BESS Solution for Off-Grid C&I Microgrid

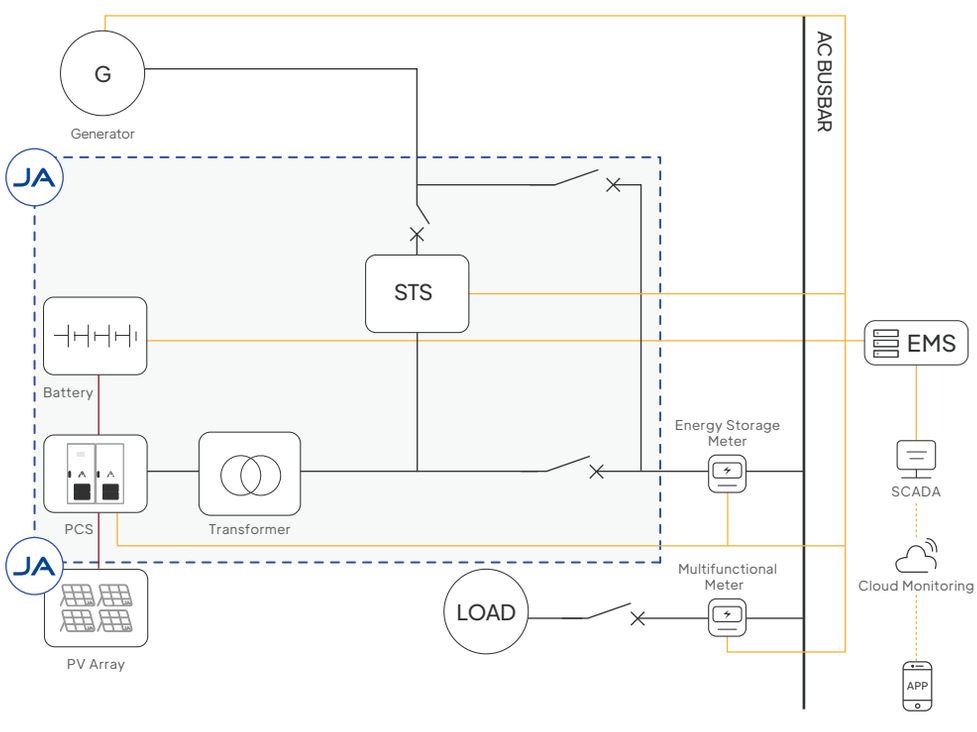
Challenges

Extending the grid to remote regions demands heavy capital outlay, leaving communities without reliable access to electricity.

Diesel dependence drives up operating costs, and the industrial area is restricted to a single energy structure, with low reliability in power supply.

Renewable resources such as PV and wind remain underutilized.

Solutions



Functions

PCS supports multi-unit parallel operation (up to 3 MW) and multiple control modes such as PQ and VF.

DC-coupled PV+Storage+Generator hybrid microgrid solution, with diesel generator coordination and switching (<20 ms).

Based on black start capability, achieving autonomous power restoration and system energy reconstruction.

Benefits

Delivers a hybrid PV-storage-generator microgrid solution that ensures stable and reliable power through multi-energy synergy.

Prioritize free renewable solar power, reducing reliance on diesel, significantly lowering energy costs and pollutant emissions, and enabling a green, low-carbon system.

Employs smart digital maintenance tools to enhance operation and maintenance efficiency and extend system online time.

Advantages

Safety

- Comprehensive Cell Screening implementing multi-dimensional battery cell selection and testing protocols.
- Multi-Layer Protection integrating electrical, structural, and explosion-proof safeguards three-level fire protection design.
- Zero Safety Incidents maintaining a proven track record of no safety accidents.

Cost Efficiency

- An integrated control solution for PV-storage-generator systems that optimizes overall energy costs.
- Low auxiliary energy consumption and high system-wide efficiency.
- Modular design enables efficient operation and maintenance.

Reliability

- Seamless grid-connected/off-grid transition and black-start capability.
- Strong environmental adaptability and system immunity to interference (with isolated transformer).
- One-stop service and full lifecycle intelligent O&M support.

MODEL		JAP-100kW	JAP-150kW	JAP-250kW	JAG-500kW	JAG-1000kW
AC SIDE	Nominal power	100kW	150kW	250kW	500kW	1000kW
	Nominal voltage	400V(3W+N+PE)				
	Nominal current	144A	216A	361A	722A	1445A
	Voltage range	320~460V				
	Nominal frequency	50/60Hz				
	Power factor	1.0 leading~1.0 lagging				
	Overload capacity	110% long-term, 120% for 1 min				
	Isolation transformer	315/400V				
	On/off grid-connection switching	Supports 20ms				
PV (OPTIONAL)	Max. PV input voltage	1000V				
	Max. PV power	150kWp	150kWp	300 / 375kWp	600kWp	600/1350/1500kWp
	MPPT voltage range	250~850V				
BATTERY	Battery type	3.2V / 280Ah / LFP / 1P240S	3.2V / 280Ah / LFP / 2P240S	3.2V / 280Ah / LFP / 3P240S	3.2V / 280Ah / LFP / 5P240S	3.2V / 280Ah / LFP / 10P240S
	Nominal energy	215 kWh	430 kWh	645 kWh	1075 kWh	2150 kWh
	Max. C-rate	0.5P@25°C				
BASIC PARAMETERS	Protection level	IP54				
	Max. Off-grid parallel quantity	6	6	6	6	3
	Max. Operating altitude	2000m (>2000 with derating)				
	Cooling method	Intelligent Air Cooling				
	Fire suppression system	Aerosol	Aerosol	Aerosol	HFC-227ea	HFC-227ea
	EMS communication	RS485, TCP/IP				

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