

BDT1012 Test System For Primary Batteries



This product is a 24-Channel Battery Tester that is ideal for testing and evaluating batteries according to IEC60086-1/2.

The test equipment can be used in several areas, from Research & Development to production Quality Control and incoming goods inspection.

By adding more testers in a fieldbus (CAN) network, the number of channels can easily be expanded. This system is able to test simultaneously and independently more than 5.000 batteries per controller.

Easy Test Setup

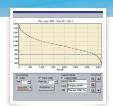
Preparing a test can be done off-line on an existing desktop PC, using a graphical user interface. The end-user can define the specific test by means of an Event Table. The PC communicates with the Battery Tester over the CAN network interface to load the test conditions and upload the measurement data.

Every unit of 24 channels works fully independently. It is microprocessor-controlled and uses a dynamic electronic load to obtain a very high accuracy, reliability and flexibility.

Each channel has its own programmable discharge-profile. This profile is a composition of several events. Every event consists of a time interval, a type of load and a value. The load is a constant or intermittent current, resistance or power. With this test system, it is possible to perform pulses of 10 msec! This means typical continuous or intermittent lifecycle and application tests can be performed (toys, pagers, pc...).

This Battery Discharge Test System is designed according to the latest standards in electronics and informatics. Dataintegrity is always guaranteed during a power-failure, network or pc-controller breakdown.







HIGHLIGHTS

24 Independent channels

Independent Microprocessor- controlled test unit

Linked with PC controller through CAN-bus

Full scaleability

More than 5000 test positions per PC

High accuracy of 0.03% FSD

AUTO calibration

4 point measurement

DYNAMIC electronic load

Four automatic switched current ranges

Fully configurable load profile in current, resistance, power and voltage

Guaranteed data-integrity

FULL INTEGRATION in customer's network

National language support



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Technical specifications

Voltage & Current Measurements:

0 - 10 VDc; 0 - 2 Adc Input Range:

± 0.02% FSD Accuracy: Resolution: 0.305 mV Input Impedance: > 100 Mohm

Additional Features: Differential input, 4 point measurement, Common plus pole

Storage Parameters: Time-interval Δt, Voltage-drop ΔV, End of event

Time-interval: Δt:1-3.600 Sec $\Delta V: 0 - 1.000 \text{ mV}$ Voltage-drop:

Storage Time-resolution: 1 sec

Storage Memory: Min. 3.000 measurements per channel / On board, without PC intervention

>> 3.000 measurements per channel / With constant data-upload to PC

End-conditions: Time, Voltage

Electronic Load Specifications:

Type of load: Constant / Intermittent current, -resistance, -power (+ mixed load Load ranges: 4 automatic switched ranges: 2mA, 20mA, 200mA, 2A (full current

regulation)

Current: 0 - 2 ADc (Accuracy: ± 0.03 % FSD)

0.1 Ohm - 10 kOhm (Accuracy: ± 0.05% FSD) Resistance:

0.6 mW - 20W (Accuracy: ± 0.05% FSD) / max. 200W total dissipation over 24 Power:

channels

Pulse- width: 10 mSec - 10.000 Hours

Pulse Time-resolution: 10 mSec

AD-Converters:

full 16 bits Resolution: Maximum Samples / Sec: 100 kSPS Integral Non-linearity: ± 1 LSB

AUTOMATIC integral digital calibration (based on reference voltage) Calibration:

Reference Voltage: 10.000 mV, 5 ppm/°C

Dimensions:

Width x Height x depth of Rack: 1005 x 1914 x 507 mm / 40" x 75" x 20"

Rack weight: 100 kg/220 lbs BDT1012 Unit Weight: 18 kg/39.6 lbs

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