

Lithium-ion Battery for UPS

K-UPS

Delivering High Power, Small Footprint and Flexible Design



+80MW
20MWh

Total Installation | Global Track Record

Kokam UPS batteries are being operated in
over 7 Countries worldwide



Superior Performance and Reliability, K-UPS provides value like no other

Kokam's K-UPS provides optimal protection against an outage in a number of applications including medical, telecom, and data centers. During an outage, our UPS immediately provides battery backup power to protect mission critical information and systems.

Kokam's UPS Battery(K-UPS) is composed of Kokam's SLPBs, is light in weight and small in size, due to its high energy density. It can hence be placed in restricted spaces and the maintenance is rather easy due to convenient accessibility. Also, when compared to lead acid batteries of the same weight and volume, output performance of Kokam SLPB is significantly higher.

Lead-Acid battery vs Kokam Lithium-ion Battery

- Higher energy density and lighter weight allows integration of batteries and UPS providing faster and more reliable field installation and start-up
- Provides 4 to 8 times longer cycle life and high power and energy density than lead-acid battery
- No degradation with shallow cycles & No open-circuit failure mode during normal operation
- No hydrogen gas generation & Integrated monitoring of individual cell's voltages and temperatures

Key Strengths

- ✓ High power output
- ✓ Small volume footprint
- ✓ Flexible design
- ✓ Essential backup power to protect Critical Information and systems
- ✓ Outstanding safety performance

Comparison of VRLA vs K-UPS

- K-UPS : Kokam Lithium-ion Battery for UPS
- VRLA : Valve Regulated Lead Acid Battery

High Power

5 times more powerful



- K-UPS : Max 10 C-rate
- VRLA : 2 C-rate

Small Footprint

3.5 times more energy density



- K-UPS : 3ft²
- VRLA : 10ft²

Long Cycle life

3 times more longer



- K-UPS : Max 15 years
- VRLA : Max 5 years

Light Weight

5 times more lighter



- K-UPS Weight
- VRLA Weight

Wide Temperature range

No additional cooling system



Convenient Maintenance

No Hydrogen gas emissions result in lower ventilation costs and safer operation than Lead-Acid

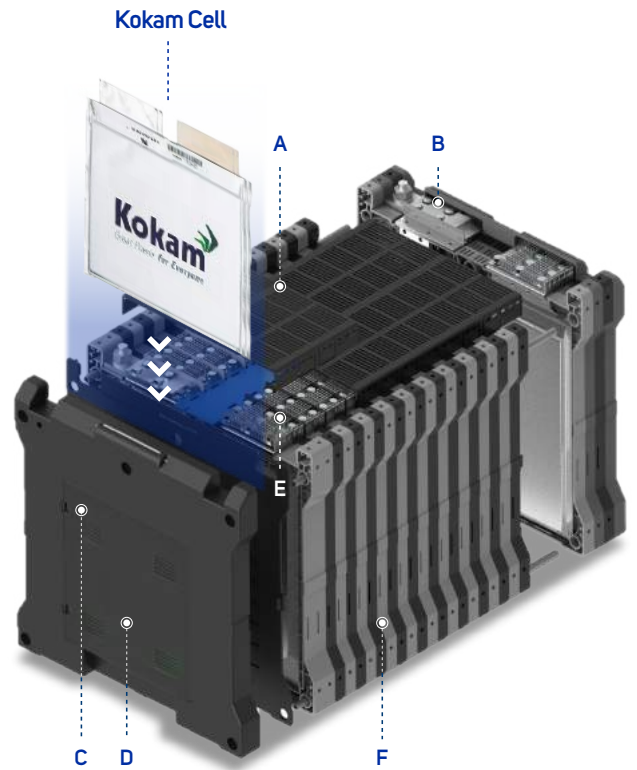


Structure of K-UPS Battery

K-UPS Module

- The unit-cells can be easily disassembled for maintenance
- Each module is equipped with Module BMS
- Compact design with efficient air vent holes for effective dissipation of heat

- A Protection Cover
- B Conductor, Terminal
- C BMS & Junction board (inside)
- D BMS Cover
- E Heat Sink
- F Cell Tray



K-UPS Rack

- A Fire Suppression & Fan
- B BPU (Battery Protection Unit)
 - String BMS
 - Disconnecter Switch
 - Fuse
 - Contactor
- C SMPS (Switched Mode Power Supply)
- D Battery Module (incl. Module BMS)
- E Rack Cover



2 Pole K-UPS



3 Pole K-UPS

Applications

Installed in various locations and supplies emergency back-up power during an outage



Data Center



Financial institution



Medical Facility



Semi-conductor factory

Specification of K-UPS Battery Rack

2 Pole (Ultra High Power)

Back Up Time	Up to 6 minutes			
Rack Configuration	120S	132S	140S	160S
Installed Energy (kWh, @ BOL)	33.3	36.6	38.8	44.4
Module Configuration	30S1P x 4	33S1P x 4	35S1P x 4	32S1P x 5
Voltage Range (Vdc)	384~492	423~541	448~574	512~656
Continuous Discharge Power (kW, 5min)	266	293	310	355
Peak Discharge Power (kW, 1min)	333	366	388	444
Dimension (WxDxH, mm)	580 x 740 x 1,960	580 x 740 x 1,960	580 x 740 x 1,960	580 x 740 x 2,300
Weight (kg)	<525	<550	<570	<650
Cell Capacity (Ah)	75	75	75	75
Certification	UL1642, IEC62619, UN38.3			

2 Pole (High Power)

Back Up Time	5 to 30 minutes			
Rack Configuration	120S	132S	140S	160S
Installed Energy (kWh, @ BOL)	37.5	41.2	43.7	50.0
Module Configuration	30S1P x 4	33S1P x 4	35S1P x 4	32S1P x 5
Voltage Range (Vdc)	384~492	423~541	448~574	512~656
Dimension (WxDxH, mm)	580 x 740 x 1,960	580 x 740 x 1,960	580 x 740 x 1,960	580 x 740 x 2,300
Weight (kg)	<525	<550	<570	<650
Cell Capacity (Ah)	85	85	85	85
Certification	UL1642, IEC62619, UN38.3			

3 Pole

Cell Type	Ultra High Power	High Power			High Energy
Back Up Time	< 6 minutes	5 to 30 minutes			>30 minutes
Rack Configuration	66S+66S	60S+60S	66S+66S	100S+100S	2P100S+2P100S
Installed Energy (kWh, @ BOL)	36.6	37.5	41.2	62.5	147.2
Module Configuration	33S x 4	30S1P x 4	33S1P x 4	20S1P x 10	20S2P x 10
Voltage Range (Vdc)	212~270	192~246	212~270	320~410	345~413
Dimension (WxDxH, mm)	580 x 740x 1,960	580 x 740 x 1,960	580 x 740 x 1,960	780 x 676 x 2,237	780 x 740 x 2,237
Weight (kg)	<550	<525	<550	<800	<1,250
Cell Capacity (Ah)	75	85	85	85	100
Certification	UL1642, IEC62619, UN38.3				

CE Mark and UL9540A test report are under preparation. As regards further information, please consult with Kokam Sales Representative

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