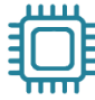


Intelligent Battery Control

Enektri BMC Gen.3 — precise cell management, optimization, scalable integration. IEC 62619 · IEC 61508 · IEC 62933-5-2



Cloud EMS & Monitoring

Real-time cloud monitoring, AI optimization, OTA updates. PCS & Hybrid Inverter integration.



Advanced Safety & Climate

Industrial HVAC, ducted airflow. Aerosol fire suppression. Insulated outdoor enclosures. Range: -20 °C to +50 °C



System Configurations

Top View

Front View



Config	Modules	kWh	Voltage	Weight	Layout
ES-X300	4	300	400 / 800	< 2.3 T	1 section
ES-X450	6	450	400 / 800	< 3.3 T	2 sections
ES-X600	8	600	400 / 800	< 4.3 T	2 sections
ES-X750	10	750	400 / 800	< 5.3 T	2 sections
ES-X900	12	900	400 / 800	< 6.3 T	3 sections
ES-X1050	14	1 050	400 / 800	< 7.3 T	3 sections
ES-X1200	16	1 200	400 / 800	< 8.3 T	4 sections
ES-X1500	20	1 500	400 / 800	< 10.3 T	4 sections

Technical Parameters

Manufacturer	CATL
Cell Chemistry	Li-Ion NMC
Cell Capacity	185 Ah
Module Energy	75 kWh per module
Module Configuration	4s3p battery sub-modules
Nominal Voltage	~400 V (single) / ~800 V (series pair)
Operating Voltage Range	300–450 V (single) / 600–900 V (pair)
Charge / Discharge Rate	0.5 C / 1.0 C
Depth of Discharge	93 %

General Parameters	
Installation Site	Outdoor — custom insulated enclosures
IP Protection	IP55
Anti-Corrosion Level	C4
Operating Humidity	5–95 % (non-condensing)
Operating Temperature	–20 °C to +50 °C (with HVAC)
Max. Operating Altitude	4 000 m (derating > 3 000 m)
Communication	Ethernet · CAN · Wi-Fi · RS-485
Cooling / HVAC	Industrial A/C with ducted airflow per section
Fire Protection	Optional: Aerosol suppression
Battery Modules Sourced	OEM-grade Stellantis EV packs, 2022–2026, NMC
Warranty Cycles	≥ 4 000 cycles (25 °C, 0.5 C, DoD 85 %, EOL 70 %)
Warranty Period	7 years or warranty cycle limit — whichever first
BMS Standards	IEC 62619:2022 · IEC 61508:2010 · IEC 62933-5-2

Warranty: ≥ 4 000 cycles (25 °C, 0.5 C, DoD 85 %, EOL 70 %) or 7 years — whichever is reached first. Expected Lifecycle: Actual battery lifespan is expected to significantly exceed warranty parameters. The Enektri EMS actively reduces degradation through intelligent charge/discharge management, adaptive C-rate control, SoC window optimization, and thermal profiling — research indicates 15–25 % cycle life extension.

Energy Management System

Intelligent Control · Cloud Platform · Lifecycle Optimization



Advanced Solutions for Energy Storage and more.

Proprietary cloud platform for real-time monitoring, intelligent charge/discharge management, and predictive analytics. Integrates with PCS units and hybrid inverters to maximize throughput and extend battery lifespan.

Dashboard Overview	Power Profile & Analytics	Analytics & Market Data

Key Features

Real-Time Monitoring Energy flow, SoC/SoH, PV, grid, load — all in one unified dashboard view.	AI Degradation Control 15–25 % lifespan extension vs. unmanaged systems through intelligent algorithms.	PCS & Inverter Integration CAN / Modbus dispatch, peak shaving, and seamless grid interaction.
Remote OTA Updates Zero on-site software maintenance — deploy updates fleet-wide remotely.	Predictive Maintenance Anomaly detection for cell imbalances, temperature drift, and capacity fade.	Energy Trading & Arbitrage Smart dispatch via IBEX day-ahead market — buy low, sell high, maximize ROI..