JA SOLAR | JA Energy Storage

BESS Solution for Grid-Connected C&I Microgrid

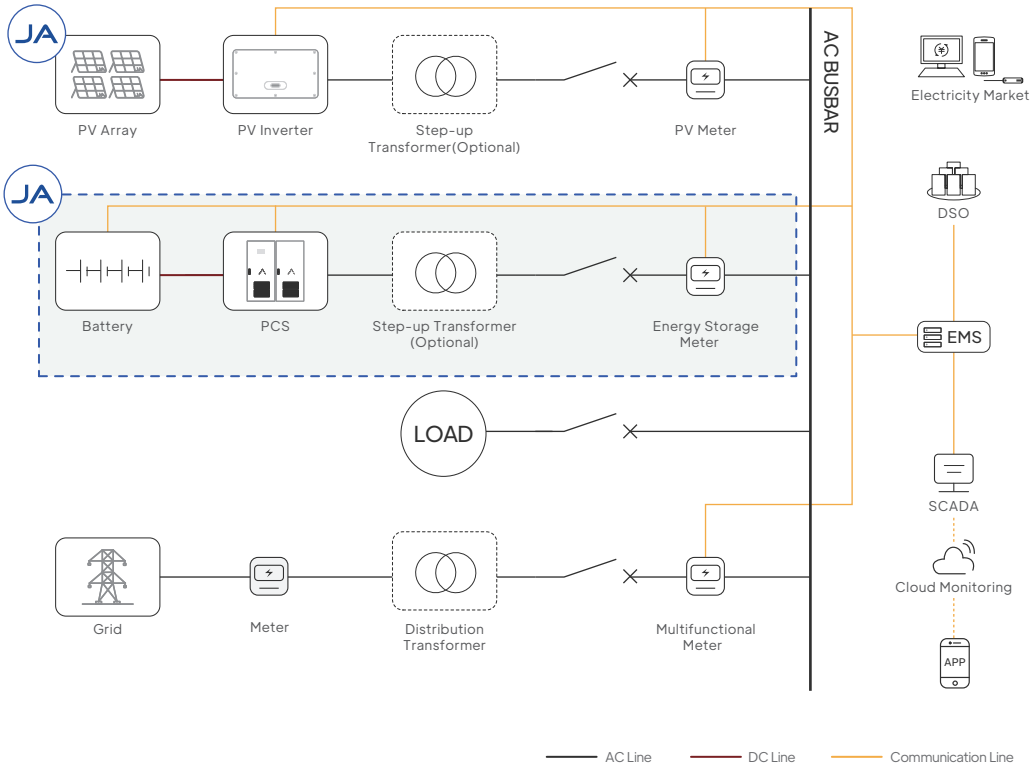
Challenges

Soaring electricity prices drive up operational costs, making budgets unpredictable.

High solar curtailment rates lead to significant waste of clean energy.

Inadequate grid capacity stifles growth, with expansion being both complex and prohibitively.

Solutions



Functions

Optimize energy costs with VPP-driven real-time pricing and generate new revenue through ancillary market participation.

Maximize solar self-consumption through intelligent solar-storage-load coordination.

Dynamically manage power demand with AI-powered forecasting to avoid peak charges.

Benefits

Achieve significant energy cost reductions of 6-12%.

Maximize renewable energy consumption, smooth power fluctuations, and increase the ROI of your green assets.

Deploy dynamic grid expansion to support and future-proof your business growth.

Enhance power reliability and minimize the high cost of downtime.

Advantages

Safety

- Three-Stage Fuse Protection with millisecond response and continuous insulation monitoring.
- Three-Tier Fire Safety System with system-level explosion-proof design and PACK-level suppression.
- 24/7 Thermal Runaway Early Warning for proactive hazard prevention.

Cost Efficiency

- Higher ROI with long-life LFP batteries and precision SOX algorithms.
- 88% System Efficiency with minimal auxiliary power consumption.
- ±1.5°C Temperature Control through intelligent liquid cooling for optimal consistency.

Reliability

- Predictive Maintenance with AI algorithms to forecast failures and reduce unplanned downtime by 90%.
- Remote Resolution enabling over 90% of issues to be diagnosed and fixed online via software updates.
- Modular Design for rapid component replacement and significantly improved service efficiency.

MODEL		JAP-ES-125kW-261kWh
DC SIDE	Nominal energy	261kWh
	Cell capacity	314Ah LFP
	Nominal voltage	832Vdc
	Voltage range	728 ~ 936Vdc
AC SIDE	Nominal power	125kW
	Nominal voltage	380 / 400Vac, -15% ~ 15% (3P4W + PE)
	Nominal frequency	50/60HZ
	AC PF	1.0 leading ~ 1.0 lagging
SYSTEM PARAMETER	Cooling method	Intelligent liquid cooling
	Nominal charge & discharge rate	0.5P
	Depth of discharge	95%
	Protection level	IP55
	Communication interface	Ethernet, CAN, RS485
	Communication protocol	MODBUS-TCP/IP, MODBUS-RTU
	Fire suppression system	Pack-level & Cabinet-level detection + Aerosol
	Certification	IEC 62619, IEC 63056, IEC 60730, IEC 62477, IEC 61000, UN 38.3
	Max. Parallel quantity	20
BASIC PARAMETER	Dimension (W x D x H)	989 × 1465 × 2473mm
	Battery cycle life	8000+
	Weight	2700kg
	Operation temperature range	-30°C~ +50°C
	Operation humidity range	0 ~ 95% (Non-condensing)
	Anti-corrosion level	C4
	Max. operating altitude	2000m

JA SOLAR TECHNOLOGY CO., LTD.

ess@jasolar.com
www.jasolar.com/energystorage