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.

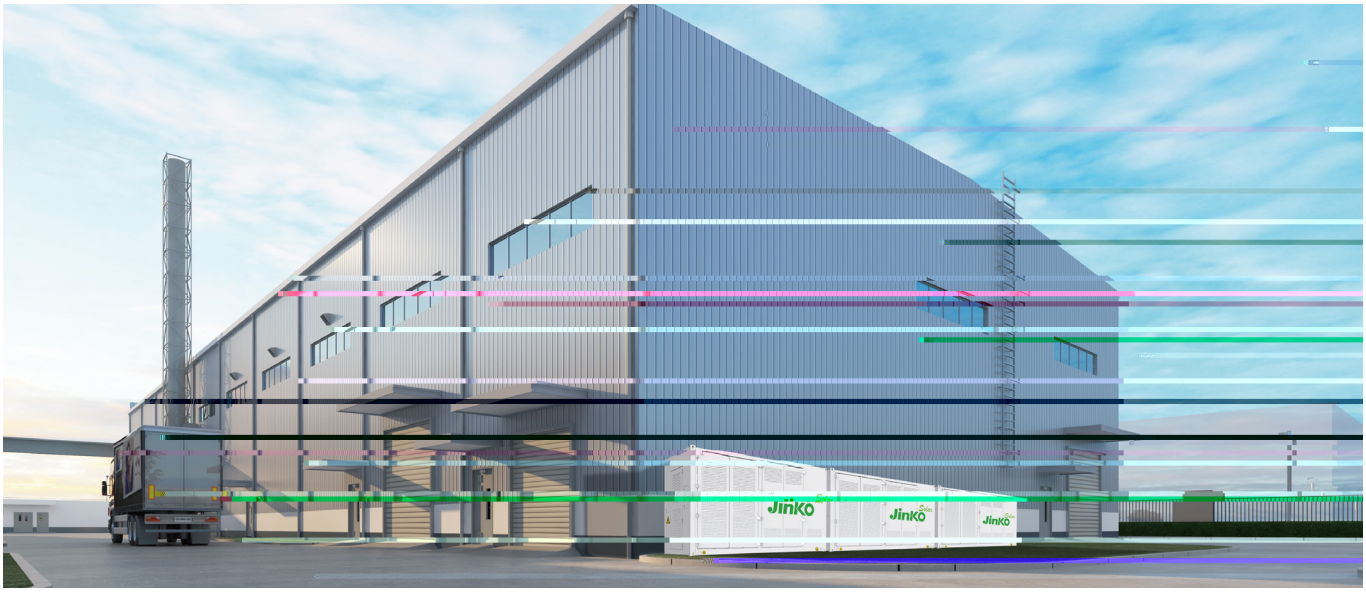

Figure 1: Project Photos

JKS196~675K-150H

Key Features

- Highly integrated system with various working modes
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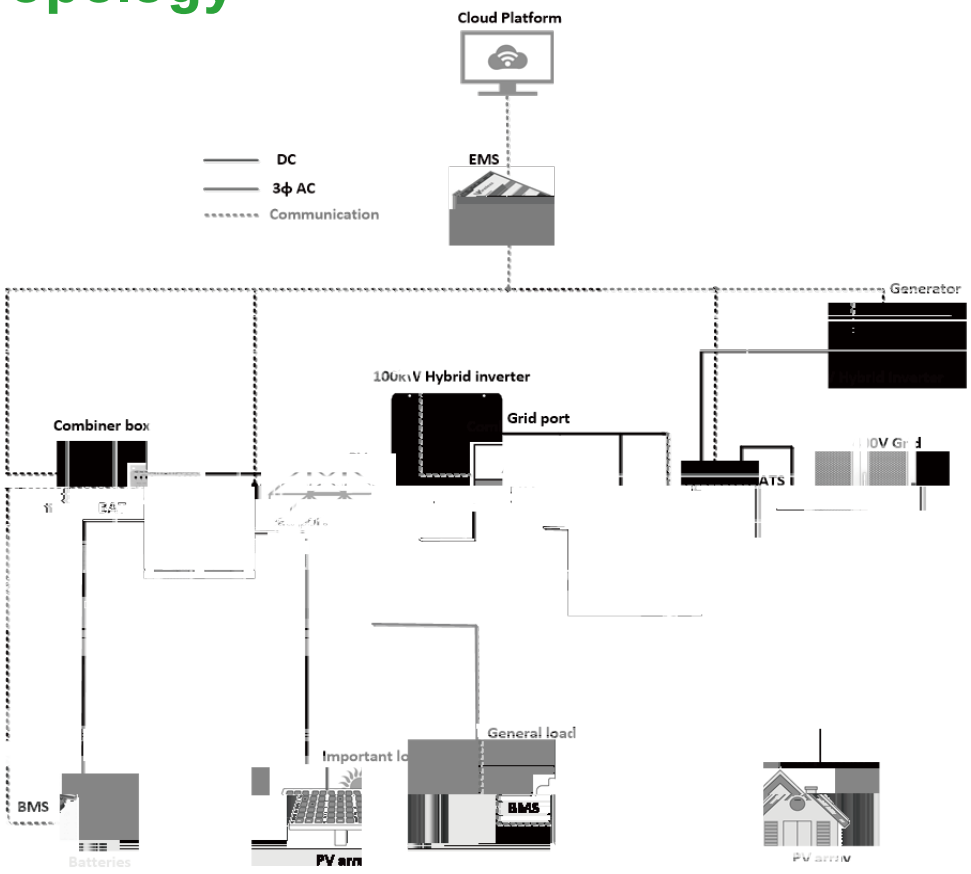
System Topology



SYSTEM TECHNICAL SPECIFICATIONS

DC Data	JKS196K-150H	JKS405K-150H	JKS675K-150H
B... C...	Lithium Iron Phosphate (LFP)		
G... L... C...	5,000 Cycles 1C@25℃ 90%DOD	5,000 Cycles 0.5C@25℃ 90%DOD	
G... ...	3.2V/96Ah		
B... ... C...	2P8S	3P11S	5P11S
DC... E... C...	196kWh	405kWh	675kWh
... T...	512V	704V	
T... ...	448V~576V	616V~792V	
B... C... ... I...	RS485, Ethernet		
B... C...	Modbus RTU， Modbus TCP		
... TI... T...	1000V		
... / ... T...	120/240kW		
... ...	250-850V		
... ... @...	450-850V		
AC Data			
... AC...	150kW		
... AC...	165kW		
... T...	400V		
AC... C...	216A		
... HD...	≤3%		
... F...	1(leading) ~1(lagging)		
... F... (H)	50/60Hz		
AC C...	3W+N+PE		
...	150kW		
...	≤20ms		
General Data			
D... (...*D*H)	2,991*2,438*2,591mm		6,058*2,438*2,591mm
...	＜6T	＜10T	＜15T
D...	IP54		
...	-20~40℃		
... H...	0~95% (non-condensing)		
... A...	3,000m		
C... C... DC...	HVAC		
C... ... I...	RS485, Ethernet, GPRS		
G...	UL9540A, IEC62619, CE, UN38.3		

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.