



BTS/100

Battery load unit

- HIGH POWER BATTERY CAPACITY TEST SYSTEM
- DISCHARGING CURRENT UP TO 300 A
- SUITABLE FOR ALL BATTERY TYPES

Application

The most reliable method for the determination of battery capacity is to perform a discharging cycle periodically.

BTS/100 allows to perform such test combining efficiency with portability.

BTS can test any type of battery with a discharging current up to 300 A.

Two **BTS 100** load unit types are available:

BTS 100: Stand alone unit, NOT suitable for connection with external load.

BTS 100 PLUS: Stand alone unit suitable for connection with external loads **ELU/100** (optional).



BTS/100 Specification

Maximum discharging current with BTS/100 plus

Stand alone unit

BATTERY NOMINAL VOLTAGE	MAX CURRENT DISCHARGED
240 V	50 A
220 V	50 A
140 V	100 A
110 V	100 A
48 V	100 A
24 V	100 A

Maximum discharging current with BTS/100

Stand alone unit

BATTERY NOMINAL VOLTAGE	MAX CURRENT DISCHARGED
140 V	100 A
110 V	100 A
48 V	100 A
24 V	100 A

Maximum discharging current with BTS/100 plus

With 1 external load ELU 100

BATTERY NOMINAL VOLTAGE	MAX CURRENT DISCHARGED
240 V	100 A
220 V	100 A
140 V	200 A
110 V	200 A
48 V	200 A
24 V	200 A

Maximum discharging current with BTS/100 plus

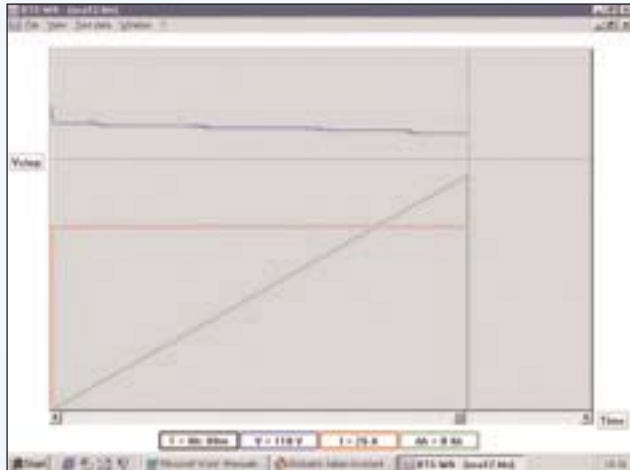
With 2 external load ELU 100

BATTERY NOMINAL VOLTAGE	MAX CURRENT DISCHARGED
240 V	150 A
220 V	150 A
140 V	300 A
110 V	300 A
48 V	300 A
24 V	300 A

- The test set shows on the large back-lighted LCD display the following test parameters:
 - . Battery voltage;
 - . Minimum voltage threshold (adjustable), with automatic stop;
 - . Discharging current;
 - . Ah (ampere-hour) discharged;
 - . Test time duration with automatic stop at time out.
- Test parameters are entered via the functional push buttons and the LCD display on the front panel.
- The discharging current is set by means of push buttons, from 1 A to 300 A, with steps of 1 A.
- Measurement of the discharging current:
 - . Range: 0 - 100 A (300 A);
 - . Display: 0 - 100 A (0 - 300 A with external loads);
 - . Accuracy: $\pm 1\%$ of the value, $\pm 0.2\%$ of the range.
- Constant discharge current, independently from the discharge voltage. The unit regulates automatically the load during the entire test.
- Setting of the minimum voltage threshold, from 0 to 200 V with step of ± 1 V.
- Measurement of the battery voltage:
 - . Range: 0 - 300 V;
 - . Display: 0 - 99.9 or 0 - 999 V; auto-ranging;
 - . Accuracy: $\pm 1\%$ of the range, $\pm 0.2\%$ of the range.
- Measurement and display of the discharged ampere-hour.
- Setting of the maximum testing time: from 0 to 9h:59' with 1' steps.
- Automatic stop functions:
 - . Minimum voltage threshold;
 - . Time out (Max. 9h.59');
 - . Internal over-temperature.
- Serial interface: RS 232.

Software BTSWA

The software BTSWA, that runs within Windows 3.1 or 95 and allows to control the BTS 100 with a Lap Top PC.



The Software BTSWA performs the following features:

- . Set the BTS 100 testing parameters;
- . Display on the PC screen the following parameters in graphic and tabular form:
 - .. Battery voltage;
 - .. Current discharged;
 - .. Ampere-hour discharged;
 - .. Time – Test duration.
- . It manage the BTS alarms;
- . When the test is completed it is possible to save the results and to print it both in graphic and tabular form.

External load ELU/100 (optional)

When higher load current is necessary, it is possible to use the BTS/100 PLUS in connection with 1 or 2 external loads ELU/100.

ELU/100 is a resistive extra loads that allows different configurations, in order to set the discharging current at different voltage levels.

BTS/100 PLUS allows the connection up to 2 external loads ELU/100.

Protections

Fuse on the power supply.

Thermal protection. It stops the current discharge of the batteries and displays the message

"STOP OVER-TEMPERATURE" on the LCD display.

Protection against the wrong battery polarity, with message on the display: "WRONG POLARITY".

Case

BTS 100 Aluminium case with covers and carrying handle for the transport.

ELU/100 External Load (Optional): Aluminium case with covers and carrying handle for the transport.

Weight and dimensions

BTS/100 AND BTS/100 PLUS

Dimensions: 600x 340 x 530 mm;
(with aluminum case).

Weight: 34 kg (with aluminum transport case).

ELU/100 (optional)

Dimensions: 600x 340 x 530 mm
(with aluminum case).

Weight: 28 kg;

Accessories supplied with the unit

Transit case with handles.

Power supply cable.

No. 2 x 5 m cables 25mm, terminated with crocodile clamps.

Software BTSWA.

Serial interface cable.

Operating Manual.

Applicable Standards

Electromagnetic compatibility

Directive no. 89/336/CEE dated May 3, 1989, modified by the directive 92/31/CEE dated May 5, 1992.

Applicable Standards:

EN 50081-2; EN 50082-2; EN 55011;

EN 61000-3-3; EN 50082-2; ENV 50140; ENV 50141;

ENV 50204; IEC 1000-4-2; IEC1000-4-4; IEC 1000-4-6; IEC 1000-4-8.

Low voltage directive

Directive n. 73/23/CEE, modified by the directive 93/68/CEE.

Applicable standards, for a class I instrument, pollution degree 2,

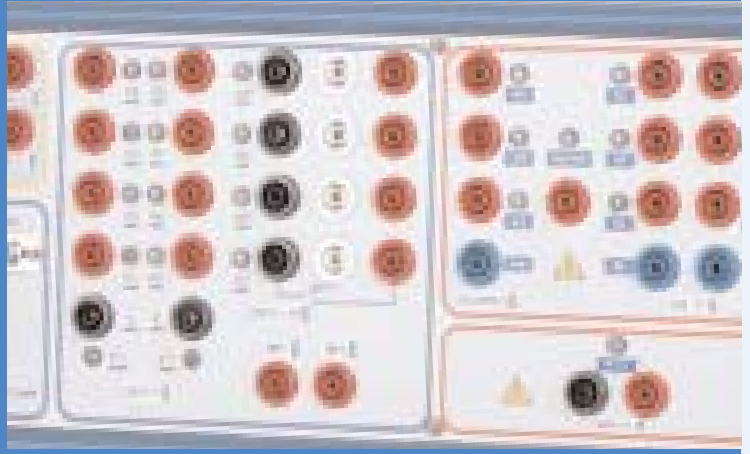
Installation category II: CEI EN 61010-1.

In particular:

Operating temperature: 0 - 45°C;

storage: -25°C to 70°C.

Relative humidity: 10 - 80% without condensing.



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