

JinkoSolar Energizes Nigerian Mini Grid with 2.03MWh Innovative C&I Energy Storage Solution

Jinkosolar today announced it has delivered its 2.03MWh C&I energy storage system (JKS196-675K-150H) to A4&T Power Solutions for a mini grid project under the REA Performance-based grant program under the REA in the south west region of Nigeria. These ESSs can provide robustness to the micro grid installation by improving resiliency of the electrical supply and creating an ROI for the stakeholders.

Jinkosolar's C&I ESS, a fully integrated, pre-configured battery storage solution uses best-in-class (LFP) battery chemistry to deliver 135 kWh of battery capacity. It includes inverter(s), battery cabinet, battery modules, BMS, local controller, cooling system, fire suppression system, all contained in outdoor rated enclosures. This turnkey solution reduces on-site installation time and can be easily scaled up.

The integrated multi-level Battery Management System (BMS) continuously monitors performance, to allow for system optimization and balancing. Air cooling (base option) or advanced liquid cooling (premium option) helps extend the lifespan of the batteries and ensures optimum performance even in the toughest of climates.

It has a slick compact design with the flexibility to fit into indoor as well as outdoor spaces, thanks to the outdoor-rated enclosure. With IEC62619, UL9540A, CE, UN 38.3 certifications, and built-in fire suppression, this ESS offers safe operation and peace of mind.

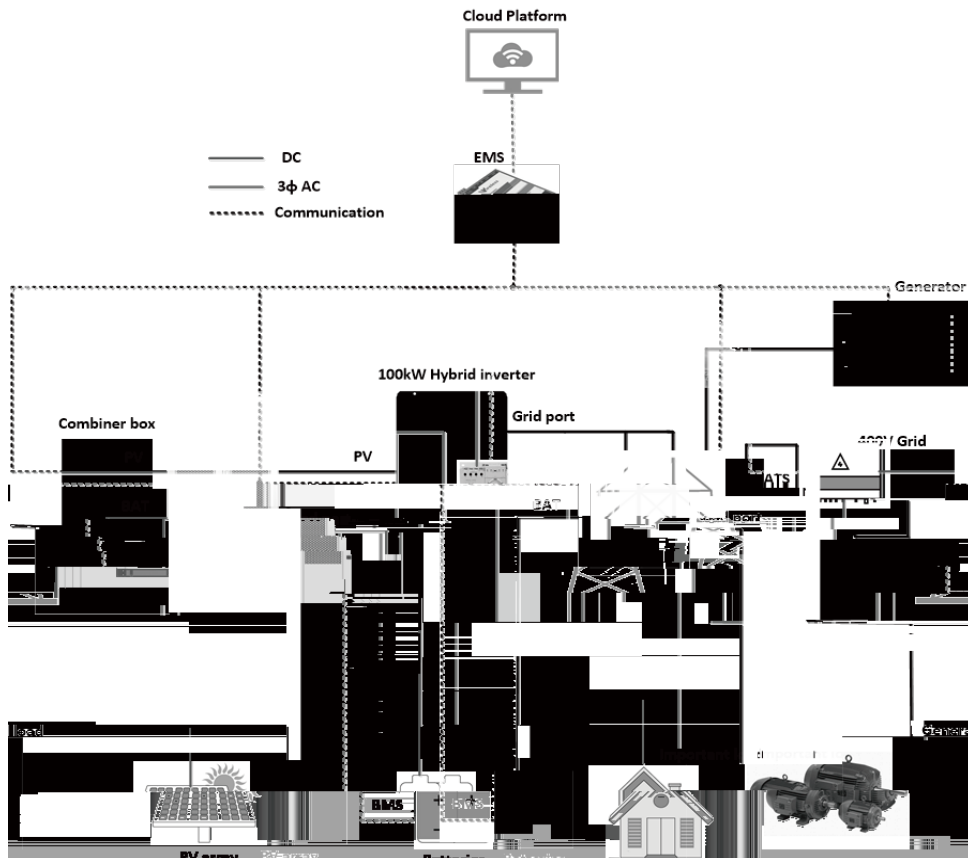
In addition to standalone operation in off-grid mode for power backup, Jinkosolar's C&I ESS provides peak shaving for demand charge management, load shifting for time-of-use savings.



Figure 1: Project Photos



- LFP battery ensures longer battery life and higher safety
- Pre-populated transportation enables faster in-site installation
- Integrated and optimized fire protection design, higher security



SYSTEM TECHNICAL SPECIFICATIONS

DC Data	JKS196K-150H	JKS405K-150H	JKS675K-150H
Battery Chemistry	Lithium Iron Phosphate (LFP)		
Cycle Life	5,000 Cycles 1C@25°C 90%DOD	5,000 Cycles 0.5C@25°C 90%DOD	
Cell Voltage	3.2V/96Ah		
Battery Configuration	2P8S	3P11S	5P11S
DC Energy Capacity	196kWh	405kWh	675kWh
Max. Voltage	512V	704V	
Max. Voltage Range	448V~576V	616V~792V	
Battery Communication Protocol	RS485, Ethernet		
Battery Management System	Modbus RTU, Modbus TCP		
Max. System Voltage	1000V		
Max. Power / Max. Current	120/240kW		
Max. System Voltage	250-850V		
Max. System Voltage @ 100°C	450-850V		
AC Data			
Max. AC Power	150kW		
Max. Inverter AC Power	165kW		
Max. Voltage	400V		
AC Max. Current	216A		
THD	≤3%		
Power Factor	1(leading) ~1(lagging)		
Max. Frequency (Hz)	50/60Hz		
AC Configuration	3W+N+PE		
Max. Power	150kW		
Max. Response Time	≤20ms		
General Data			
Dimensions (W*D*H)	2,991*2,438*2,591mm		6,058*2,438*2,591mm
Weight	<6T	<10T	<15T
Protection Class	IP54		
Operating Temperature Range	-20~40°C		
Max. Humidity	0~95% (non-condensing)		
Max. Altitude	3,000m		
Cooling Method / DC Input	HVAC		
Communication Protocol	RS485, Ethernet, GPRS		
Certification	UL9540A, IEC62619, CE, UN38.3		