Building Your Trust in Solar

JinkoSolar Lights Up Mozambique: Delivering PV Plus ESS Microgrid to Empower Chipera Community

JinkoSolar has delivered a solar plus ESS microgrid project in Mozambique with the company' s energy storage system. Their commissioning is believed to overcome the electricity shortages caused by weak and insufficient utilities in the community of Chipera Mozambique. It serves to open up areas that had never had access to electricity and network coverage.

As Mozambique depends on diesel generators to meet the national electricity demand, this country is contracting the power supply due to the rising costs of fossil fuels. The energy issue cripples economic of Mozambique economic development and paralyzes its citizens' normal lives. The Mozambican are experiencing regular and more frequent power outages that can last for as much as 22 hours. Such an urgent situation stimulates the need for renewable energy installations.

This microgrid project combing both 103KWp of JinkoSolar' s Tiger Neo PV panels and 690KWh of JinkoSolar' s energy storage systems offers great potential to solve local energy issues. This solution is highly integrated with both PV, Power Conversion System, and batteries, simplifying the installation process. The modular design also enables a more flexible configuration of batteries so that customers can choose the best-fit one for their needs.

Their successful delivery also shed light on mitigating the national power shortage situation with PV and storage capacities with PV plus battery solutions.

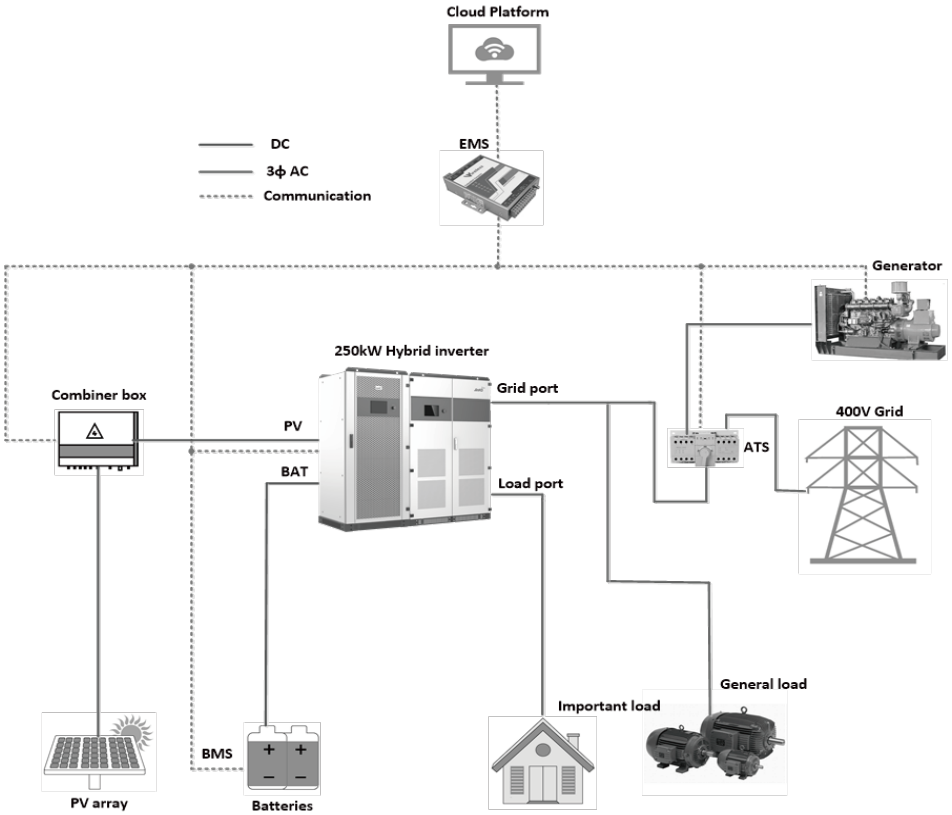
Figure 1: Project Photos

JKS270~1350K-250H

Key Features

- Highly integrated system with various working modes
- 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 Topology



SYSTEM TECHNICAL SPECIFICATIONS

DC Data	JKS270K-250H	JKS810K-250H	JKS1350K-250H
Battery Chemistry	Lithium Iron Phosphate (LFP)		
Cell Life Cycle	5,000 Cycles 1C@25℃ 90%DOD	5,000 Cycles 0.5C@25℃ 90%DOD	
Cell Specification	3.2V/96Ah		
Battery System Configuration	2P11S	6P11S	10P11S
DC Rated Energy Capacity	270kWh	810kWh	1350kWh
Rated Voltage	704V		
Voltage Range	616V~792V		
BMS Communication Interface	RS485, Ethernet		
BMS Communication Protocol	Modbus RTU，Modbus TCP		
Max.PV Input Voltage	1000V		
Standard/Max PV Power	300/360kW		
MPPT voltage range	250-850V		
MPPT voltage range@full load	450-850V		
AC Data			
Rated AC Power	250kW		
Maximum AC Power	275kW		
Rated Voltage	400V		
AC Rate of Current	361A		
THDi	≤3%		
Power Factor	1(leading) ~1(lagging)		
Rated Frequency (Hz)	50/60Hz		
AC Connection	3W+N+PE		
STS Power	250kW		
STS Switching Time	≤20ms		
General Data			
Dimension (W*D*H)	2,991*2,438*2,591mm	6,058*2,438*2,591mm	12,192*2,438*2,591mm
Weight	<10T	<20T	＜30T
Degree of Protection	IP54		
Operating Temperature Range	-20~40°C		
Relative Humidity	0~95% (non-condensing)		
Max. Working Altitude	3,000m		
Cooling Concept of DC hatch	HVAC		
Communication Interfaces	RS485, Ethernet, GPRS		
Certifications	UL9540A, IEC62619, CE, UN38.3		

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

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