

# Three-phase Residential Energy Storage System



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Kehua Digital Energy

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# **Three-phase Residential Energy Storage System**





### **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



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- 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





- 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	iStoragE3 5K Series	iStoragE3 6K Series	iStoragE3 8K Series	iStoragE3 10K Series	iStoragE3 12K Series			
System components								
Inverter model	iStoragE3 5K	iStoragE3 6K	iStoragE3 8K	iStoragE3 10K	iStoragE3 12K			
Number of Inverter	1							
Battery system model	iStoragE 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	iStoragE3 5K	iStoragE3 6K	iStoragE3 8K	iStoragE3 10K	iStoragE3 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			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.

