Circuit Breaker Analyzer & Timer CAT03

- Simple & easy to operate
- Timing measurement
- 3 Channels for main contacts
- Results printed on 80 mm thermal printer
- Detailed analysis of test results using DV-Win software

Circuit Breaker Analyzer & Timer CAT03 is a standalone or a PC-controlled digital instrument for condition assessment of circuit breakers. The timing channels record closing and opening of main contacts and resistor contacts. Main contact channels can also measure resistance value of pre-insertion resistors (if present in the circuit breaker). Test results are printed on 80 mm thermal printer in tabulated and graphical form.

An alphanumeric keypad is used for entering Breaker data, Test data and Control functions. CAT03 provides easy selection of different operational modes: Open (O), Close (C), Open-Close (O-C), Close-Open (C-O), and Open-Close-Open (O-C-O).

The start of measurement is activated remotely using External trigger feature. The External Trigger enables start of recording when the CAT03 senses a voltage on a circuit breaker coil.

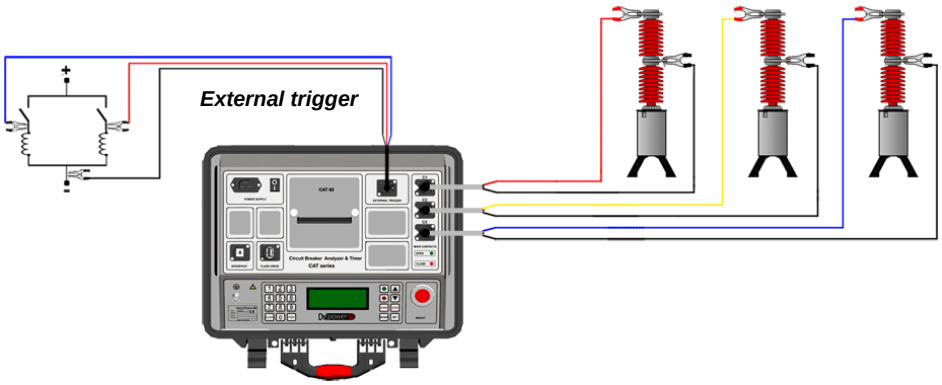
DV-Win software provides full control of all CAT64 functions from a PC, acquisition and analysis of test results. Graphical presentation of variety of measurements and timing test results uses cursors and powerful zoom functions for detailed analysis. Colors, grids, scales and positioning of the test data are all controlled by the user. DV-Win supports automatic unit conversion. (e.g.: cycles to seconds or mm to inches). Test records can be exported in .dwc file format for further analysis.

Application

Typical application is:

- ✓ Simultaneous measurement of 3 Main contacts including pre-insertion resistors (if present in the circuit breaker),
- ✓ Resistance measurement of pre-insertion resistors (if present in the circuit breaker),
- ✓ Evaluation of the synchronization between the circuit breaker poles,
- ✓ Display and print test results, both numerically and graphically.

Connecting a test object to CAT03



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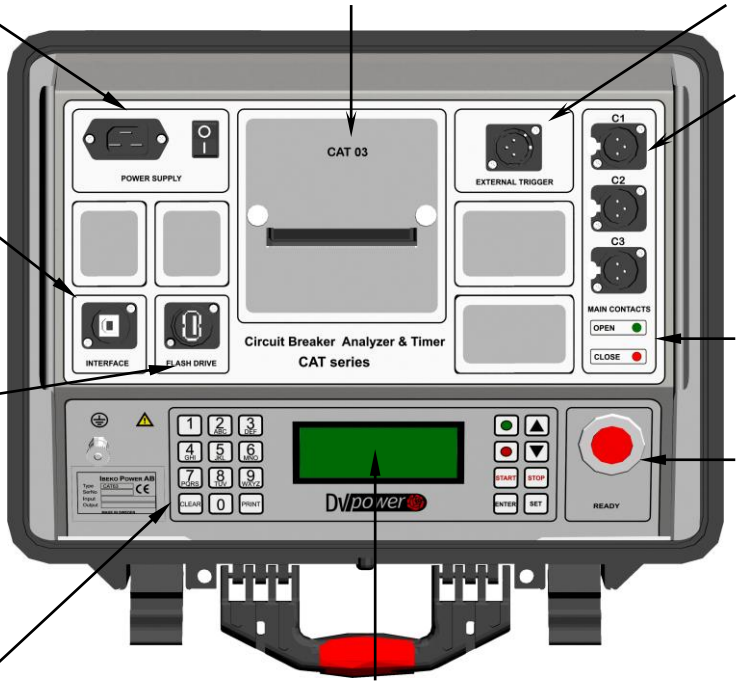
Features

Mains power supply input
90 V – 264 V AC;50 Hz – 60 Hz

Thermal printer *(built-in 80 mm wide)*
Graphic and numeric printout of contact and travel wave form

External Trigger input
Used for remote activation of CAT03



PC communication
USB interface

Flash drive
Used for direct download of test results on a USB memory stick

Main contacts inputs
Used for timing of main and pre-insertion resistor contacts, and for resistance measurement of pre-insertion resistors

Breaker state indicator
The state of circuit breaker is indicated

READY button
Prepares the instrument for start of the test

Alphanumeric keypad
Used for entering Breaker data, Test data and Control functions

LCD Screen
20 Characters by 4 Lines; LCD display with backlight, viewable in bright sunlight.

Ordering information:

Art.No.	Description
CAT0300-N-00	CAT03 device with ground cable, USB cable and CD with software
CM-05-30C3A2	Main Contacts Cables set 5 m with alligator clamps*

**The above cables are also available in many other lengths and terminations. Please contact IBEKO Power for more information.*

Art.No.	Description
CE-05-00C4B1	External Trigger Cable 5 m with banana plugs*
SAT30AA-N-00	Coil Analyzer SAT30A

**The above linear analog transducers are available in several lengths. Please contact IBEKO Power for more information.*

Main contacts cables set

External trigger cable

Coil Analyzer SAT30A

The SAT30A is ideal power supply at test with CAT series circuit breaker analyzers, where substation battery is not connected or available.
SAT30A supplies and measures current and resistance of circuit breaker coils, and can power spring-charging AC or DC motors.
Weighs only 8kg.

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Technical Data

Main Contact Inputs

- Number of contact inputs: 3. Each channel detects Main and Pre-insertion resistor contacts.
  Closed ≤ 10 Ω,
  Resistor contacts range 10 Ω to 10 kΩ,
  Open ≥ 10 kΩ
  Open circuit voltage: 20 V DC
  Short circuit current 50 mA
- Each channel measures resistance of pre-insertion resistors
- Each input group is isolated with respect to the others

Time Measurement

Time measurement resolution:

- 0,1 ms for 2 s test duration;
- 1 ms for 20 s test duration;
- 10 ms for 200 s test duration;

Time accuracy 0,05% of the reading ± resolution

Breaker Operation

- Close (C),
- Open (O),
- Close-Open (C-O),
- Open-Close (O-C),
- Open-Close-Open (O-C-O)

User can select any desired test sequence

DV-Win software

- User friendly software
- Complete control of CAT03 during the testing
- Complete analysis of tests results
- Internal memory for pre-defined Test plans
- Database for managing and analysis of all testing

Printer (optional)

- Thermal printer
- Graphic and numeric printout of contact and travel wave form
- Paper width 80 mm

External Trigger

- Trigger input voltage: 10 V – 300 V AC/DC

Dimensions and Weight

- Dimensions: 410 mm x 180 mm x 320 mm
  16,14 in x 7,08 in x 12,59 in
- Weight: 7 kg / 15,4 lb

Mains Power Supply

- Connection according to IEC/EN60320-1; UL498, CSA 22.2
- Mains supply: 90 V - 264 V AC; 50-60 Hz

Electromagnetic Compatibility (EMC)

- CE conformity: EMC standard 2004/108/EC

Safety Standards

- European standards: EN 61010-1;LVD 2006/95/EC
- International standards:
  IEC 61010-1; UL 3111-1
  CAN/CSA-C22.2 No 1010.1-92

Environmental conditions

- Operating temperature: -10 ºC - + 50 ºC
  14 ºF - +122 ºF
- Storage & transportation: -40 ºC - + 70ºC
  -40 ºF - +158 ºF
- Humidity 5 % - 95 % relative humidity, non condensing

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