

Distributed Liquid-cooled ESS

Ener Hexon® Smart 215L ESS is based on All-in-one design theory, highly integrating LFP battery, BMS, high-efficiency liquid-cooled PCS, EMS, smart liquid-cooled temperature control system, power distribution system and fire protection system. With 400VA AC, the ESS can provide peak-shaving, grid frequency modulation, power capacity expansion, standby power supply, black start and other functions to help users reduce electricity costs to the maximum extent. The ESS can be flexibly deployed in various scenarios such as C&I parks, gas stations, PV ESS EV charging stations, mining areas and airports.

Ener Hexon® Smart 215L



Product Introduction

■ Safe:

- Smart liquid-cooled temperature control system, the temperature difference between batteries inside PACK is $< 2.5^{\circ}\text{C}$, ensuring the consistency of battery temperature control, increasing life by 30% and reducing energy consumption by 20%;
- Verified by a number of destructive tests such as short circuit, burning, fire resistance, etc., making the product safe and reliable;
- Electrical multi-dimensional fusion perception and multi-level protection;
- "Emergency avoidance design", BMS, EMS thermal backup, reducing failure rate by 5%;
- Early thermal runaway prewarning design, integrating detection, fire suppression, combustible gas detection, smoke prevention and explosion relief functions, which interacts with BMS and EMS to realize PACK-level targeted fire extinguishing;
- Full "mirror" surface design with core components integrated within the cabinet to reduce the risk of hidden failure;
- IP67 PACK-level protection and IP55 system-level protection.

■ Simple:

- All-in-one design and modular installation;
- Applicable to multiple industrial scenarios and easy to connect to the grid;
- Anti-installation short-circuit error, convenient and safe for maintenance;
- Easily plug and play with aviation plug and simple capacity expansion covering power range from 50kW to 1MW;
- Factory prefabrication and integrated transportation to reduce the transportation, installation and commissioning fees by 15%.

*The product diagram is for reference only!

■ Smart:

- Real-time leakage monitoring and smart replenishment to reduce on-site operation and maintenance work;
- Remote cloud operation and maintenance, supporting remote and local monitoring;
- Smart balancing strategy and system AI prewarning to ensure the consistency of battery life cycle;
- Support black start function with reliable power supply in off-grid/micro-grid mode;
- Support multiple operation modes (VPP, grid-connected, off-grid) to improve revenue.

Technical Parameters

Type	Name	Parameters	Remarks
DC Parameters	Cell type	LFP-3.2V-280Ah	
	System configuration	1P240S	
	Rated capacity[kWh]	215.04	
	Nominal voltage[V]	768	
	Charge-discharge rate	≤0.5CP	
	Cooling mode	Smart liquid-cooled	
AC Parameters (grid connected)	Rated power[kW]	100	
	Grid voltage[V]	400 (-20%~10%)	
	Rated current[A]	144	
	Rated grid frequency [Hz]	50/60	
	Grid frequency range [Hz]	45~55/55~65	
	THDi	<3% (rated power)	
	Power factor	>0.99 (rated power)	
Power factor adjustable range	-1 (leading) ~1 (lagging)		
AC Parameters (off grid)	AC off-grid voltage[V]	400 (-5%~5%)	
	AC off-grid frequency[Hz]	50/60	
	Off-grid output voltage distortion rate	<3% (Linear load)	
System Parameters	Cooling mode	Liquid-cooled(battery,PCS)	
	Fire protection system	Perfluoro(2-methyl-3-pentanone)+ Water fire protection	
	Anti-corrosive level	C3	(C4\C5 optional)
	Ingress protection	IP55	
	Operating temperature range[°C]	-15~+45	
	Storage temperature[°C]	-20~+45	SOC@30%~50%, <6months
	Operating humidity range	0~95%RH	No condensation
	Installation mode	Outdoor	
	Operating condition	Max. 2 charge and 2 discharge per day	
	System communication interface	Ethernet/RS485	
	External system communication protocol	Modbus TCP/Modbus RTU	
	Altitude[m]	<2000	>2000 derating
	DimensionW*D*H[mm]	1000*1300*2200	
Weight[kg]	2300		
Certificate	GB/T 36276、GB/T 34131、UN 38.3		

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

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