

- Battery Load Units – **BLU Series**
- Battery Voltage Recorders – **BVR Series**
- Battery Voltage Supervisors – **BVS Series**
- Universal Battery Chargers – **BAC Series**

With this set of instruments, a user can collect, analyze and present various battery status information, such as:

Instrument \ Parameter	BLU Series	BVS Series	BVR Series	BAC Series
Capacity	•			
Intercell connection voltage		•		
Internal resistance measurements	•	•		
Cell/ambient temperature measurement		•	•	•
Voltage of each cell		•	•	
Recharging procedure				•
Short circuit current estimation	•	•		

Every device from this portfolio includes DV-B Win set of software application tools providing data gathering, storing, analysis and generation of test reports.

Battery Load Unit (BLU)

BLU series of devices are designed for measurement of battery capacity using the most advanced power electronics to control different discharging modes. BLU units are portable, easy to use and include a set of DV-B Win software application tools for Windows based PC.

The BLU devices come with an internal memory for saving test data, as well as a flash drive port and a USB cable for an easy data transfer. In addition, they are equipped with a keyboard and graphical color display for user-friendly interaction.

All BLU devices are backed with 3 years manufacturer’s warranty.

Main Features

- Lightweight – up to 15 kg/ 33 lbs
- Powerful – up to 20 kW discharge power
- Operation modes: Constant I/ Constant P/ Constant R
- User selectable load profile operation mode
- No need to disconnect batteries from the load
- Test settings can be altered during a discharge test
- Easily expendable for larger battery strings using BXL-A
- Parallel unit operation enabled
- Adjustable alarm and shut down parameters
- Overcurrent and over thermal protection
- Detailed test analysis available by using DV-B Win
- Battery internal resistance measurement – in combination with Battery Voltage Supervisor (BVS) according to IEC 60896



BLU Series – Standard Models

Model	Weight	Maximum discharge current							
		6 V	12 V	24 V	48 V	60 V	110/120 V	220/240 V	480 V
BLU200A	15 kg/33 lbs	50 A	100 A	200 A	200 A	120 A	120 A	70 A	-
BLU100K	12,5 kg/26 lbs	40 A	80 A	160 A	160 A	120 A	100 A	50 A	-
BLU260V	15 kg/33 lbs	50 A	100 A	200 A	200 A	120 A	120 A	70 A	40 A
BLU220T	15 kg/33 lbs	70 A	150 A	300 A	300 A	-	-	-	-
BXL - A	12,5 kg/26 lbs	80 A	160 A	320 A	250 A	110 A	160/180 A	90 A	

Battery Extra Load Unit (BXL-A)

The BXL-A is a Battery Extra Load Unit that can be used in a combination with the BLU device as an additional load. In case the higher discharge currents are required, several BXL units can be connected in parallel.

Battery Voltage Recorder (BVR)



Battery Voltage Recorders are rechargeable handheld devices for measurement of battery voltages and temperatures while battery is in either online or offline mode. When the BVR is used in a combination with the BLU device, it serves as an efficient supplement to the battery capacity testing.

BVR measures and records cell voltages instantaneously, in less than one second. DV-B Win software application tool set is provided with both BVR unit types to save and analyze data, easily identify bad cells, and create reports.

Technical Specifications

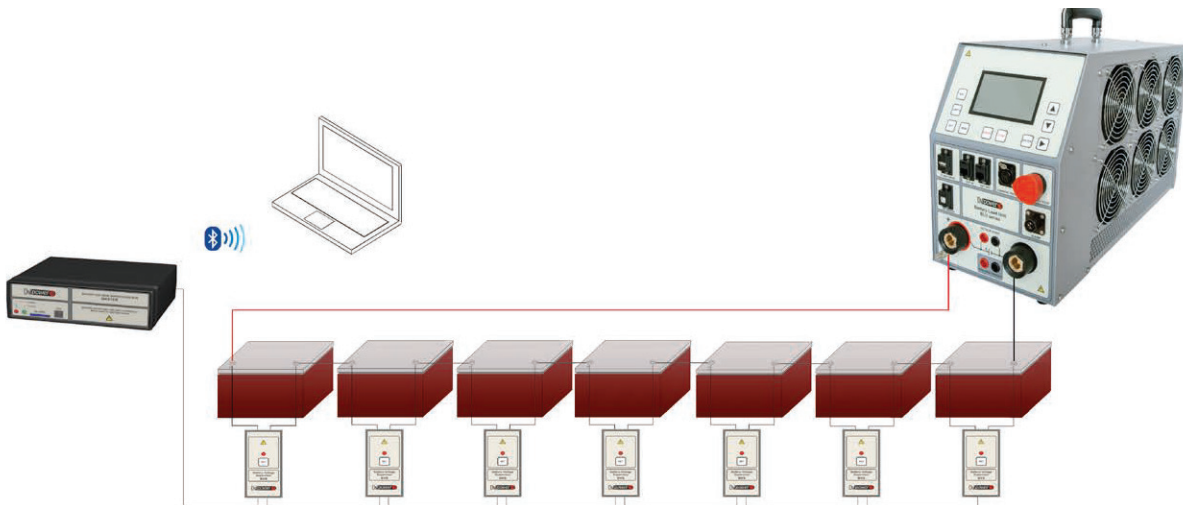
	BVR11	BVR20
Parameters Measured	Voltage, ambient temperature	Voltage, cell/ambient temperature
Measurement range	String Voltage: ± 500 V DC Cell Voltage: ± 30 V DC	Voltage: ± 30 V DC
Resolution	String Voltage: 100 mV Cell Voltage: 1 mV	Voltage: 1 mV
Typical accuracy	$\pm (0,05\% \text{ rdg} + 0,05\% \text{ FS})$	$\pm (0,05\% \text{ rdg} + 0,05\% \text{ FS})$
Warranty	3 years	3 years
Data Transfer	Bluetooth USB Cable to PC	USB Cable to PC
Internal Storage	1000 results	1000 results
Weight	0,5 kg / 1.1 lbs	0,6 kg / 1.3 lbs
Additional features	String voltage measurement RFID cell recognition	Communicating with external Density meter

Battery Voltage Supervisor (BVS)

BVS is a monitoring system for real-time battery voltage recording and presentation. It consists of one or more BVS Modules (BVS M) and the Control Unit (BVS CU). A Power supply of each module (BVS M) is provided from the Control Unit (BVS CU). The BVS identifies potential battery malfunction by continuously monitoring cell voltage, intercell voltage, and temperature of each cell in a battery string.



It can be used during a battery charging/discharging process, as well. If used in a combination with the BLU device, the user can perform additional tests: measurements of a battery internal and intercell connection resistances as well as a short circuit current estimation.



Data acquisition and extensive analysis tools are using the DV-B Win software application set.

Main Features

- Lightweight and very easy to install and operate.
- Measures cell voltages of up to ± 30 V
- Bluetooth communication between the master unit and a PC.
- Sampling rate interval is user selectable.
- In a combination with the BLU series devices, according to IEC 60896 standard:
 - Internal resistance measurement
 - Intercell connection resistance measurement

Universal Battery Charger (BAC)

Battery charger BAC25 is a portable battery charger used for charging primarily lead acid and Ni-Cd batteries. **Main applications are:**

- Support the main charger in in faster battery recharging
- Serve as a replacement unit to the main battery charger

BAC25 device is equipped with thermal and overcurrent protection.

Main Features

- Lightweight – only 10 kg/ 22 lbs
- Voltage range: 10 – 300 V DC
- Current range up to 25 A DC
- Typical voltage accuracy $\pm (0,25 \% \text{ rdg} + 0,25 \% \text{ FS})$
- Adjustable alarm and shutdown parameters for preventing excessive charge
- Automatic switch from equalized charging mode to float charging mode upon reaching the voltage limit
- Over voltage protection
- Parallel unit operation deployed for higher charging currents



Technical Specifications

Voltage (V DC)	Current (A DC)	Equalize voltage (V DC)		Float voltage (V DC)	
		Lead-Acid	Ni-Cd	Lead-Acid	Ni-Cd
12	Up to 25	14	15	13	14
24	Up to 25	29	30	27	28
48	Up to 20	57	60	54	56
60	Up to 20	72	75	68	70
110/120	Up to 15	133/145	140/150	125/135	130/140
220/240	Up to 10	263/290	275/300	148/270	250/280

DV-B Win Software

All DV Power battery testing instruments include “DV-B Win” software application tools based on the Windows operating system. The applications provide a friendly user interface as well as data management features such as data acquisition, test control, test result analysis and report generation.

Main Features

- Test monitoring and control
- Test data acquisition
- Previous test cases data import
- Data management
- Data analysis
- Data export
- Report generation
- Battery monitoring

