Battery Resistance Tester

IBAR Series

- Handheld and lightweight device
- Battery resistance measurement range: 0 - 5 Ω
- Voltage measurement range: ± 60 V
- Quickly records and stores internal resistance, float voltage, and inter-cell connection resistance.
- Auto range mode for automatic detection of resistance range.
- Support tool during capacity test for cell voltage measurement.
- Detailed test results analysis

Description

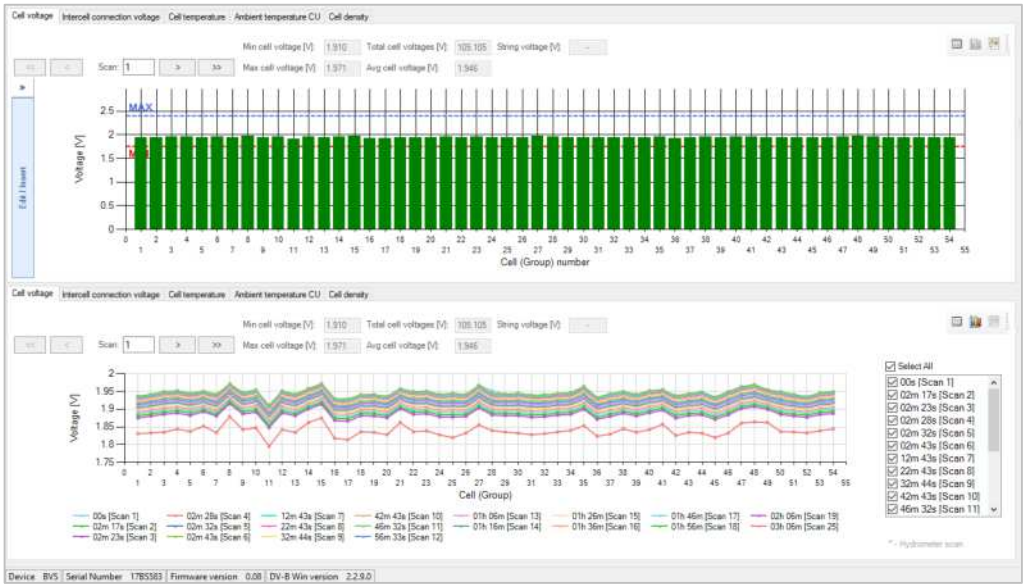
The Battery Resistance Tester IBAR is an ideal tool for periodic inspections, maintenance, troubleshooting and performance testing of individual stationary batteries up to 4000 Ah used in critical battery applications. IBAR determines the health of stationary batteries by performing measurements of internal resistance and voltage as well as intercell connection resistance values. Measurements obtained by IBAR, along with cell temperature and specific gravity data can provide detailed analysis and evaluation of overall health of batteries. Readings are taken within two seconds, using the included pin probes.

IBAR allows the user to quickly and easily define upper and lower measurement thresholds or tolerance ranges. During the testing process, measured values are automatically compared to the predefined threshold limits producing a PASS, FAIL or WARNING indication. All the test data is automatically stored in the devices' internal memory for further analysis.

Application

The list of the instrument's application includes:

- Quick verification of stationary lead acid batteries' state of health and battery trending analysis
- Simultaneous measurement of battery internal resistance and voltage (U+R mode)
- Measurement of intercell connection resistance for verification of battery inter-cell connections
- Serve as a support tool for cell voltage measurement during the capacity testing



application functions – Scan view and Line graphs for individual cells

Technical Data

Mains Power Supply

Battery

- Type 2 Cells – 2900 mAh Li-Ion
- Voltage 7,4 V
- Charge time 6 hours

AC Adapter

- Input voltage: 90 to 264 V AC, 50/60 Hz
- Output voltage 12 V DC
- Output current 3 A

Resistance measurement

Range	Test current	Accuracy
<5mΩ (1 uΩ res.)	150 mA	±1,0%rdg ± 0,1%FS
5mΩ -50 mΩ (10 uΩ res.)	150 mA	±0,8%rdg ± 0,1%FS
50 mΩ -500 mΩ (100 uΩ res.)	15 mA	±0,8%rdg ± 0,1%FS
500 mΩ - 5 Ω (1 mΩ res.)	1,5 mA	±0,8%rdg ± 0,1%FS

Voltage measurement

Range	Resolution	Accuracy
±6 V	1 mV	±0,1% rdg.± 0,1%FS
±60 V	10 mV	±0,1% rdg.± 0,1%FS

Display

- Type: FSTN-LCD 2.8 in
- Format: 128 x 64 Dots
- Outline dimension:
- 70.0(W)x50.0(H)x5.8(T)mm
- Active Area: 63.95 (W) x 31,65 (H) mm

Communication

- USB: Device to PC

Memory

- Internal flash memory: 64 Mbit

Real time clock

- Precision: ±5 seconds per month
- Calendar: 100 year with leap year detection
- Time retention: 10+ years (battery removed)

Environment conditions

- Temperature:
  -10 °C to +45 °C / 14 °F to +113 °F
- Maximum relative humidity 95 % for
  Temperatures up to 31 °C, decreasing
  Linearly to 40 % relative humidity at 55 °C

Dimensions and Weight

- Dimensions (L x W x D):
  223 mm x 98 mm x 46 mm
  8.77 in x 3.85 in x 1.81 in
- Weight: 0,5 kg / 1.1 lbs

Warranty

- Three years

Applicable Standards

- Installation/overvoltage: category II
- Pollution: degree 2
- Safety: LVD 2014/35/EU (CE Confirm)
  EN 61010-1
- EMC: Directive 2014/30/EU (CE Confirm)
  Standard EN 61326-1:2006
- CAN/CSA-C22.2 No. 61010-1, 2nd edition,
  Including Amendment

All specifications herein are valid at ambient temperature of + 25 °C and recommended accessories.
Specifications are subject to change without notice.

Accessories

IBAR Test lead set

Zero Calibration Board