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Three-phase Residential Energy Storage System

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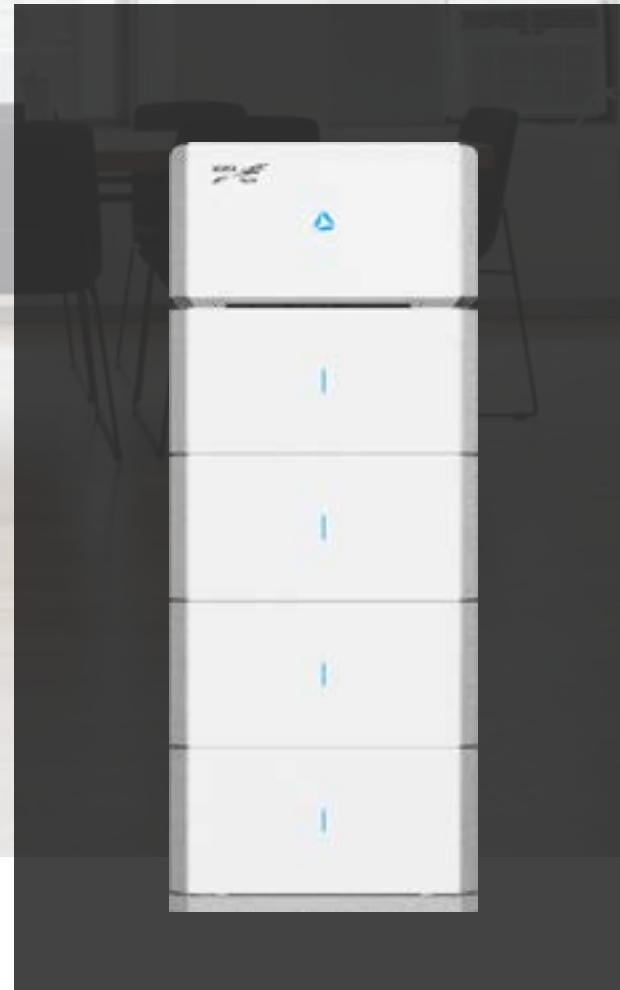
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Kehua Digital Energy

Three-phase Residential Energy Storage System

Three-phase ESS iStorageE3 Series 5K~12K



Product Features



Independent

- Built-in EMS function with multi-mode operation (achieves energy independence)
- Real uninterruptible power supply, switching time <10ms
- 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

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					
Cell technology	LiFePO4				
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	2000m/6561ft				
Operating temperature	-20~50°C/-4~122°F				
Recommended operating temperature	15~30°C/59~86°F				
Storage temperature	-10~45°C/14~113°F				
Operating humidity	0~100%RH				
Display	LED & APP				
Installation method	Floor or Wall-mounted (optional)				
Communication Interface	Portal-WiFi (standard)/4G (optional), Meter-RS485, EMS-RS485 (sunspec)				

Hybrid Inverter Specification

Items	iStorageE3 5K	iStorageE3 6K	iStorageE3 8K	iStorageE3 10K	iStorageE3 12K
DC Input (PV)					
Recommended Max. PV input power	9kWp		18kWp		
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 (Battery)					
Battery voltage range	650~900Vdc				
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/60Hz				
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	50/60Hz				
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	<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)				
Enclosure type	IP65				
Certification	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				

*Specifications are subject to change without prior notice.

Lithium-ion Battery Module

iStoragE B5-S2 Series

Product Features



Safe and reliable



Intelligent and flexible



Easy O&M



Items	iStoragE B5-S2
General	
Cell technology	LiFePO4
Energy capacity	5kWh
Usable capacity	5kWh
Scalability	8
Scalable capacity range	5~40kWh
DOD	100%
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
Storage temperature	-10~45°C/14~113°F
Humidity	0~100%RH
Altitude	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, UN38.3

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