

BATTERY ENERGY



STORAGE SOLUTIONS





 **JEM**
DRIVE THE CHANGE



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Powering The Future, Today



ABOUT JEM

Jupiter Electric Mobility (JEM) is the advanced energy storage and electric mobility platform of Jupiter Wagons Limited (JWL), a publicly listed Indian engineering and manufacturing leader with decades of experience across rail, mobility, and industrial infrastructure.

JEM focuses on delivering high-performance, indigenized battery and energy storage solutions that meet global standards while being optimized for Indian operating conditions. With a deep emphasis on engineering, safety, and lifecycle economics, JEM is enabling industries, infrastructure operators, and logistics players to transition toward reliable, cost-effective, and future-ready energy systems.



END-to-END Engineering

From model to rack to container, our solutions are engineered and simulated from the ground up to meet global compliance and performance standards.



In House Battery Assembly

An AI-powered automated production line ensures precise cell-to-module assembly with advanced quality inspection systems.



In-House Container Manufacturing

We manufacture 10ft and 20ft containers in-house, adhering to international testing and quality standards for reliability and safety.



Advanced Thermal Management Integration

Seamless integration of air-cooled and liquid-cooled systems to optimize performance, efficiency, and system lifespan.



Test & Validation

State of art testing and validation ensuring safety and compliance.



IP55 Protection

Designed with IP55-rated protection to safeguard systems against dust and water ingress in demanding environments.

OUR PRESENCE

10+

DEALERSHIP
TOUCHPOINTS

2.5 GWh+

ANNUAL
CAPACITY

30+

TIER 1
CUSTOMERS



Corporate Office



R&D and Manufacturing
Plant 1



Manufacturing Plant 2



JEM Dealership Touchpoints

Our footprint includes two advanced manufacturing facilities and a corporate office in Kolkata. Together enabling a robust capacity of 2.5 GWh.

OUR INFRASTRUCTURE

2.5 GWh CAPACITY



JEM has invested in a robust, future-ready manufacturing and engineering infrastructure designed to support scale, quality, and customization.

The company operates a **5-acre** greenfield facility in **Indore** dedicated to containerized BESS assembly, DC block integration, and final system testing. In parallel, a **2.5-acre** facility in **Bengaluru** focuses on battery module and pack assembly, R&D and application engineering.



2.5 GWh
Battery Assembly Capacity



Dedicated PCS &
EMS Integration bays



In-house Testing &
Validation

IN-HOUSE CONTAINER MANUFACTURING



Designed. Built. Integrated — All In-House.

Our in-house **Battery Energy Storage System (BESS)** container manufacturing ensures complete control over quality, safety, and performance. From structural design to final integration, every container is engineered to meet the highest industry standards while supporting scalable, efficient, and future-ready energy storage solutions.



IN-HOUSE ENGINEERING
& INTEGRATION



ROBUST &
MODULAR DESIGN



SAFETY &
COMPLIANCE



POWERING MULTIPLE
APPLICATIONS

OUR SOLUTIONS



JEM SOLUTIONS FOR EVERY NEED



Mobility



Containerized
C&I Solutions



Railway Batteries



MHE Batteries



Drone Batteries

AIR COOLED BESS SYSTEM

A fully integrated, plug-and-play energy storage solution engineered for utility-scale and commercial applications. Each modular container integrates high-efficiency battery racks, PCS, intelligent air-cooling thermal management, and advanced fire detection and suppression systems within a high energy & power dense enclosure.



Optimized Airflow Design helps in temperature equilibrium & improves system life and efficiency.



Expansion Flexibility with Modular Design.



BMS, Fire Protection , IP55 Protection etc.



250KW DG REDUCTION

AIR COOLED SERIES BESS SYSTEM

	Parameter	250KW/482kWh
PCS	Rated power	250KW
	Maximum Power	300KW, for 1-min
	Rated input voltage	400 Vac, 3P+N+PE
	Total harmonic distortion	≤3%
	Operating temperature range	-20 to 55 °C
	Operating altitude	≤2000m
	Maximum conversion efficiency	98.5%
	Power Factor	>0.99
	Voltage Range (On-Grid)	300-460 V
	Voltage Range (Off-Grid)	400 V ± 2%
	DC Input Range	680~1000 Vdc
	Maximum DC current	364 A
	Voltage Regulation Accuracy	≤±1%
	Current Regulation Accuracy	≤±1%
BATTERY	Battery Capacity	482 kWh
	Maximum Power	300KW, for 1-min
	Battery Pack Configuration	((48S1P)5S)2P
	Rated Voltage	768 VDC
	DC Voltage Range	684 - 864 Vdc
	Operating temperature range	-20 to 60 °C
SYSTEM	Display	HMI, 10 Inch
	Fire Protection	Aerosol based FSS
	Cooling Technology	HVAC Cooling
	Communication Interface	CAN/Ethernet/485
	Weight	~ 12 T
	Dimensions (WxHxD)	Standard 10ft Container
	Ingress Protection Level	IP55

NOTES:

1. Products can be combined to achieve higher power and Capacity.
2. Customization option is available.
3. Connecting systems in Parallel will require additional accessories.

AIR COOLED BESS SYSTEM

UPS APPLICATION

A fully integrated UPS energy storage system featuring high-performance battery racks, online UPS, intelligent air-cooled thermal management, and integrated fire detection and suppression. The modular, containerized design supports low-latency response, high availability, and scalable deployment for mission-critical loads.



Optimized Airflow Design minimizes energy consumption and enhances overall system efficiency.



Modular Architecture enables flexible capacity expansion and future scalability.



BMS, Fire Protection , IP55 Protection etc.



Zero Millisecond changeover available.



600KW AIR COOLED BESS SYSTEM

UPS APPLICATION

	Parameter	600KW/747kWh
PLUG-N-PLAY SOLUTION AVAILABLE FOR UPS UPTO 600KW		
BATTERY	Battery Capacity	747 kWh
	Cell Capacity	304 Ah (LFP)
	Battery Pack Configuration	((48S1P)4S)4P
	Rated Voltage	614.4 V
	DC Voltage Range	576 - 666 V
	Operating temperature range	0 to 60 °C
SYSTEM	Display	HMI 7 Inch
	Fire Protection	Aerosol based FSS
	Cooling Technology	HVAC Cooling
	Communication Interface	CAN/Ethernet/485
	Weight	~ 12 T
	Dimensions (WxHxD)	~10-11 T
	Ingress Protection Level	IP55

NOTES:

1. Products can be combined to achieve higher power and Capacity.
2. Customization option is available.
3. Connecting systems in Parallel will require additional accessories.

250KW AIR COOLED BESS SYSTEM

	Parameter	250KW/723kWh
	Rated power	250KW
	Maximum Power	300KW, for 1-min
	Rated input voltage	400 Vac, 3P+N+PE
	Total harmonic distortion	≤3%
	Operating temperature range	-20 to 55 °C
	Operating altitude	≤2000m
	Maximum conversion efficiency	98.5%
	Power Factor	>0.99
	Voltage Range (On-Grid)	300-460 V
	Voltage Range (Off-Grid)	400 V ± 2%
	DC Input Range	680~1000 Vdc
	Maximum DC current	364 A
	Voltage Regulation Accuracy	≤±1%
	Current Regulation Accuracy	≤±1%
BATTERY	Battery Capacity	723 kWh
	Maximum Power	300KW, for 1-min
	Battery Pack Configuration	((48S1P)5S)3P
	Rated Voltage	768 VDC
	DC Voltage Range	684 - 864 Vdc
	Operating temperature range	-20 to 60 °C
SYSTEM	Display	HMI, 10 Inch
	Fire Protection	Aerosol based FSS
	Cooling Technology	HVAC Cooling
	Communication Interface	CAN/Ethernet/485
	Weight	~ 12 T
	Dimensions (WxHxD)	Standard 10ft Container
	Ingress Protection Level	IP55

LIQUID COOLED BESS SYSTEM

A compact, liquid-cooled BESS designed for rapid deployment and scalable capacity. Each container integrates batteries, PCS, precision thermal management, and fire protection to deliver efficient, safe, and long-term energy storage performance.



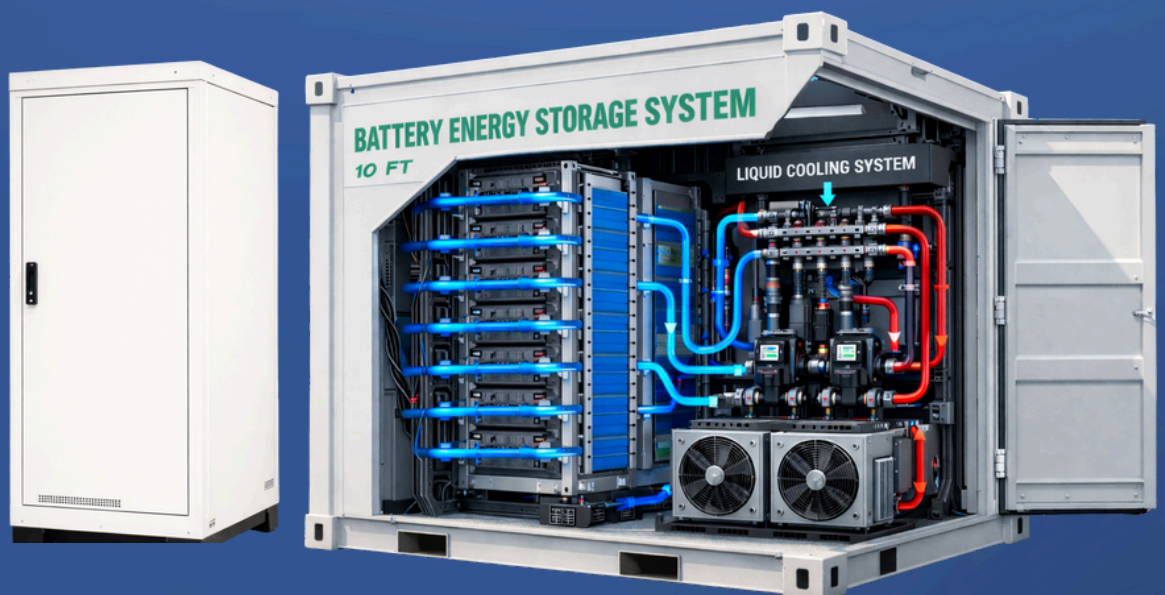
Advanced Liquid Cooling System delivers precise cell temperature control & extends battery life.



Expansion Flexibility with Modular Design.



BMS, Fire Protection , IP55 Protection etc.



125KW LIQUID COOLED BESS SYSTEM

	Parameter	125KW/261kWh
PCS	Rated power	125KW
	Maximum Power	150KW, for 1-min
	Rated input voltage	400 Vac, 3P+N+PE
	Total harmonic distortion	≤3%
	Operating temperature range	-20 to 55 °C
	Operating altitude	≤2000m
	Maximum conversion efficiency	98.5%
	Power Factor	>0.99
	Voltage Range (On-Grid)	300-460 V
	Voltage Range (Off-Grid)	400 V ± 2%
	DC Input Range	580~1000 Vdc
	Maximum DC current	160 A
	Voltage Regulation Accuracy	≤±1%
	Current Regulation Accuracy	≤±1%
BATTERY	Battery Capacity	261 kWh
	Maximum Power	150KW, for 1-min
	Battery Pack Configuration	((52S1P)5S)
	Rated Voltage	832 VDC
	DC Voltage Range	728 - 936 Vdc
	Operating temperature range	-20 to 60 °C
SYSTEM	Display	HMI 7 Inch
	Fire Protection	Aerosol based FSS
	Cooling Technology	Liquid Cooling
	Communication Interface	CAN/Ethernet/485
	Weight	~3.6T
	Dimensions (WxHxD)	1500x2700x1800 mm
	Ingress Protection Level	IP55

NOTES:

1. Products can be combined to achieve higher power and Capacity.
2. Customization option is available.
3. Connecting systems in Parallel will require additional accessories.

STANDARD PARAMETERS

The Standard Parameters for Both Air Cooled and Liquid Cooled Energy Storage System.

PROTECTIONS	DC Reverse Polarity	Yes
	AC Short Circuit	Yes
	AC Over-Current	Yes
	Anti-Surge	Yes
	Temperature	Yes
	Insulation Monitor	Yes
	DC Over-current	Yes
	DC Over and Under Voltage	Yes
	DC Over and Under Temperature	Yes
	DC Isolation	Yes

SHAPING TOMORROW'S ENERGY LANDSCAPE



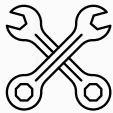
SCALABLE BY DESIGN

Modular architecture enables seamless capacity expansion to meet evolving energy demands.



GRID-READY INTEGRATION

Engineered for smooth integration with renewable sources and utility grids.



LOW MAINTENANCE

Intelligent system design reduces downtime and simplifies long-term servicing.

DEPLOYMENTS



GALLERY





JEMTM
DRIVE THE CHANGE

**BATTERY ENERGY
STORAGE SYSTEM**



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