

## Fner Hexon® Aurora 5015

## **Containerized Liquid-Cooled Utility ESS**



The Ener Hexon® Aurora 5015 Containerized Liquid-Cooled Utility ESS primarily consists of 314Ah liquid-cooled battery PACKs, a control box, a main control panel, a liquid cooling unit, a liquid cooling pipeline system, a BMS (Battery Management System), a fire protection system, auxiliary power distribution, and more. The system has a nominal energy capacity of 5015.96 kWh, utilizing 314Ah Lithium Iron Phosphate (LFP) battery cells. A single PACK is configured as 1P52S. Each battery cluster is formed by connecting 8 battery PACKs in series. A single system comprises 12 clusters in total. Each is equipped with one control box. The DC side supports multiple parallel branch circuits converging into a centralized PCS (Power Conversion System). The temperature control system features an independent liquid cooling circulation system. The fire protection system employs an aerosol fire suppression + combustible gas detection + explosion-proof ventilation and exhaust + water fire suppression solution. The overall container utilizes a non-walk-in external maintenance design.

The Ener Hexon® Aurora 5015 Containerized Liquid-Cooled Utility ESS can be applied in generation-side, grid-side, and user-side fields, meeting various application scenario needs such as renewable energy consumption, peak shaving and frequency regulation, shared energy storage, independent energy storage, and peak load shifting.

## **Key Features: E-S<sup>3</sup> Design Concept**



- Utilizes high-safety, long-life, high-efficiency, large-capacity Lithium Iron Phosphate (LFP) batteries;
- Integrates advanced BMS products for real-time monitoring and intelligent management; comprehensive battery protection strategies and fault detection/isolation measures ensure energy storage system safety;
- Combustible gas + temperature + smoke cabin-level detection; total flooding gas fire suppression; integrates six safety protectionspre-warning, detection, prevention, isolation, venting, and suppression - into one system; implements BMS whole-unit linkage protection strategy with ultra-early warning protection control for enhanced safety;
- Unaffected by extreme operating conditions; high protection rating: IP54 (IP55 for battery compartment); corrosion resistance rating C4 or higher.

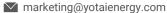
















## **⊞** Simple

- Supports centralized topology solution, centralized DC-side convergence; simple topology communication and control logic ensure system stability and reliability;
- Employs 314Ah large-capacity battery cells; PACK uses an extremely narrow 770mm cooling plate; the enclosure uses a standard 20-foot container meeting sea and land transport requirements; single container footprint < 15m<sup>2</sup>; supports expansion and parallel cabinet connection, saving 35% on footprint, resulting in better overall station EPC cost;
- Factory pre-fabricated production supports cost-effective and efficient deployment on-site, effectively reducing construction workload; on-site installation and commissioning efficiency improved by 50%, lowering project costs.



**Technical Parameters** 

- Efficient liquid cooling temperature control strategy; fully variable frequency liquid cooling units; cluster-level throttling design; temperature difference within Pack < 2.5°C; smooth battery cell temperature fluctuations extend battery service life by 15%;
- Independent dehumidification and cooling air conditioner ensures temperature and humidity control within the cabin to prevent condensation;
- Supports one-click upgrades for fast maintenance and updates.

		Model		YTLS1T5015A	
	Category	ategory Name		Parameter	Remarks
		Cell Type		LFP-3.2V-314Ah	
		Battery Rat	ted Capacity [kWh]	5015.96	@25℃±3℃
	Battery Parameters	Nominal Voltage [Vdc]		1331.2	
		Voltage Range [Vdc]		1164.8 ~ 1497.6	
		Charging C-rate		≤0.5CP	
		Discharging C-rate		≤0.5CP	
'		Maximum Charging/Discharging Power [kW]		2500	2 units of 1250kW
		Operating	Charging [°C]	5 ~ 45	
		Temperature	Discharging [°C]	0 ~ 45	
		Recommended Ambient Temperature [°C]		25±10	
		Cooling Method		Liquid Cooling	50% Ethylene Glyco Agueous Solution
		Fire Protection System		Aerosol + Water-based Fire Protection	
		Anti-corrosion Grade		C4	C5 optional
		Lightning Protection Grade		Class II	
		Protection Level		IP54 (IP55 for battery compartment)	
		Operating Temperature Range [°C]		-20 ~ +55	Derating when >45℃
	System	Storage Temperature [°C]		$-20 \sim +35$ (≤6 months)/ $-20 \sim +45$ (≤1 month)	SOC @20% ~ 50%
	Parameters	Operating Humidity Range		0 ~ 95%RH	No condensation
		Installation Method		Outdoor Installation	
		Working Condition		2 charges and 2 discharges per day	
		System Communication Interface		Ethernet/RS485	
		External System Communication Protocol		Modbus TCP/IEC104/IEC61850/Modbus RTU	
		Altitude [m]		≤4000	Derating when >3000m
		Dimensions [mm] (L*W*H)		6058*2438*2896	
		Weight [T]		Approx.42.5	
	Certification	IEC62619, IEC60730, IEC63056, IEC61000, IEC62477, UN38.3, UN3536			