

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.



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.

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

System Technical Data

KHESS

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