

JinkoSolar Delivers 20MWh SunTera Energy Storage System to Baizhang Wind Farm

JinkoSolar recently released the SunTera series products that adopt its energy storage dedicated 314Ah batteries, equipped with its unique liquid cooling technology. Specially designed cooling liquid flow pathway, flow speed, pressure, and temp monitoring sensor controls the between-battery temperature difference within 2 Celsius degrees, resulting in a prolonged lifecycle and doubled safety. By applying a variety of innovative technologies, the auxiliary power consumption has been reduced by 20%, compatible with active equalization, and an RTE of over 94%, which is at the forefront of the industry.

Designed to achieve a 20-foot single-cabin power of 5 MWh, and by supporting shoulder-to-shoulder and back-to-back rows, site utilization is increased by 37%. The number of on-site operations and maintenance has been reduced by 10% through the support of the intelligent platform. Commissioning and operating costs have also seen significant reductions.

Safety is the critical consideration of energy storage customers, JinkoSolar adheres to the safety design concept of building a multi-level safety system for the whole life cycle, and improves the safety of SunTera series storage as a whole from five layers of battery intrinsic safety, electrical safety, thermal safety, and fire and explosion safety. SunTera adopt the thermal runaway alarm and fire protection system linkage technology, which simplifies the overall structure of the fire protection system.

Up to now, JinkoSolar's batteries, boxes and battery clusters have obtained the authoritative certification of GB/T36276. During the two-year development and testing verification, JinkoSolar's utility-scale SunTera series energy storage has passed over 90 items of safety tests for battery cells, battery modules, and container levels.

In addition, Suntera ESS has the adaptability of various PCS routes and grid-type energy storage projects, which can meet the diverse needs of new power systems.



JKE-3440K-2H-LAA

Liquid cooling energy storage system



SunTera is JinkoSolar's new generation of liquid cooling energy storage product, which is equipped with 280Ah LFP cells and integrated with the industry's advanced design concept. SunTera is a safe, reliable, low-cost and high-performance product that provides customers with highly efficient integrated energy storage solutions. In the context of building a new type of power system, JinkoSolar will continue to uphold the mission of changing the energy structure and taking responsibility for the future to provide more reliable products and better experience to customers worldwide.



Safe and reliable

- Separated battery and electrical compartment design to effectively avoid thermal runaway
- Multi-level fire warning to monitor early thermal runaway



Excellent performance

- Highly efficient liquid cooling technology, the temperature difference of cell is controlled within 2.5 °C, which effectively improve the system life
- Intelligent cluster-level management to improve system discharge level



Flexible configuration

- Modular design to support 1000V /1500V systems
- Compatible with many tier-1 PCS brands, providing flexible and customized solutions



Cost reduction and efficiency

- Compact design with side-by-side layout and standard 20ft container design ensures 6.88MWh capacity in 40FT space
- Pre-installed design effectively reduces shipping, installation and O&M costs



ESS in Power Generation

Enhance the stability, continuity and controllability of new energy generation to provide stability support to the grid.



ESS in Grid Side

Participate in grid dispatching to meet the demand of grid peaking and frequency regulation, thus enhancing the flexibility and stability of the power system.



ESS in User Side

Relieving the load on the power grid, meeting the demand for electricity from different customers, improving the security of electricity on the customer's side, and thus enhancing the customer's experience of using electricity



Battery parameter	
Type of cell	Lithium Iron Phosphate(LFP)
Cell parameter	3.2V/280Ah
Max. charge/discharge power	0.5P
Configuration of system	1P384S×10
Rated capacity	3.44 MWh
Rated voltage	1228.8V
Voltage range	1075.2~1382.4V
Cooling method	Liquid Cooling
Operating temperature	-20~50°C
Humidity	≤95%RH, no condensation
Altitude	< 2000m / <4000m (optional, derating)
Noise level	< 80dB(A), @1m
IP grade	IP54
Storage temperature	-20~45°C
Corrosion-proof grade	C3 (EN ISO 12944) / C4 (optional) / C5(optional)
Fire protection	Temperature sensor+Smoke sensor+combustible gas detector+deflagration venting+fire extinguishing gas+water sprinkler
External communication interface	Ethernet/Fiber (optional)
$Dimension(L{\times}W{\times}H)$	6058×2438×2896mm
Weight	≈35000 kg