

DV/power 

Product Catalog

Smart test devices for reliable
electric power systems



**Battery
Test Equipment**



Content

About Us

The brand “DV Power”, with headquarters in Stockholm (Sweden), has since 2000 developed light and ingenious test solutions for transformers, circuit breakers, batteries and electrical safes.

The company was founded by a group of engineers with **extensive** knowledge and experience in the power electronics technology area.

Today our DV Power products are sold all over the world – in over 100 countries.

We are still focusing on extensive research and development. **Thanks to all our customers that provide us with continuous valuable feedback and various case studies**, we are able to design even better products that **meet** the needs of our customers.

Our success is solely based on extensive research, development and fast commercial application.

About Battery Test Equipment

Batteries are crucial part of various power systems. Improper battery string may lead to endangerment of human lives as well as budget losses. Therefore, it is necessary for batteries to be inspected regularly to monitor their condition and maximize their lifetime.

DV Power has designed cutting edge solutions for condition assessment of any type of batteries, by performing the capacity test as well as internal resistance, voltage and temperature measurement, and battery charging solutions.

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



Battery Load Units

BLU1000D & BLU1000DZ (BLU-D Series)

Applications

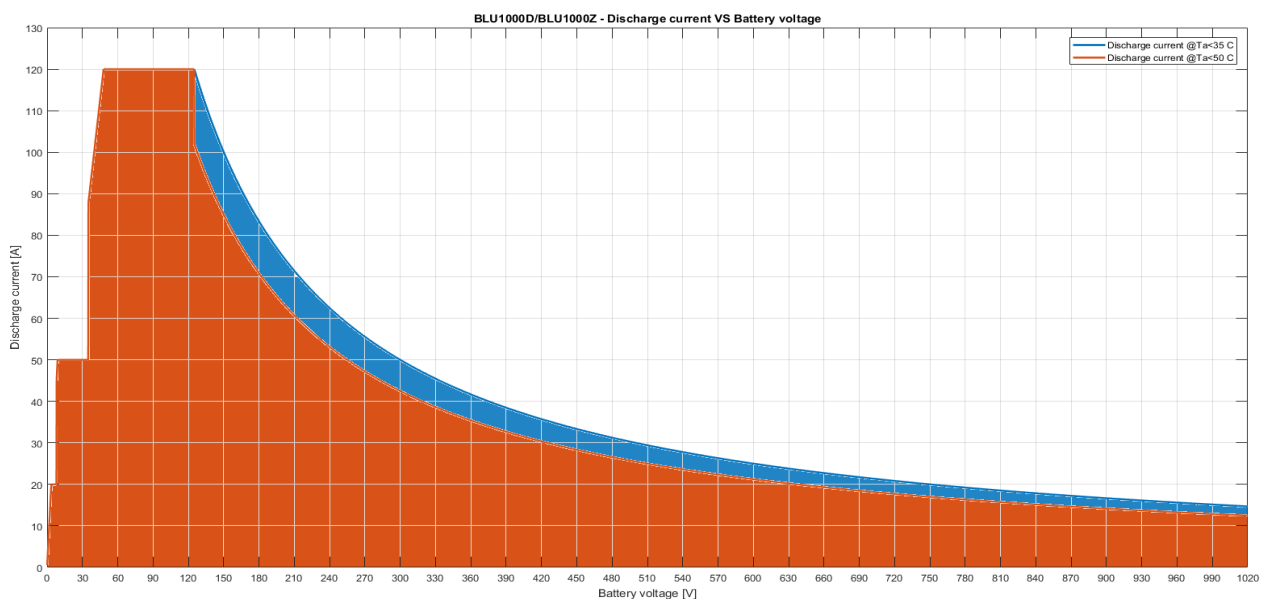
- Universal (up to 1020 V DC) and powerful (up to 15 kW) capacity tester of Lead-acid, Ni-based and Li-ion strings
- BLU1000DZ, comparing to BLU1000D, has additional built-in ZVD module enabling efficient full battery discharge (down to 0 V) *
- Discharge a battery before transport
- Provides temperature controlled discharge process (by measuring ambient / cell temperatures)
- Monitor cell / intercell voltages during capacity / full discharge tests

Main features of BLU1000DZ (BLU1000-Z-01)

- Voltage range: 0 – 1020 V DC
- Discharge power – up to 15 kW
- Efficient full battery discharge (to 0 V) prior recycling
- Temperature controlled discharge process
- Li battery discharge before transport
- Real-time test parameters monitoring on 7 inch touch screen display
- Enables testing batteries while in service
- USB, RS232 or Ethernet communication with PC
- Dimensions: 520 x 260 x 436 mm / 20.5 x 10.2 x 17.1 in
- Weight: 24,8 kg / 54.7 lbs



BLU-D Series maximum discharge currents



* Zero Voltage Discharge Module (ZVD) is a specially designed module enabling total battery discharge (down to 0 V) required prior to recycling. The system of BLU1000DZ with built in ZVD improves the discharge process by discharging the battery in 2 steps:

- Step 1: Efficient and controlled (current is constant down until 0 V is reached) discharge until the battery voltage drops to 0 V
- Step 2: ZVD short-circuits the battery to remove the remaining energy leading to total battery discharge

Battery Load Units

BLU1350D (BLU-D Series)

Applications

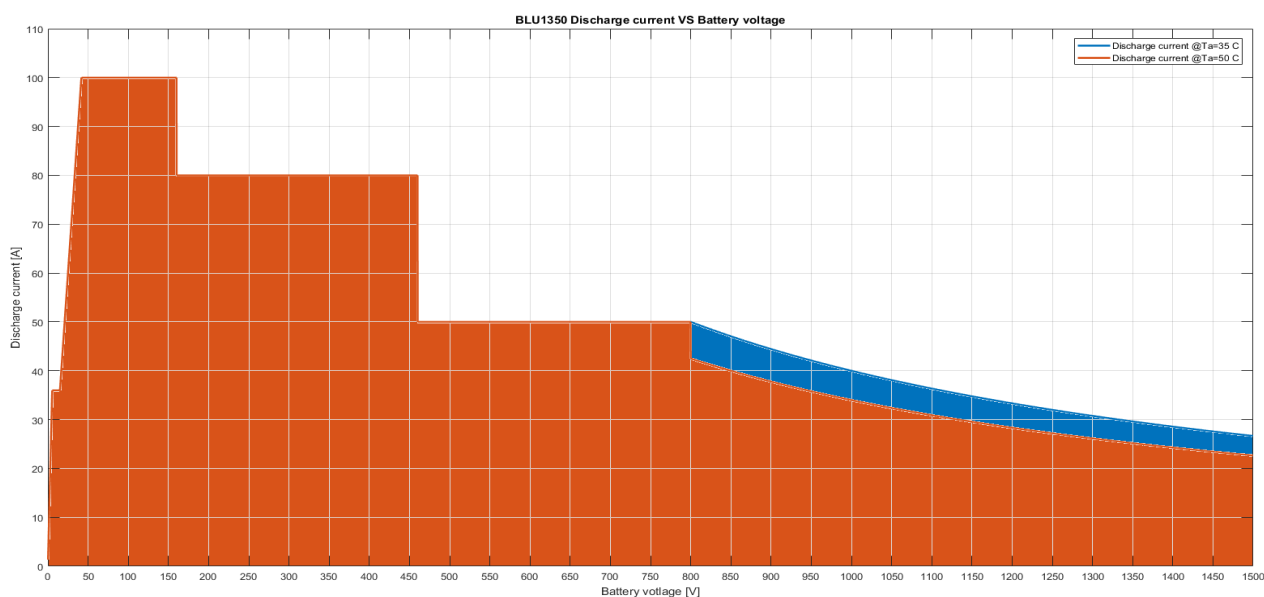
- Most universal load unit on the market (0 – 1350 V DC)
- Efficient full battery discharge (down to 0 V) with ZVD module
- Monitor cell / intercell voltages during capacity / full discharge tests
- Discharge a battery before transport
- Provides temperature controlled discharge process (by measuring ambient / cell temperatures)

Main Features of BLU1350D (BLU1350D-N-01)

- Voltage range: 0 – 1350 V DC
- Discharge power: up to 40 kW
- Efficient full battery discharge (to 0 V) prior recycling
- Temperature controlled discharge process
- Li battery discharge before transport
- Real-time test parameters monitoring on 7 inch touch screen display
- USB, RS232 or Ethernet communication with PC
- Dimensions: 590 x 280 x 600 mm / 23.2 x 11 x 23.6 in
- Weight: 30 kg / 66.1 lbs



BLU1350D maximum discharge currents



Battery Load Units

BLU-C Series

Applications

- Capacity testing of Lead-acid, Ni-based and Li-ion cells (up to 300 A / 42 kW)
- Applicable to 3 – 800 V DC battery systems
- Temperature regulated capacity test for Li-ion cells
- Cell / Intercell voltage monitoring on large 7-inch touch-screen display
- Efficient full battery discharge (down to 0 V) with ZVD module

Main Features of BLU800C (BLU800C-N-01)

- Battery voltage range: 5,55 – 800 V DC
- Discharge power: up to 32 kW
- Discharge current: up to 100 A
- Cell monitoring system (BVS or BVS-4) fully controlled by BLU800C
- Touch-screen color display 177,8 mm (7 inch)
- Automated battery, cell and intercell voltage measurement during the capacity test
- Testing batteries while in service
- Test resume (no data loss) in case of interrupted power supply
- Ambient temperature measurement channel
- Dimensions: 520 x 260 x 436 mm / 20,5 x 10,2 x 17,1 in
- Weight: 20,8 kg / 45,8 lbs



Battery voltage [V]		BLU100C	BLU200C	BLU300C	BLU400C	BLU500C	BLU600C	BLU700C	BLU700C	BLU800C
Min [V]	Max [V]	Maximum BLU-C discharge currents [A]								
3	5	-	-	-	-	-	-	-	50	-
5	10	40	50	50	50	50	50	20	30	20
10	20	100	100	100	100	100	100	40	60	40
20	30	150	200	160	200	160	200	80	120	80
30	42	150	140	150	130	150	130	90	80	90
42	60	150	200	210	190	210	190	100	115	100
60	72	150	200	220	200	220	200	100	150	100
72	90	120	200	140	200	140	200	100	150	100
90	100	120	300	150	290	150	290	80	210	80
100	130	120	300	150	300	150	300	100	240	100
130	142	120	290	140	290	140	290	100	260	100
142	200	75	110	100	110	100	110	70	90	70
200	260	75	150	70	150	70	150	100	100	100
260	300	70	140	60	140	60	140	100	110	100
300	400	-	-	-	-	50	50	40	100	40
400	500	-	-	-	-	40	65	50	80	50
500	600	-	-	-	-	-	-	50	70	50
600	700	-	-	-	-	-	-	-	60	40
700	800	-	-	-	-	-	-	-	-	40
Weight [kg]		18,9	28,5	18,9	28,5	18,9	28,5	20,8	28,0	20,8

Battery Load Units

BLU-C Series Models Comparison

Model	BLU100C	BLU200C	BLU300C	BLU400C	BLU500C	BLU70C	BLU600C	BLU700C	BLU800C
Voltage range [V DC]	5,55* – 300	5,55* – 300	5,55* – 300	5,55* – 300	5,55* – 500	5,55* – 570	5,55* – 500	3* – 700	5,55* – 800
Max. current [A]	150	300	220	300	220	100	300	260	100
Max. power [kW]	20	42	20	42	20	30	42	42	32
Touch screen display [inch]	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
BVS functionality**	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Parallel operation feature	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dimensions [mm]	520 x 265 x 412	590 x 280 x 600	520 x 265 x 412	590 x 280 x 600	520 x 265 x 412	520 x 260 x 436	590 x 280 x 600	590 x 280 x 600	520 x 260 x 436
Weight [kg]	18,9	28,5	18,9	28,5	18,9	20,8	28,5	28	20,8

* Total battery discharge down to 0 V available with additional ZVD module

** Individual cell voltage monitoring feature

Accessories



Current cables with alligator clamps (A4) isolated



Extension current cables



Current clamp 30 / 300 A power supplied from the instrument with adapter 5 m



Sense cables with alligator clamps



Zero Voltage Discharge module ZVD80



Transport case



Transport case



Plastic cable case



Cable bag

Battery Load Units

BLU-A Series

Applications

- Capacity testing of Lead-acid, Ni-based and Li cells (up to 240 A / 28,4 kW)
- Applicable to 3 – 500 V DC battery systems
- Testing the battery while in service
- Testing single Li cell
- Individual cell voltage and inter-cell connection monitoring capabilities with BVS / BVS-4
- Efficient full battery discharge (down to 0 V) with ZVD module

Main Features of BLU200A (BLU200A-N-01)

- Battery voltage range: 5,55 – 300 V DC
- Discharge power: up to 19,7 kW
- Discharge current: up to 240 A
- New touch-screen color display 144,78 mm (5.7 inch)
- Testing batteries while in service
- Test resume (no data loss) in case of interrupted power supply
- Dimensions: 560 x 221 x 355 mm / 22 x 8.7 x 14 in
- Weight: 14,5 kg / 32 lbs



Model	BLU100L*	BLU100A*	BLU200A	BLU340A	BLU360V
Battery Nom. Voltage [V]	Maximum BLU-A discharge currents [A]				
3-5	50	-	-	-	-
5-10	50	40	60	30	30
10-20	100	80	120	80	80
20-30	200	160	240	150	150
30-40	160	150	180	120	120
40-60	160	160	240	160	160
60-72	150	120	210	160	160
72-90	120	100	120	160	160
90-105	120	110	120	160	160
105-130	110	110	140	160	160
130-142	100	100	140	150	150
142-260	55	55	75	110	110
260-300	50	50	70	100	100
300-410	-	-	-	-	65
410-500	-	-	-	-	55
Weight [kg]	12,8	12,8	14,5	20,6	20,6
Max. Power [kW]	14,2	14,2	19,7	28,4	28,4

* Parallel operation feature (using 2 or more same-model BLU-A units as a system, without using external current measurement) is not implemented in BLU100L and BLU100A models.

Battery Load Units

BLU-T Series

Applications

- Capacity testing of Lead-acid, Ni-based and Li-ion cells (up to 350 A / 19,2 kW)
- Applicable to 0,9 – 70,5 V DC battery systems
- Testing the battery while in service
- Testing single Lead-acid, Ni-based and Li-ion cells with 100 A
- Individual cell voltage and inter-cell connection monitoring capabilities with BVS / BVS-4
- Efficient full battery discharge (down to 0 V) with ZVD module

Main Features of BLU110T (BLU110T-N-01)

- Battery voltage range: 0,9 – 70,5 V DC
- Discharge power: up to 8,5 kW
- Discharge current: up to 150 A
- New touch-screen color display 144,78 mm (5.7 inch)
- Testing batteries while in service
- Test resume (no data loss) in case of interrupted power supply
- Dimensions: 440 x 221 x 355 mm / 17.3 x 8.7 x 14 in
- Weight: 12,8 kg / 28.2 lbs



Model	BLU110T*	BLU220T*	BLU230T
Battery Nom. Voltage [V]	Maximum BLU-T discharge currents [A]		
1-3	100	-	-
3-5	100	-	-
5-10	100	100	280**
10-20	120	200	280
20-30	150	350	280
30-40	120	300	-
40-60	150	350	-
60-72	150	270	-
Weight [kg]	12,8	20,6	15,1
Max. Power [kW]	8,5	19,2	8,4

* Parallel operation feature (using 2 or more same-model BLU-T units as a system, without using external current measurement) is not implemented in BLU110T model

** BLU230T operating voltage range is 4,8 – 30 V

Battery Load Units

BLU-A Series Models Comparison



Model	BLU100L	BLU100A	BLU200A	BLU340A	BLU360V
Voltage range [V DC]	3* – 300	5,55* – 300	5,55* – 300	5,55* – 300	5,55* – 500
Max. current [A]	160	160	240	160	160
Max. power [kW]	14,2	14,2	19,7	28,4	28,4
Touch screen display [inch]	5.7	5.7	5.7	5.7	5.7
Parallel operation feature	No	No	Yes	Yes	Yes
Dimensions [mm]	440 x 221 x 355	440 x 221 x 355	560 x 221 x 355	730 x 221 x 355	730 x 221 x 355
Weight [kg]	12,8	12,8	14,5	20,6	20,6

* Total battery discharge down to 0 V available with additional ZVD module

BLU-T Series Models Comparison



Model	BLU110T	BLU220T	BLU230T
Voltage range [V DC]	0,9* – 70,5	5,55* – 70,5	4,8* – 30
Max. current [A]	150	350	280
Max. power [kW]	8,5	19,2	8,4
Touch screen display [inch]	5.7	5.7	5.7
Parallel operation feature	No	Yes	Yes
Dimensions [mm]	440 x 221 x 355	560 x 221 x 355	560 x 221 x 355
Weight [kg]	12,8	15,1	15,1

* Total battery discharge down to 0 V available with additional ZVD module

Battery Load Units

Accessories



Current cables with alligator clamps (A4) isolated



Extension current cables



Sense cables with alligator clamps



Current clamp 30 / 300 A power supplied from the instrument with adapter 5 m



Zero Voltage Discharge module ZVD80



Plastic cable case



Cable bag

Total Battery Discharges

Zero Voltage Discharge Module Series

Applications

- ZVD enables full discharge of batteries up to 800 V DC (ZVD80) or 1350 V DC (ZVD1350)
- Controlled and efficient total battery discharge (down to 0 V) prior to recycling
- Operates in a system with BLU / BLU-C unit

Main Features of ZVD80 (BLU-ZVDM80-0)

- Battery voltage range: 0 – 800 V DC
- Constant current discharge: up to 60 A
- Current can be modified during the discharge
- Provides efficient battery discharge on low voltages
- Universal – applicable to discharge any type of batteries

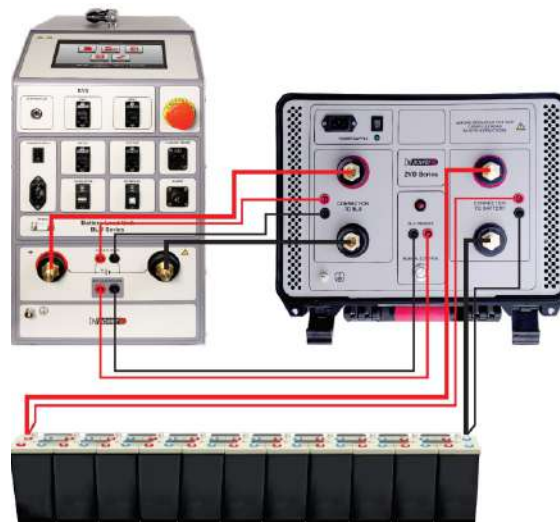


BLU & ZVD

Applications

- 2-step discharge process includes:
 - Efficient (up to 60 A) and controlled (current is constant until 0 V is reached) discharge until the battery voltage drops to 0 V
 - ZVD short-circuits the battery to remove the remaining energy leading to total battery discharge
- Enables efficient and controlled total battery discharge
- During ZVD operation (short-circuited battery), BLU can be disconnected

BLU with ZVD module



Battery Extra Load Units

BXL Series

Applications

- Support unit for battery capacity measurement
- Enables selecting higher discharge currents thus reducing test time

Main Features of BXL-V (BXL400X-V01)

- Battery voltage range: 5,25 – 500 V DC
- Discharge power: up to 32,4 kW
- Discharge current: up to 135 A
- Used in a system with BLU to increase load capacity
- Testing batteries while in service
- Discharge process controlled by BLU unit
- Operation mode – Constant R
- User-selectable resistance values
- Compatible with any battery load unit on the market



Voltage [V]		BXL-A		BXL-T		BXL-V	
Min [V]	Max [V]	Maximum BXL discharge currents [A]					
5	10	55	110	55	115	10	25
10	20	85	175	115	235	25	50
20	30	175	265	235	350	50	75
30	42	130	180	170	240	75	105
42	60	180	260	240	340	105	150
60	72	90	110	215	250	55	65
72	90	110	140	-	-	65	85
90	100	140	150	-	-	85	95
100	130	120	160	-	-	95	125
130	142	160	170	-	-	125	135
142	200	55	80	-	-	60	85
200	260	60	80	-	-	85	110
260	300	80	90	-	-	25	30
300	400	-	-	-	-	30	40
400	500	-	-	-	-	40	50

Battery Extra Load Units

Accessories



Current cables with alligator clamps (A4) isolated

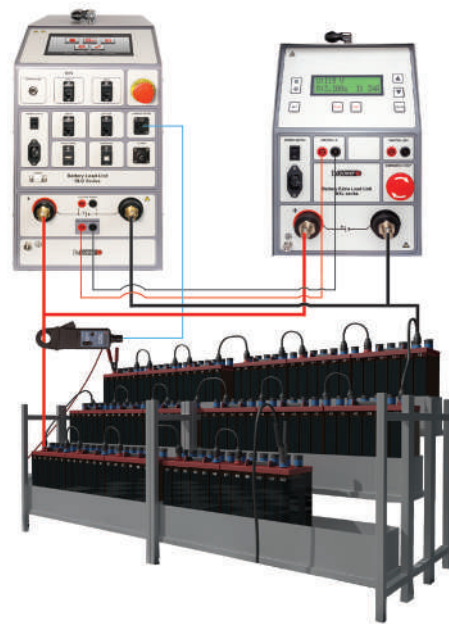
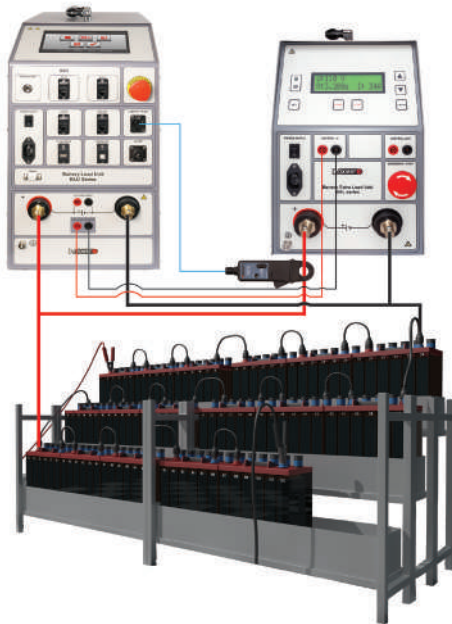


Extension current cables



Cable bag

Connecting BLU-C and BXL to test object (load current mode) Connecting BLU-C and BXL to test object (battery current mode)



Battery Voltage Supervisors

BVS Series

Applications

- Automated cell voltage measurement
- String voltage and current monitoring using additional modules
- Monitors cells during capacity testing performed with any load bank in the market

Main Features of BVS / BVS-4 (BVS4-CUNN-000)

- Automated string and cell voltage, inter-cell connection voltage, string current and ambient temperature measurement during capacity test
- Can be used with different load banks using additional string voltage and string current module
- Reliable and easy to operate
- Dimension: 206 x 180 x 64 mm / 8.11 x 7.08 x 2.51 in (Control unit)
- Dimensions: 66 x 28 x 139 mm / 2.6 x 1.1 x 5.5 in (CVM / CVM-4)
- Weight: 0,78 kg / 1.7 lbs (Control unit)
- Weight: 0,14 kg / 0.3 lbs (CVM / CVM-4)



● - Standard ○ - Optional

Series	BVS	BVS-4
Cell Voltage Modules	CVM	CVM-4
No. of Measured Cells	1 module measures 1 cell (or block of cells up to 30 V)	1 module measures 4 cells (or blocks of cells up to 30 V)
Cell Voltage	●	●
Inter-cell Connection Voltage	●	
Ambient Temperature	●	●
String Voltage	○	○
String Current	○	○
Cell Temperature	○	○
Cell Temperature Measurement	1 temperature channel per cell	1 temperature channel per 4 cells
Data Transfer (Bluetooth, USB Cable to PC)	●	●
Data Sampling Interval	1 s max. (depends on no. of CVM)	1 s max. (depends on no. of CVM)

Battery Voltage Supervisor

Accessories



CVM



CVM-4



Voltage sense cables for CVM with banana plugs + alligator clips



Voltage sense cables for CVM-4 with banana plugs + dolphin clips



Communication cable



Cable bag



Plastic transport case for BVS CU and CVM



Plastic transport case for CVM

Battery Voltage Recorder

BVR Series

Applications

- Cell / String voltage measurement
- Efficient support tool during battery capacity measurement
- Monthly inspections of large battery banks
- Detection of failing cells

Main Features of BVR22 (BVR22X-NN-00)

- Voltage measurement range: ± 600 V
- Inter-cell connection voltage measurement range: $\pm 1\,000$ mV
- Cell and ambient temperature measurements
- Current measurement using current clamps
- U + I mode for simultaneous measurement of string voltage and current during capacity test
- Automatically measures, time-stamps and stores cell / string (float) voltages
- Bluetooth communication with external density meter
- Easy transfer of measured data to DV-B Win software (via Bluetooth or USB cable) for further analysis
- Dimensions: 223 x 116 x 53 mm / 8.77 x 4.56 x 2.1 in
- Weight: 0,7 kg / 1.5 lbs



Accessories



Sense cables with test probes



Sense cables with angled pins



Sense cables with banana plugs + dolphin clips



Transport bag

Battery Chargers

BAC Series

Applications

- Charging battery strings with voltages from 1 V DC up to 300 V DC
- Charging single Lead-acid, Ni-based and Li-ion cells

Main Features of BAC50L (BAC50L-NN-01)

- Charging voltage: 1 – 60 V DC
- Maximum charging current: 50 A
- Maximum charging power: 2,4 kW
- Two charging modes available
 - IU – constant current + constant voltage
 - UU – constant voltage + constant voltage
- Temperature compensation of output voltage



Mains Voltage [V AC]	Nominal Battery Voltage [V DC]	Maximum Current [A DC]	
		BAC25A	BAC50L
230 / 115	1,2	-	50
	2	-	50
	6	-	50
	12	25	50
	24	25	50
	48	25	30 20*
	60	25	-
	110 / 120	20 10*	-
	220 / 240	10 5*	-

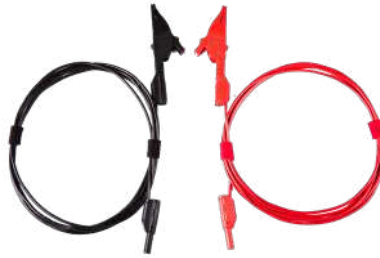
* Maximum currents at 115 V Mains voltage

Battery Chargers

Accessories



Current cables with alligator clamps (A2) isolated



Sense cables with banana and dolphin clips



Transport bag for instruments in metal housing



Device bag



Cable bag

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