

Quick start BA6

The BA6 battery analyzer is a 1 voltage, fix resistor, discharge analyzer. It is used to measure the capacity of rechargeable batteries for Electrical Bikes or power tools.

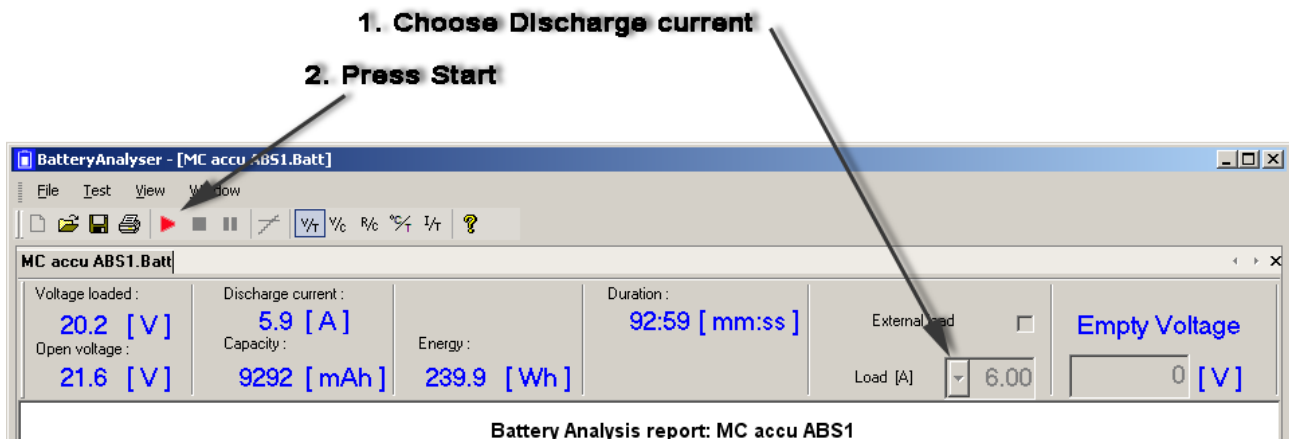
There are versions for different voltages (24V and 36V). The BA6 is computer operated (USB), and does not have control buttons and a display (for that, see the BA16).

Installation

Before connecting the Battery-analyzer for the first time to the PC, install the application software (can be found on : <http://battery.engineering-spirit.nl>). After installation, reboot the computer.

Operation

Connect the Battery-analyzer to PC, and start the program. Fill in Measurement Identification number. The follow the 2 step sequence as shown below.



Display modes

V/T Shows Voltage in time. This is the normal display.

V/C Shows Voltage versus discharged capacity.

R/C Shows the battery's internal resistance versus discharged capacity.

°C/T Shows cell temperature over time (not applicable for BA6).

I/T Shows the discharge current over time.

Warnings :

- The heatsinks inside the battery analyzer can get around 80°C. So **DO NOT** touch the heatsinks.
- Due to the large amount of heat generated in the battery analyzer, it is necessary that the airflow is not obstruct. Do not cover the ventilation holes on bottom and back side of the analyzer!
- Discharging batteries at too high currents may damage these batteries permanently !
- Short circuiting the external connections will permanently damage the battery analyzer.

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Battery connections

The connections to the battery are on the rear side of the analyzer:

| | Function | Color | |
|---|-----------------|--------------|-------|
| <table border="1"><tr><td>+</td></tr></table> | + | Battery + | Red |
| + | | | |
| <table border="1"><tr><td>-</td></tr></table> | - | Battery - | Black |
| - | | | |

Fuse rating: 10A / 250V (slow blow type, i²t approx. 3000)

Order/Version numbers

| Number | Description |
|---------|---------------------------------|
| BA6 24V | 24V version, 6Amp (150W max.) |
| BA6 36V | 36V version, 4.2Amp (150W max.) |

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Specifications BA6

| Item | Limit | Unit |
|--|------------------------------|------------------|
| Maximum input voltage | 43 | VDC |
| Minimum input voltage | 8 | VDC |
| Voltage Measurement range | 8.....27 | VDC |
| Voltage measurement accuracy | < ±1% of Reading, ± 0.1V | |
| Voltage measurement resolution | 0.1 | V |
| Maximum discharge current ¹ | 6 | A |
| Maximum external current, depends on duration (I ² t) | 3057 | A ² S |
| Current measurement range | 0...8 | A |
| Current measurement accuracy | < ± 2.5% of Reading, ± 0.01A | |
| Current measurement resolution | 0.01 | A |
| Fuse (Slow acting type) (5 x 20 mm) | 10 | A |
| Capacity measurement range | 0...65 | Ah |
| Capacity measurement resolution | ~ 0.001 | Ah |
| Capacity measurement accuracy | < 5.0 | % |
| Maximum allowable power | 150 | W |
| Operating ambient temperature | 10 ... 40 50 ... 105 | °C °F |
| Heatsink temperature limit | 80 176 | °C °F |
| Battery empty level | Initial voltage / 1.35 | V |
| IP rating | IP 20 | |
| Weight | 3.5 / 7.5 | Kg / lbs |

The product is CE marked and complies with the EN55022 Class B and EN550224 for use in residential, commercial and light-industrial areas.

¹ Discharge current depends on the battery voltage, since a fixed resistor is used for discharge.