

10MW Integrated MV Skid

JKMV-10000K4C-AA-E

Jinko ESS's 10MW Integrated MV Skid is designed for 1500V utility-scale energy storage, integrating the PCS, MV transformer, and RMU into a 40-ft container for plug-and-play deployment. Featuring Grid-forming capability, millisecond-level response, strong environmental adaptability, and high environmental protection rating, it delivers reliable performance in harsh environments while maximizing safety and energy yield.

Standard Containerized Design, Ready for Delivery

- Fast Deployment: 40-ft container integrating PCS, MV transformer and RMU
- Rigorous factory testing and pre-commissioning reduce on-site installation and commissioning time by 20%
- Integrated Oil Containment: 110% capacity, eliminating on-site oil pit construction

Intelligent Connectivity, System-Level Protection

- Comprehensive Protection: Electrical and mechanical interlocking, Light/heavy gas protection, top oil/winding temperature monitoring, pressure monitoring and relief device, low oil level alarm, differential protection
- Smart Integration: Built-in high-speed data acquisition and fiber network with Modbus, IEC 61850, and IEC 104 support

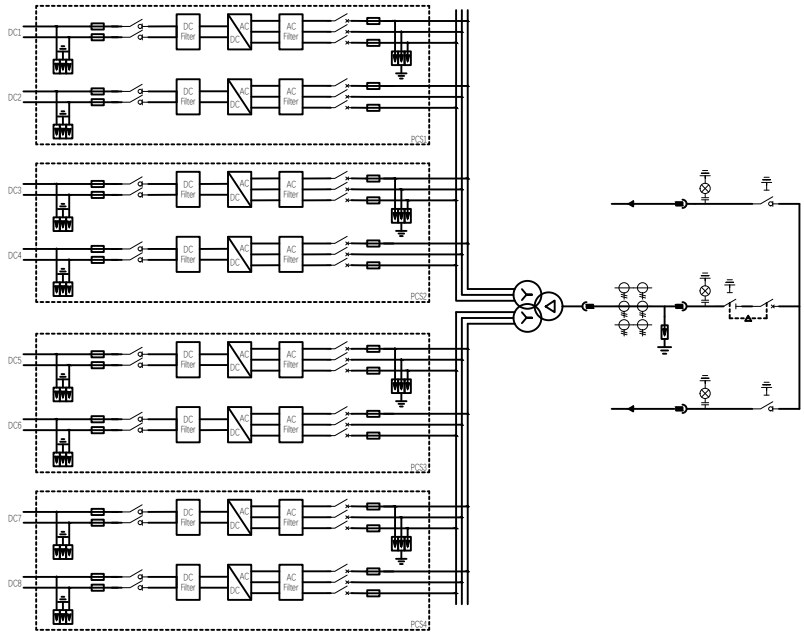
Grid-Forming, Grid-Ready

- Strong Grid Support: Supports both grid-following and grid-forming modes with VSG and black start
- Millisecond Response: Fast power response for high-frequency and voltage regulation

Reliable in All Operating Environments

- No Derating at 51°C: Liquid-cooled PCS delivers full power at up to 51°C ambient
- Built for Harsh Environments: C5 corrosion protection and operation at altitudes up to 3,000 m

Topology Diagram



Technical Specifications

Product Model	JKMV-10000K4C-AA-E
DC Side Parameters	
Number of DC Inputs	4 / 8
Max. DC Current per Input	4*2812 A / 8*1406 A
DC Voltage Operating Range	1000 ~ 1500V
AC Side Parameters	
Rated Power	10000 kW
Max. Output Power	11000 kVA
Rated Voltage	690 Vac
Rated Grid Frequency	50/60 Hz
Power Factor	-1 ~ 1 (adjustable)
Transformer Parameters	
Rated Capacity	10000 kVA
Transformer Type	Oil-immersed Transformer
Transformer Vector	Dy11y11
Cooling Method	ONAN / KNAN
LV/MV Voltage	0.69 / 10~35 kV
Top Oil / Winding Temp. Rise	55K(Top Oil) / 60K(Winding) @45°C
System Parameters	
Dimensions (L×W×H)	12192 × 2438 × 2896 mm
Ambient Temperature Range	-30 ~ + 60 °C （derating ＞45°C)
Relative Humidity	0 ~ 100% (non-condensing)
Max. Operating Altitude	3000m (derating > 3000m)
Enclosure Protection Rating	IP54
Corrosion Protection Level	C4 / C5
Communication Protocol	Modbus-RTU / Modbus-TCP / IEC61850 /IEC104
Compliance Standards	IEC60076、EN50708、IEC62271series

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