



Three-phase Residential Energy Storage System

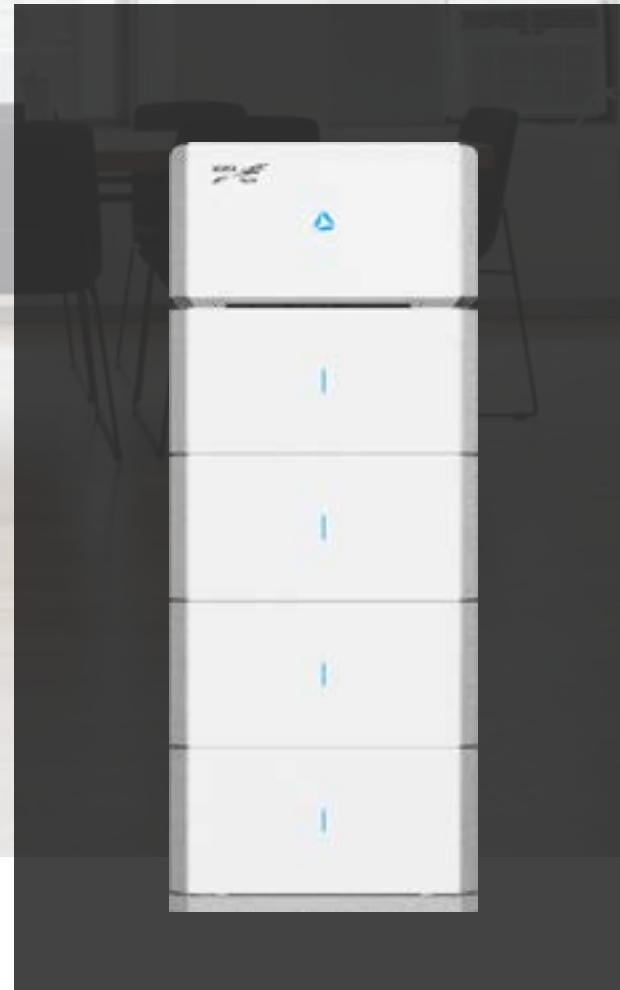
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Stock Code
002335.SZ

Kehua Digital Energy

Three-phase Residential Energy Storage System

Three-phase ESS 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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