

Energy Storage System

Ener Hexon® Aurora5015 ESS is composed of 314Ah battery, liquid-cooling battery pack, battery cluster, power distribution system, liquid-cooling temperature control system, fire protection system, BMS, etc. The rated capacity of the system is 5015.96kWh. Each cluster is equipped with a sub-controller for single-cluster charging and discharging management. Each cluster consists of eight 1P52S battery packs in series. 314Ah high energy density battery cells are used, which is output to the external interface of the container after passing through the sub-controller, and the overall container adopts non-walk-in external maintenance design. It is recommended to be applied to ESS in multiple application scenarios such as peak frequency regulation, output smoothing, power grid support, peak shaving and valley filling in new energy generation side, power grid side and user side.

Ener Hexon® Aurora 5015



Product Introduction

■ Safety

- PACK level + container-level millisecond level sensing to achieve targeted fire extinguishing; gas firefighting + water firefighting to prevent re-ignition; active exhaust + third-level explosion venting to prevent secondary damage;
- Three-level thermal insulation for cells, PACK, and clusters, with fire resistance time more than 2 hours;
- PACK, cluster, heap and system four-level fuse protection mechanism, reducing security risks by 30%;
- 5VA-level new flame-retardant insulation material, flame-retardant capability increased by 25%.

■ Simple

- 314Ah battery, extremely narrow cold plate, standard 20-foot HQ container nominal energy 5.015MWh, covered area <math><15\text{m}^2</math>, better EPC cost;
- String architecture, AC side coupling, avoids inter-cluster circulation, and increases available power by 9%;
- The entire container is factory prefabricated, installed, and debugged, and the project delivery time is shortened by 50%.

■ Intelligent

- Battery core temperature difference is less than 2.5°C , AI model predicts remaining life and battery core safety risks, guides preventive maintenance, and increases battery life by 12%;
- Active lossless equalization, self-healing and self-balancing, single-cluster automatic switching control, eliminating the need for expert on-site maintenance;
- Intelligent debug detection system to predict error early.

Technical Parameters

Type	Name	Parameters	Remarks	
Battery Parameters	Cell type	LFP-3.2V-314Ah		
	Rated capacity[kWh]	5015.96	P2, @25°C±3°C	
	Nominal voltage[V]	1331.2		
	Voltage range[v]	1164.8~1497.6		
	Charge and discharge ratio	≤0.5CP		
	Max. charging and discharging power[kW]	2500	215kW Modular PCS	
	Operating temperature	Charging[°C]	0~50	
		Discharging[°C]	-20~55	
	Recommended ambient temperature[°C]	25±10		
	Cycle life	≥6000times	25±10°C, 90%DOD,80%EOL	
Cooling method	Liquid cooling	Liquid cooling medium: water + glycol		
System Parameters	BMS	Level 3		
	Auxiliary electrical parameter	~40kW-400V/50Hz	~3N+PE	
	Fire protection system	Perfluorohexanone + water fire protection	Type S aerosol/HFC-227ea optional	
	Anticorrosive level	C4	C5 optional	
	Lightning protection level	Level II		
	Ingress protection	IP55		
	Operating temperature range [°C]	-20 ~+50	>45°C derating	
	Storage temperature[°C]	-20 ~+55	<6months	
	Operating humidity range	0~95%RH	No condensation	
	Installation mode	Installation mode		
	Working condition	Max. 2 charge and 2 discharge per day		
	System communication interface	CAN/Ethernet/RS485		
	External system communication protocol	Modbus TCP		
	Altitude[m]	≤3000		
Dimension[W*D*H mm]	6058*2438*2896	20 feet		
Weight[T]	~41			
Certificate	GB/T 36276, GB/T 34131			

■ Product continues to iterate, specifications may be updated without prior notice.

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