



OLP-EC

5MWh BESS Container

The 5MWh BESS Container is a large-scale, integrated system combining LFP batteries, PCS, EMS, thermal management, and fire protection in a standardized container design. It offers high capacity, strong safety, and modular scalability for utility and commercial energy projects.

The system is ideal for power stations, industrial parks, and solar or wind farms, improving grid stability and renewable energy utilization.



PRODUCT FEATURES



High integration and standardized design

- Standard 20' container, convenient for logistics transportation and on-site consolidation
- High energy density, 5.015MWh for a single container, reducing land occupation and land acquisition cost of the project
- Modular grouping, 1P104S battery PACK → 4S cluster → 12P parallel connection, forming a complete 1331.2V/5.015MWh system. Convenient for production, transportation, maintenance and expansion



High performance and long life

- Efficient frequency conversion liquid cooling+low-temperature heating, intelligent adjustment of liquid cooling temperature control system, effectively delaying the decay of the battery core
- 0.5C/0.25C/0.3C multi scene adaptation supports different charging and discharging ratios, and can be flexibly applied to frequency modulation (high magnification), peak clipping and valley filling (medium low magnification), standby power supply and other scenarios
- Cycle life ≥ 8000 times, PACK level efficiency 95%, system level DC side efficiency $\geq 92\%$



High safety design (dual fire protection+intrinsic safety)

- PACK level perfluorohexanone gas fire protection, configured independently, early detection and fixed-point spraying to avoid uncontrolled heat spread
- PACK level water fire protection, meeting the requirements of NFPA855 and other international codes for water spraying
- PACK level reaches IP67, and the whole system cabinet is IP54, giving consideration to outdoor deployment and internal protection
- Three level BMS protection, linked with PCS and EMS, to achieve multi-level protection strategies at the cell level, PACK level and system level



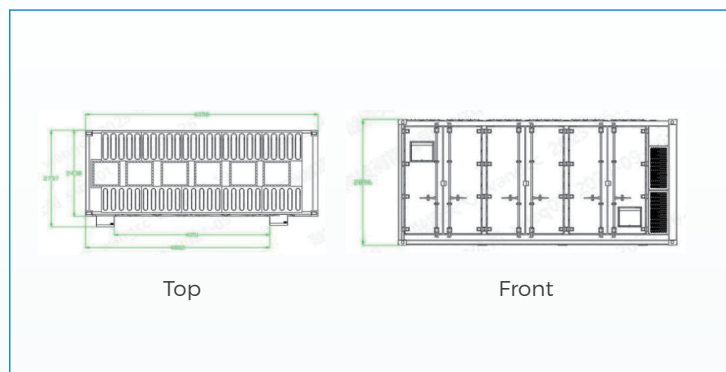
Intelligent operation and maintenance and communication compatibility

- BMS/PCS/EMS intelligent linkage, three-level BMS in collaboration with PCS and EMS, to achieve charging and discharging strategy optimization, protection linkage, and status reporting
- The cloud platform remote monitoring supports remote monitoring, multi-dimensional reports, and work order management to reduce the operation and maintenance labor costs.
- Multi protocol, Modbus RTU/TCP、IEC104、IEC61850、CAN、RS485、Ethernet and dry contact are fully covered and compatible with mainstream PCS, EMS and power grid dispatching systems

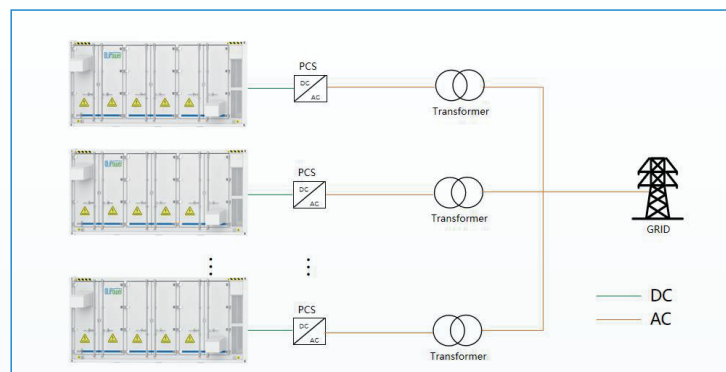
TECHNICAL PARAMETER

Model		OLP-EC-V1331_E5015-LO
Battery Pack Parameters	Cell Type	LFP
	Specification of cell	3.2V/314Ah
	Cell Configuration	1P104S
	Rated Power	104kWh
	Rated Voltage	332.8V
	Voltage range	291.2 ~ 397.6V
	IP Rating	IP67
	Transportation certificate	UN38.3
	PACK Protection	FUSE (PACK)
	Repair Switch	Support
Cluster Parameters	Rated Power	417.99kWh
	Voltage range of a single battery cluster	1164.8-1518.4V
	Rated Current	157A
	Maximum sustained current	200A
	Charging and discharging efficiency	>95%
	Rated Power	0.5P
	Withstand voltage test	AC:3100V DC:4380V Hold for 60 seconds
System Parameters	Insulation testing	The positive terminal is connected to the shell (ground), and the shell (ground) is connected to the negative terminal. Use DC2500V for 60 seconds, and the insulation resistance is greater than 100MΩ
	System Capacity	5.015MWh
	Rated Voltage	1331.2V
	Voltage Range	1164.8-1518.4V
	Series-parallel mode	1P104S-4S-12P
	Thermal management method	Liquid cooling
	System communication interface	CAN, RS485, CAN, Ethernet, dry contacts
	System communication protocol	Modbus RTU/TCP, IEC104, IEC61850
	Fire protection system	Perfluorohexane/ane/aerosol fire extinguishing system + water sprinkler
	Humidity	0%-95% RH (No condensation)
	Altitude	≤3000m
	Operating temperature	-20~50℃
	Estimated weight	≤43T
	IP rating	IP54
	Dimensions (W×D×H mm)	W6058D2438H2896mm
	Certification	IEC62619/IEC62477/IEC61000/UN3536

INSTALLATION DIMENSIONS



TYPICAL APPLICATION



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*OLiPower reserves the right of final interpretation, and is subject to modify without prior notice.
more company information

LP-EC-V1331_E5015-L0001-V2.1



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