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LION
Smart



LION Smart Storage 5000 | 04/2025

Datasheet **LION Smart Storage 5000**



Liquid-cooled Battery Energy Storage System Gen 2

Long life with high safety

- Complies with industry certification standards
- Advanced pack thermal isolation, redundant electrical protection, and multi-level fire protection minimizing potential issues
- Adopts industry-leading LFP energy storage cells with higher-energy density

Ready for large scale projects

- Multiple projects in China and Europe have been realized with up to 200 MW
- Bundle of battery containers and AC power conversion available
- German integration support, commissioning, maintenance and warranty

System intelligent design

- Local communication and remote monitoring
- Real-time collection and monitoring of the operating status and data changes of each subsystem
- Real-time sharing of system operation data, detailed display of intelligent terminal

Easy operation and maintenance

- System modular design, convenient installation and maintenance
- Self-diagnosis and self-repair, reducing manual operation and maintenance
- Plug-and-play setup for streamlined commissioning



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Standards Compliance

- IEC 62619:2022
- IEC 62477-1
- IEC 63056:2020
- IEC 61000-6-2/4
- IEC 62933-2/5 (in testing)
- UN 38.3 Transport
- UN 3536 Transport Safety
- RoHS, REACH Environmental Compliance
- CE Marking (completed in June 2025)

Contact Info

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LEAPENERGY

Parameter	Unit	Value
Battery System		
Cell type	EVE MB31 LFP prismatic	
Cell capacity	Ah	314
System configuration	-	12P416S
Nominal DC voltage	V	1331.2
Operation DC Voltage Range	V	1164.8 ~ 1497.6
Rated system energy	kWh	5015
Charging & discharging rate	-	≤0.5 P / 0.5 P
Rated DC power	kW	1250 x 2
Warranty	2 cycles per day 10 years	
System availability	%	97
Protection Function		
Over voltage protection	yes	
Over current protection	yes	
Short circuit protection	yes	
Over temperature protection	yes	
Emergency stop Protection	yes	
System Performance		
Round Trip Efficiency (RTE) (DC)	%	≥94% (without aux)
Operating temperature (ambient)	°C	-30 to 55
Storage temperature	°C	-20 to 35
Relative Humidity (RH)	%	0 ~ 95%
Thermal Management System	Smart liquid cooling/heating	
Fire Suppression	Aerosol-based suppression system	
Explosion prevention	Combustible gas detector with active ventilation	
Altitude	m	≤3000
Noise sound pressure level	dB	≤75 dB(A) (at a distance of 1m)
Communication Interface	2xLAN, 1xRS485, 1xCAN, Modbus	
General Data		
Dimensions (L x W x H)	mm	6058x2438x2896
Weight (battery included)	t	42
Enclosure ingress rating	IP55 container-level, IP67 pack-level	
Painting	RAL9003 (customizable)	
Coating	C4 (customizable)	



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