Trina Storage Elementa 2 Platform

Advanced, Flexible, High-efficiency ESS

Trina Storage Elementa 2

4.073 MWh @ 1500V DC

Trina Storage Elementa 2

5.015 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.

The new design incorporates advanced features including a unique module design, precise thermal management enabled by smart liquid cooling technology, and a robust fire mitigation and suppression system to ensure unparalleled efficiency, comprehensive safety, and long-term reliability.

Engineered for adaptability, rapid deployment, and smooth operational and maintenance processes, the product not only minimizes project costs but also enhances overall system performance.

Disclaimer:
The information contained in this datasheet is provided for general informational purposes only. TrinaStorage Co. Ltd reserves the right to modify, update, or revise any specifications, features, or other details related to the product datasheet without prior notice.

Key Product Features

High-Efficiency ESS

- In-house Trina Storage Cells: Extended battery lifetime & performance with up to 12,000 cycles; 0 degradation in the first year & ≥ 95% Energy Efficiency (for 4MWh)
- Upgraded Module Design: Featuring independent O&M window & two-way stop valve; intelligent liquid cooling technology – maintains ΔT< 2.5°C
- Higher ROI & Cost-advantages: Reduced CAPEX & OPEX; Improved LCO & Lower LCOS
- Higher Energy Density packed into the same form factor (for 5 MWh)

Intelligence

- Advanced rack-level energy management: precise control & optimization
- Uniformity in battery SOC, preventing electrical imbalances, extending battery life & performance
- Multi-level BMS: equipped with advanced chip for high reliability; Grade-by-grade warning, effective isolation & protection
- Smart O&M: Designed for minimal downtime and simplified maintenance

Highly Integrated & Flexible Solution

- Compact design ensures up to 15% reduction in footprint
- Built for a standard 20ft HC container, reducing shipping costs, facilitating quick transportation & rapid deployment
- Optional DC/DC configurations
- Bankable warranties, guarantees & services

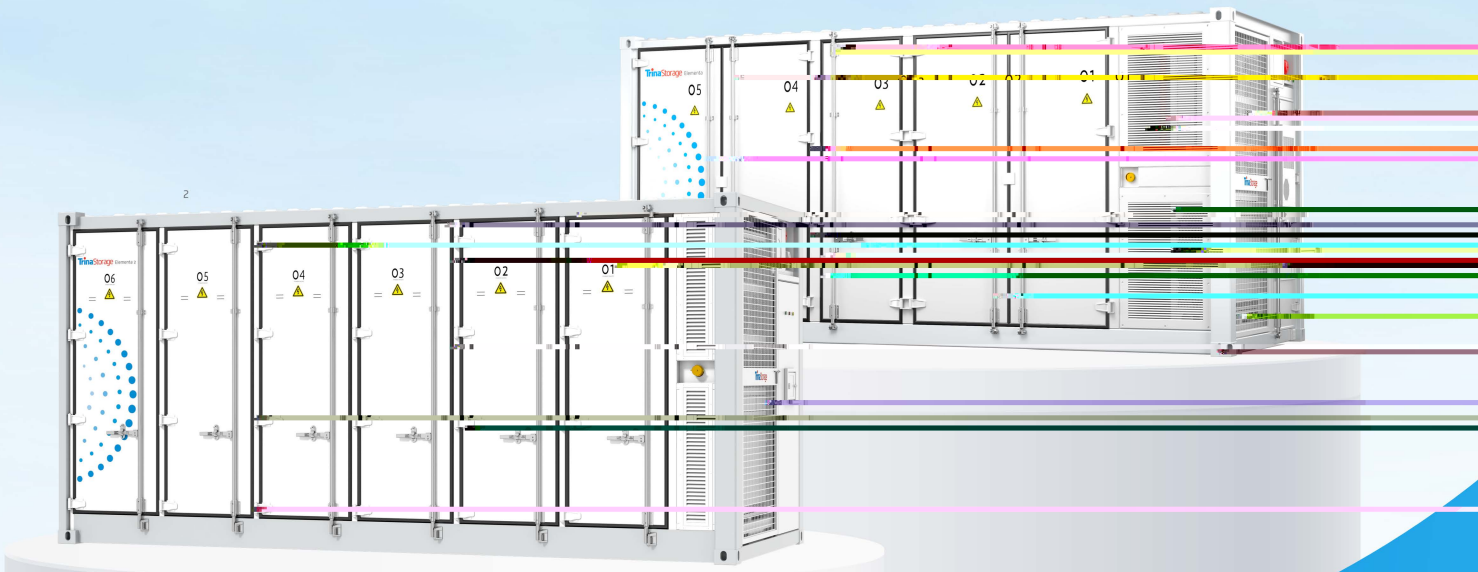
Comprehensive Safety

- Prioritizes product & personnel safety
- Multi-dimensional cell testing; targeted design; higher precision in fault detection
- Heat, Gas & Smoke detectors, active ventilation system for explosion prevention
- Implements a state-of-the-art aerosol-based FSS
- All international safety standards & certifications conformed

Product Specifications

Battery parameters	Elementa 2 4.073MWh	Elementa 2 5.015MWh
Battery Cell	3.2V, 306 Ah	3.2V, 314 Ah
Electrical Configuration	1P416S10P (10 racks of 4 battery modules each)	1P416S12P (12 racks of 4 battery modules each)
Nominal Capacity	4073kWh	5015kWh
Typical Operational Duration	2-6 hours	2-6 hours
Max Operating Voltage Range (DC)	1040V~1497.6V	1040V~1497.6V
Auxiliary Power-Max input power consumption	55kVA (0.5p)	52kVA (0.5p)

System parameters		Elementa 2 4.073MWh	Elementa 2 5.015MWh
Dimensions(W×H×D)		6058mm*2896mm*2438mm (Standard 20ft Container)	6058mm*2896mm*2438mm (Standard 20ft Container)
Weight		≤ 35 T / < 77162 LB	< 42.5T
IP Level		IP55 - Excl. TMS (Temperature Management System) IP67 - Module	IP55 - Excl. TMS (Temperature Management System) IP67 - Module
Operating Ambient Temperature		-30~50°C	-30~50°C
Altitude		≤2000m	≤2000m
Cooling Mode		Liquid cooling, 50% ethylene glycol aqueous solution	Liquid cooling, 50% ethylene glycol aqueous solution
Fire Safety		Fire panel with heat and smoke sensors	Fire panel with heat and smoke sensors
		Fire resistant enclosure	Fire resistant enclosure
		Gas sensor and active ventilation system	Gas sensor and active ventilation system
		Automatic aerosol-based fire suppression system, Water based fire suppression system (optional)	Automatic aerosol-based fire suppression system, Water based fire suppression system (optional)
Coating		C4-M (C5-M, optional)	C4-M (C5-M, optional)
Color		RAL9016	RAL9016
Communication Protocols		CAN/Modbus-TCP	CAN/Modbus-TCP
Compliance	Battery Safety	UL 9450, UL9540A, UL1973(rack), IP65, IEC 62477, IEC 62619, IEC 63056	UL 9450, UL9540A, UL1973(rack), IP65, IEC 62477-1, IEC 62619, IEC 62933-5-2, IEC 63056
	Transportation	UN38.3, UN3536	UN38.3, UN3536
	EMC	EN/IEC 61000-6-2, EN/IEC 61000-6-4	EN/IEC 61000-6-2, EN/IEC 61000-6-4
	Marking	CE/UKCA	CE



Leading the Energy Transition through Storage

www.trinasolar.com/en-glb/trina-storage

TrinaStorage@trinasolar.com

www.linkedin.com/showcase/trinastorage/

www.facebook.com/TrinaStorage

twitter.com/TrinaStorage

Official website

Social media

Trina Storage Co., Ltd

*IP Level refers to the cabinet excluding the ch... compartment

©2024 Trina Storage. All rights reserved. Subject to change without notice.