal Voltage (V)	51.2
Module Capacity (Ah)	100
Battery Module Qty In Series (Optional)	12
System Nominal Voltage (V)	614.4
System Operating Voltage (V)	562.5~681.6
System Energy (kWh)	61.44
System Usable Energy (kWh)	55.29
Charge/Discharge Current (A)	Recommend: 50 Nominal: 100

General Parameters

Working Temperature	-20~55°C
Communication Interface	CAN, RS485, Wi-Fi, LTE
Humidity	5%~85%RH
Altitude	≤2000m
IP Rating	IP55
Dimension (W*D*H)	1030*1050*2170mm / 40.6*41*85.4in
Weight Approximate	1093kg / 2409.7lb
Storage Temperature	-20~35°C
Recommend Depth of Discharge	90%
Cycle Life	>8000 cycles
Warranty	3 years free, paid from the 4th to the 15th year
Certification	UL1973, UL9540A, UN38.3

US System

PV Input	Optional 1	Optional 2
Max. Power(kW)	45	50kW: 75 60kW: 90
Max. Voltage(V)	550	1100
Start-up Voltage(V)	80	200
Rated Voltage(V)	360	730
MPPT Voltage Range(V)	80-520	200-1000
Number of MPP Trackers		4
Max. PV Input Current(A)		40/40/40/40

AC Output(On-Grid)	Optional 1	Optional 2
Rated Output Power(kW)	30	50kW: 50 60kW: 60
Max. Output Power(kVA)	33	50kW: 55 60kW: 66
Max. Output Current(A)	91.6	50kW: 66.2 60kW: 79.4
Rated Voltage(V)	120/208V Three phase	277/480V
Rated Frequency(Hz)		50/60
THDi(@Rated Power)		< 3%
Power Factor		0.8 leading~0.8 lagging

AC Output (EPS)	Optional 1	Optional 2
Max. Output Power(W)	33	50kW: 55 60kW: 66
Peak Output Power, Time (VA,s)	45000, 7s	50kW:100, 7s 60kW: 120, 7s
Rated Voltage(V)(Three Phase)	120/208V	277/480V
THDv(@Rated Power)	< 3%	< 3%
Switch Time(ms)	< 10	< 10

EU System

PV Input	EU
Max. Input Power(kW)	90
Max. Input Voltage(V)	1100
Start-up Voltage(V)	200
Rated Voltage(V)	620
MPPT Voltage Range(V)	180-1000
Number of MPP Trackers	4
Number of String per MPPT	8
Max. Current per MPPT(A)	40
Max. Short Circuit Current per MPPT(A)	50

AC Output(On-Grid)	EU
Rated Output Power(kW)	60
Max. Output Power(kVA)	66
Max. Output Current(A)	100
Max. Input Power from Grid(kW)	90
Max. input Current from Grid(A)	136.4
Rated Grid Voltage	3 / N / PE, 230 V / 400 Vac
Rated Grid Frequency(Hz)	50 / 60
THDi(@Rated Power)	<3%
Power Factor	0.8 leading ~ 0.8 lagging

AC Output (EPS)	EU
Rated Output Power	50kW
Max. Output Power	1.5 times / 10s
Max. Output Current	91 A
Switch Time	<10ms
Rated Voltage	3 / N / PE, 230V / 400Vac
Rated Frequency	50Hz / 60Hz
Max. AC passthrough current	150A
THDv (@linear load)	<2%

Kowint

207kWh Platforms

K-KS207120A0
K-KS207120D0

207kWh Platforms

State-of-the-art microgrid energy storage solution caters to businesses seeking optimized energy usage with high efficiency, reliability, and scalability options.

AC System

Empowering with Solar Energy: Harness the sun's power efficiently with MPPT technology. Cost-Effective and Sustainable: Connect to the grid, input energy when prices are low, and export excess renewable energy when it's abundant. Our energy storage box delivers two-way energy flow, reducing electricity costs and enhancing sustainability

DC System

Empowering with Solar Energy: Harness the sun's power efficiently with MPPT technology. Wide Voltage Range: Adjustable output voltage to accommodate diverse application scenarios

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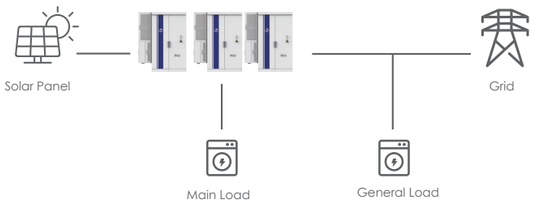
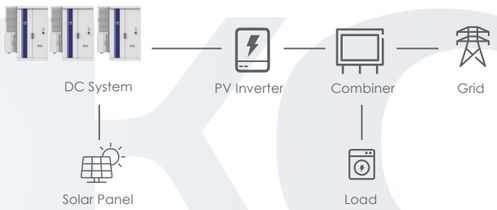
System Layout

AC System



DC System



207 kWh ESS Platforms

Battery Energy Storage

Single Cell Type	LFP 3.2V/280AH
Module Combination	1P8S
System Combination	29 modules in series
Capacity (kWh)	207.872
Nominal Voltage (V)	742.4
Voltage Range (Vdc)	679.76~823.6
Discharge Depth	90% DoD
Service Life	>8000 cycles@80%DoD
Thermal Management Mode	Air Conditioner
Thermal Control Management	Aerosol Extinguishing

General Parameters (Battery cabinet)

Dimensions(W*D*H)	1295*1030*2245mm / 51*45*88in
Total Weight	2600kg / 5732lb
Cooling	Forced Air Cooling
Operation Altitude	2000m / 6561ft
Noise Level @1m	<75 dB(A)
IP Rating	IP54
Operating Temperature	–20°C to 55°C
Operating Humidity (RH)	0 to 95%
Storage Conditions	–20°C to 30°C Up to 95% RH, non-condensing State of Energy (SoE): 50% initial

AC System(With PCS & MPPT)

Dimensions(W*D*H)	1290*1030*2245mm / 51*41*88in
Total Weight	3150kg / 6944lb

PV Input Parameters

Input Voltage(V)	300~825
Max Input Current(A)	50*4
Rated Power (kW)	120
Number of MPPT	4
No. of PV Strings per MPP Trackers	6
Alarm and Protection	Over voltage and low voltage alarm with shut down protection

AC Output

Rated Grid Voltage (Vac)	230/400, 3P+N+PE
Maximum Continuous Input Current(Aac)	172
Rated frequence(Hz)	Grid-tied: 50 Off-grid: 50/60
Rated Power (kW)	120
Power Factor	0.8cap-0.8ind
Off-grid Unbalanced Load Capacity	100%
Overload Capacity	35°C 110%~120%@10 min,120%@1 min
Switching Time	from grid-connected to off-grid≤ 20ms

System Characteristic

Communication Interface	CAN, RS485, Wi-Fi
Warranty	3 years free, paid from the 4th to the 15th year
Battery Certifications	UL1973/UL9540 UL9540A/IEC62619/UN38.3
Grid-tied Standard	EN50549
Safety Certification	CE
EMC Standard	FCC

DC System(With DCDC & MPPT)

Dimensions(W*D*H)	1290*1030*2245mm / 51*41*88in
Total Weight	3150kg / 6944lb

PV Input Parameters

Input Voltage(V)	300~825
Max Input Current(A)	50*4
Rated Power (kW)	120
Number of MPPT	4
No. of PV Strings per MPP Trackers	6
Alarm and Protection	Over voltage and low voltage alarm with shut down protection

DCDC Output

Maximum Load Power	90kW@Voltage ＞300Vdc
voltage Range (Vdc)	150~1000
Current Range (A)	0-300
Current Sharing	＜±1 A
Voltage Stabilized Accuracy	＜±0.5%
Current Stabilized Accuracy	≤±1%(output power in 20%～100%)

System Characteristic

Number of parallel connections	10
Communication Interface	CAN, RS485, Wi-Fi, LTE
Warranty	3 years free, paid from the 4th to the 15th year
Safety Certification	UL2202, EN61851-1, EN61851-23 UL certification in Q2 2024
EMC Standard	EN61851-21-2, class B
Battery Certifications	IEC62619/UN38.3

Kowint 233kWh Series

K-KS233125A0-EU
K-KS233125A1-US

High Integration
Combining a comprehensive design with high power density, our system requires only a small amount of space. It offers ease of transportation, simple installation, and the ability to freely combine for increased capacity and power.

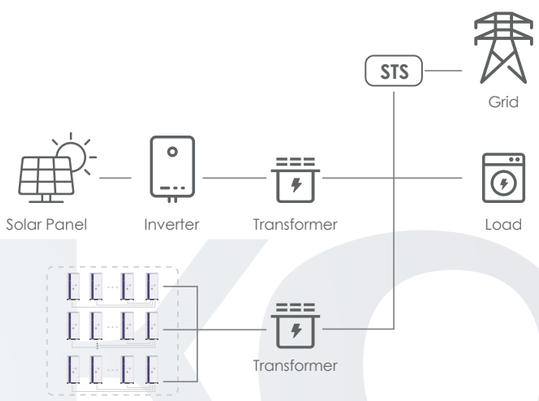
Efficient Flexibility
Our system is designed for maximum efficiency, with a modular structure reducing failure and ensuring high uptime, bolstered by high-efficiency liquid cooling. It's suited for various challenging environments, improving battery life and discharge capacity.

Safety and Trust
Safety is paramount in our system, featuring thorough battery monitoring, multi-level fire prevention, and superior venting for explosion risk reduction. It also includes proactive AI management at the cell level to prevent thermal issues.

Intelligent Operation
Equipped with a comprehensive EMS for easy upgrades and big data-driven intelligent inspection systems, our product offers proactive management and warnings. Intelligent SOC calibration ensures optimal performance with minimal downtime.

Your Green Energy Manufacturer

System Layout



Product Specifications

www.kowint.com
info@kowint.com

Battery Energy Storage	K-KS233125A0-EU	K-KS233125A0-US
Single Cell Type	LFP 3.2V/280AH	
Module Combination	1P52S	
System Combination	5 modules in series	
Capacity (kWh)	233	
Nominal Voltage (V)	832	
Operation Voltage Range (Vdc)	702~949	
Discharge Depth	90% DoD	
Thermal Management Mode	liquid cooling	
Thermal runaway management	Aerosol Extinguishing	

AC Output	EU	US
Rated AC output power(kW)	125	125
Max. AC output power(kVA)	150	137.5
Rated output voltage(Vac)	400	480
Output voltage(Vac) range	-15%~10%(settable)	-15%~10%(settable)
Rated grid frequency(Hz)	50/60Hz(settable)	60Hz(settable)
Max. output current(A)	182	165.4
Adjustable power factor	>0.99	>0.99
THDi	<3%	<3%

System Characteristic	EU	US
PCS Cooling	Forced Air Cooling	
PCS Topology	Non-isolation	
AC/DC start function	Integration	
Switch from Grid-connected to Off-grid	Integration	
Communication Interface	CAN, RS485, Wi-Fi, LTE	
Warranty	3 years free, paid from the 4th to the 15th year	
Certifications	IEC62619/UN38.3/IEC/EN 62477-1, IEC EN/61000-6-2, IEC/EN 61000-6-4	UL1741, CSA C22.2 No 107.1, IEEE1547/UL1973/UL9540/UL9540A

General Parameters	
Dimensions (W*D*H)	1100*1450*2350mm / 43*57*92.5in
Total Weight	2950kg /6503lb
Operation Altitude	2000m / 6561ft
Noise Level @1m	<75 dB(A)
IP Rating	IP54
Operating Temperature	–20°C to 55°C
Operating Humidity (RH)	0 to 95%
Storage Conditions	–20°C to 30°C Up to 95% RH, non-condensing State of Energy (SoE): 50% initial

Product Specifications

www.kowint.com
info@kowint.com

Kowint KS-372A

K-KS372200A0
K-KS372175A0

High Security and Efficiency:
Our system utilizes high-safety lithium iron phosphate batteries with built-in fire protection at module and system levels, alongside an active safety early warning system. Efficient BMS technology ensures minimal power consumption and consistent performance, enhancing reliability.

Integrated Design and Flexibility:
The system integrates battery, PCS, AC contactor switching, and EMS modules for seamless deployment by end users. With support for both on-grid and off-grid switching, it offers flexibility in power supply options and simplifies installation.

Longevity and Easy Maintenance:
Boasting a long cycle life of over 8000 times and a service life exceeding 15 years, our system employs laser welding for durability. Its fully modular design streamlines maintenance, allowing for easy module replacement and simplified operation from local to cloud-based maintenance.

Your Green Energy Manufacturer

Battery Energy Storage

Single Cell Type	LFP 3.2V/280AH
Module Combination	1P52S
System Combination	8 modules in series
Capacity (kWh)	372.736
Nominal Voltage (Vdc)	1331.2
Voltage Range (Vdc)	1,218.88~1,476.8 (2.93V~3.55V)
Charge/Discharge Current	0.5C
Discharge Depth	90% DoD
Service Life	>8000 cycles@80%DoD
Thermal Management Mode	Liquid cooling technology
Thermal runaway management	Aerosol Extinguishing or PFH

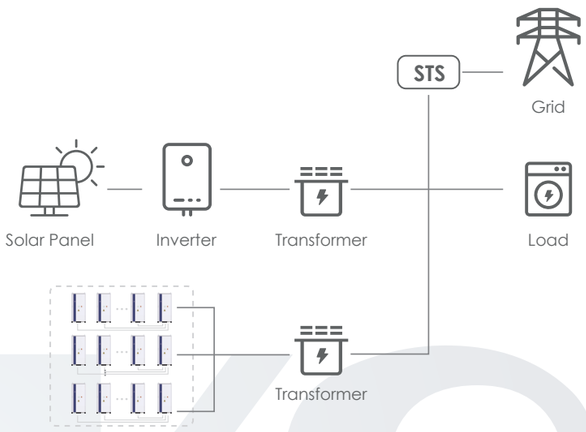
System Characteristic

PCS Cooling	Forced Air Cooling
PCS Topology	Non-isolation
Communication Interface	CAN, RS485, Wi-Fi, LTE
Warranty	3 years free, paid from the 4th to the 15th year
Certifications	IEC62619/UN38.3/IEC62619/UN38.3/IEC/EN 62477-1, IEC/EN 61000-6-2, IEC/EN 61000-6-4

General Parameters

Operation Altitude	2000m / 6561ft
Noise Level @1m	<75 dB(A)
IP Rating	IP54
Operating Temperature	-20°C to 55°C
Operating Humidity (RH)	0 to 95%
Storage Conditions	-20°C to 30°C Up to 95% RH,non-condensing State of Energy (SoE): 50% initial

System Layout



US System	
Dimensions (W*D*H)	1510*1450*2350mm / 59*57*93in
Total Weight	4100kg / 9039lb

AC Output

Rated AC Output Power(kW)	US: 175
Max. AC Output Power(kVA)	US: 192.5
Rated Output Voltage(Vac)	US: 600
Output Voltage Range	-15%~+10%(settable)
Grid Frequency Range(Hz)	US: 60
Max. Output Current(A)	185.2
Power Factor	>0.99(at rated power)
Adjustable Power Factor	1(leading)~1(lagging)
THDi	<3%(at rated power)
Overloading Capability	110%

EU System	
Dimensions (W*D*H)	1510*1450*2350mm / 59*57*93in
Total Weight	4100kg / 9039lb

AC Output

Rated AC Output Power(kW)	200
Max. AC Output Power(kVA)	220
Rated Output Voltage(Vac)	690
Output Voltage Range	-15%~+10%(settable)
Grid Frequency Range(Hz)	50/60
Max. Output Current(A)	185.2
Power Factor	>0.99(at rated power)
Adjustable Power Factor	1(leading)~1(lagging)
THDi	<3%(at rated power)
Overloading Capability	110%

P-Block 2437D

K-PB2437750D0

- High security
- Efficient equalization BMS technology
- Support parallel expansion capacity and power
- Long life cycle
- Convenient installation
- Convenient operation

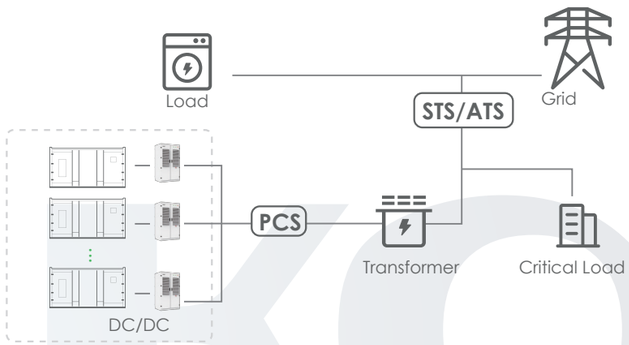
Your Green Energy Manufacturer

Product Specifications

www.kowint.com
info@kowint.com

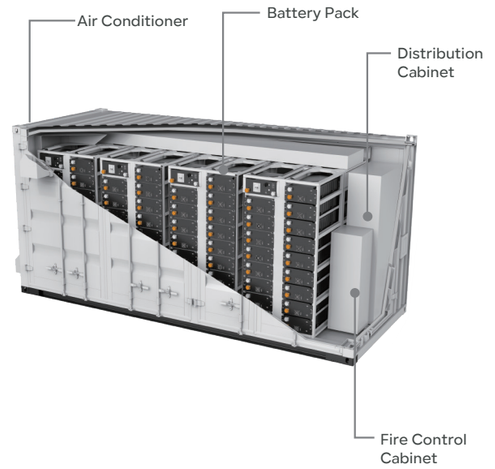
DC 20ft container energy storage battery

System Layout



Battery Energy Storage	
Battery Cell	LFP 3.2V/280AH
Battery Module	1P20S
Module QTY	17S
Battery Rack	(1P20S)17S
Nominal Capacity	304.6kWh*8
Total Voltage/Capacity(V)	1088
Max Voltage Range	996.2~1207
Max Charge/Discharge Current(A)	280
Charge/Discharge Rate	90% DoD
Service Life	>8000 cycles@80%DoD

DC/DC	
Voltage Range(Vdc)	500~1500
Rated Voltage(Vdc)	1000
Max Current Range (A)	825
Rated Power (kW)	750
Maximum Output power (kW)	825@10S
Output efficiency(%)	99%



General Parameters	
Dimensions (W*D*H)	6052*2438*2896mm / 238*96*114in
Total Weight	27000kg / 59525lb
Cooling	Air Conditioner
Operation Altitude	2000m / 6561ft
Noise Level @1m	<75 dB(A)
IP Rating	IP54
Operating Temperature	–20°C to 55°C
Operating Humidity (RH)	0 to 95%
Storage Conditions	–20°C to 30°C Up to 95% RH, non-condensing State of Energy (SoE): 50% initial
Communication Interface	CAN, RS485, Wi-Fi, LTE
Warranty	3 years free, paid from the 4th to the 15th year
System Certifications	IEC62619/UN 38.3

P-Block 1720A

K-PB1720500A0

- High security
- Efficient equalization BMS technology
- Long life cycle
- Convenient installation
- Convenient operation

Your Green Energy Manufacturer

Product Specifications

www.kowint.com
info@kowint.com

AC 20ft container energy storage battery

Battery Energy Storage

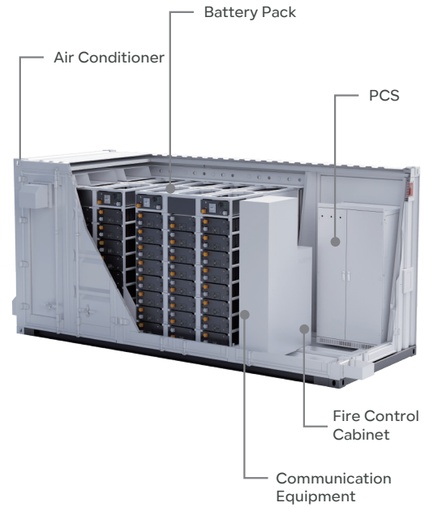
Battery Cell	LFP 3.2V/280AH
Battery Module	1P30S
Module QTY	8S
Battery Rack	(1P30S)8S
Nominal Capacity	215kWh*8
Total Voltage/Capacity(V)	768
Max Voltage Range(V)	703.2~852
Max Charge/Discharge Current(A)	280
Charge/Discharge Rate	90% DoD
Service Life	>8000 cycles@80%DoD

AC Output

Nominal AC Power(kW)	500
Nominal Grid Voltage(Vac)	380/400
Permissible Grid Voltage	±8%
Nominal Grid Frequency(Hz)	50/60

Off-Grid Output

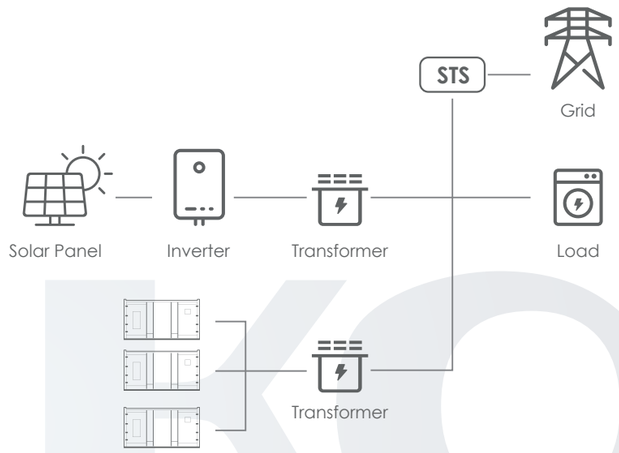
AC Off Grid Voltage(Vac)	400
Voltage Range	±8%
AC Off Grid Frequency(Hz)	50/60



General Parameters

Dimensions (W*D*H)	6052*2438*2896mm / 238*96*114in
Total Weight	19000kg / 41887lb
Cooling	Air Conditioner
Operation Altitude	2000m / 6561ft
Noise Level @1m	<75 dB(A)
IP Rating	IP54
Operating Temperature	–20°C to 55°C
Operating Humidity (RH)	0 to 95%
Storage Conditions	–20°C to 30°C Up to 95% RH, non-condensing State of Energy (SoE): 50% initial
Communication Interface	CAN, RS485, Wi-Fi, LTE
Warranty	3 years free, paid from the 4th to the 15th year
System Certifications	IEC62619 UN 38.3

System Layout



P-Block 3440A

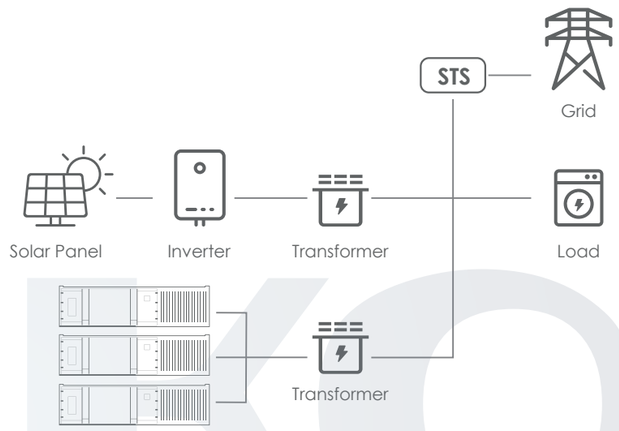
K-PB34401000A0

AC 40ft container energy storage battery

- High security
- Efficient equalization BMS technology
- Long life cycle
- Convenient installation
- Convenient operation

Your Green Energy Manufacturer

System Layout



Product Specifications

www.kowint.com
info@kowint.com

Battery Energy Storage

Battery Cell	LFP 3.2V/280AH
Battery Module	1P30S
Module QTY	8S
Battery Rack	(1P30S)8S
Nominal Capacity	215kWh*16
Total Voltage/Capacity(V)	768
Max Voltage Range(V)	703.2~852
Max Charge/Discharge Current(A)	280
Charge/Discharge Rate	90% DoD
Service Life	>8000 cycles@80%DoD

AC Output

Nominal AC Power(kW)	1000
Nominal Grid Voltage(Vac)	380/400
Permissible Grid Voltage	±8%
Nominal Grid Frequency(Hz)	50/60

Off-Grid Output

AC Off Grid Voltage(Vac)	400
Voltage Range	±8%
AC Off Grid Frequency(Hz)	50/60

General Parameters

Dimensions (W*D*H)	12200*2438*2896mm / 480*96*114in
Total Weight	36000kg / 79366lb
Cooling	Air Conditioner
Operation Altitude	2000m / 6561ft
Noise Level @1m	<75 dB(A)
IP Rating	IP54
Operating Temperature	–20°C to 55°C
Operating Humidity (RH)	0 to 95%
Storage Conditions	–20°C to 30°C Up to 95% RH, non-condensing State of Energy (SoE): 50% initial
Communication Interface	CAN, RS485, Wi-Fi, LTE
Warranty	3 years free, paid from the 4th to the 15th year
System Certifications	IEC62619 UN 38.3

Product Specifications

www.kowint.com
info@kowint.com

5MWh Liquid-Cooling Container Solution

P-Block

K-PB50002500LCB01

High Density and Efficiency:

Our 5MWH container boasts a compact 2.5MW/5MWH integrated design, with a liquid-cooling system maintaining a ≤3℃ charge/discharge temperature difference, enhancing longevity and efficiency. Back-to-back installation saves up to 30% in space.

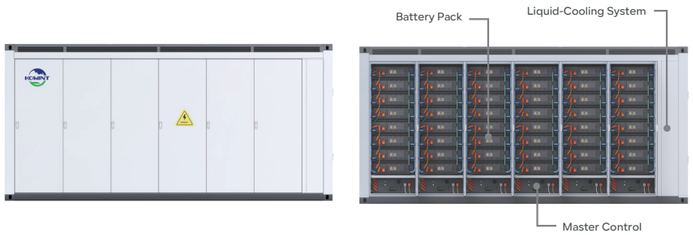
Safety and Reliability:

Equipped with multi-level fire suppression and top venting for active ventilation, the container ensures safety against thermal runaway. Cell-level AI management provides proactive warnings for failing cells, enhancing reliability.

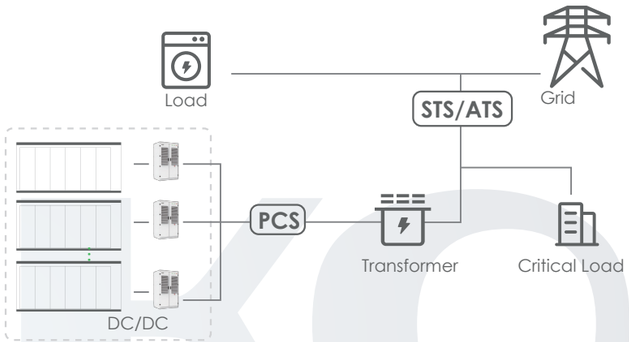
Efficient and Flexible:

Featuring a modular design, the container minimizes failure losses and downtime. Its liquid cooling system improves battery life and discharge capacity, with IP55/C5 protection for adaptability to extreme environments. Intelligent SOC calibration and automatic liquid replenishment stream-line operations with minimal downtime.

Your Green Energy Manufacturer



System Layout



Battery Energy Storage	
Cell Type	LFP 3.2V
Capacity(Ah)	314Ah
Configuration	416S12P
Rated Voltage(Vdc)	1331.2Vdc
Voltage Range(Vdc)	1218.88 ~ 1476.8Vdc
Rated Capacity(kWh)	5018kWh
System Charge/Discharge	≤0.5C
System Efficiency	≥97%
Thermal Management Mode	liquid cooling

Operating Environment	
IP Rating	IP54
Noise Level @1m	<85dB
Operating Temperature	-25°C~55°C
Relative Humidity	≤95%, No condensation
Operation Altitude	2000m / 6561ft

System Parameters	
Dimensions (W*D*H)	6058*2438*2896mm / 238.5*96*114in
Total Weight	42000±500kg / 92594±1100lb
Multi-level Fire Suppression	Combustible Gas Detection ;Accident Ventilation;Gas Fire Fighting;Water Fire Fighting
Communication Protocol	CAN, RS485, Wi-Fi, LTE
Certification	IEC62619, UN38.3, UL1973,UL9540A

PCS System (Optional)

DC Input

Maximum DC Voltage(Vdc)	1500
DC Operating Voltage Range(Vdc)	1000~1500
Maximum DC Current(A)	2806
Automatic Buffer Function	Capable

AC Output(On-Grid)

Rated Output Power(kW)	2500
Max. Output Power(kVA)	2750
Rated Grid Voltage(Vac)	690
Allowable Grid Voltage Range	-15%~10%(settable)
Rated Grid Frequency(Hz)	50/60(settable)
Max. Output Current	2301
Power Factor/adjustable Range	>0.99(rate output power)
Reactive Power Adjustable Range	-105%~105%
THDi	<3%(rate output power)

AC Output(Off-Grid)

Rated Output Voltage(Vac)	690
Output Voltage Accuracy	1%
Max. Output Current(A)	2301
THDu	<2%(linear load)
Rated Output Frequency(Hz)	50/60(settable)
Overload Capacity	110% Overoad

Efficiency

Max. Efficiency	99.03%

Operating Environment

IP Rating	IP65
Operating Temperature	-35°C~60°C
Operation Altitude	2000m / 6561ft

System Parameters

Dimensions (W*D*H)	1000*1400*2450mm / 39.3*55*96.4in
Total Weight	1900kg / 4188.7lb
Communication Protocol	CAN, RS485, Wi-Fi, LTE
Certification	GB/T 34120, IEC62477, EN61000, EN62116

Intelligent STS

120KW

Rated Grid Voltage(Vac)	380/480 ±15%
Rated AC Current(A)	180
AC frequency(Hz)	50/60±5
Switch Time	Switch from grid-connected to off-grid <20ms When off-grid to grid-connected the load is uninterrupted (0ms)

240KW

Rated Grid Voltage(Vac)	380/480 ±15%
Rated AC Current(A)	360
AC frequency(Hz)	50/60±5
Switch Time	Switch from grid-connected to off-grid <20ms When off-grid to grid-connected the load is uninterrupted (0ms)

Intelligent PCS

30KW

Battery Voltage Range(Vdc)	150~750
AC Output Voltage(Vac)	3W3P+PE, 480 (±15%)
AC frequency(Hz)	60 (±2.5)
Number of Parallel	10PCS

50KW

Battery Voltage Range(Vdc)	250~520
AC Output Voltage(Vac)	380/400(±15%)
AC frequency(Hz)	50/60(±2.5)
Number of Parallel	2PCS

62.5KW

Battery Voltage Range(Vdc)	600~900
AC Output Voltage(Vac)	380/400(±10%)
AC frequency(Hz)	50/60(±2.5)
Number of Parallel	8PCS

60KW

Battery Voltage Range(Vdc)	680Vdc~1000Vdc
AC Output Voltage(Vac)	230/400, 3P+N+PE
AC frequency(Hz)	50/60
Number of Parallel	5PCS

100KW

Battery Voltage Range(Vdc)	600~1500
AC Output Voltage(Vac)	400, 3P+PE
AC frequency(Hz)	50/60
Number of Parallel	8PCS

Intelligent Master Control

750VDC100A

Rated Voltage(Vdc)	750
Voltage Range(Vdc)	80~750
Rated Current(A)	100
Weight	19kg / 42lb
W*D*H	820*268*229mm / 32*10*9in

750VDC150A

Rated Voltage(Vdc)	750
Voltage Range(Vdc)	200~750
Rated Current(A)	150
Weight	25kg / 55lb
W*D*H	485*440*132mm / 19*17*5in

750VDC300A

Rated Voltage(Vdc)	750
Voltage Range(Vdc)	200~750
Rated Current(A)	300
Weight	38kg / 84lb
W*D*H	525*530*210mm / 20*21*8in

1000VDC300A

Rated Voltage(Vdc)	1000
Voltage Range(Vdc)	200~1000
Rated Current(A)	300
Weight	39kg / 86lb
W*D*H	525*530*210mm / 20*21*8in

Flexible Battery Module

32Ah 1P18S

Rated Capacity(kWh)	1.843
Rated Voltage(V)	57.6
Max. Charge Rate	≤1C
Peak Charging Current	≤2C 10s
Max. Discharge Current	≤1C
Peak Discharge Current	≤2C 30s
Weight	16kg / 35lb
W*D*H	564*158*130mm 22*6*5in

50Ah 1P12S

Rated Capacity(kWh)	1.92
Rated Voltage(V)	38.4
Max. Charge Rate	≤1C
Peak Charging Current	≤2C 20s
Max. Discharge Current	≤1C
Peak Discharge Current	≤2C 30s
Weight	18kg / 40lb
W*D*H	558*187*130mm 21*7*5in

100Ah 1P16S

Rated Capacity(kWh)	5.12
Rated Voltage(V)	51.2
Max. Charge Rate	≤1C
Peak Charging Current	≤2C 10s
Max. Discharge Current	≤1C
Peak Discharge Current	≤3C 10s
Weight	39kg / 86lb
W*D*H	520*187*216mm 20*7*8.5in

280Ah 1P7S

Rated Capacity(kWh)	6.272
Rated Voltage(V)	22.4
Max. Charge Rate	≤1C
Peak Charging Current	≤2C 10s
Max. Discharge Current	≤1C
Peak Discharge Current	≤2C 30s
Weight	40kg / 88lb
W*D*H	588*186*220mm 23*7*8.6in

280Ah 1P8S

Rated Capacity(kWh)	7.168
Rated Voltage(V)	25.6
Max. Charge Rate	≤1C
Peak Charging Current	≤2C 10s
Max. Discharge Current	≤1C
Peak Discharge Current	≤2C 30s
Weight	45kg / 99lb
W*D*H	661*186*220mm 26*7.3*8.6in

280Ah 1P10S

Rated Capacity(kWh)	8.96
Rated Voltage(V)	32
Max. Charge Rate	≤1C
Peak Charging Current	≤2C 10s
Max. Discharge Current	≤1C
Peak Discharge Current	≤2C 30s
Weight	56kg / 123lb
W*D*H	807*186*220mm 32*7.3*8.6in

High Energy Density Battery Cell

RF32

Rated Capacity(Ah)	32
Rated Voltage(V)	3.2
Max. Charge Rate	2C
Internal Resistance	< 1.5mΩ
W*D*H	148*94.3*26.7mm / 6*3.7*1in

RF50

Rated Capacity(Ah)	50
Rated Voltage(V)	3.2
Max. Charge Rate	2C
Internal Resistance	≤ 1mΩ
W*D*H	101.6*148*39.5mm / 4*5.8*1.5in

RF100

Rated Capacity(Ah)	100
Rated Voltage(V)	3.2
Max. Charge Rate	2C
Internal Resistance	≤ 0.8mΩ
W*D*H	207*174.7*27.2mm / 8.1*6.8*1in

RF280

Rated Capacity(Ah)	280
Rated Voltage(V)	3.2
Max. Charge Rate	1C
Internal Resistance	≤ 0.3mΩ
W*D*H	207*174.7*71mm / 8.1*6.8*2.8in

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Date / /

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