

## JinkoSolar Powers Up Israel with Cutting-Edge 10MWh DC-Side Battery Storage System for Renewable Energy Solutions

JinkoSolar today announced it has delivered a 10MWh of DC-side battery storage system to Israel. With this pre-installed high energy density ESS, which is scalable, controllable, and flexible, a high-resilient renewable generation system, peak shaving, and backup power are ensured.

into each battery cabinet. NOVEC1230 fire suppression is also integrated into each outdoor cabinet allowing for a safer and more controlled energy storage system design for firefighting. The battery pack, string, and cabinets are certified by TUV to align with IEC/UL standards of UL 9540A, UL 1973, IEC 62619, etc.



Figure 1: Project Photos

Tighter control over subcomponent lead times enables a predictable supply chain, which allows the punctual delivery of high-quality products. The batteries and BMS systems are pre-integrated, and the systems are fully tested before being shipped to customers. This gives customers confidence in the product they receive and provides customers with a single entity that is responsible for manufacturing and delivering the solution.

JinkoSolar' s energy storage battery cabinets are an integrated high-energy density, long-lasting, battery energy storage system. Each battery cabinet includes an IP67 battery rack system, battery management system (BMS), fire suppression system (FSS), thermal management system, and auxiliary distribution system. It is manufactured to be an install-ready and cost-effective part of the total on-grid, hybrid, off-grid commercial/industrial, or utility-scale battery energy storage system.

For the global energy storage system (ESS) market, JinkoSolar promotes UL, IEC, and regional-specific certified products such as battery cells, modules, packs, racks, and DC battery blocks. For the DC side market, JinkoSolar' s most popular offerings are the fully integrated 20-foot DC battery container block solutions that come in 2 variants – the air-cooled version at 1.5MWh and the liquid-cooled version at 3.4 MWh.

Battery Packs utilize Lithium Iron Phosphate (LiFePO4) battery cells connected in voltage DC configurations. Liquid cooling (air cooling as optional) is integrated

# SUNTERA

## JKS-3380AL

Liquid Cooling Energy Storage System



The liquid cooling system is composed of container (including power distribution), liquid cooling temperature control system, immersion fire extinguishing system, automatic fire extinguishing system, water spray system, battery energy storage system (including battery rack, battery pack, DC combiner containeret, control containeret), etc.

Container: including box and internal auxiliary system. It includes the overall internal rack loadbearing design, heat dissipation design, thermal insulation function, dustproof and waterproof, and the protection level is up to IP54, which can meet the application of the entire battery system in different working conditions and changing complex environment.

### System performance characteristics

- The battery system has large storage capacity and high conversion efficiency
- The new battery management system is adopted to detect the voltage and temperature of a single battery in the battery pack in real time. It has a CAN or RS485 interface design, and adopts a comprehensive and multi-level battery protection strategy to ensure the safe operation of the energy storage system;
- The system has multiple protection functions such as preventing overcharge and overdischarge of the battery. The system is flexible, reliable and scalable
- Prefabricated container-type installation structure, with high degree of modularization and simple structure, is convenient for transportation, installation and maintenance
- The battery system is equipped with multiple fire fighting such as PACK fire fighting, total submerged gas fire fighting and container spray
- Fire extinguishing system, and temperature, smoke, combustible gas detection and automatic explosion-proof exhaust devices are installed in the container, which has all-round detection and multiple protection functions
- Intelligent liquid cooling temperature control system is adopted, and the power consumption is increased by about 30% compared with traditional air cooling; The temperature difference of the megawatt battery system is about  $5 \pm 2$  °C; Keep the battery in the best operating temperature range for a long time, and prolong the service life of the battery system



### ESS in Power Generation

Support the widescale deployment of renewable energy and provide ancillary services of the grid



### ESS in Power Transmission and Distribution

Release existing transmission capacity and relieve network peak load



### ESS in Power Consumption

Supplement to the electricity supply, reducing the cost and ensuring the stable power network



Items	Parameters	Remarks
Serial number	300Ah cell	
Number of cells	3564	
Nominal energy	3.38MWh	
Nominal capacity	1350Ah	
Nominal voltage at DC side	1267V	
DC voltage range	1108.8-1425.6	396×(2.8-3.6V)
Nominal charge and discharge current	1350A	
Number of cycles	>6000 cycles	0.5P@ 90%DOD, 25±2°C
Charge retention rate at room	≥95%	25±2°C, 100%soc, 28day
calendar life	>15 years	25±2°C, 50%SOC, 70% EOL
Operating temperature	15°C-40°C	
Operating humidity	5%-90%	
Overall dimension	6058*2438*2896mm	
Total weight	About 36T	
insulation resistance	>0.1KΩ / V	
Rated charge-discharge ratio	0.5P	