

Home Energy Storage System

KOKAM BATTERY SYSTEM

Kokam
Great Power for Everyone

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Total Solution

KHESS is a culmination of Kokam's endeavor in planning, designing, engineering, assembling the hardware and developing its proprietary software for the sole purpose of providing the users the best possible solution.



Brief Specification

- Battery Energy (kWh): 3.8 / 7.7 / 11.4 / 15.2
- PCS (kW): 4.5 / 6
- PV Inverter(kW): 4.5 / 6

Application

- Peak Load Shaving: Programmable energy control plans to optimize peak load reduction
- Off-Grid ESS: Stand-alone type in islanded micro-grids
- Demand Response: Targeted energy dispatch upon demand response signals
- Voltage Support: Grid and critical load voltage support in response to low-voltage events

KEY POINTS

- ✓ SOLAR OPTIMIZING
- ✓ GRID INTERACTIVE
- ✓ PRICE RESPONSIVE
- ✓ DEMAND RESPONSIVE

General Characteristics

- The next generation, Li-Polymer battery technology has a cycle life of > 8,000 cycles (@ 80% DOD, RT). Integrated with a highly efficient power conversion system (PCS) KHESS includes a charger, inverter, solar inverter, battery pack, and an Energy Management Software (EMS).

Software

- Control of KHESS units in real-time including the ability to execute algorithms that automatically operate each KHESS as a fleet according to utility's preferences.

Renewable Value Enhancement

- Kokam's KHESS provides a number of different features. Its peak shaving function allows the user to save electricity expenses by utilizing stored energy at peak times. The functionality which allows the integration with various renewable energy sources is one of the key advantages.

Reliability

- The BMS is designed to ensure the safety by managing the operation modes in the most effective way.

System Technical Data

KHESS

PCS	Continuous Output Power Surge Rating (10 Seconds) Continuous Charge Rate at Nominal AC Voltage AC Inputs (Grid / Generator) Temperature Operating Range Cooling Backup Power Phase Type AC Output Type 1 (Europe) AC Output Type 2 (US/ Asia) AC Output Type 3 (Korea) Certification	4.5kW, 6kW 9kW, 12kW 85A 120/240VAC Single Phase 2-60A 2-Pole: IEEE 62.41, 62.45&1.2*50ms, C47.90.1 0 ~ 45°C Forced Air - Induction Yes. Single-phase 230Vac / 50Hz 120Vac / 60Hz 220Vac / 60Hz UL1741:2005
PV Inverter (MPPT)	Output Power Maximum PV Array Operating DC Output MPPT PV Operating Range Maximum PV Open Circuit Volts Maximum PV Short Circuit Amps Separate MPPT Inputs	4.5kW, 6kW 140VDC 48VDC 48 to 120VDC 150A 60 Yes. One (1)
Battery	Cell type Chemistry Voltage Energy (@0.5P Discharge, 25 °C) Kokam Battery Module Type Battery Cycle Life (DoD 80% @ 23°C) Certification	Kokam 75Ah Lithium Polymer NMC 51.8Vdc (Nominal), 42.0 to 58.8Vdc (Operation Range) 3.8kWh, 7.7kWh, 11.4kWh, 15.2kWh KBM 255-14S Above 8,000 UL1973, UL 1642, CE
System	IP Class Material Weight Dimension (WxHxD) User Interface Certification	IP22 Carbon Steel & Plastic Molded 272Kg 650 x 550 x 1540 mm 10.4" Touch Screen Panel with EMS (Energy Management System) C-tick, CE
Standards	EMC: EN 62040-2:2006+AC:2006 Category C3; IEC 62040-2:2005; AS 62040-2:2008; EN 61000-3-12:2011; EN 61000-3-3:2008 Safety: EN 62040-1:2008+A1 Transport: UN38.3	