

Battery Voltage Recorder **BVR20**

- Lightweight - only 0,6 kg (1.3 lbs)
- Cell voltage measurement ranges:
 $\pm 2,35$ V; ± 7 V; ± 30 V
- Temperature measurement
- Electrolyte density measurement
 (communicating with external Density Meter)
- RFID cell recognition
- Detailed test analysis using DV-B-Win software



Description

Battery Voltage Recorder BVR11 is a handheld device intended specifically for measuring battery voltage and temperature. BVR20 can be used when battery is working in either online or offline mode. When used in combination with BLU Battery Load Unit series, it serves as an efficient supplement to battery capacity testing. The BVR20 can also provide data on the density of the electrolyte by communicating with an external Density Meter over an infrared (IR) link. An additional feature is the cell tags reading, enabling cell recognition over Radio Frequency Identification (RFID).

This device is simple and easy to use with storing measurement results. All measurements are time and date stamped. It supports a fast and easy data transfer to external PC over USB cable. Future analysis of data transferred to a PC is possible by using DV-B Win set of software applications.

This device is equipped with keyboard and graphical 3.1 touch-screen display. BVR20 provides voltage measurement completion info indicated with a sound signal.

Application

The list of the instrument application includes:

- Cell voltage measurement for all standby battery strings
- Cell temperature measurement
- Cell tag reading providing cell recognition
- Communication with an external Density meter over IR link

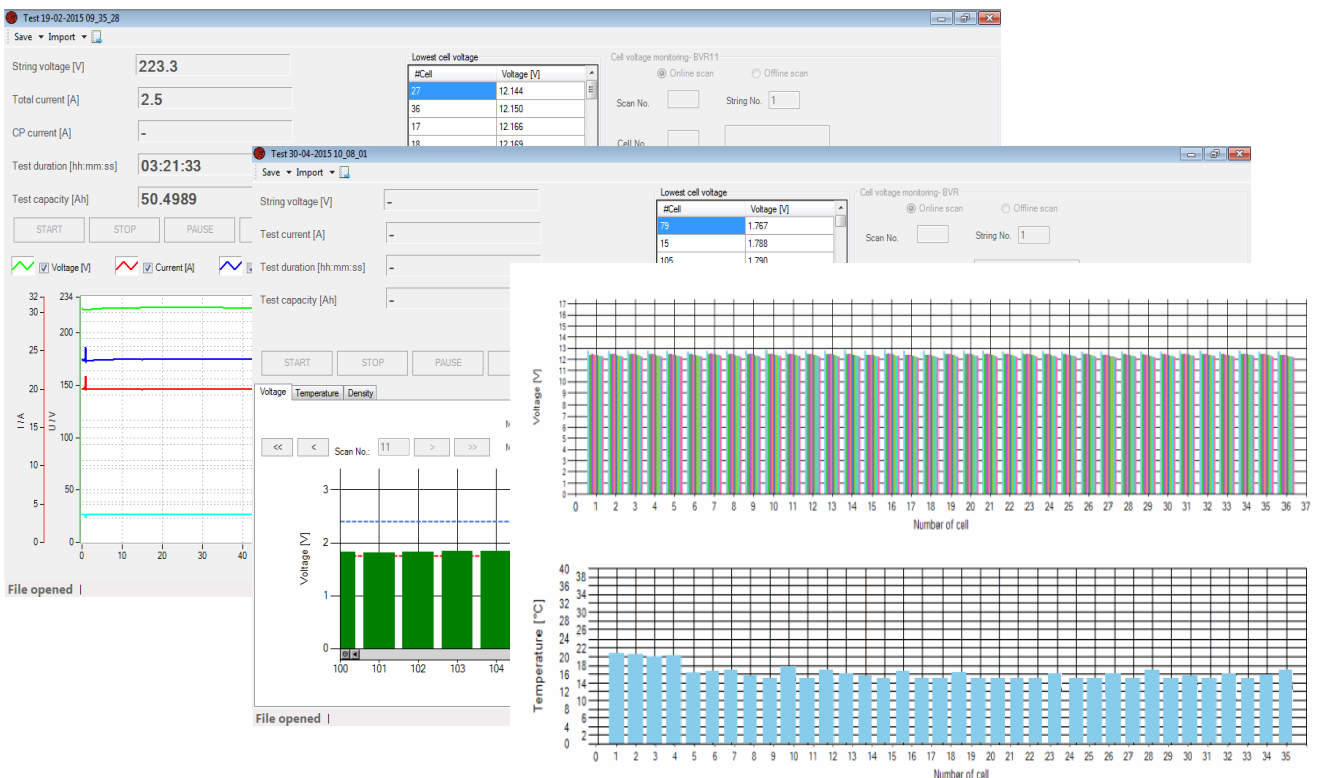
Connecting BVR20 to a battery



DV-B-Win Software

Using DV-B-Win software application suite results can be presented in tables and/or multiple graph forms. They can be arranged and printed for a report in a selectable format as an Excel spreadsheet, PDF, Word or ASCII format. Additionally, importing other types of data formats (jpeg, png, doc) into standardized DV-B

Win report is provided, as well as exporting numerical and graphical results from DV-B Win into customizable reports. Also, the system application provides an alarm notification when detecting cells with voltage exceeding preset threshold values. DV-B Win enables the user to retrieve historic data on every individual cell.



DV-B Win application functions – String view, Battery Scan and Test Report Graph

Technical Data

Mains Power Supply

Battery

- Type 2 Cell – 2600 mAh Li-Ion
- Voltage 3,7 V
- Charge time 6 hours

AC Adapter

- Input voltage 90 – 264 V AC, 50/60 Hz
127- 370 VDC
- Output voltage 12 V DC
- Output current 0,5 A

Measurement

- Cell voltage measuring range: 0 – 30 V DC

| Measuring range | Typical accuracy | Resolution |
|-----------------|--------------------------|------------|
| ±2,35 V DC | ± (0,05% rdg + 0,05% FS) | 1 mV |
| ±7 V DC | ± (0,05% rdg + 0,05% FS) | 1 mV |
| ±30 V DC | ± (0,05% rdg + 0,05% FS) | 1 mV |

- Temperature:
-50 °C - +260 °C / -58 °F - +500 °F

Display

- Type: TFT LCD 3.1 in
- Viewing Area:
43,2 mm x 57,6 mm / 1.8 in x 2.3 in
- Resolution: 320 x 240 pixels

Communication

- Infrared: IRDA for Density Meter
- USB: Device to PC connection
- RFID: Tags for cell recognition

Memory

- Internal: 2 GB SD Card

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 - +45 °C / 14 °F - +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):
253 mm x 116/89/96 mm x 46/36 mm,
10 in x 4.6/3.5/3.8 in x 1.8/1.4 in,
- Weight: 0,6 kg / 1.3 lbs,

Warranty

- Three years

Applicable Standards

- Installation/overvoltage: category II
- Pollution: degree 2
- Safety: LVD 2006/95/EC (CE Confirm)
EN61010-1
- EMC: Directive 2004/108/EC (CE Confirm)
Standard EN 61326-1:2006
- CAN/CSA-C22.2 No. 61010-1, 2nd edition,
including Amendment1

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



Voltage sense cables

PT 100 temperature indicator

Order Info:

| Instrument with included accessories | Article No |
|--|--------------|
| Battery Voltage Recorder BVR20 | BVR20X-NN-00 |
| DV-B-Win software including mini USB cable | |
| Transport bag and carrying belts | |
| Power supply adapter | |

| Recommended | Article No |
|-----------------------------|--------------|
| RFID tags 20 pcs | RFIDB-020-00 |
| Sense cables | S2-0122-BPBP |
| PT100 temperature indicator | TI-000-PT100 |