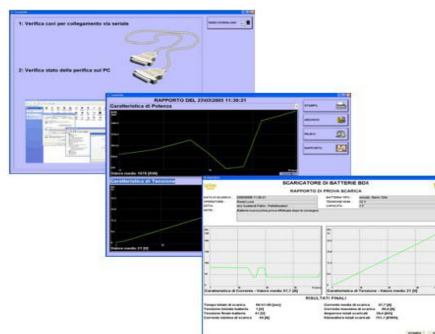




Battery Discharger / Analyzer BDX

- **High frequency IGBT regulator**, featuring constant current discharge of the battery
- **Rugged construction** for maximum reliability in heavy duty industrial applications
- **Compact and easily portable**
- Standard models for battery voltages up to **400 V**
- **Single units with paralleleable design**, for unlimited total discharge current
- **Intelligent electronic protection system** (includes soft start, battery polarity reversal and overtemperature)
- **Programmable digital board**, microprocessor controlled
- **Can operate with batteries of any type**
- **Digital display** (battery voltage and current, time, capacity discharged, programmed values)
- **Integrated DataLogger, PC interface** (RS-232 or USB)
- **Dedicated PC software TrendCOM** for data acquisition and analysis, automatic generation of test reports, export capability to external spreadsheets (MS Excel, Openoffice Calc, etc...).
- **CE certified**
UL / CSA certified
ISO9000 Quality control compliant



Description

The BDX 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 maximum 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 BDX shuts down automatically, while the measured parameters remain available to the user.

The BDX 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 BDX doesn't start and no current flows.
- **Auto-Test at power-on.**
When the BDX 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 BDX 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 BDX, because the integrated DataLogger has enough memory to save the entire discharge curve. At the end of the test, it's possible to download the data from the BDX to the PC in seconds.
The standard connection interfaces are serial (RS-232) and USB.
Wireless interfaces are available on request.
- **Extended Analysis capability, with the TrendCOM PC software**
TrendCOM is a powerful, dedicated software that extends the capabilities of the BDX. 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 BDX units operate in parallel, it's possible to download all the data to TrendCOM, and to merge them into a single, complete test report.
This feature gives the opportunity to achieve an unlimited discharge power, by connecting an unlimited number of BDX 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 BDX can be moved easily and safely on any floor, and can operate without problems in any industrial environment.

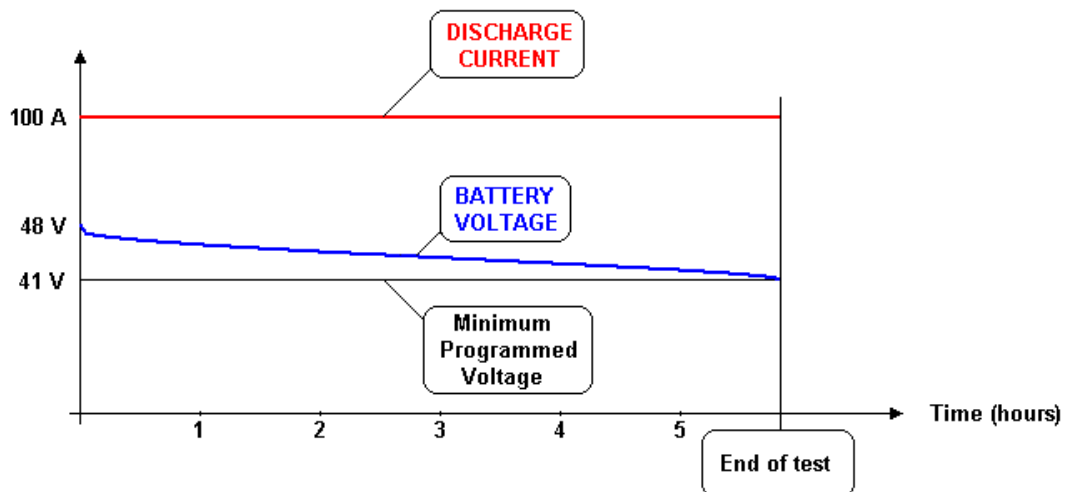
Product specifications

AC INPUT	
Standard voltage	Voltage range: 85-135 or 180-250 Vac Singlephase Max power: 250 Watts 50/60 Hz
STANDARD MODELS	
Single units (parallelable)	Battery voltage: 12-48 V Max discharge current: 100 A
	Battery voltage: 12-48 V Max discharge current: 200 A
	Battery voltage: 12-96 V Max discharge current: 200 A
	Battery voltage: 24-135 V Max discharge current: 150 A
	Battery voltage: 48-240 V Max discharge current: 75 A
	Battery voltage: 48-400 V Max discharge current: 50 A
	
MECHANICAL	
External dimensions	325 x 560 x 550(h) 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. Two potentiometers for current regulation (Coarse – Fine regulation).
Maximum discharge time	48 hours
PC interface	RS-232, USB Interface PC software (TrendCOM) for data acquisition, analysis and printing.

Control Panel

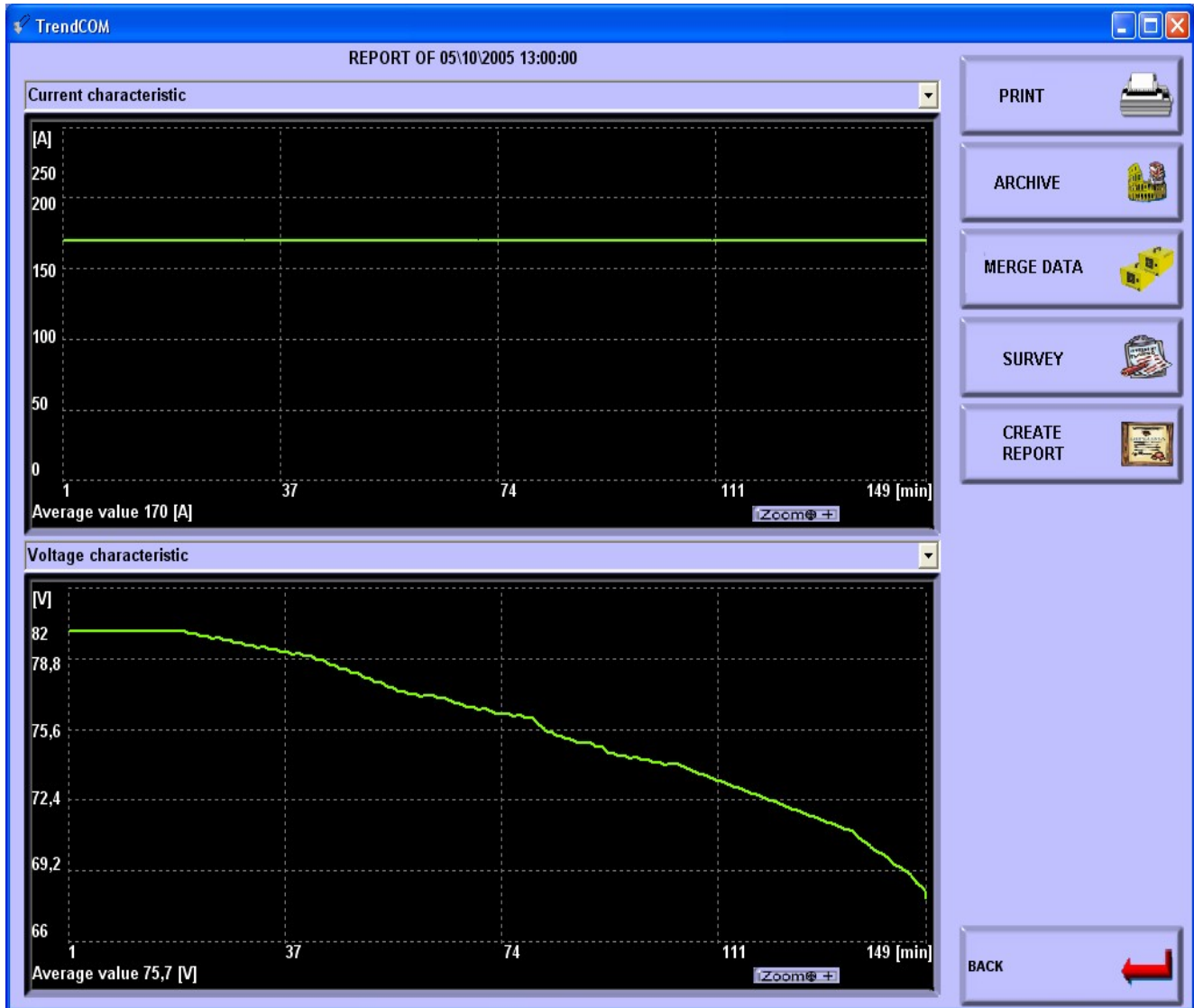


Typical test curves



TrendCOM Screenshots

Main Window



Quick Survey Tab

SURVEY

Discharge total time	02:29:00 [min]
Battery initial voltage	80 [V]
Battery final voltage	68 [V]
Discharge minimum current	170 [A]
Discharge average current	170 [A]
Discharge maximum current	170 [A]
Total ampere-hours discharged	422,1 [Ah]
Total kilowatthours discharged	31999,3 [KWh]

OK

Automatic Test Report Generator

DISCHARGE TEST REPORT

DISCHARGE DATE : 05/10/2005 13:00:00	BATTERY TYPE : FIAMM Flooded
OPERATOR : Vincenzo Longo	VOLTAGE : 80V
FIRM : Bassi Bruno elettromeccanica & C.	CAPACITY : 420 Ah
NOTE :	

Current characteristic - Average value 170 [A]

Voltage characteristic - Average value 75,7 [V]

FINAL RESULT

Discharge total time	02:29:00 [min]	Discharge average current	170 [A]
Battery initial voltage	80 [V]	Discharge maximum current	170 [A]
Battery final voltage	68 [V]	Total ampere-hours discharged	422,1 [Ah]
Discharge minimum current	170 [A]	Total kilowatthours discharged	31999,3 [KWh]

OPEN
SAVE
PRINT
BACK