

Liquid-cooled Outdoor Cabinet

ENERGY STORAGE
PRODUCT DATASHEET



PRO 125 kW / 261 kWh

Grid-tied liquid-cooled outdoor cabinet integrating LFP 314 Ah cells, bidirectional PCS, EMS, fire-suppression system, and thermal management in a single 1.45 m² footprint. Designed for industrial peak shaving, renewables firming, and DSO-grade ancillary services. Up to 20 units operate in parallel with autonomous network reconfiguration; 88 % comprehensive efficiency including auxiliary consumption.

Three-tier safety chain

Multi-level temperature sensing with millisecond response, pack-level fire suppression, and a cabinet rated to withstand 1600 °C with long-fibre alumina insulation.

Zero-touch parallel expansion

Up to 20 grid-tied units operate in parallel with decentralised autonomous network reconfiguration — add capacity without reconfiguring the controller.

5-year maintenance-free

Full-node autonomy with 0-second single-point fault recovery; ion-migration-resistant connections preserve insulation and dielectric strength after 5 years.

Autonomous O&M

OTA updates with breakpoint recovery, real-time strategy deployment, and self-healing routines remove most manual intervention from the duty cycle.

Liquid cooling, ± 1.5 °C ΔT

DC-side cell temperature difference held within ± 1.5 °C, extending cycle life and round-trip efficiency across the full discharge window.

120 % overload

120% overload capability with three-phase four-leg dynamic balancing; tolerates 380 / 400 V ± 15 % grid windows and weak-grid conditions.

88 % efficiency benchmark

88% comprehensive efficiency including auxiliary consumption; dual energy-saving modes via four-quadrant regulation and low-order harmonic mitigation.

1.45 m² footprint

261 kWh in a single parking-space footprint. Full traceability codes at component level; flying-welded busbars inspected by 3D galvanometer at 0.2 s per weld.

DC / Battery	LFP cell · 1P260S configuration	
	Battery capacity	261 kWh
	Cell capacity / chemistry	314 Ah · LFP
	Battery pack	1P260S
	Rated DC voltage	832 V
	DC voltage range	728 – 936 V
AC / Grid	Bidirectional PCS · grid-tied	
	Rated power	125 kW
	Rated voltage	380 V / 400 V, -15 % to +10 %
	Connection	3P 4W + PE
	Rated frequency	50 Hz
	Power factor	-1 (leading) to +1 (lagging)
	THDi	≤ 3 % (at rated power)
	Overload	120 % capability
	Comprehensive efficiency	88 % (incl. auxiliary consumption)
Protection	Three-tier safety chain	
	AC side	Moulded-case circuit breaker
	DC side	Isolator switch + fuse
	Fire suppression	Aerosol + water suppression system
General	Environment · physical · communication	
	Operating temperature	-30 °C to +50 °C (derating above 45 °C)
	Altitude	≤ 2 000 m
	Relative humidity	0 – 95 % RH (non-condensing)
	Cooling method	Liquid cooling
	Ingress protection	IP54
	Corrosion resistance	C4 (customisable)
	Dimensions (W × H × D)	989 × 2471.5 × 1465 mm
	Footprint	1.45 m²
	Weight	≈ 2.8 t
	Communication interface	CAN / Ethernet / RS-485