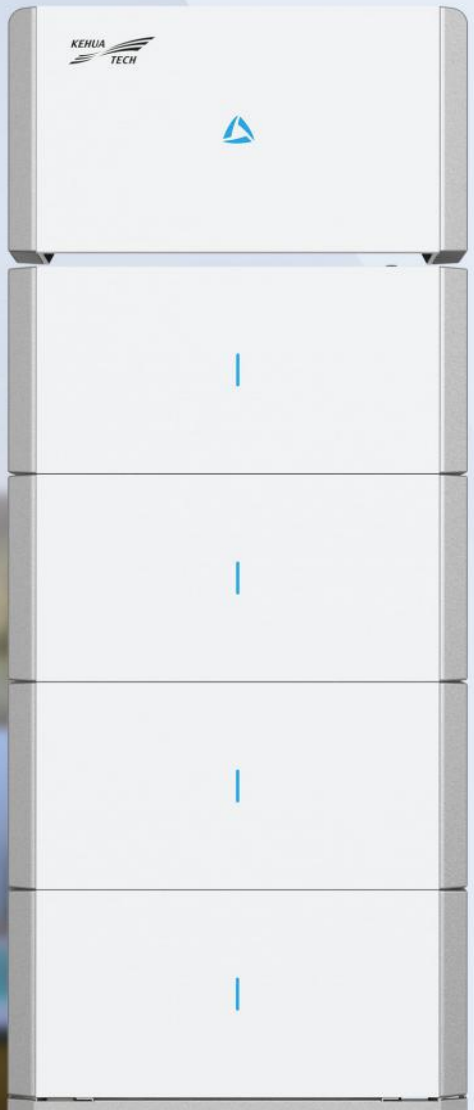
KEHUA TECH

iStoragE2A

All-in-One Residential Energy Storage System



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Kehua Data Co.,Ltd

PV+ESS for the Future

30+ Years

30+ years R&D and manufacturing experience of power electronic technologies

46+ GW

46+ GW PV installation worldwide

15.2GW /8.2GWh

15.2GW/8.2GWh ESS installation

No.5

World storage inverter market share in 2021

Residential Energy Storage System

With Kehua Residential Energy Storage System, it is possible to effectively manage solar in your home day and night.

This energy storage system will give you a complete energy solution with multiple working modes which meet different application scenarios. It will bring independence and economy for energy use.

Residential Energ

Contents

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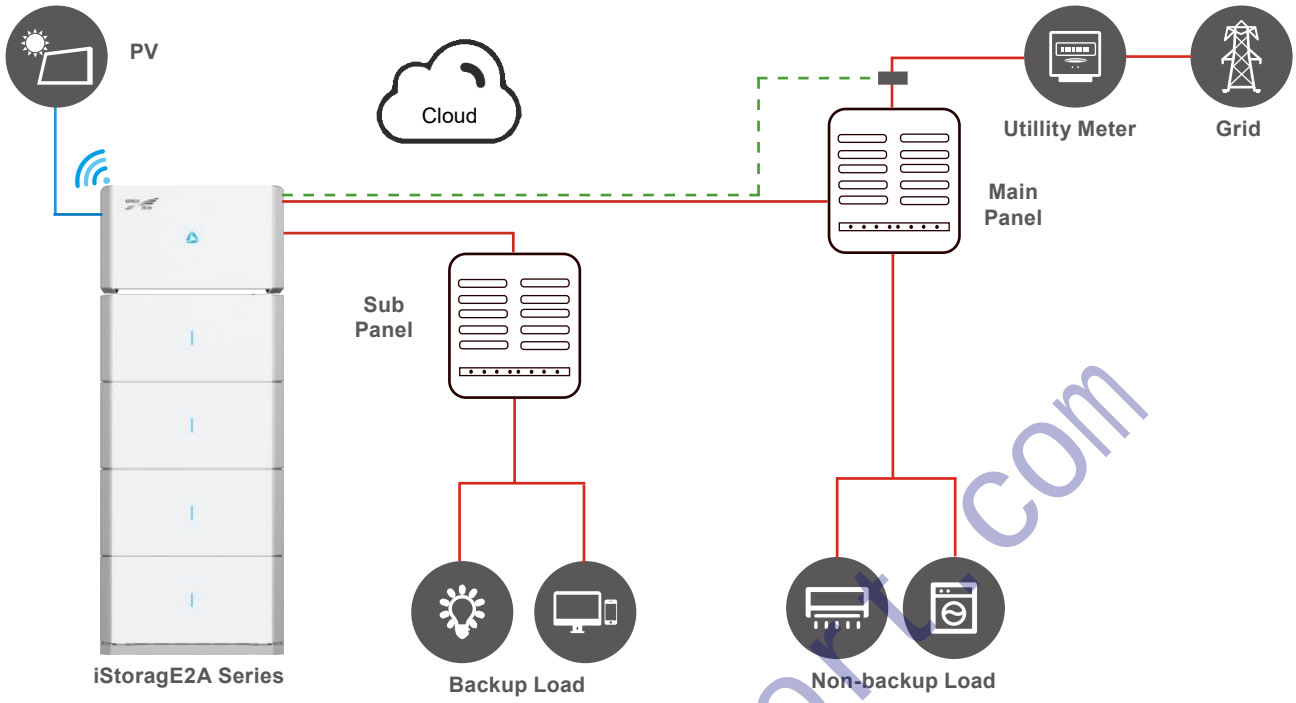
Application scenarios



Working Mode

Self-consumption mode

Realizing the maximum self-use of solar energy and minimum power consumption from grid.

Backup mode

Charging the battery to ensure sufficient battery power for future off-grid situations.

Time of use mode

Promoting energy utilization rate and users' income with flexible electricity consumption strategies according price difference between peak and off-peak time.

Energy scheduling mode

Getting profit through battery programable charging and discharging time.

External control mode

Responding external instructions by deploying grid or battery power(such as VPP).

Off-grid mode

Operating in a complete off-grid mode automatically when grid power is not available.

Residential Energy Storage System

iStoragE2A Series 7600~12000

iStoragE2A series is an all-in-one solar battery system which consists of hybrid inverter and battery modules. Owners can build a new home energy storage system with iStoragE2A, which can realize the maximum self-use of solar energy and reduce electricity bills. It is also very suitable for areas need backup power.

Product Features

Safe

- Physical and electrical dual isolation
- Modular fire protection integration
- AFCI & RSD function integration

Simple

- All-in-one design, modular installation
- Multiple batteries flexible expansion
- Built-in ECU function with multi-mode operation

Smart

- Multi-point real-time monitoring, adaptive SOC management
- Independent battery management, mix old and new batteries

System Specification

Items[1]	iStoragE2A 7600 Series	iStoragE2A 9600 Series	iStoragE2A 10000 Series	iStoragE2A 11400 Series	iStoragE2A 12000 Series
System components					
Inverter model	iStoragE2A 7600	iStoragE2A 9600	iStoragE2A 10000	iStoragE2A 11400	iStoragE2A 12000
Number of inverter	1				
Battery system model	iStoragE B5L-S1				
Number of battery pack[2]	1~4				
General					
System capacity[2]	5~20kWh				
Rated system power	7.6kW	9.6kW	10kW	11.4kW	12kW
Peak output power (with solar)[3]	15.2kVA 10s	19.2kVA 10s	20kVA 10s	22.8kVA 10s	24kVA 10s
Peak output power (without solar)[3]	11.4kVA 10s	11.4kVA 10s	11.4kVA 10s	11.4kVA 10s	11.4kVA 10s
Installtion dimension (W*H*D)	800*2045*240mm/31.5*80.5*9.4in (four battery packs, with foundation)				
Noise emission	<40dB				
Cooling type	Natural cooling				
Altitude	2000m/6561ft				
Operating temperature	Charge: 0~50°C/32~122ºF Discharge: -20~50°C/-4~122ºF				
Operating humidity	0~100% (Non-condensing)				
Display	LED & APP				
Installation method	Floor				
Certification	UL9540, UL9540A				
Accessories	200A CT (optional), METER with 100A CT (optional), Outdoor rapid shutdown button (optional)				

*Specifications are subject to change without prior notice.
*1 iStoragE2A XXXXX series include iStoragE2A XXXXX-BYYL,which XXXXX means 7600~12000 and YY means 5~20.
*2 Maximum number of battery pack is 4, which means max system capacity is 20kWh.
*3 The number of battery pack base on 4.

Hybrid Inverter Specification

Items	iStoragE2A 7600	iStoragE2A 9600	iStoragE2A 10000	iStoragE2A 11400	iStoragE2A 12000
DC Input (PV)					
Recommended Max. PV input power	18kWp				
Max. PV input voltage	500Vdc				
No. of MPPTs	4				
No. of PV strings per MPPT	1/1/1/1				
Max. PV input current	15A/15A/15A/15A				
Max. short current	18.75A/18.75A/18.75A/18.75A				
MPPT voltage range	100~500Vdc				
Starting voltage	125Vdc				
DC (PV) switch	Yes				
DC Input (Battery)					
Battery voltage range	360~500Vdc				
Max. charge/discharge current	28A				
AC Input and Output (On-grid)					
Rated AC output power	7.6kW	9.6kW	10kW	11.4kW	12kW
Rated AC output voltage	240Vac				
Grid voltage range	211.2-264Vac				
Max. output current	31.7A	40A	41.7A	47.5A	50A
Max. input current	31.7A	40A	41.7A	47.5A	50A
Rated grid frequency	60Hz				
Grid frequency range	58.5~61.2Hz				
Power factor	>0.99 (rated power)				
Adjustable power factor	0.8 (leading)~0.8 (lagging)				
THDi	<3% (rated power)				
AC Output (Back-up)					
Rated AC output voltage	240Vac/120Vac 2W/N/PE, Split Phase				
Rated output frequency	60Hz				
Rated output power	7.6kW	9.6kW	10kW	11.4kW	12kW
Switch time	<20ms				
Support the unbalance load	Yes				
Efficiency					
Max. efficiency (PV to Grid)[1]	97.5%				
CEC efficiency (PV to Grid)[1]	96.8%				
General					
Weight	32kg/70.55lb				
Dimension (W*H*D)	800*450*200mm/31.49*17.72*7.87in				
Protections	Integrated arc fault circuit interrupter (AFCI), PV Rapid Shutdown (compatibility with TS4-A-F/O)				
Enclosure type	NEMA Type 3R				
Communication interface	Portal-Wi-Fi, RS485				
Certification	UL1741, CFR 47, FCC Part 15, UL1741SB, CSA C22.2, IEEE1547, IEEE1547.1, UL1699B, UL1998, CEC, PVRSS				

*Specifications are subject to change without prior notice.
1. The data is from Kehua lab. The proceding values are measured by an internel laboratory of Kehua in a secific environment.

Lithium-ion Battery Module

iStoragE B5L-S1

Product Features

- Modular fire protection integration
- Quick plug connector
- Integrated single-battery pack energy management optimization circuit

System Specification

Items	iStoragE B5L-S1
General	
Battery type	LiFePO4
Energy capacity	5kWh
Usable capacity[1]	4.9kWh
Scalability	4
Scalable energy capacity range	5~20kWh
Rated power	2.5kW
Voltage range	360~500Vdc
Maximum charge current	6.94A
Maximum discharge current	6.94A 8.3A,10s
Dimensions	800*380*200mm/31.49*14.6*9.37in
Weight	49kg/108.02lb
Operating temperature	Charge: 0~50°C/32~122ºF Discharge: -20~50°C/-4~122ºF
Humidity	0~100%(Non-condensing)
Altitude	2000m/6561ft
Cooling type	Natural cooling
Display	LED
Communication interface	RS485, CAN
Topology	Isolated
Connection method	Floor
Enclosure type	NEMA type 3R
Certification	UL9540A, UL1973, UL60730, UN38.3

* Specifications are subject to change without prior notice.
*1 Test conditions: 25°C, 100 % depth of discharge (DOD), 0.2C charge & discharge

System Accessories

Datalogger

KC762A

Product Features

Smart and flexible

- Support WiFi configuration and baud rate configuration
- Unobstructed communication distance up to 100m

Simple and efficient

- Plug and play, quick installation
- Upgrade the data by Energy Cloud and APP

Safe and reliable

- Encrypted transmission for data protection
- IP65 protection, wide operating temperature range

Technical Specification

Items	KC762A
Type	Wifi Dongle
Communication Mode	
RS485 communication	Support 4800/9600/115200bps communcation distance ≤100m
WLAN commnunicatoin	IEEE802.11b/g/n 2.412GHz~2.484GHz
Power Supply	
DC input voltage	5~15VDC, 1A@15V
Power consumption	≤5W
General	
Display	LED
Operating temperature	-30~70°C/-22~158°F
Relative air humidity	0~100% (Non-condensing)
Altitude	≤4000m/13123.36ft
Enclosure type	IP65
Dimensions (W×H×D)	48*130.5*31.4mm/1.89*5.14*1.24in
Certification	FCC

*Specification indexes may be subject to changes without further notice

System Accessories

Kehua Energy Cloud

Product Features

Smart O&M

- Provide multi-level data statistics for required agents, regions, power stations, etc.
- Provide systematic online upgrade and remote maintenance functions to ensure stable operation of equipment and power stations.
- Support remote IV curve and fault wave recording, efficient data acquisition, and accurate fault locating.

Efficient Management

- Provide effective end-user information maintenance and power plant information management.
- Provide various types of system logs to locate the cause of a problem accurately
- Support batch setting and remote control functions to achieve convenient and efficient management.

Perfect Functions

- Provide the functions of account management, event alarm, data report, organization management, equipment assets, and equipment's operation parameter design, etc.
- Support real-time monitoring of data at the region-level, station-level, equipment-level.
- Offer the advantages of comprehensive inverter technology, realize efficient response, and provide a strong support for intelligent O&M management.

Technical Specification

Items	Kehua Energy Cloud
Parameter	
Language	English
Browser	IE, Chrome, Firefox
Data storage interval	>15min (settable)
Data storage management	25 years
Function List	
O&M management	Provide management, equipment upgrade and remote control functions of users, power stations, collectors and inverters
Organization management	Provide the administrative right, realize the personnel accounts creation and authority management functions
Monitoring center	View real-time information and alerts for monitoring sites and devices Add agent-level management interface for efficient data monitoring and management
Data report	Provide historical data of power station and equipment Query alarm information Create, download and export report
Expandability	The system adopts modular design and supports the modular expansion Device type and device protocol support configuration expansion

*Specifications are subject to change without prior notice.

System Accessories

APP-WiseSolar Plus

With Kehua WiseSolar Plus, owners can manage and control their energy consumption and production.
Available via smartphone, the APP allows onwers to monitor, analyze and control their Kehua iStoragE2A series system from anywhere in the world.