

C&I Series



i-TANK PRO

LIQUID-COOLED C&I ENERGY STORAGE SYSTEM

261 kWh

Energy capacity

125 kW

Power rating

≥ 90%

Round-trip efficiency

IP54

Cabinet protection

261 kWh Battery Energy Storage Cabinet

Key Features:



Liquid-cooled thermal management — integrated vertical cooling plates for high efficiency and long cell life.



All-in-one cabinet — battery packs, BMU/RBMS, 125 kW PCS and fire suppression in a single integrated unit.



Three-tier fire suppression — pack-level, cluster-level aerosol and full-cabinet water system.



Grid-tied & standalone (islanding) operation with EMS charge/discharge scheduling.



Comprehensive protection — over-voltage/current/temperature, anti-islanding and ground-fault detection.



Long-life LFP cells — ≥ 6000 cycles @80% DoD and 10-year design life.

TECHNICAL PARAMETERS	
ELECTRICAL	
Energy capacity	261 kWh
Nominal system voltage	832 V DC
Voltage range	650 V – 949 V (2.5 – 3.65 V per cell)
Rated capacity	314 Ah
Power rating (charge / discharge)	125 kW
Round-trip efficiency	≥ 90% (typical 92–95%)
Operating modes	Grid-tied, Standalone (islanding mode)
BATTERY PACK	
Cell type	LFP (Lithium Iron Phosphate)
Cell capacity	314 Ah (nominal)
Cell voltage (nominal)	3.2 V
Series configuration per pack	52S (166.4 V nominal per pack)
Number of battery packs	5 packs in series
Total cells	260 cells (52 × 5)
Energy per pack	52.2 kWh
Cell cycle life (to 70% SoH)	≥ 6000 cycles @80% DoD
Expected system life	10 years (typical C&I duty)
THERMAL MANAGEMENT	
Cooling type	Liquid cooling — integrated vertical plates between cells
Chiller capacity	5 kW (nominal cooling power)
Coolant type	Water-glycol
Coolant operating range	-10 °C to +55 °C (ambient)
Battery operating temperature	-10 °C to +55 °C (optimal 10–45 °C)
Temperature monitoring	Distributed thermistors per pack + chiller feedback
Coolant circulation	Centralised loop distributing to all 5 packs
PHYSICAL	
Product dimensions (W × D × H)	980 × 1330 × 2251.5 mm
Estimated system weight	≈ 2500 kg (complete system)
Battery pack weight	≈ 300 kg per pack
Chiller unit weight	≈ 100 kg
IP rating	Battery compartment IP65 / Cabinet IP54
Altitude	< 2000 m (derating required above)
STANDARDS & COMPLIANCE	
IEC 61000	Electromagnetic compatibility (EMC)
IEC 62477	Safety of power electronic converter systems (PCS)
IEC 62619	Safety of secondary lithium-ion cells & batteries
WARRANTY & SUPPORT	
Warranty	5-year battery · 12–24 months balance-of-system · 3-year PCS
Support	24/7 technical support · remote diagnostics · on-site ≤ 48 h (critical faults)

Applications: Peak shaving | Load shifting | Backup power (UPS) | Grid support | Renewable integration | Industrial facilities