

## BLU SERIES

### Battery Load Units

- Lightweight – starting from 12,8 kg (28.2 lbs)
- Powerful – discharge power of up to 28,4 kW
- Voltage measurement range: 0,9 - 500 V DC
- Discharge current – up to 350 A DC
- Easily expandable for larger banks using BXL extra load units
- Discharge test of single Lead-acid, Ni-based and Li-ion cell
- Adjustable alarm and shutdown parameters for preventing excessive discharge
- Enables testing batteries while in service
- Detailed test analysis using DV-B Win software
- Test resume feature in case of interrupted power supply



#### Description

Batteries are crucial part to the overall reliability of a substation. During the power outage many electric power objects/systems, such as power plants and generator excitation systems, should continue operating using batteries. Inability of a battery string to provide a sufficient voltage/power supply to protection circuits may lead to catastrophic consequences to the substation equipment. Therefore, it is necessary batteries to be inspected regularly in order to monitor their condition and maximize their life-time. The essential and most reliable test for a condition assessment of a battery health is the capacity measurement test. The best way to measure battery capacity is to perform a discharge test.

The Battery Load Units - BLU series are stand-alone or PC-controlled battery capacity test set, based on a state-of-the-art technology, using the

most advanced power electronics solutions with coolers and fans integrated into device.

The BLU series devices are lightweight solution for the test engineers from all around the world, developed to meet customer's wide ranging test procedures (standardized as well as customized). Using a BLU device, the capacity test is performed in an accurate, user-friendly way in accordance to actual standards for battery testing (IEEE 450-2010 / 1188-2005 / 1106-2015, IEC 60896-11/22 and other relevant standards).

Discharging can be performed at constant current, constant power, constant resistance or in accordance with a pre-selected load profile. The discharge test can be conducted even in case a battery remains connected to the load – by measuring and taking into account the load current during the process.

The BLU series devices provide the discharge current of up to 350 A and are applicable to up to 500 V battery voltages.

Values of voltage, current / power / resistance, capacity and elapsed time are displayed on touch screen display during the test. The instrument will keep the preset current / power / resistance constant during the test (no manual corrections during the test are required).

When a required discharge current or power exceeds the capacity of a single BLU device, several BLU devices can be connected in

parallel. Alternatively, External Load Units BXL series can also be used to increase discharging capacity. Combined with Battery Voltage Supervisor BVS and Battery Voltage Recorders BVR, BLU series devices are powerful tool which enables performing detailed evaluation of batteries. Overview of the maximum currents for various battery voltage ranges with the minimum achievable cell voltage of 1,75 V is presented in the table below. Maximum currents available by using BXL series devices are also presented in the table.

Maximum discharge current (A)											
Battery voltage (V)		BLU100L	BLU100A	BLU200A	BLU340A	BXL-A	BLU110T	BLU220T	BXL-T	BLU360V	BXL-V
Nom.	Min/Max										
1,2	0,9	-	-	-	-	-	100	-	-	-	-
	1,5										
2,0	1,75	-	-	-	-	-	100	-	-	-	-
	2,35										
3,7	3,0	50	-	-	-	-	100	-	-	-	-
	4,2										
6	5,25	40	40	60	50	59	100	100	74	50	11
	7,05					80			100		15
12	10,5	80	80	120	100	119	150	200	156	100	22
	14,1					160			210		30
24	21,0	160	160	240	160	186	150	350	230	160	48
	28,2					250			310		65
48	42,0	160	160	240	160	186	150	350	230	160	96
	56,4					250			310		130
60	52,5	120	120	210	160	81	120	270	185	160	122
	70,5					110			250		165
110	96,3	110	110	140	160	119	-	-	-	160	89
	129,3					160					120
120	105,0	100	100	140	150	134	-	-	-	150	96
	141,0					180					130
220	192,5	55	55	75	110	67	-	-	-	110	78
	258,5					90					105
240	210,0	50	50	70	100	67	-	-	-	100	85
	282,0					90					115
480	300,0	-	-	-	-	-	-	-	-	65	30
	410,0										41
	410,0									55	41
	500,0										50
<b>Weight (kg / lbs)</b>		12,8 / 28.2	12,8 / 28.2	14,5 / 32	20,6 / 45.4	12,5 / 28	12,8/28.2	15,1 / 33	12,5 / 28	20,6 / 45.4	16 / 35
<b>Max Power (kW)</b>		14,2	14,2	19,7	28,4	25,4	8,5	19,2	17,9	28,4	32,4

## Application

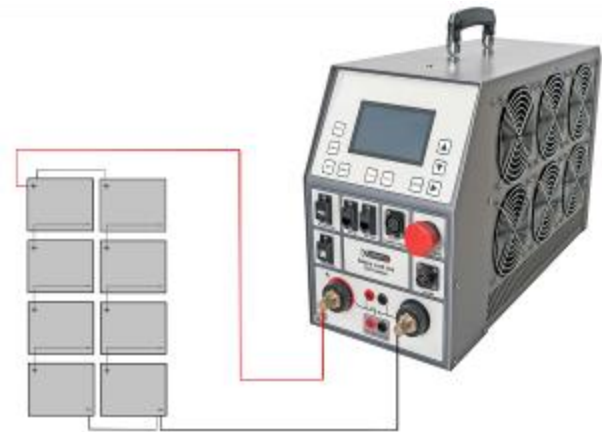
Typical application is measuring the capacity and full voltage of the batteries that serve as a backup power supply in (but not limited to):

- Power plants
- Telecommunication systems
- Generator excitation systems
- Substations
- Protection and control systems

## Connecting BLU to Battery

### Single mode

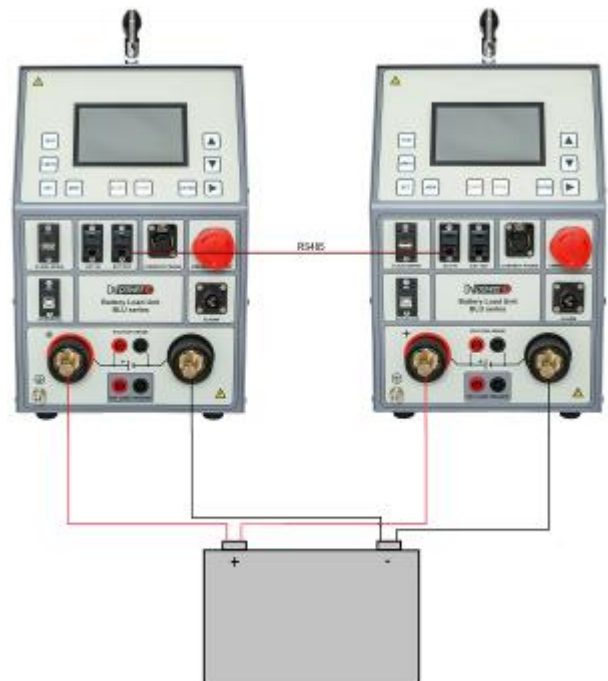
The BLU device can be connected to any battery test object by using a set of current cables and, optionally, a set of voltage sense cables. To maximize the accuracy and measurement repeatability, all clamps must have good connection to the battery terminals while any crossing between the cables should be avoided. The BLU displays an appropriate message if connection between a cable clamp and the corresponding battery terminal is not established.



### Parallel discharge test mode

In case the required discharge current or power exceeds the capacity of a single BLU device, several (up to ten) devices can be connected in parallel.\*

Connection between BLU devices is established by using Ethernet ports and RS485 communication. The communication is based on a MASTER-SLAVE principle – arbitrary selected device is set as MASTER while all the other BLU devices should be set as SLAVE units. In the parallel connection the MASTER will discharge as much energy as possible; the remaining energy (discharge current / discharge power) will be discharged on the first SLAVE unit in a chain. If MASTER and the first SLAVE does not have capacity to cover the discharge requirements, the remaining energy will be discharged on the next SLAVE in a chain, etc.

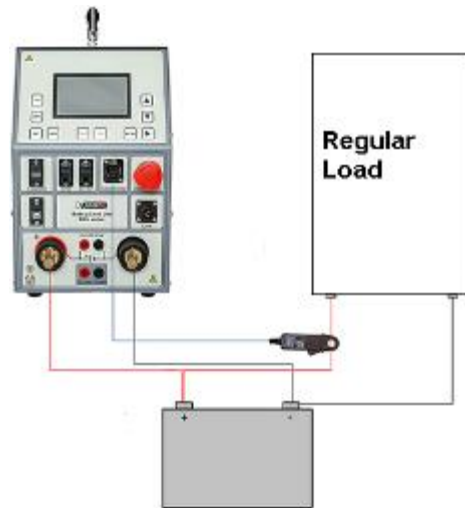
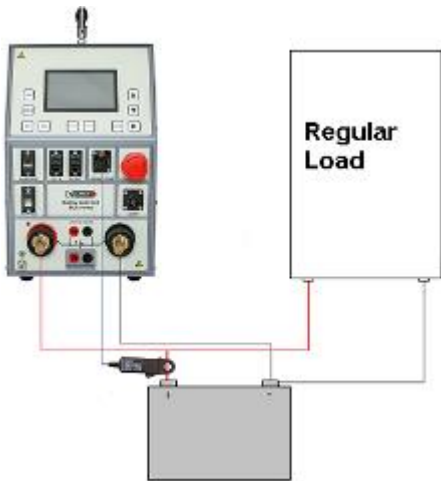


\* BLU100A, BLU100L & BLU110T models do not support testing in parallel discharge mode.

### Current Probe mode

In case the battery has to remain connected to the load, or an Extra Load BXL needs to be connected due to increase in discharge power, the discharge test needs to be carried out using the Current Probe CP MODE.

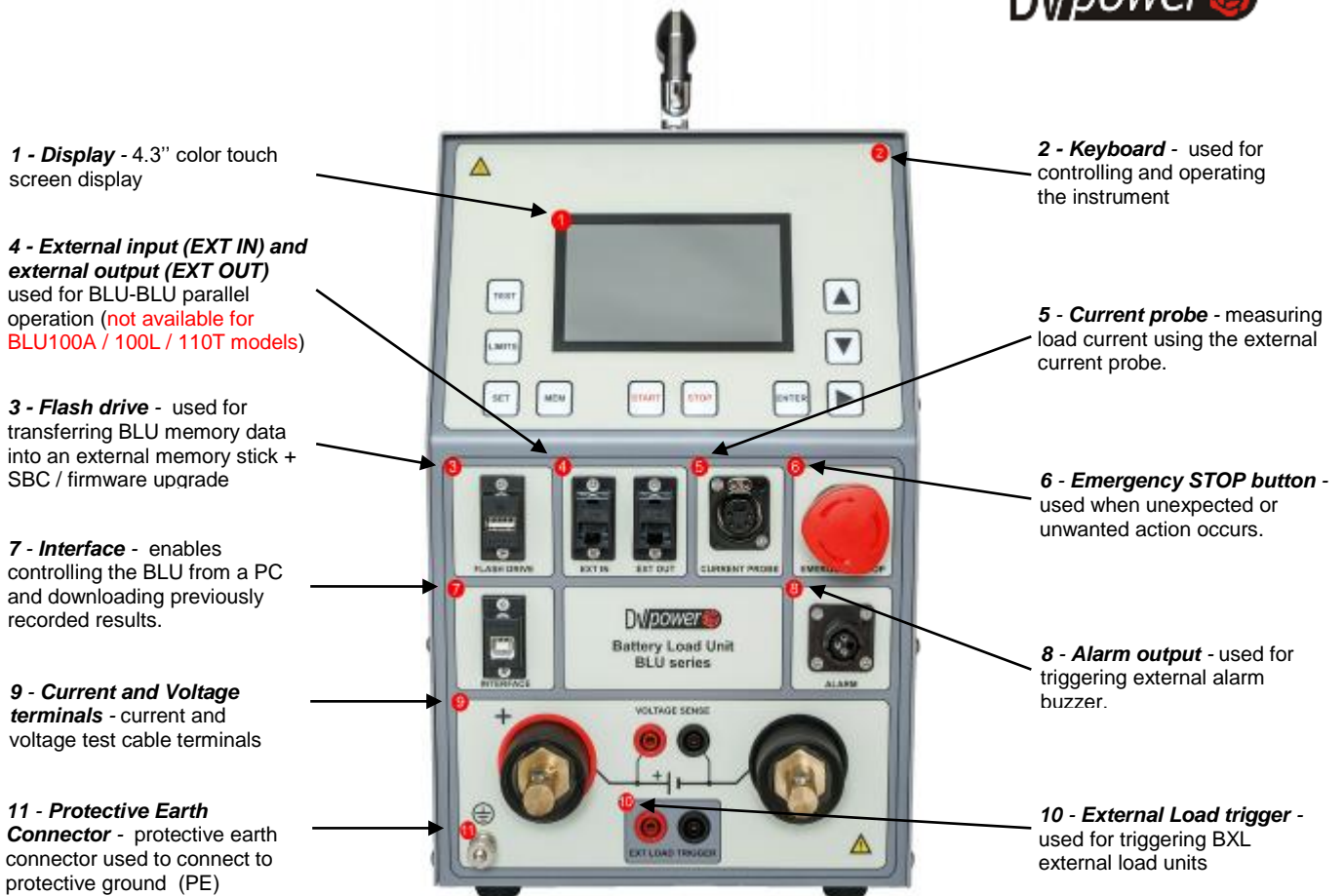
In this mode the measurement will be based either on the total battery current or a load current being measured by the DC current probe. The current probe connection point, for both modes, are illustrated in the figures below.



### Benefits and Features

The list of the instruments application, benefits and features includes:

- Battery capacity measurement by conducting a discharge test, in compliance with corresponding IEEE, IEC and other relevant standards
- *Constant I*, *Constant P* and *Constant R* operation modes
- Several Load profile operation modes: *Load profile I*, *Load profile P* and *Load profile R*, enable simulating load characteristics variation during a discharge test
- Parallel operation feature (*not provided for BLU100L, BLU100A and BLU110T models*)
- Current probe mode enables conducting discharging test while a load remains connected or when BXL units or any other load units in the market are used
- Test settings can be modified during the test
- Discharge test of single Lead-acid, Li-ion cell and Ni-based cells
- Adjustable alarm and shutdown parameters for preventing excessive discharge
- If supported by a Battery Voltage Recorder BVR Series, additional features of cell voltage and cell temperature measurement are available
- The total voltage and capacity curve, as well as numerical values are recorded in the unit's internal memory after a test. The results can easily be transferred to personal computer or laptop for storage, printout or export purposes.
- Using the DV-B Win software (on a personal computer or laptop), graphical (curves) and numerical values of current / power / resistance, capacity, voltage and elapsed time are displayed and can be observed in real-time.



## Combining BLU and BVR22

Battery Voltage Recorder Series BVR22 is a lightweight, user-friendly, rechargeable handheld device intended for individual battery cell voltage and temperature measurement while the battery is either in online or offline mode. When used in combination with the BLU device it serves as an efficient supplement to the battery capacity testing.

Options and features of the BVR22 model are presented in the table below.

	<p><b>Parameters Measured</b></p> <ul style="list-style-type: none"> <li>- String and cell voltage, cell (electrolyte)/ambient temperature, DC current measurement using current clamps.</li> <li>- Simultaneous string voltage and DC current measurement</li> <li>- Bluetooth communication with external Density Meter</li> </ul> <p><b>Measurement range</b></p> <ul style="list-style-type: none"> <li>- String / Cell Voltage: <math>\pm 600</math> V DC</li> <li>- Current / Intercell voltage: <math>\pm 1</math> V DC</li> </ul> <p><b>Data Transfer:</b> Bluetooth and USB to PC</p>
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## Combining BLU and BVS

DV Power battery voltage supervisor – BVS, is an accurate battery voltage monitoring system that monitors the state of health of battery systems. It records important battery parameters such as battery voltage, inter-cell connection voltage, and ambient temperature. Because of that, it can be a support tool for BLU during

capacity testing. There are two types of DV Power battery voltage supervisors:

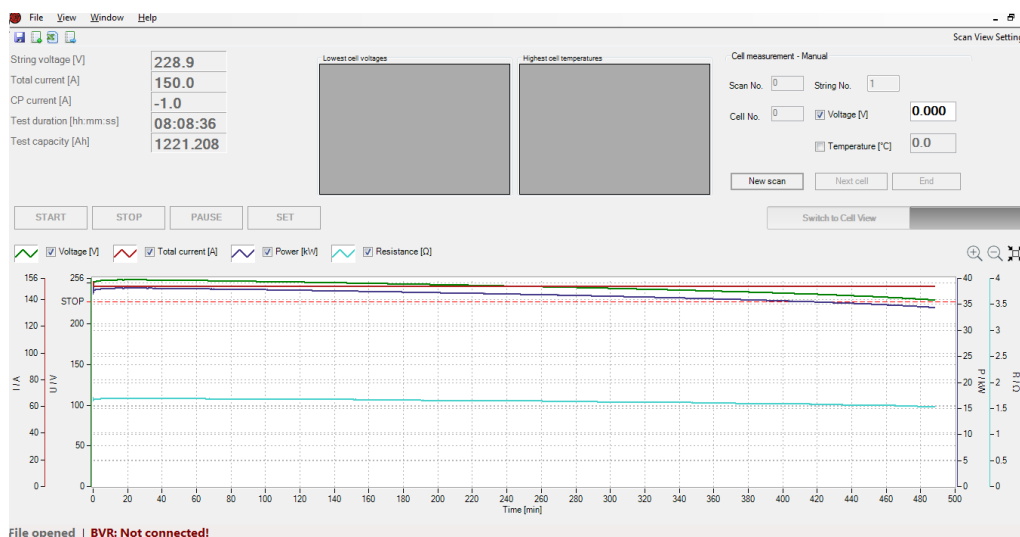
- BVS – One cell voltage module measures 1 cell
- BVS-4 – One cell voltage module measures 4 cells

Series	BVS	BVS-4
Picture		
No. of Measured Cells	One module measures one cell	One module measures four cells
Inter-cell Connection Voltage	✓	✗
Cell Temperature	YES (one temperature channel per cell)	YES (one temperature channel per 4 cells)
Ambient Temperature	✓	✓

## DV-B Win Software


The DV-B Win software is included in the purchase price, and all its updates are free of charge. Using the DV-B Win software a test can be controlled, performed and observed from a PC (or notebook), and the results can be saved directly on a PC (or notebook). Communication between the BLU and a PC (or notebook) is achieved through a USB cable. Using DV-B Win the results can be arranged and printed for a report in a selectable format as an XLS, PDF,

Word, or RTF format. Also, the possibility of importing other types of data format (jpg, png, doc) into standardized DV-B Win report is provided, as well as exporting the numerical and graphical results from DV-B Win into customizable report. Additionally, the software provides a possibility of setting extra parameters (cell voltage, string voltage, capacity and time) for alarming and ending the test.




## BLU Series - models


### BLU100L

	<ul style="list-style-type: none"> <li>• applicable to 3 V – 300 V DC battery voltages</li> <li>• weight – 12,8 kg (28.2 lbs)</li> <li>• discharge power – up to 14,2 kW</li> <li>• discharge current – up to 160 A</li> </ul>
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### BLU100A

	<ul style="list-style-type: none"> <li>• applicable to 5,25 V – 300 V DC battery voltages</li> <li>• weight – 12,8 kg (28.2 lbs)</li> <li>• discharge power – up to 14,2 kW</li> <li>• discharge current – up to 160 A</li> </ul>
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### BLU200A

	<ul style="list-style-type: none"> <li>• applicable to 5,25 V – 300 V DC battery voltages</li> <li>• weight – 14,5 kg (32 lbs)</li> <li>• discharge power – up to 19,7 kW</li> <li>• discharge current – up to 240 A</li> </ul>
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### BLU340A

	<ul style="list-style-type: none"> <li>• applicable to 5,25 V – 300 V DC battery voltages</li> <li>• weight – 20,6 kg (45.4 lbs)</li> <li>• discharge power – up to 28,4 kW</li> <li>• discharge current – up to 160 A</li> </ul>
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### BLU110T

	<ul style="list-style-type: none"> <li>• applicable to 0,9 V – 70,5 V DC battery voltages</li> <li>• weight – 12,8 kg (28.2 lbs)</li> <li>• discharge power – up to 8,5 kW</li> <li>• discharge current – up to 150 A</li> </ul>
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### BLU220T

	<ul style="list-style-type: none"> <li>• applicable to 5,25 V – 70,5 V DC battery voltages</li> <li>• weight – 15,1 kg (33 lbs)</li> <li>• discharge power – up to 19,2 kW</li> <li>• discharge current – up to 350 A</li> </ul>
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### BLU360V

	<ul style="list-style-type: none"> <li>• applicable to 5,25 V – 500 V DC battery voltages</li> <li>• weight – 20,6 kg (45.4 lbs)</li> <li>• discharge power – up to 28,4 kW</li> <li>• discharge current – up to 160 A</li> </ul>
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## Technical Data

### Mains Power Supply

- Connection according to IEC/EN60320-1; C320 90 V – 264 V AC, 50 / 60 Hz, single-phase
- Supply from battery under test\* (for BLU200A): 110V – 240 V DC  
\* Optionally / provided on request
- Fuse 2 A / 250 V, type F

### Dimensions and Weights

Model		Dimensions	Weight
BLU100A & BLU100L (without acc.)	Instrument	440 x 221 x 355 mm 17.3 x 8.7 x 14 in	12,8 kg 28.2 lbs.
	Transport case *	545 x 300 x 418 mm 21.1 x 11.8 x 16.5 in	6,9 kg 15.2 lbs
	Canvas Transport case **	570 x 310 x 415 mm 22.4 x 12.2 x 16.3 in	3,6 kg 7.9 lbs.
BLU200A (without acc.)	Instrument	560 x 221 x 355 mm 22 x 8.7 x 14 in	14,5 kg 32 lbs.
	Transport case *	665 x 300 x 418 mm 26.2 x 11.8 x 16.5 in	8,5 kg 18.7 lbs
	Canvas Transport case **	690 x 310 x 415 mm 27.2 x 12.2 x 16.3 in	3,7 kg 8.2 lbs.
BLU110T (without acc.)	Instrument	440 x 221 x 355 mm 17.3 x 8.7 x 14 in	12,8 kg 28.2 lbs.
	Transport case *	545 x 300 x 418 mm 21.1 x 11.8 x 16.5 in	6,9 kg 15.2 lbs
	Canvas Transport case **	570 x 310 x 415 mm 22.4 x 12.2 x 16.3 in	3,6 kg 7.9 lbs.
BLU220T (without acc.)	Instrument	560 x 221 x 355 mm 22 x 8.7 x 14 in	15,1 kg 33.2 lbs.
	Transport case *	665 x 300 x 418 mm 26.2 x 11.8 x 16.5 in	8,5 kg 18.7 lbs.
	Canvas Transport case **	690 x 310 x 415 mm 27.2 x 12.2 x 16.3 in	3,7 kg 8.2 lbs.
BLU340A (without acc.)	Instrument	730 x 221 x 355 mm 28.7 x 8.7 x 14 in	20,6 kg 45.4 lbs.
	Transport case *	795 x 290 x 415 mm 31.3 x 11.4 x 16.3 in	10,1 kg 22.3 lbs.
BLU360V	Instrument	730 x 221 x 355 mm 28.7 x 8.7 x 14 in	20,6 kg 45.4 lbs.
	Transport case *	795 x 290 x 415 mm 31.3 x 11.4 x 16.3 in	10,1 kg 22.3 lbs.

\* Included instrument transport case  
\*\* Optional instrument transport case

### Measurement

#### Internal voltage measurement

Model	Range **	Resolution
BLU100A	0 – 300 V DC	0,1 V or better*
BLU100A	0 – 300 V DC	0,1 V or better*
BLU200A	0 – 300 V DC	0,1 V (0,002 V up to 60 V, 0,02 V up to 300 V)*
BLU340A	0 – 300 V DC	0,1 V or better*
BLU110T	0 – 75 V DC	0,1 V or better*
BLU220T	0 – 75 V DC	0,1 V or better*
BLU360V	0 – 500 V DC	0,1 V or better*

\* Optionally / provided on request

\*\* Range is set automatically at start of test

- Typical accuracy:  $\pm 0,5\%$  of reading  $\pm 0,1$  V

#### Internal current measurement

Model	Range	Resolution
BLU100L	0 – 300 A DC	0,1 A
BLU100A	0 – 300 A DC	0,1 A
BLU200A	0 – 300 A DC	0,1 A
BLU340A	0 – 300 A DC	0,1 A
BLU360V	0 – 300 A DC	0,1 A
BLU110T	0 – 300 A DC	0,1 A
BLU220T	0 – 400 A DC	0,1 A

- Display range: 0 – 2 999,9 A DC
- Basic accuracy:  $\pm (0,5\% \text{ of reading} + 0,1 \text{ A})$
- Resolution: 0,1 A

#### Time measurement

- Typical accuracy:  $\pm 0,01\%$  of reading  $\pm 1$  digit

#### Input for current probe

- Range: 0 – 1 V DC
- mV/A ratio: Software settable values: 0,3 to 100 mV/A
- Input impedance:  $> 1 \text{ M}\Omega$



## Load section

Model	Battery Voltage
BLU100L	3,0 – 300 V DC
BLU100A	5,25 – 300 V DC
BLU200A	5,25 – 300 V DC
BLU340A	5,25 – 300 V DC
BLU360V	5,25 – 500 V DC
BLU110T	0,9 – 70,5 V DC
BLU220T	5,25 – 70,5 V DC

- Power: 28.4 kW (max)
- Discharge modes:  
Constant current / power / resistance;  
current, power or resistance profile mode

## Constant current (Const I)

Model	Range	Resolution
BLU100L	0 – 160 A DC*	0,1 A
BLU100A	0 – 160 A DC*	0,1 A
BLU200A	0 – 240 A DC*	0,1 A
BLU340A	0 – 160 A DC*	0,1 A
BLU360V	0 – 160 A DC*	0,1 A
BLU110T	0 – 150 A DC*	0,1 A
BLU220T	0 – 340 A DC*	0,1 A

\* Range of currents settable on a single unit

- Typical accuracy:  $\pm (0,5 \% \text{ of reading} + 0,2 \text{ A})$
- Ripple: max 0,4 A peak

## Constant resistance (Const R)

Model	Resistance
BLU100L	1 – 300 $\Omega$
BLU100A	1 – 300 $\Omega$
BLU200A	1 – 300 $\Omega$ (0,1 – 3000 $\Omega$ )*
BLU340A	1 – 300 $\Omega$
BLU110T	10 m $\Omega$ – 70,5 $\Omega$
BLU220T	1 – 70,5 $\Omega$
BLU360V	$\leq 200 \text{ m}\Omega$ – 500 $\Omega$

\* Optionally / provided on request

- Typical accuracy:  $\pm 1\%$
- Resolution: up to 0,01  $\Omega$

## Warranty

- 3 years

## Constant power (Const P)

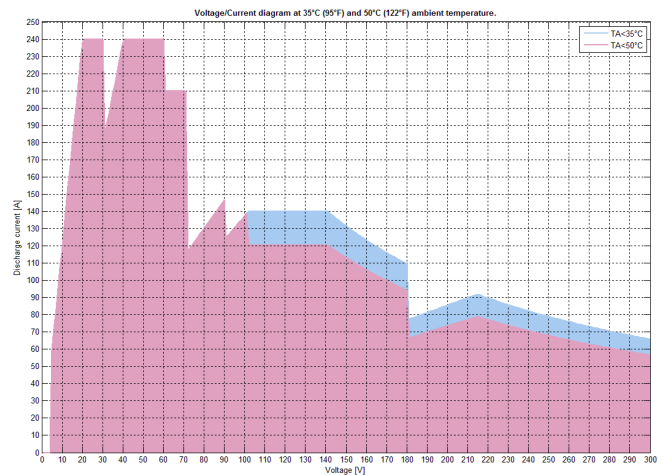
Model	Range	Resolution
BLU100L	0 – 14,2 kW*	0,01 kW
BLU100A	0 – 14,2 kW*	0,01 kW
BLU200A	0 – 19,7 kW**	0,01 kW
BLU340A	0 – 28,4 kW*	0,01 kW
BLU360V	0 – 28,4 kW**	0,01 kW
BLU110T	0 – 8,5 kW*	0,01 kW
BLU220T	0 – 19,2 kW*	0,01 kW

- Typical accuracy:  $\pm 1\%$
- Ripple: max 0,2 kW

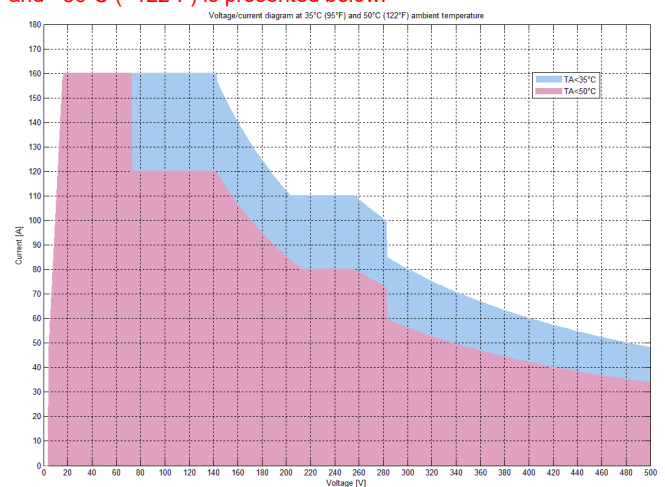
\* Discharge power range settable on a single unit

\*\* For BLU200A and BLU360V models, maximum power derates at temperatures over +35°C (+95°F).

Current / voltage diagram for the BLU200A model at +35°C (+95°F) and +50°C (+122°F) is presented below.



Current / voltage diagram for the BLU360V model at +35°C (+95°F) and +50°C (+122°F) is presented below.



## Display

### Size

- 4,3 inch color touch screen display

### Range / Resolution

- Current: 0 – 2 999,9 A DC / 0,1 A
- Voltage: 0 – 999,9 V DC / 0,1 V
- Capacity: 0 – 9999,9999 Ah / 0,0001 Ah
- Time: 00h:00m:00s - 23h:59m:59s / 1 sec

### STOP parameters

- End voltage (total battery or per-cell voltage)
- Capacity
- Test time

### Environment conditions

- Operating temperature:  
-10 °C to +50 °C / 14 °F to +122 °F
- Storage & Transportation temperature:  
-40 °C to +70 °C / -40 °F to +158 °F
- Relative humidity: up to 95%, non-condensing
- Pollution degree: 2

### Shock/Vibration/Fall

- Instrument: ETSI EN 300 019-2-7 class 7M2
- Instrument in transport case: ISTA 2A

## Protection

- Thermal cut-outs and automatic overload protection
- Emergency Stop button
- Overcurrent, overheat and overvoltage protection

### Available languages

- English, German, French, Spanish

### Current probe specifications

Current probe	Ranges	mV/A – ratio	Supply
Current clamp 30/300 A*	30 A	10 mV / A	From the instrument
	300 A	1 mV / A	

\* current clamps 100/600 A and/or 200/1000 A can be provided on request.

### Encapsulation class / Ingress protections

- IP20

### Applicable Standards

- IEEE 450-2010, IEEE 1188-2005, IEEE 1106-2015, IEC 60896-11, IEC 60896-22 and other relevant standards
- Safety
  - Low Voltage Directive: Directive 2014/35/EU (CE conform)
- Applicable standards, for a class I instrument, pollution degree 2, Installation category II: IEC EN 61010-1
- Electromagnetic Compatibility:
  - Directive 2014/30/EU (CE conform)
  - Applicable standard: EN 61326-1
- CAN/CSA-C22.2 No. 61010-1

All specifications herein are valid at ambient temperature of + 25 °C /+ 77°F and recommended accessories. Specifications are subject to change without notice.

**Accessories**



**Current cables**



**Extension cables**



**Sense cables with dolphin clips**



**Transport case**



**Canvas trans. case**



**Current clamp 30/300 A**



**Cable bag**



**Cable set for BLU-BXL simultaneous triggering**



**Cable for BLU-BLU parallel operation**



**Cable for external alarm**

## Order Info

Instrument	Article No
Battery Load Unit BLU100L	BLU100A-N-00
Battery Load Unit BLU100A	BLU100L-N-00
Battery Load Unit BLU200A	BLU200A-N-00
Battery Load Unit BLU110T	BLU110T-N-00
Battery Load Unit BLU220T	BLU220T-N-00
Battery Load Unit BLU340A	BLU340A-N-00
Battery Load Unit BLU360V	BLU360V-N-00

Included Accessories	Article No
Windows based DV-B Win PC software including USB cable	
Mains Power cable	MPCXXA-XX-00
Ground (PE) cable	CABLE-GND-00
Transport case for BLU - small size (for BLU100L, BLU100A and BLU110T models)	HARD-CASE-B0
Transport case for BLU – medium size (for BLU200A and BLU220T models)	HARD-CASE-BL
Transport case for BLU – large size (for BLU340A and BLU360V models)	HARD-CASE-B1

Recommended	Article No
Current cables 2 x 3 m 35 mm <sup>2</sup> (9.84 ft, 2 AWG) with alligator clamps (A4) isolated (for BLU100L, BLU100A, BLU340A and BLU360V models)	C2-03-35VA4I
Current cables 2 x 3 m 50 mm <sup>2</sup> (9.84 ft, 0 AWG) with alligator clamps (A4) isolated (for BLU200A model)	C2-03-50VA4I
Current cables 2 x 3 m 25 mm <sup>2</sup> (9.84 ft, 3 AWG) with alligator clamps (A4) isolated (for BLU110T)	C2-03-25FA4I
Current cables 2 x 3 m 70 mm <sup>2</sup> (9.84 ft, 00 AWG) with alligator clamps (A4) isolated (for BLU220T)	C2-03-70FA4I
Optional	Article No
Battery External Load Unit BXL-A	BXL400X-A-00
Battery External Load Unit BXL-T	BXL400X-T-00
Battery External Load Unit BXL-V	BXL400X-V-00
Cable set 2 x 2 m 1 mm <sup>2</sup> (6.56 ft, 17 AWG) for BLU-BXL simultaneous triggering (for BXL models)	PO-02-01BPBP
Battery Voltage recorder BVR11 with accessories	BVR11X-NN-00
Battery Voltage recorder BVR22 with accessories	BVR22X-NN-00
Current cables 2 x 3 m 50 mm <sup>2</sup> (9.84 ft, 0 AWG) with alligator clamps (A4) isolated (for BLU100L, BLU100A, BLU200A, BLU340A, BLU360V, BXL-A and BXL-V models)	C2-03-50VA4I
Current cables 2 x 5 m 35 mm <sup>2</sup> (16.4 ft, 2 AWG) with alligator clamps (A4) isolated (for BLU100L, BLU100A, BLU340A, BLU360V, BXL-A and BXL-V models)	C2-05-35VA4I
Current cables 2 x 5 m 50 mm <sup>2</sup> (16.4 ft, 0 AWG) with alligator clamps (A4) isolated (for BLU100L, BLU100A, BLU200A, BLU340A, BLU360V, BXL-A and BXL-V models)	C2-05-50VA4I
Current cables 2 x 5 m 70 mm <sup>2</sup> (16.4 ft, 00 AWG) with alligator clamps	C2-05-70FA4I

(A4) isolated (for <i>BLU220T</i> and <i>BXL-T</i> models)	
Current cables 2 x 5 m 25 mm <sup>2</sup> (16.4 ft, 3 AWG) with alligator clamps (A4) isolated (for <i>BLU110T</i> model)	C2-05-25FA4I
Extension cables 2 x 5 m 35 mm <sup>2</sup> (16.4 ft, 2 AWG) (for <i>BLU100L</i> , <i>BLU100A</i> , <i>BLU340A</i> , <i>BLU360V</i> and <i>BXL</i> models)	E2-05-35VA3I
Extension cables 2 x 5 m 70 mm <sup>2</sup> (16.4 ft, 00 AWG) (for <i>BLU220T</i> and <i>BXL-T</i> models)	E2-05-70VFMI
Extension cables 2 x 3 m 16 mm <sup>2</sup> (9.84 ft, 5 AWG) with alligator clamps (A4) isolated (for <i>BLU110T</i> model)	E2-03-16VFMI
Sense cables 2 x 3 m (9.84 ft) with banana plugs + dolphin clip (for <i>BLU</i> models)	S2-03-00BPDC
Sense cables 2 x 5 m (16.4 ft) with banana plugs + dolphin clip (for <i>BLU</i> models)	S2-05-00BPDC
Current clamp 30/300 A power supplied from the instrument with extension 5 m (16.4 ft) (for <i>BLU</i> models)	CACL-0300-06
Cable for external alarm (for <i>BLU</i> models)	CABLE-EXA-05
Extension cable for external alarm 5 m (16.4 ft) (for <i>BLU</i> models)	E1-EXABLU-05
Cable for BLU-BLU parallel operation 3 m (9.84 ft) (for <i>BLU200A</i> , <i>BLU220T</i> , <i>BLU340A</i> and <i>BLU360V</i> models)	CP-03RJ45-00
Cable set 2 x 5 m 1 mm <sup>2</sup> (16.4 ft, 17 AWG) for BLU-BXL simultaneous triggering (for <i>BXL</i> models)	PO-05-01BPBP
Canvas transport case – small size (for <i>BLU100L</i> , <i>BLU100A</i> and <i>BLU110T</i> models)	HARD-CASE-B2
Canvas transport case – medium size (for <i>BLU200A</i> and <i>BLU220T</i> models)	HARD-CASE-B3



## Order Examples

### BLU200A with recommended accessories

Instrument with Included Accessories	Quantity	Article No
Battery Load Unit BLU200A	1 set	BLU200A-N-00
- Mains power cable		
- USB with DV-B Win PC software		
- USB cable		
- Ground (PE) cable		
- Transport case		
<b>Recommended Accessories</b>		
Current cables 2 x 3 m 50 mm <sup>2</sup> (9.84 ft, 0 AWG) with alligator clamps (A4) isolated	1 set	C2-03-50VA4I
Cable bag	1 pc	CABLE-BAG-00

### BLU340A + BXL-A with recommended accessories

Instruments with Included Accessories	Quantity	Article No
Battery Load Unit BLU340A	1 pc	BLU340A-N-00
Battery Extra Load Unit BXL-A	1 pc	BXL400X-A-00
- USB with DV-B Win PC software	1 pc	
- USB cable	1 pc	
- Mains power cable	2 pcs	
- Ground (PE) cable	2 pcs	
- Transport case	2 pcs	
<b>Recommended Accessories</b>		
Current cables 2 x 3 m 35 mm <sup>2</sup> (9.84 ft, 2 AWG) with alligator clamps (A4) isolated	2 sets	C2-03-35VA4I
Cable bag	2 pcs	CABLE-BAG-00
Current clamp 30/300 A power supplied from the instrument with extension 5 m (16.4 ft)	1 pc	CACL-0300-06

### 2 x BLU360V with recommended accessories

Instruments with Included Accessories	Quantity	Article No
Battery Load Unit BLU360V	2 sets	BLU360V-N-00
- Mains power cable		
- USB with DV-B Win PC software		
- USB cable		
- Ground (PE) cable		
- Transport case		
<b>Recommended Accessories</b>		
Current cables 2 x 3 m 35 mm <sup>2</sup> (9.84 ft, 2 AWG) with alligator clamps (A4) isolated	2 sets	C2-03-35VA4I
Cable bag	2 pcs	CABLE-BAG-00
Cable for BLU-BLU parallel operation 3 m (9.84 ft)	1 pc	CP-03RJ45-00