

Trina Storage Elementa 2

Advanced, Flexible, High-efficiency ESS



4.07 MWh @ 1500V DC

Trina Storage Elementa 2 is a new generation, cutting-edge, grid-scale battery storage system built from the ground up using Trina's vertically integrated LFP cells.

Ultra Long-Life Trina Cells

Proprietary Lithium Iron Phosphate (LFP) cells
≥95% Energy Efficiency

Rack-Level Energy Management

Smart rack-level energy management
HV box at the rack level for cost optimization

Comprehensive Safety

State-of-the-art fire mitigation and suppression system
All international safety standards & certifications conformed

Unique Pack Design

Intelligent liquid cooling technology - maintains $\Delta T < 2.5^{\circ}\text{C}$
Independent O&M window, two-way stop valve

Highly Integrated & Flexible Solution

Reduced CAPEX & OPEX
Improved TCO & Lower LCOS

Easy Operation and Maintenance (O&M)

Designed for minimal downtime and simplified maintenance
Bankable warranties, guarantees & services

Product Specifications



Battery parameters

Battery Cell	3.2V, 306 Ah
Electrical Configuration	1P416S10P (10 racks of 4 battery packs each)
Nominal Capacity	4073kWh
Typical Operational Duration	2-6 hours
Max Operating Voltage Range (DC)	1040V~1497.6V
Auxiliary Power-Max input power consumption	56kW (0.5p)

System parameters

Dimensions(W×H×D)	6058mm*2896mm *2438mm
Weight	≤ 35 T / ≤ 77162 LB
IP Level	IP55 - Excl. Chiller Compartment (Pack IP65, IP67 optional)
Cooling Mode	Liquid cooling, 50% ethylene glycol aqueous solution
Altitude	≤2000m
Operating Ambient Temperature	-30~50°C

Fire Safety	Fire panel with heat and smoke sensors
	Fire resistant enclosure
	Gas sensor and active ventilation system
	Water based fire suppression system, Automatic aerosol-based fire suppression system (optional)

Coating	C4-M (C5-M, optional)
Color	RAL9016
Communication Protocols	CAN/Modbus TCP

Compliance	Battery Safety	UL9540A, UL1973(rack), IP65, IEC 62619, IEC 63056
	Transportation	UN 38.3, UN 3840
	EMC	EN/IEC 61000-6-2, EN/IEC 61000-6-4