

C&I Energy Storage System

Air Cooling ESS (On&Off Grid Application)
E-MATE 50-61-A | 50kW/61kWh



NEW



Profit Maximization

Adapts to on-grid, off-grid, and hybrid modes for optimal revenue. Uses 4-channel MPPT PV DC bus to boost energy efficiency and profitability.



Comprehensive Safety

Integrates multi-level alerts and fire suppression (gas, water, ventilation) for asset protection. Remote monitoring and real-time analysis ensure operational safety.



Intelligent O&M

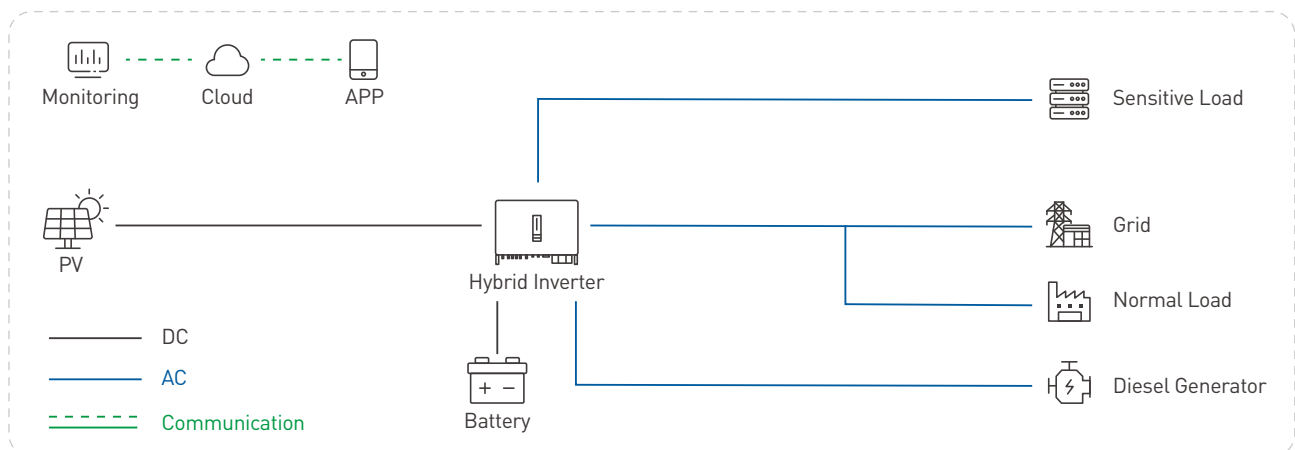
One-click management for remote monitoring, troubleshooting, and data analysis. Seamless grid-switching ensures reliable power supply.



Modular Design

AC/DC integration simplifies installation and reduces costs. Modular structure allows for quick maintenance and upgrades.

System Diagram



Model	E-MATE 50-61-A
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Battery Side Parameters

Cell technology	LFP-3.2 V / 100 Ah
Battery module	5.12 kWh, 51.2 V
Number of packs	12
Battery system rated capacity	61.44 kWh
Battery system rated voltage	614.4 V
Battery system rated current	80 A
Battery system voltage range	480 V - 700.8 V
Battery system charge/discharge rate	0.8P

AC Side Parameters

Rated output power	50 kW
Rated grid voltage	3L / N / PE220 / 380, 230 / 400Vac
Maximum output current	76 A
Allowable grid voltage range	230 V - 400 V
Rated grid frequency	50Hz / 60Hz
Output THDi	< 3%
Power factor	-1~1
Overload capacity	110% (long term), 120% (1 min)
On/Off grid switching time	< 20ms
Charge/discharge switching time	< 100ms
Maximum efficiency	97.80%

PV Side Parameters

PV side voltage range	150 V - 850 V (full power above 500 V)
DC maximum current	4*30A
DC maximum power	75 kW
MPPT quantity	4

Other Parameters

Dimension (WxDxH)	735x1045x2235 mm
	29x41x88 inch
Weight	1220 kg (2689.6 lbs)
Operating temperature	-30°C~+55°C (-22°F~+131°F) [Derating Below - 15°C or above 45°C]
Relative humidity	0~95% (No condensation)
Maximum working altitude	3000 m (> 2000 m Derating)
Noise	≤75dB
Ingress protection rating	IP55
Heat dissipation method	Forced air cooling
Firefighting	Aerosol: module-level (optional) + stack-level, water firefighting, combustible gas detection and exhaust
Communication	CAN / RS485 / TCP
Cycle life	6000 cycles (25±2°C, 0.5P / 0.5P, 70% SOH)

Standard Compliance

Compliance	UN38.3 / UN3480 / IEC62619 / IEC61000 / IEC62477-1 / CQC (More available upon request)
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