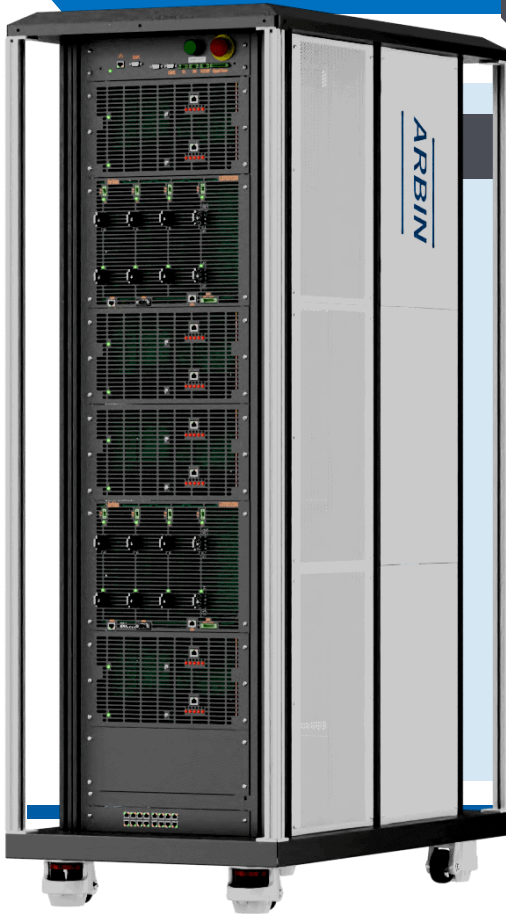


LBTS Module Series



Key Features

- ✓ **100ppm Precision** with industry-leading 24-bit resolution across four current ranges per test channel
- ✓ **Parallelable** so any number of channels can be connected to increase the current handling capability
- ✓ **True Bipolar Circuitry** to ensure cross-zero linearity with no switching time between charge and discharge
- ✓ **Embedded MCU** for real-time calculations of battery capacity, power, energy, IR, and efficiency metrics
- ✓ **Minimize Floor Space** with enhanced channel density in a compact footprint

Beyond Precision

Arbin's next generation Laboratory Battery Testing (**LBTS**) series offers industry leading 24-bit resolution and high-precision measurements. The all-purpose tester provides true bipolar circuitry ensuring cross-zero linearity, four auto switching current ranges per test channel, and embedded MCUs for real-time calculations.

Developed in collaboration with industry leaders Ford Motors and Sandia National Lab, and supported by US DOE funding through DOE ARPA-E, Arbin utilizes exclusive technology to elevate battery testing standards.

Standard Configurations

Standard Configurations					
Voltage Range	Current Range	Channel per Module	Voltage Range	Current Range	Channel per Module
20V	40A/10A/1A/0.1A	8	60V	12A/5A/1A/0.1A	8
20V	80A/10A/1A/0.1A	4	60V	25A/10A/1A/0.1A	4
30V	30A/10A/1A/0.1A	8	80V	10A/5A/1A/0.1A	8
30V	60A/10A/1A/0.1A	4	80V	20A/5A/1A/0.1A	4
40V	20A/5A/1A/0.1A	8	100V	15A/5A/1A/0.1A	4
40V	40A/10A/1A/0.1A	4	All channels are parallelable		

System Information

System Characteristics	
Channels per Module	4 or 8
Channels per Chassis	Up to 32
Current Ranges per Channel	4 (auto switching)
Channel Parallel	Up to 960 A
Current Rise Time	<1 ms
Control & Measurement Specifications	
Accuracy	±0.02% FSR
Precision	±0.01% FSR
Measurement Resolution	24 Bit
Control Resolution	16 Bit
Time Resolution	100 µs
Data Acquisition Rate	Regular Mode: Up to 1 kHz Burst Mode: Up to 16kHz
Chassis Specifications	
Cooling	Air-cooled with built-in variable speed fans
Input Power	208V3P – 520V3P
Chassis Size	Width: 25" (635 mm) Depth: 45" (1143 mm) Height: 72" (1,828.8 mm)

Application Focus



Facility integration to interface with temperature chambers, test facilities, or other third party systems.



Data Sampling and Logging: Powerful embedded controllers provide ultra-fast data sampling and logging.



Comprehensive safety features for lithium-ion battery testing.



Dynamic data acquisition based on changes in time, voltage, and current to capture more data when it's needed and maintain efficient file sizes.



Simulation of Real World Test Profiles



Module R&D

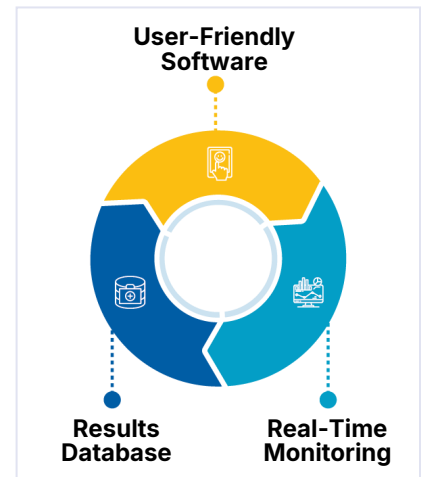


Module End-of-Line (EOL)

Powerful Software Integration

Arbin's LBTS system, powered by our latest MITS software, optimizes the battery testing process by simplifying control of the testing process, and integrating the test station into a test facility.

- ✓ Create and manage test schedules, monitor real-time testing, and analyze results.
- ✓ Integration with third-party hardware and automation software.
- ✓ Suitable for both laboratory and production environments.
- ✓ Test data securely stored in a range of robust databased formats including MS SQL, PostgreSQL, or utilize Apache Kafka for additional flexibility.



Contact Us



1 (979) 690-2751



sales@arbin.com



www.arbin.com

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