

Battery Charger **BAC25A**

- Lightweight – only 10 kg / 22 lbs
- Instrument max power – up to 2,7 kW
- Voltage range: 10-300 V DC
- Current range up to 25 A DC
- Measurement resolution – current 0,1 A, voltage 0,1 V
- Two charging modes available:
 IU - constant current + constant voltage,
 UU - constant voltage + constant voltage,
 with current limit
- Adjustable alarm and shutdown parameters for preventing excessive charge



Powerful and Portable Battery Charger Description

Following a power outage, various power engineering objects such as power plants should be kept operating on batteries. Due to their crucial importance, batteries have become infallible part of all power facilities. Battery charger BAC25A is a portable battery charger used for charging primarily Lead-Acid and Ni-Cd batteries. BAC25A is intended to support the main charger in order to charge battery much faster or to quickly recharge a battery following a discharge test. Using two charging modes it

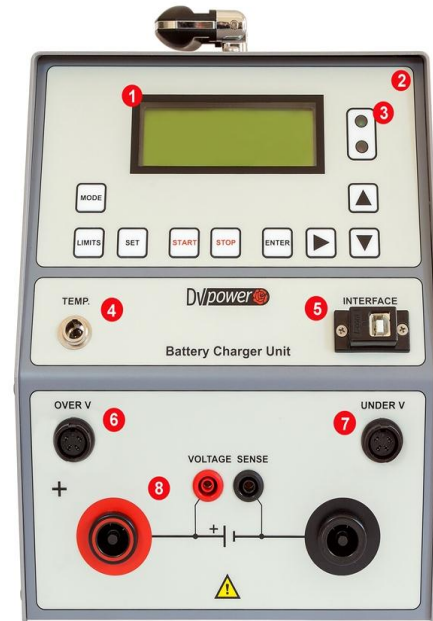
provides the safely regulation of charging procedure, achieving both fast recharge and low risk of overcharge. The output voltages are selectable in the range of 10 V to 300 V DC. This device generates current up to 25 A. In addition, it is equipped with thermal, overcurrent, and over-voltage or under voltage protection. Provided display enables users to read all relevant information during a charging process and to adjust the charging current, charging time, etc.

Mains Volatage (V AC)	Voltage (V DC)	Current (A DC)	Boost voltage (V DC)		Float voltage (V DC)	
			Lead-Acid	Ni-Cd	Lead-Acid	Ni-Cd
230/115	12	Up to 25	14	15	13	14
	24	Up to 25	29	30	27	28
	48	Up to 25	57	60	54	56
	60	Up to 25	72	75	68	70
	110/120	Up to 20	133/145	140/150	125/135	130/140
	220/240	Up to 10	263/290	275/300	148/270	250/280

Benefits and Features

1. Values of output voltage, current and other working status information are displayed on the LCD screen
2. Keyboard – used for controlling and operating the instrument.
3. Connection to PT100 provided for measuring the ambient temperature.
4. Overvoltage alarm terminal – used for triggering external alarm.
5. Under voltage alarm terminal – used for triggering external alarm.

Current and voltage sense terminals – connecting the current and voltage sense cables.



Application example

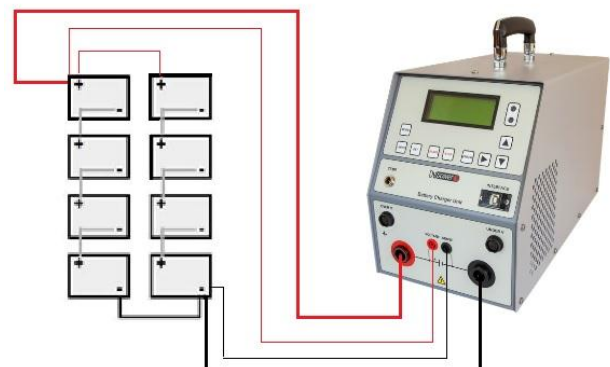
Typical application is charging batteries that serve as a backup power supply in:

- Power plants
- Generator excitation systems
- Substations
- Protection and control systems
- UPS battery strings

The BAC25A instrument is connected to a test battery using the current cables. The voltage sense cables may be used optionally. Next step is to set the current and the voltage alarm levels. After starting the charging process BAC25A keeps the current or voltage level constant depending on the selected charging mode. When applying the IU charging mode the battery is charged with a constant current. The voltage increases to a level close to the final voltage (float voltage). The device then switches to a constant voltage mode and the current begins to decrease. Cut off occurs when a predetermined minimum current value, which indicates a full charge, has been reached. When opting for the UU charging mode the battery will be charged under a constant voltage.

If the battery current becomes larger than the defined current limit, the charger will switch into

a constant current mode and continue charging with constant current that is equal to specified current limit.



Otherwise, the charger keeps charging under the selected constant voltage, the current will decrease over time until it reaches a predetermined minimum value. At this point of time the charger will switch to a float charge stage and decrease to a selected float voltage.

Technical Data

Mains Power Supply

- Connection according to IEC/EN60320-1; C320
- Voltage 90 V – 264 V AC, 50 / 60 Hz, single-phase
- Power consumption: up to 2 700 VA

Output data

- Output current up to 25 A DC
- Voltage 10-300 V DC
- Typical voltage accuracy $\pm (0,25 \% \text{ rdg} + 0,25 \% \text{ FS})$

Environment conditions

- Temperature -10 °C to +45 °C / 14 °F to +113 °F
- Maximum relative humidity 95 % for temperatures up to 31 °C, decreasing linearly to 40 % relative humidity at 45 °C
- Pollution degree 2

Electromagnetic Compatibility (EMC)

- CE conformity EMC standard 89/336/EEC
EMC directive 2004/108/EC
- Emission EN 61326-1
- Interference Immunity EN 61326-1

Dimensions and Weight

- Dimensions:
(D x W x H) without handle:
560 mm x 217 mm x 355 mm
22 in x 9 in x 14 in
- Weight:
10 kg / 22 lbs.

Warranty

- The transport case is considered as the standard accessory for the BAC25A series devices. Ordering a BAC25A with the transport case provides the 3-year manufacturer's warranty. Avoiding including it in a purchase order will provide 15 calendar month warranty.

Safety Standards

- European standards EN 61010-1
LVD 2006/95/EC
- International standards IEC 61010-1
UL 61010-1
CAN/CSA-C22.2 No. 61010-1, 2nd edition,
including Amendment 1

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



Voltage sense cables

Current cables

Transport case

Order Info

Included accessories	Article No
Mains power cable	
Ground (PE) cable	

Recommended	Article No
Current cables 2 x 5 m 6 mm ² (16.4 ft., 9 AWG) with alligator clamps (A2) isolated	C2-05-06LMA2
Transport case	HARD-CASE-ME

Optional	Article No
Current cables 2 x 10 m 6 mm ² (32.8 ft., 9 AWG) with alligator clamps (A2) isolated	C2-10-06LMA2
Current cables 2 x 15 m 6 mm ² (49.2 ft., 9 AWG) with alligator clamps (A2) isolated	C2-15-06LMA2
Current cables 2 x 20 m 6 mm ² (65.6 ft., 9 AWG) with alligator clamps (A2) isolated	C2-20-06LMA2
Sense cables 2 x 5 m 2,5 mm ² (16.4 ft., 13 AWG) with banana plugs + dolphin clip	S2-05-15BPDC
Sense cables 2 x 10 m 2,5 mm ² (32.8 ft., 13 AWG) with banana plugs + dolphin clip	S2-10-15BPDC
Sense cables 2 x 15 m 2,5 mm ² (49.2 ft., 13 AWG) with banana plugs + dolphin clip	S2-15-15BPDC
Sense cables 2 x 20 m 2,5 mm ² (65.6 ft., 13 AWG) with banana plugs + dolphin clip	S2-20-15BPDC
Cable for external alarm 2 x 5 m (16.4 ft.)	CA-EXABAC-05
Extension cable for external alarm 2 x 5 m (16.4 ft.,)	E1-EXABAC-05
PT100 temperature indicator	TI-000-PT100
Cable bag	CABLE-BAG-00
Device bag	DEVIC-BAG-00