



C&I ENERGY STORAGE SYSTEM



Air Cooling ESS_E-MATE 50-61-A | 50kW/61kWh

-  PV / Battery / AC / DG all in one hybrid system
-  Used in both on grid and off grid application
-  Supports 6 in parallel both AC and DC side
-  IP55 protection rating, outdoor installation
-  4*MPPT / 2* BAT and 2* COMS
-  10ms UPS switching backup power
-  Multi-Level protection and alarm (gas, water, ventilation)
-  Intelligent EMS, remote monitoring and fault diagnose

DATASHEET

Model	E-MATE 50-61-A
Battery Parameters	
Cell technology	LFP-3.2 V / 100 Ah
Battery pack	5.12 kWh, 51.2 V
Number of packs	12
Rated capacity	61.44 kWh
Rated voltage	614.4 V
Rated current	80 A
Voltage range	480 V ~ 700.8 V
Charge / discharge rate	0.8P
AC Side Parameters	
Rated output power	50 kW
Rated grid voltage	3L / N / PE220 / 380, 230 / 400Vac
Rated 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*30 A
DC maximum power	75 kW
MPPT quantity	4
Other Parameters	
Dimension (W×D×H)	740×1040×2330 mm
	29.1x40.9x91.7 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
IP Rating	IP55
Cooling method	Forced air cooling
FSS	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 / IEC6100-6-2 / IEC62477-1 / CQC (More available upon request)

SYSTEM DIAGRAM

