

UTILITY-SCALE

Titan 2.0

Liquid-cooled BESS container

A liquid-cooled 20 ft BESS container that delivers 6.25 MWh and 3.125 MW with 587 Ah LFP cells.

3.125 MW

RATED POWER

6.25 MWh

RATED CAPACITY

**≥11,000
cycles**

CYCLE LIFE

≥94%

ROUND-TRIP
EFFICIENCY


Full specs: blazarenergy.io/products/titan-2

Titan 2.0 is a utility-scale, liquid-cooled LFP battery energy storage container that fits 6.25 MWh into a standard 20 ft footprint, with 3.125 MW rated power for a 2-hour discharge at full load. It is rated for at least 11,000 cycles and at least 94% round-trip efficiency, and integrates EMS, BMS, thermal management and fire protection with IEC 61850 communication. Reference architectures cover AC-coupled solar and wind plants, DC-coupled solar, AGC frequency regulation and on/off-grid switching for critical loads.

KEY ADVANTAGES



High energy density

6.25 MWh in a standard 20 ft container, 25% more capacity than the previous generation. The 52s x 8p x 8c configuration maximizes space use and reaches a gravimetric density of at least 130 Wh/kg.



Long cycle life

At least 11,000 cycles at 80% end of life and more than 20 years of service. Liquid thermal management keeps the cell temperature difference within 3 °C at ambient temperatures from -30 °C to 55 °C.



Plug-and-play deployment

A fully integrated container with EMS, BMS, thermal management and fire protection, tested at the factory. IEC 61850 communication for utility grid integration, scalable to 100 MWh and beyond.

FEATURES

- ✓ **20+ years service life**
Designed for more than 20 years of service, with a cycle life of at least 11,000 cycles.
- ✓ **AI-powered EMS**
An integrated energy management system with AI-based control, communicating over CAN, Modbus, Ethernet and IEC 61850.
- ✓ **IP55 protection**
An IP55-rated enclosure, operating from -30 °C to 55 °C at altitudes up to 4,000 m.
- ✓ **Multi-certified**
Certifications cover IEC 62619 for cell safety, IEC 61850 for grid communication and UN 38.3 for transport safety, plus ISO 9001, ISO 14001 and ISO 45001 management systems.

APPLICATIONS

Utility-scale storage

Renewable integration

Frequency regulation

Data center backup

Technical specifications

Titan 2.0 · Liquid-cooled BESS container

SYSTEM	
Product model	XC-LCC/6250
Rated capacity	6.25 MWh
Rated power	3.125 MW (0.5P)
Discharge duration	2 hours @ full load
System efficiency	≥94% (round-trip)
Nominal DC voltage	1,331.2 V
DC voltage range	1,040 to 1,500 V
Max DC current	1,440 A
Warranty	10 years

BATTERY	
Battery type	LFP (587 Ah cells)
Cell configuration	52s × 8p × 8c
Cycle life	≥11,000 cycles (80% DoD, 25 °C)

THERMAL MANAGEMENT & SAFETY	
Cooling method	Liquid cooling (glycol-water)

COMMUNICATION & CONTROL	
Communication	CAN / Modbus / Ethernet / IEC 61850

ENVIRONMENT	
Operating temperature	-30 °C to 55 °C
Max altitude	≤4,000 m

MECHANICAL	
Protection level	IP55
Dimensions (W × D × H)	6,058 × 2,438 × 2,896 mm
Weight	≤48,000 kg
Container type	20 ft standard

STANDARDS AND CERTIFICATIONS

IEC 62619

IEC 61850

UN 38.3

ISO 9001

ISO 14001

ISO 45001

Specifications are based on manufacturer test data and may change without notice. Standards and certifications refer to the manufacturer's test reports, available on request. The final configuration, performance and warranty terms are confirmed in each project proposal.

Let's size the right system for your site.

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