Battery discharger

![amperis logo]

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Battery Discharger / Analyzer

- Regulator IGBT high frequency, with constant discharge current of the battery
- Rugged construction for harsh industrial applications for maximum reliability
- Compact and easily portable
- Models standards for battery voltage to 800 V
- Individual units with design for unlimited total discharge current
- Intelligent electronic protection system (including electronic soft starter, battery reverse polarity and over-temperature)
- Board programmable digital, microprocessor controlled
- It can operate with all types of batteries
- Digital display (battery voltage and current, time, capacity discharged, programmed values) Integrated data logger, computer interface
- RS-232 or USB)
- TrendCOM dedicated computer program for data acquisition and analysis, automatic generation of test reports, ability to export to external spreadsheets (MS Excel, OpenOffice Calc, etc.)
- CE certificate
- UL / CSA certified
- Compatible with the ISO9000 quality control

Description

This device is an automatic battery discharger/analyzer, designed to test the efficiency of industrial batteries of any type, voltage and capacity.

This equipment can be programmed to discharge the battery with a precisely controlled constant current, adjustable from zero to the maxium rated value, while keeping the battery voltage under control.

While the discharge is in progress, the control board measures the total capacity (Ampere-Hours) discharged from the battery. When the battery voltage reaches the minimum programmed value, or when the maximum programmed test time is reached, the unit shuts down automatically, while the measured parameters remain available to the user. This device is very simple to use and doesn't require particular training. The programming of the test requires less than 2 minutes and the operation is completely automatic.

Key Features

Electronic polarity reversal and anti-arcing protection (without fuses).

An active circuit prevents any arcing between the connectors when the battery is being connected.If a battery is connected with reverse polarity, the unit doesn't start and no current flows.

Auto-Test at power-on.

When the unit is powered, an automatic test of the control logic and power electronics is performed in less than 10 seconds. In case of components failures, the unit remains in a safe, stand-by mode.

Integrated DataLogger.

While the discharge is in progress, it's not necessary to leave a PC always connected to the unit, because the integrated DataLogger has enough memory to save the entire discharge curve. At the end of the test, it's possible to down-load the data from the unit to the PC in seconds. The standard connection interface is miniUSB. Bluetooth interface is available on request.

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Extended Analysis capability, with the TrendCOM PC software

TrendCOM is a powerful, dedicated software that extends the capabilities of this device. It offers the opportunity to generate different plots of the discharge curve:

- Battery voltage   [V]

- Discharge current   [A]

- Discharge power   [kW]

- Capacity discharged   [Ah]

- Energy discharged   [kWh]

Many functions are available, and very simple to use: it's possible to generate test reports with plots and comments automatically, to export the test data to external spreadsheets (compatible with Microsoft Excel, Openoffice CALC and others), to save a complete test to a single file and send it by email etc...

Unlimited parallel operation, managed by software.

When two or more units operate in paralel, it's possible to download all the data to Trend-COM, and to merge them into a single, complete test report.

This feature gives the opportunity to achieve an unlimited discharge power, by connecting an un-limited number of units in parallel.

Temperature protection of all the power components and resistor bank.

In case of internal overtemperature (e.g.: blocked fans, air passages obstructed) the discharger is set automatically in stand-by mode.

Double cabinet, for maximum thermal insulation.

During the operation, the external parts of the cabinet remain cold (max temperature rise is 10°C), for maximum safety for the user.

Heavy duty metal wheels, with ball bearings, covered with rubber.

The dischager can be moved easily and safely on floor, and can operate without problems in any in-dustrial environment.

Product specifications

AC INPUT

Standard voltage	Voltage range: 85-135 or 180-250 Vac Singlephase Max power: 800 Watts 50/60 Hz

STANDARD MODELS

Single units (parallelable)	Battery voltage: * -48 V	Max discharge current: &00 A	
	Battery voltage: 1* -- * V	Max discharge current: 200 A	
	Battery voltage: ' &!%) V	Max discharge current: %) 0 A	
	Battery voltage: (, -&($ V	Max discharge current: +) A	
	Battery voltage: 48-($0 V	Max discharge current: ($ A	
	Battery voltage: 48-) 00 V	Max discharge current: &) A	
	6UhhYfmj c`hU[Y. `(, !*$$`J`	A Ul`X]gW\Uf[Y W\ffYbh`%) `5	

MECHANICAL

External dimensions	483x764x326 mm	[per unit]

|	
Enclosure	2 mm steel. Four wheels kit for easy moving. RAL7032.
Cooling	Forced ventilation
CONTROL AND METERING	
Digital display	Battery voltage (Volts) Battery current (Amps) Time elapsed (hours.minutes) Programmed minimum battery voltage (Volts) Programmed maximum time of discharge (hours.minutes) Capacity discharged (ampere-hours)
Buttons and controls	Three buttons (SET, + , -) for programming and control. Display 16x2 LCD
Maximum discharge time	48 hours
PC interface	DEFAULT (MiniUSB). Optional Bluetooth PC software (ServiceMonitor) for acquisition, analysis and report.

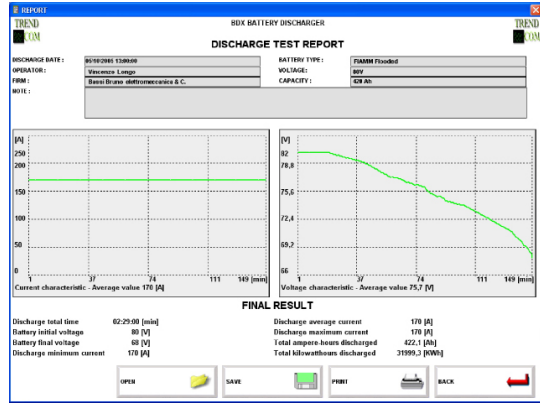Control Panel
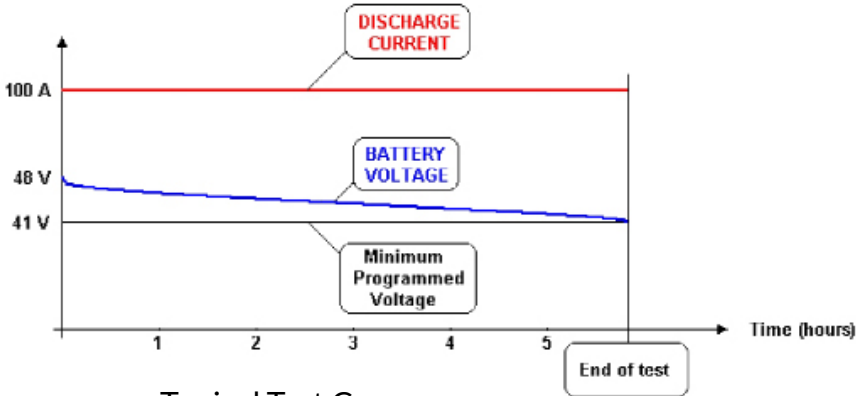
Typical Test Curves

Screenshots
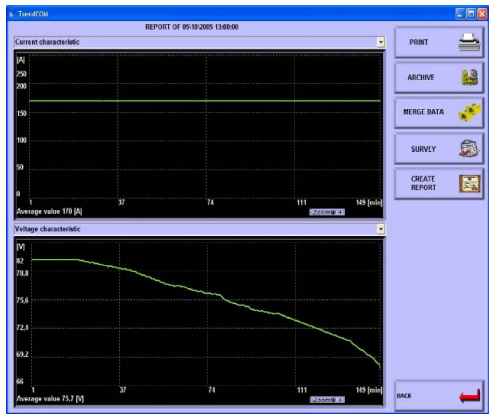
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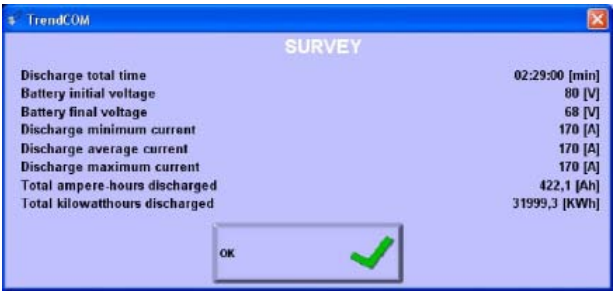
Quick Survey Tab

Automatic Test Report Generator