







ATEQ BCA

# **Battery Charger Analyser**

(75 V - 40 Amps or 48 V - 60 Amps versions)





- → USER FRIENDLY INTERFACE
- → 1 UNIT FOR 2 BATTERIES (only for BCA 75 V 40 Amps)
- **External Voltage measurement**
- Up to 24 cells monitoring
- Computer Management System available





# MCMS SOFTWARE FEATURES

FUNCTION	CHARACTERISTICS
Charging phase	- Constant or variable Intensity/Voltage - Adjustable from PC, profile, EXCEL file - On I constant, or variable, limit U max, - $\Delta$ V, time, temperature min and max, $\Delta$ T°/ $\Delta$ t - On U constant, or variable, limit I min, times $\Delta$ I (%), temperature min and max, $\Delta$ T°/ $\Delta$ t - Temp. protection probe type K, adjustable - Elements voltage measurements and stop or stand by on elements voltage
Discharging phase	- Constant or variable Intensity - Adjustable from PC, profile, EXCEL file - U min limit, time, temp. min and max, ΔΤ°/Δt - Temp. protection probe type K, adjustable - Elements voltage measurements and stop or stand by on elements voltage - Automatic deep discharge
Stand by phase	- Stand by period adjustable from PC
Cycle	- Choice of phases totally adjustable from PC - In chronological order or according to conditions - Repeat cycles - Sequence of cycles with different phases
Status of channels	- Permanent display of battery status, colour code
Status of test	- Permanent display of data regarding current phase
Errors message and observations	- Error message display - Automatic storage of all errors during test - Send by email: errors, observations, message
Blank play	- Check up of all contacts before test lanch
Pause, Stop	- Possibility to pause/stop during the test
Delayed or immediate start	- Select time and date for test start
Results	- Data on test performed and tested battery - Plan voltage, intensity, temperature - Restored or absorbed capacity (% and Ah) - Voltage, Intesity and temperature at the beginning and at the end of phase - Events happened during the selected phase - Voltage of each battery elements - Average, Min and Max of element voltage
Phase filing	- Automatic filing at the end of each phase (all data, history traceability) - Save current data if error encountered - Archives in network - Consultation of archives between different benches
Print	- Automatic print of results at the end of test - Print on demand of the result of one battery for one phase (modification of axes available) - Possibility to print voltage acquisitions
Display	- Display of I, U, T° for each channel in test - Display zoom on curves - Display of each channel in test results - Display of elements tension
Intermittent	- Choice of step between prints in automatic mode printing
Inverter	- Protection and saving of all data during power cut
Alarm	- Buzzer for check-up level of electrolyte, temperature defect
Element voltage	- Individual measurement of each battery element voltage
Export data	- To EXCEL

#### DESCRIPTION

Rotary selector: Touch Screen Display & Rotary selector will ease the process to select/start the test programm

Test parameters can be modified in real time without having to stop the test program



USB Port

Main Power Switch

Mini USB

2 Thermocouple Type K (Option) 24 Cells Measure and Deep Discharge (Option)

Auxiliary Input Voltage

# **MAIN FEATURES**

2 Batteries in charge mode (only for BCA version 75 V - 40 Amps) Main powers available are indicative ones

(Voltage and intensity in charge and discharge on each channel can be adapted upon request)

Immediate or delayed test start

Control of voltages under 16 bits

 $Temperature\ Measurement\ with\ type\ K\ thermocouples$ 

Alarm for electrolyte level

Shut down at predefined voltages Min, Max or delta  ${\sf V}$ 

Shut down as a function of time - Protection against temperature defect

Set up of multiple cycles and / or sequences

Printing and automatic filing of data at the end of the test

 $\label{eq:decomposition} Data\ protection\ and\ results\ saving\ and\ backup\ in\ case\ of\ power\ shutdown$ 

Test result storage and research by user defined criteria

Curves drawing per phase

7 Inch Touch screen color display

 $\label{thm:couple} Temperature\ measurement\ with\ thermocouple\ sensor\ Type\ K$ 

 ${\it Charge\,\&\,discharge\,main\,plug\,type\,Anderson}$ 

24 cells voltage measurement

Languages: Chinese, English, French, Russian

Computer connections: USB port, RS485

Fuse protection kit

# OPTIONAL

Connection systems for battery elements voltage, measurement or deep discharge  $\,$ 

# **ELECTRICAL SPECIFICATIONS**

#### General Electrical characteristics

Sector input: 100-240 VAC Monophased

Frequency: 50-60Hz

Temperature of use: 0-50°C (0-20°C without derating)

Storage temperature: -20 to +70°C

Cooling: By forced ventilation

PN EZ-0232 version: Dimension: 380 x 440 x 265 mm

Weight: ~26 kg

# Power supply characteristics at constant voltage (charging)

Output voltage:	0-75 VDC per channel   0-48 VDC per channel
Regulation:	0.1% for a variation of I from 10 to 90 $%$
Stability:	0.1 % at full charge for 8H
Accuracy:	0.1 % reading or +/- 25 mV

# Power supply characteristics at constant current (charging)

Output current:	0-40 ADC   0-60 ADC
Regulation:	0.1% for a variation of U from 10 to 90 $%$
Stability:	0.1 % at full charge for 8H
Accuracy:	0.2 % reading or +/- 100 mA

#### Characteristics of the electronic charge (discharging)

Max Power:	1750 W
Absorbed current:	0-60 ADC
Max voltage accepted:	75 VDC   48 VDC
Regulation in constant current:	0.1% for a variation of U from $10$ to $90%$
Stability:	0.1 % at full charge for 8H
Accuracy:	0.2 % reading or +/- 100 mA

### Gauge input characteristics

# Voltage Measurement

Range	Accuracy
+/- 75 VDC   +/- 48 VDC	+/- $0.05\%$ Max of reading (+- $20 \text{ mV}$ )

### **Current Measurement**

Range	Accuracy
+ 60 ADC	+/- 0.2 % of reading or +/- 100 mA

# Cell voltage - 24 cells (Option)

Range	Accuracy
+/-10 VDC	+/- 0.005 V

# Auxiliary Input Voltage (AutoRange)

Range	Accuracy
+/- 75 VDC   +/- 48 VDC	+/- $0.05$ % Max of Reading or +/- $10$ mV

# Temperature (Option)

Range	Accuracy
0 to 100 °C (type K thermocouple sensor)	+/- 5°C (apart from sensor)

# BCA version 48 Volts / 60 Amps

- 48 Volts max charge and discharge
- 60 Amps max charge and discharge
- Single Battery Charge for 48-60 mode

#### **AVAILABLE ACCESSORIES**

[EC-0326] Rebling 7007 plug

[EC-0507] Battery connector type 215 compatible

[EC-0528] Counter-plug Rebling 7007

[EC-0551] Aligator clip kit for battery cell connection (25 pieces)

[EC-0552] Weather proof VAC Plug 16A IEC309-2 - 2P+E

[EC-0553] Weather proof VAC Plug 32A IEC309-2 - 2P+E

[ED-0073] Thermocouple probe K type 6m

[EG-0400] External probes for Voltage measurement (Black and Red 4mm<sup>2</sup>)

[EG-0701] USB Type A to Mini USB - 1.8m

[EZ-0191] Deep Discharge Function (No Cable Include)

[L2-0010] MCMS - Multi Channel Management Software

[L2-0013] SCSS - Single Channel Setting Software

[MD-0053] M8 Spacers kit for battery cells connection (25 pieces)

[MD-0054] M10 Spacers kit for battery cells connection (25 pieces)

[MD-0055] M12 Spacers kit for battery cells connection (25 pieces)

[T1-0034] BCA Power ouptut cable - 3.5 m - 2x16mm<sup>2</sup> + 2x0.5mm<sup>2</sup> -

GRID GPE80 to Eyelet M8

[T1-0043] Cable RS485 SubD 9 pins Male to female - 3m

[T1-0106] BCA USB to RS485 sub-D9 - cable 5m

[T1-0132] BCA Power ouptut cable extension- 2m - 2x16mm<sup>2</sup> + 2x0.5mm<sup>2</sup> -

GRID GPE80 to GRID GPE80

[T1-0211] BCA Dual connector Battery cable - 2x  $16 \text{mm}^2$  - 2 x  $0.5 \text{mm}^2$  - 2m -

GRID GPE80 to REBLING-REBLING

[T1-0217] BCA Cell measurement cable 24 cells - 3.5m -

Souriau 26 pin to Banana plugs

[T1-0268] BCA Cell measurement cable 24 cells - 3.5m -

Souriau 26 pin to DB25

[T1-0306] USB Type A to Mini USB - 1.8M

[T1-0309] BCA Power ouptut cable -  $2m - 2x16mm^2 + 2x0.5mm^2$  -

GRID GPE80 to Eyelet M8

### As a sum up

The BCA is a Battery Charger Analyzer designed to Charge, Discharge and Analyze all types of battery chemistry in the Aviation industry.

It is housed in a metal enclosure with a 7 inch touchscreen control display.

All settings and data can be entered via the touchscreen.

It is a very easy-to-use and versatile instrument that comes in 2 versions the BCA 75 Volts / 40 Amps or the BCA 48 Volts / 60 Amps.

The BCA 75 Volts / 40 Amps can charge two batteries

# **BCA** version 75 Volts / 40 Amps

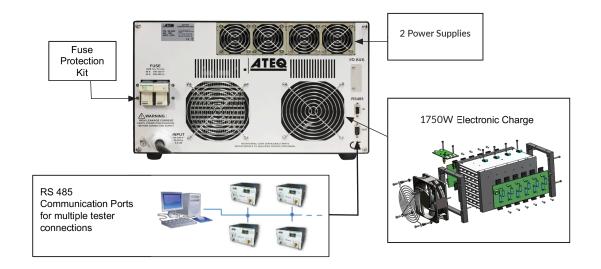
- 75 Volts max charge and discharge
- 40 Amps max charge
- 60 Amps max discharge
- Charging 2 batteries 37.5 Volts each max

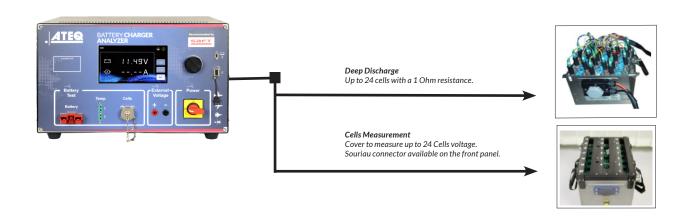
# A FULL RANGE OF SERVICES DEDICATED TO YOUR PERFORMANCE

# **OUTSTANDING SERVICE**

Global service & calibration support, 2-day calibration Multi-brand Calibration Service Demo unit rental Training Maintenance & Repair Free loan period Multi-brand Calibration Service

# More information & Local contact on <a href="mailto:ateq-aviation.com">ateq-aviation.com</a>





# ATEQ AVIATION EMEA

Europe, Middle East, Russia, Africa + Custom software/Hardware Requests 30, rue des Dames 78340 Les Clayes-sous-Bois - France Phone: +33-130801020

Fax: +33-130541100

# ATEQ AVIATION THE AMERICAS

3216 S. Nordic Rd Arlington Heights, IL 60005 **United States** 

Phone: +1-847-640-6242 Toll Free (USA only): 800-324-2885

Fax: 847-640-8368

ATEQ AVIATION ASIA PACIFIC 38 Jalan Pemimpin #08-06,

Singapore 577178 Phone: +65 64511456 Fax: +65 64591190