

CIRCUIT BREAKER ANALYZERS

CBA-32P – CBA-32D – MICRO CBA-32P

Technical Description

The **CBA-32P** and **Micro CBA-32P** are portable testing and measuring instruments that rapidly carry out timing tests on circuit breakers of all types that are typically installed in Electric Utility Substations ranging from the lowest voltages up to the highest (800 KV). The CBA-32P is intended for use by Utility Maintenance Personnel in performing periodic maintenance testing on circuit breakers, and start-up tests on new or repaired equipment. It is also in demand from Circuit Breaker Manufacturers for After Sales Product Support. In research and development work, the CBA-32P is renowned for its precision, flexibility, data processing and storage capabilities.

The CBA-32 product line integrates the power of a multi-channel storage oscilloscope with the processing power of a state of the art personal computer. The efficiency with which the CBA-32 carries out tests, and its high-quality graphical display of test results, make it a necessary instrument in all phases of high-voltage breaker maintenance, manufacturing, and development.

The CBA-32 is intended to be connected to a portable computer with color or monochrome screen via a high speed optical fiber link. It is equipped with up to 2 breaker control outputs, up to 24 contact inputs to measure main and resistive contacts in a close or open state, and up to 8 analog inputs for measuring current or linear displacement, pressure, etc.

CBA Win© is a powerful software which integrates all the necessary tools of the high voltage circuit breaker specialist. Designed around the latest improvements in both technical and computer sciences, CBA Win© answers to any user requirements. As a result, it has become the indispensable element of the high voltage Circuit Breaker specialists. It is more than one step ahead of the competition!

The CBA-32D tabletop test instrument, in a standard 19" case, available upon request.

Hardware Characteristics

Input channels

- 3, 8, 16, or 24 optically isolated digital input channels for main or resistive contacts (30-4,000 Ohms depending on the model).
- 2 current analog inputs, each measuring Close or Open coil currents (0-20 A standard). Current sensors are built-in.
- 3 or 6 general analog inputs (0-10VDC) used for linear or rotary displacement measurements. Power for the transducer is supplied by the CBA-32. They may also be used as general purpose analog inputs.

Analog inputs have a resolution of 12 bits each, and are virtually a multichannel storage oscilloscope!

The digital inputs, or contact inputs, can measure both main and resistive contacts *automatically and without the need for a contact type selection switch!* So a single channel can measure the three states of a set of main/resistive contacts: open (0), resistive (0.5) or closed (1).

Moreover, the contact inputs can measure the resistive states between 30 and 4000 ohms in environments up to 400 kV, and from 30 to 2000 ohms in environments up to 800 kV, without external accessories.

Close and Open commands

- 1 Close coil command output
- 1 Open coil command output

The pulse widths of both these commands is set by the user via a menu selection in CBA Win©. Each output is capable of AC and DC switching. They are DC rated at 500 VDC, 60 A max.; and AC rated at 660 VAC, 60 A max. The breaking current capacity varies inversely with the voltage.

Recording performance

- Sampling time: from 32 to 32,000 microseconds, user programmable via CBA Win©.
- Sampling frequency: from 31.25 to 31,250 Hz.
- Total recording time: from 1 millisecond to 17 minutes.
- Analog resolution: 12 bits

Hardware and software included with the CBA-32

- CBA Win© Software
- 1 high speed communication module, 57600 RS-232/fiber optic
- 1 fiber optic cable (ST/ST) 10 feet (3 m).
- 1 power cord
- Complete set of cables:
- Complete contact cable set with 3, 4, 8 or 12 10-foot (3m) cables, according to the model (3, 8, 16 or 24 contacts)
- Set of three 10-foot (3m) displacement cables
- 1 command cable, 35 feet (10.6 m)
- Complete set of manuals, including:
- CBA Win© Manuals 1W and 2W
- Tabular reports manual
- Calibration certificate and conformance report
- Portable unit (no carrying case required)

Options

- Displacement kit
- Extra I/O cables
- Extension cables
- Portable computer
- Fax-modem module (credit-card size)

Size and Weight

	Micro CBA	8C unit	16C 24C units
Length	13" / 33 cm	17" / 43 cm	18" / 46 cm
Width	13.5" / 35 cm	16.5" / 42 cm	19" / 48 cm
Height	7" / 18 cm	10" / 25.4 cm	8.9" / 22.6 cm
Weight	18.6 lb / 8.45 kg	29 lb / 13 kg	38 lb / 17 kg

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