

# Three-phase Residential Energy Storage System

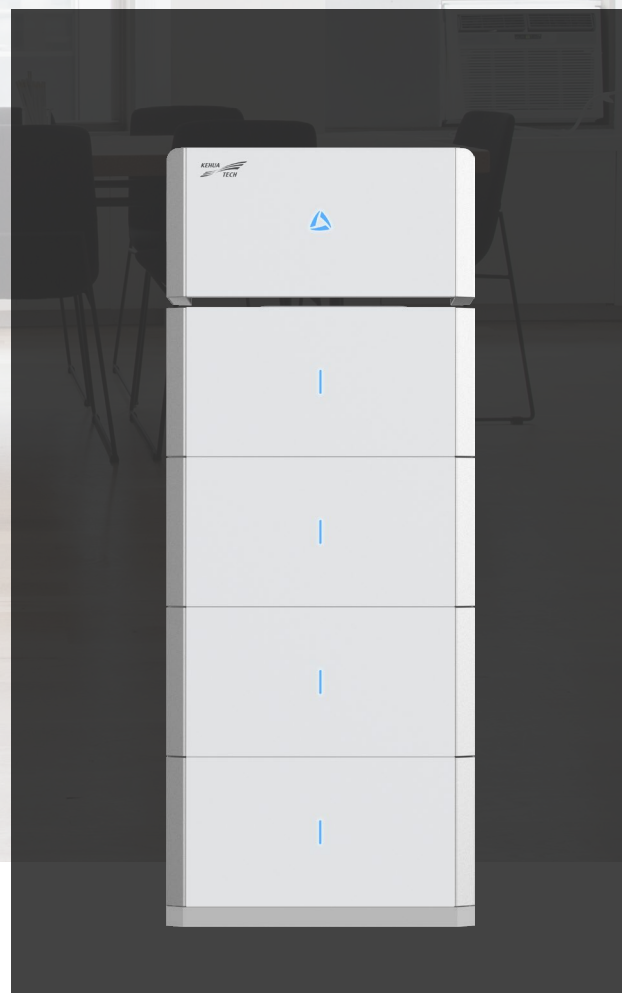
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Stock Code  
**002335.SZ**

Kehua Digital Energy

# Three-phase Residential Energy Storage System

## Three-phase ESS iStoragE3 Series 5K~12K



### Product Features



#### Independent

- Built-in EMS function with multi-mode operation (achieves energy independence)
- Real uninterruptible power supply, switching time <10ms<sup>1</sup>
- Stronger back up power up to 20kW



#### Safe

- Physical and electrical dual isolation
- Modular fire protection integration
- AFCI function integration (optional)



#### Simple

- All-in-one design
- Modular installation & Quick plug connector
- Multiple battery expansion & Multiple system expansion



#### Smart

- Multi-point real-time monitoring, adaptive SOC management
- PACK-level battery management, active balance of charging and discharging
- Intelligent energy management with weather forecast function

<sup>1</sup> Except for countries with special requirements.

# System Specification

Items	iStorageE3 5K Series	iStorageE3 6K Series	iStorageE3 8K Series	iStorageE3 10K Series	iStorageE3 12K Series
System components					
Inverter model	iStorageE3 5K	iStorageE3 6K	iStorageE3 8K	iStorageE3 10K	iStorageE3 12K
Number of Inverter	1				
Battery system model	iStorageE B5-S2				
Number of battery module	1~8				
General					
System capacity	5~40kWh				
Rated system power	5kW	6kW	8kW	10kW	12kW
Dimension (W*H*D)	800*1995*240mm/31.49*78.54*9.45in (four battery modules, with foundation)				
Noise emission	<30dB				
Cooling type	Natural cooling				
Altitude	3000m/9842ft (Derating above 2000m/6561ft)				
Operating temperature	-20~50°C/-4~122°F				
Recommended operating temperature	15~30°C/59~86°F				
Operating humidity	0~100%RH (Non-condensing)				
Display	LED & APP				
Installation method	Floor or Wall-mounted (optional)				

\*Specifications are subject to change without prior notice.

# Hybrid Inverter Specification

Items	iStorageE3 5K	iStorageE3 6K	iStorageE3 8K	iStorageE3 10K	iStorageE3 12K
DC Input (PV)					
Recommended Max. PV input power	23kWp		29kWp		
Max. PV input voltage			1000Vdc		
No. of MPPTs			2		
No. of PV strings per MPPT	1/1		2/1		
Max. PV input current	16A/16A		27A/16A		
Max. short current	20A/20A		34A/20A		
MPPT voltage range			150~900Vdc		
Starting voltage			180Vdc		
DC (PV) switch			Yes		
DC Input and Output (Battery)					
Battery voltage range			650~900Vdc		
Max. charge/discharge current			24.6A		
AC Input and Output (On-grid)					
Rated AC output power	5kW	6kW	8kW	10kW	12kW
Rated AC output voltage	380/400Vac, 3W/N/PE				
Grid voltage range	323~418Vac/340~440Vac				
Max. output current	7.9A	9.6A	12.8A	16A	17.4A
Max. input current	14.4A	17.4A	23.2A	26A	26A
Rated grid frequency	50Hz				
Grid frequency range	45~55Hz/55~65Hz				
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	380/400Vac, 3W/N/PE				
Rated output frequency	50Hz				
Rated output power	5kW	6kW	8kW	10kW	12kW
Peak output power	12kW, 60s		20kW, 60s		
Peak output current	18.2A, 60s		30.4A, 60s		
Switch time <sup>1</sup>	<10ms (without parallel), <300ms (parallel)				
Support the unbalance load	Yes				
Efficiency					
Max. efficiency	98.3%				
European efficiency	97.5%				
General					
Weight	27kg/59.52lb (including side plates))				
Dimension (W*H*D)	800*400*200mm/31.49*15.75*7.87in (including side plates)				
Protections	AFCI(optional), Anti-Islanding protection, DC reverse polarity protection, Insulation monitoring, DC/AC surge protection, AC short-circuit protection				
Enclosure type	IP65				
Communication Interface	Portal-WiFi (standard)/4G (optional), RS485				
Compliance	EN 62109-1/2, IEC 62109-1/2, EN IEC 61000-6-1/2/3/4, EN 50549-1 NC RfG, PPDS, CEI 0-21, VDE AR-N-4105, VDE V 0124-100, TOR Erzeuger Typ A <sup>2</sup>				

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\*1 Except for countries with special requirements.

\*2 Certification is available in Q3.

# Lithium-ion Battery Module

## iStorageE B5-S2

### Product Features



Safe and reliable



Intelligent and flexible



Easy O&M



Items	iStorageE B5-S2
<b>General</b>	
Cell technology	LiFePO4
Energy capacity	5kWh
Usable capacity <sup>1</sup>	5kWh
Scalability	8
Scalable capacity range	5~40kWh
DOD	Max. 100 % DOD (settable)
Rated power	4kW
Voltage range	650~900Vdc
Maximum charge current	6.15A
Maximum discharge current	6.15A
	7.38A, 10s
Dimension (W*H*D)	800*380*238mm/31.49*14.6*9.37in (including side plates)
Weight	52kg/114.64lb (including side plates)
Operating temperature	-20~50°C/-4~122°F
Recommended operating temperature	15~30°C/59~86°F
Humidity	0~100%RH (Non-condensing)
Altitude	3000m/9842ft (Derating above 2000m/6561ft)
Cooling type	Natural cooling
Display	LED
Communication interface	RS485, CAN
Topology	Isolated
Connection method	Floor or Wall mounted (optional)
Enclosure type	IP65
Certification	IEC 62619, IEC 60730, UN 38.3

\* Specifications are subject to change without prior notice.

\*1 Test conditions: 25°C, 100 % depth of discharge (DOD), 0.2C charge & discharge

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