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: 5,25 - 500 V DC
- Discharge current – up to 340 A DC
- Easily expandable for larger banks using BXL extra load units
- Battery internal resistance measurement according to IEC 60896
- 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 340 A and are applicable to up to 500 V battery voltages.

When a required discharge current or power exceeds the capacity of a single BLU device, up to 10 BLU devices can be connected in parallel. Alternatively, External Load Units BXL series can also be used to increase discharging

B-BLUNS1-320-EN. 2018-01-29

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)		BLU100A	BLU200A	BLU340A	BXL-A	BLU110T	BLU220T	BXL-T	BLU360V	BXL-V
Nom.	Min / Max									
6	5,25	40	60	50	59	100	100	74	50	11
	7,05				80			100		15
12	10,5	80	120	100	119	150	200	156	100	26
	14,1				160			210		35
24	21,0	160	240	160	186	150	340	230	160	55
	28,2				250			310		75
48	42,0	160	240	160	186	150	340	230	160	115
	56,4				250			310		155
60	52,5	120	210	160	81	120	270	185	160	141
	70,5				110			250		190
110	96,3	110	130	160	119	-	-	-	160	96
	129,3				160					130
120	105,0	100	140	150	134	-	-	-	150	107
	141,0				180					145
220	192,5	55	75	110	67	-	-	-	110	85
	258,5				90					115
240	210,0	50	70	100	67	-	-	-	100	93
	282,0				90					125
480	300,0	-	-	-	-	-	-	-	65	34
	410,0									46
	410,0								55	46
	500,0									55
Weight (kg / lbs)		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
Max Power (kW)		14,2	19,7	28,4	25,4	8,5	19,2	17,9	28,4	35

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).

Several warning parameters (voltage, capacity, time), stop parameters (voltage, capacity, time) and built-in protections (overcurrent, overload, overheat, overvoltage) assures batteries are never demaged during the discharge.

Application

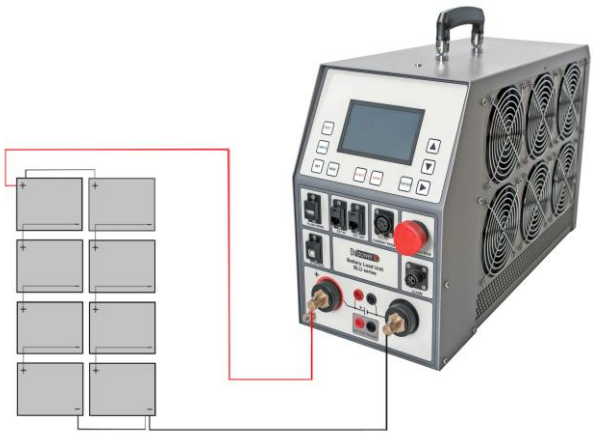
Typical application is measuring the capacity and full voltage of the batteries that serve as a backup power supply in (but not limited to):

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

Connecting BLU to Battery

Single mode

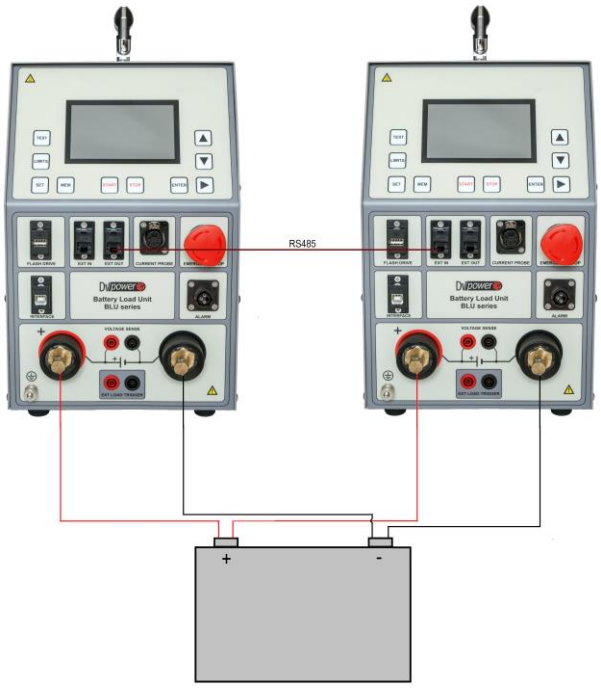
The BLU device can be connected to any battery test object by using a set of current cables and, optionally, a set of voltage sense cables. To maximize the accuracy and measurement repeatability, all clamps must have good connection to the battery terminals while any crossing between the cables should 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 chaine. 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.

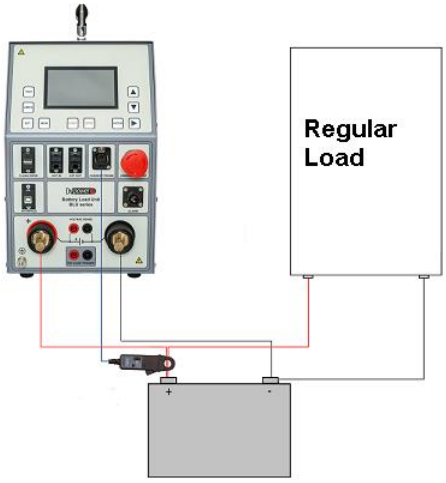


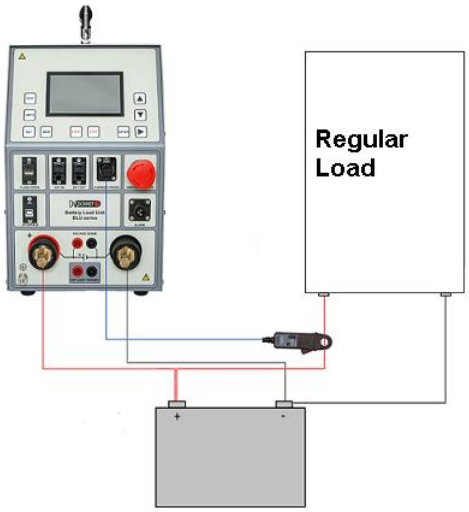
* BLU100A & BLU110T models do not support testing in parallel discharge mode.

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.

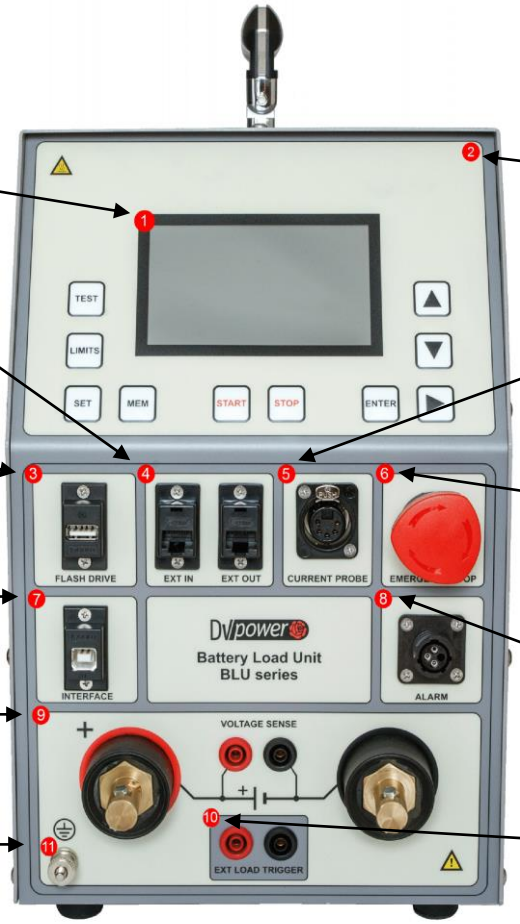




Benefits and Features

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 the 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
- 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
- Battery internal resistance measurement using BLU device only, or in combination with Battery Voltage Supervisor (BVS) according to IEC 60896
- 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.



1 - Display - 4.3'' color touch screen display

4 - External input (EXT IN) and external output (EXT OUT) used for BLU-BLU parallel operation (not available for BLU100A and BLU110T models)

3 - Flash drive - used for transferring BLU memory data into an external memory stick + SBC / firmware upgrade

7 - ***Interface*** - enables controlling the BLU from a PC and downloading previously recorded results.

9 - ***Current and Voltage terminals*** - current and voltage test cable terminals

11 - ***Protective Earth Connector*** - protective earth connector used to connect to protective ground (PE)

2 - Keyboard - used for controlling and operating the instrument

5 - ***Current probe*** - measuring load current using the external current probe.

6 - ***Emergency STOP button*** - used when unexpected or unwanted action occurs.

8 - ***Alarm output*** - used for triggering external alarm buzzer.

10 - ***External Load trigger*** - used for triggering BXL external load units

Combining BLU and BVR Series

Battery Voltage Recorder Series (BVR11, BVR20 & BVR22 models) are lightweight, user-friendly, rechargeable handheld devices 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, including the main differences between BVR11/BVR20/BVR22 models, are presented in the table below.

	BVR11	BVR20	BVR22
CELL VOLTAGE MEASUREMENT	●	●	●
STRING VOLTAGE MEASUREMENT	●	○	●
AMBIENT TEMPERATURE MEASUREMENT	●	●	●
ELECTROLYTE TEMPERATURE MEASUREMENT	○	●	●
VOLTAGE MEASUREMENT RANGE	± 500 V DC ± 30 V DC	± 2,35 V DC ± 7 V DC ± 30 V DC	± 30 mV DC ± 300 mV DC ± 1 V DC ± 3 V DC ± 30 V DC ± 600 V DC
CURRENT MEASUREMENT	●	●	●
USB COMMUNICATION WITH PC	●	●	●
BLUETOOTH COMMUNICATION WITH PC	●	○	●
RFID CELL RECOGNITION	○	●	●
COMMUNICATION WITH EXTERNAL DENSITY METER	○	●	●

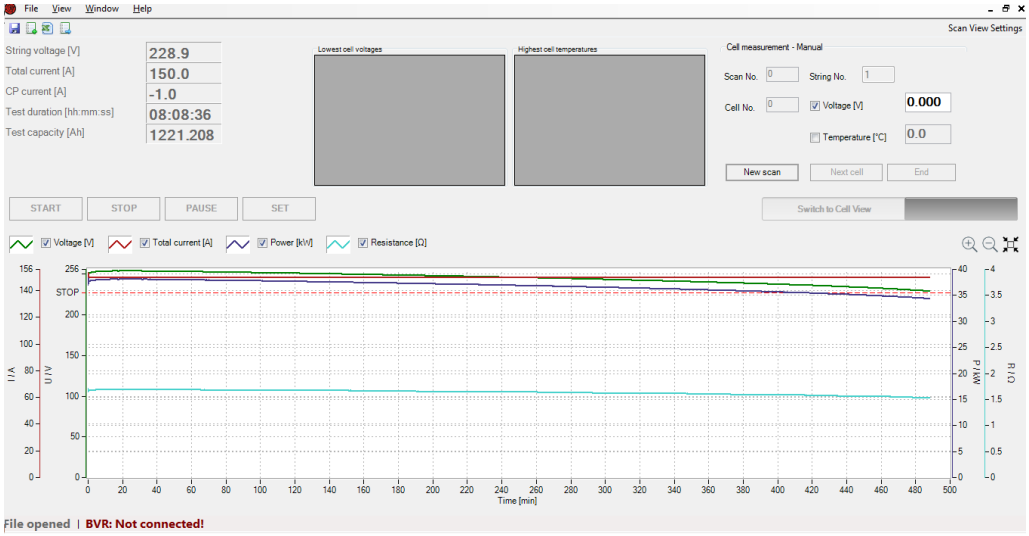
Combining BLU and BVS

Battery Voltage Supervisor Capacity Model (BVS-CM) is a battery voltage monitoring system for real time data gathering and presentation. It contains of up to 128 individual BVS Modules (CVM-C), and the Control Unit (BVS CU). Power supply for each module (BVS M) is provided from the Control Unit (BCM-CU). BVS identifies potential battery malfunction by continuously monitoring cell voltage, intercell voltage, and ambient temperature during the discharge test.

The device is used during a battery charging / discharging process. When used in a combination with the BLU device it serves as an efficient supplement to battery capacity testing. Additional BVS feature available in a combination with the BLU Series is a battery internal resistance measurement.

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

BLU100A

- applicable to 5,25 V – 300 V DC battery voltages
- weight – 12,8 kg (28.2 lbs)
- discharge power – up to 14,2 kW
- discharge current – up to 160 A

BLU200A

- applicable to 5,25 V – 300 V DC battery voltages
- weight – 14,5 kg (32 lbs)
- discharge power – up to 19,7 kW
- discharge current – up to 240 A

BLU340A

- applicable to 5,25 V – 300 V DC battery voltages
- weight – 20,6 kg (45.4 lbs)
- discharge power – up to 28,4 kW
- discharge current – up to 160 A

BLU110T

- applicable to 5,25 V – 70,5 V DC battery voltages
- weight – 12,8 kg (28.2 lbs)
- discharge power – up to 8,5 kW
- discharge current – up to 150 A

BLU220T

- applicable to 5,25 V – 70,5 V DC battery voltages
- weight – 15,1 kg (33 lbs)
- discharge power – up to 19,2 kW
- discharge current – up to 340 A

BLU360V

- applicable to 5,25 V – 500 V DC battery voltages
- weight – 20,6 kg (45.4 lbs)
- discharge power – up to 28,4 kW
- discharge current – up to 160 A

Technical Data

Mains Power Supply

- Connection according to IEC/EN60320-1; C320
- Voltage:
  90 V – 264 V AC, 50 / 60 Hz, single-phase
- Input power: 150 W
- Fuse 2 A / 250 V, type F

Dimensions and Weights

Model		Dimensions	Weight
BLU100A (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*
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: ± 0,5% of reading ± 0,1 V

Internal current measurement

Model	Range	Resolution
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: ± (0,5 % of reading + 0,1 A)
- Resolution: 0,1 A

Time measurement

- Typical accuracy:
  ± 0,01 % of reading ± 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 MΩ

Load section

- Battery voltage:
  5,25 – 70,5 V* / 300 V** / 500 V***
  * BLU110T, BLU220T
  ** BLU100A, BLU200A, BLU340A
  *** BLU360V
- Power: 28.4 kW (max)
- Discharge modes:
  Constant current / power / resistance; current, power or resistance profile mode

Constant current (Const I)

Model	Range	Resolution
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: ± (0,5 % of reading + 0,2 A)
- Ripple: max 0,4 A peak

Constant resistance (Const R)

Model	Resistance
BLU100A	1 – 300 Ω
BLU200A	1 – 300 Ω (0,1 – 3000 Ω)*
BLU340A	1 – 300 Ω
BLU110T	1 – 70,5 Ω
BLU220T	1 – 70,5 Ω
BLU360V	≤ 200 mΩ – 500 Ω

* Optionally / provided on request

- Typical accuracy: ± 1%
- Resolution: 0,1 Ω

Constant power (Const P)

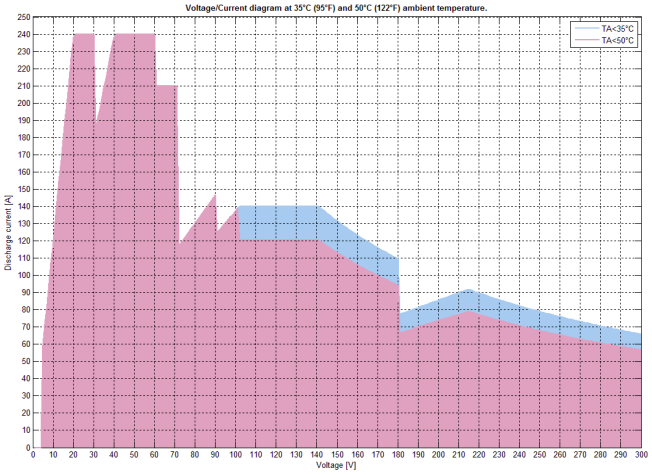
Model	Range	Resolution
BLU100A	0 – 14,2 kW*	0,01 kW
BLU200A	0 – 19,7 kW**	0,01 kW
BLU340A	0 – 28,4 kW*	0,01 kW
BLU360V	0 – 28,4 kW**	0,01 kW
BLU110T	0 – 8,5 kW*	0,01 kW
BLU220T	0 – 19,2 kW*	0,01 kW

- Typical accuracy: ± 1%
- Ripple: max 0,2 kW

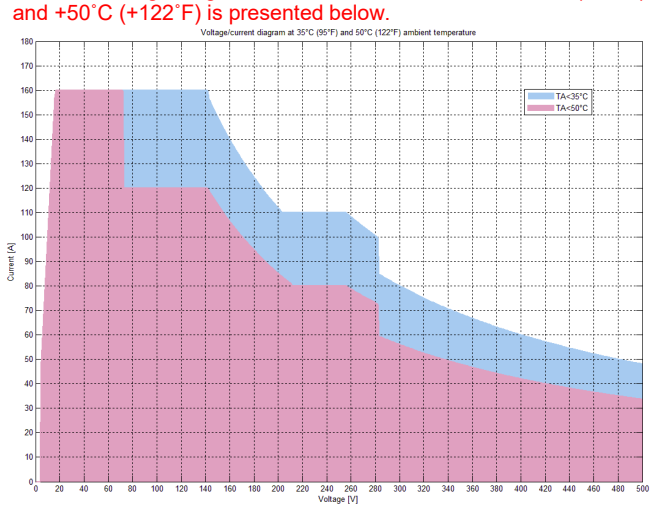
* Discharge power range settable on a single unit

** 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.



Warranty

- 3 years

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

Battery resistance measurement *

- Range / Resolution
  - 1,00 mΩ – 99,99 mΩ / 10 µΩ
  - 100,0 mΩ – 999,9 mΩ / 0,1 mΩ
  - 1000 mΩ - 5000 mΩ / 1 mΩ

* internal resistance measurement of the entire battery string according to IEC 60896

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 BLU100A	BLU100A-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 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^2 (9.84 ft, 2 AWG) with alligator clamps (A4) isolated (*for BLU100A, BLU340A and BLU360V models*)	C2-03-35VA4I
Current cables 2 x 3 m 50 mm^2 (9.84 ft, 0 AWG) with alligator clamps (A4) isolated (*for BLU200A model*)	C2-03-50VA4I
Current cables 2 x 3 m 25 mm^2 (9.84 ft, 3 AWG) with alligator clamps (A4) isolated (*for BLU110T*)	C2-03-25FA4I
Current cables 2 x 3 m 70 mm^2 (9.84 ft, 00 AWG) with alligator clamps (A4) isolated (*for BLU220T*)	C2-03-70FA4I
Cable bag	CABLE-BAG-00
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^2 (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 BVR20 with accessories	BVR20X-NN-00
Battery Voltage recorder BVR22 with accessories	BVR20X-NN-00
Current cables 2 x 3 m 50 mm^2 (9.84 ft, 0 AWG) with alligator clamps (A4) isolated (*for BLU100A, BLU200A, BLU340A, BLU360V, BXL-A and BXL-V models*)	C2-03-50VA4I
Current cables 2 x 5 m 35 mm^2 (16.4 ft, 2 AWG) with alligator clamps (A4) isolated (*for BLU100A, BLU340A, BLU360V, BXL-A and BXL-V models*)	C2-05-35VA4I
Current cables 2 x 5 m 50 mm^2 (16.4 ft, 0 AWG) with alligator clamps (A4) isolated (*for BLU100A, BLU200A, BLU340A, BLU360V, BXL-A and BXL-V models*)	C2-05-50VA4I
Current cables 2 x 5 m 70 mm^2 (16.4 ft, 00 AWG) with alligator clamps	C2-05-70FA4I

(A4) isolated (*for BLU220T and BXL-T models*)	
Current cables 2 x 5 m 25 mm^2 (16.4 ft, 3 AWG) with alligator clamps (A4) isolated (*for BLU110T model*)	C2-05-25FA4I
Extension cables 2 x 5 m 35 mm^2 (16.4 ft, 2 AWG) (*for BLU100A, BLU340A, BLU360V and BXL models*)	E2-05-35VA3I
Extension cables 2 x 5 m 70 mm^2 (16.4 ft, 00 AWG) (*for BLU220T and BXL-T models*)	E2-05-70VFMI
Extension cables 2 x 3 m 16 mm^2 (9.84 ft, 5 AWG) with alligator clamps (A4) isolated (*for BLU110T model*)	E2-03-16VFMI
Sense cables 2 x 3 m (9.84 ft) with banana plugs + dolphin clip (*for BLU models*)	S2-03-00BPDC
Sense cables 2 x 5 m (16.4 ft) with banana plugs + dolphin clip (*for BLU models*)	S2-05-00BPDC
Current clamp 30/300 A power supplied from the instrument with extension 5 m (16.4 ft) (*for BLU models*)	CACL-0300-06
Cable for external alarm (*for BLU models*)	CABLE-EXA-05
Extension cable for external alarm 5 m (16.4 ft) (*for BLU models*)	E1-EXABLU-05
Cable for BLU-BLU parallel operation 3 m (9.84 ft) (*for BLU200A, BLU220T, BLU340A and BLU360V models*)	CP-03RJ45-00
Cable set 2 x 5 m 1 mm^2 (16.4 ft, 17 AWG) for BLU-BXL simultaneous triggering (*for BXL models*)	PO-05-01BPBP
Canvas transport case – small size (*for BLU100A and BLU110T models*)	HARD-CASE-B2
Canvas transport case – medium size (*for BLU200A and BLU220T 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		
Recommended Accessories		
Current cables 2 x 3 m 50 mm^2 (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	
Recommended Accessories		
Current cables 2 x 3 m 35 mm^2 (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		
Recommended Accessories		
Current cables 2 x 3 m 35 mm^2 (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

IBEKO Power AB
Stockholmsvägen 18
181 50 Lidingö, Sweden

Contact
Phone: +46 70 0925 000
E-mail: sales@dv-power.com