

# Zensol

Strongly built Strongly backed



## CBA-32P

### Circuit Breaker Analyzer



**More than 20 years of experience in manufacturing portable instruments !**

## **Strongly built**

- Instruments with a life expectancy better than 15 years
- Thanks to a powerful design, our instrument is the only one that can sustain shocks and drops without damage.
- Casing made of reinforced polyethylene with molded-in ribs for extra protection.
- No fragile mechanical components inside as built-in printers, screens or keyboards.
- Easy and robust connections

## **Strongly backed**

Zensol offers many kind of technical support

- Software included with unlimited upgrades
- Test assistance for field-testing
- Web support available anywhere at any time
- Training
- Support any time for our clients



# CBA-32P

## Circuit Breaker Analyzer

### Features and benefits

CbaWin© commands and executes the entire test.

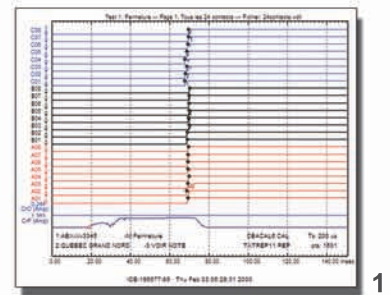
A single program performs all the tests, in the lab or in the field on all ZENSOL instruments and it analyzes the data on the spot or at the user's convenience.

No need to manage multiple programs!

CbaWin© works with test plans configured by the user.

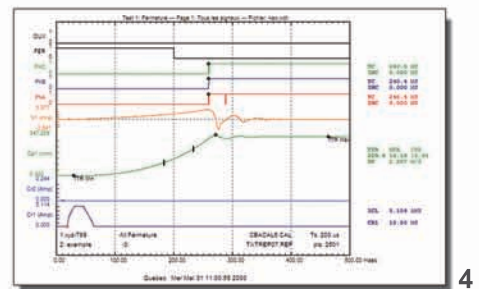
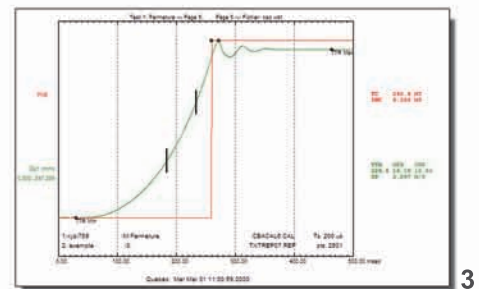
A number of predefined test plans, including a default test plan, are supplied with the software and meet most of the users' needs. The test plans are easily adaptable to special requirements.

- Simple graphic environment makes it easy for new user to complete a test in 4 single steps.
- Extensive analysis thanks to the many graphics tools available in the software including: superposing signals, superposing signals from different tests, scaling, zooming, examine.
- High Quality of the graphic reports : up to 30 signals per graphic, possibility to customize the color and the symbol of each signals.
- Tabular reports : various formats of tabular reports are available in the software with the possibility of customizing them or creating new ones.
- On-line manual including breaker and synchronisation theory.
- Recording and saving of raw data : keeps the integrity of the recordings, no filtering.
- Extensive calculation capabilities : more than 40 calculus functions available.
- Batch testing capabilities.
- Extensive export capabilities in various format including word, excel, etc. and even proprietary customer's database.



```
Test Report
-----
Identification File
Identification No : 1234-123
Specification No : 1234-123
Installation : exemple
Contact :
Component :
Serial Number :
Manufacturer : ISE
Type :

-----
Cable
-----
Contacts : 1 2 3 4
to (mm) : 0,000 | 0,000 | 240,000 | 0,000 |
120 (mm) : 0,000 | 0,000 | 0,000 | 0,000 |
-----
Contacts : 5 6 7 8
to (mm) : 240,000 | 0,000 | 0,000 | 0,000 |
120 (mm) : 0,000 | 0,000 | 0,000 | 0,000 |
-----
Main : min : 240,000
Contact : max : 240,000
Gap : clear : 0,200
Total stroke : 228,646 mm | Clear travel : 16,150 mm
```



# CBA-32P

## Circuit Breaker Analyzer

### CONTACT INPUTS (Digital 3 states)

Number available: 8, 16, 24 or 30 contacts  
Each input detects simultaneously the main contact  
AND the resistive contacts  
Each input can also be used to measure auxiliary contacts (type a/b)  
Contact circuit power supply: 40 V DC  
Maximum number of main contacts: 30  
Maximum number of resistive contacts: 30  
Each input handles 2 contacts  
Model:

400/500 kV:	Closed	( $r < 30 \Omega$ )
	Preinsertion	( $30 \Omega < r < 4 \text{ k}\Omega$ )
	Open	( $r > 4 \text{ k}\Omega$ )
800 kV:	Closed	( $r < 30 \Omega$ )
	Preinsertion	( $30 \Omega < r < 2.4 \text{ k}\Omega$ )
	Open	( $r > 2.4 \text{ k}\Omega$ )

Internal module option                      Capability of measuring the  
Preinsertion resistance                      ohmic value of preinsertion  
measurement:                                      resistance (RES-8, RES-16,  
RES-24)

Type of connector:                              3-pin neutrik male  
10 V DC supplied on Neutrik connector

### COMMAND OUTPUTS / CURRENT INPUTS

Testing current: 2 built-in current              8 software selectable  
sensors (one for close coil current              ranges: 0-20A, 0-10A, 0-5A,  
one for open coil current AC/DC)              0-1A, -20+20A, -10+10A,  
-5+5A, -1+1A

Use of Shunts NOT required to measure the current  
Maximum input voltage:                      0 to 300 V  
Voltage isolation to chassis:                      2 KV  
Unlimited numbers of  
programmable commands:                      Close, open (trip),  
up to 30 tests per file                              close-open (trip free),  
open-close (reclose),  
open-close-open,  
close-delay-close-open,  
close-open-close-open,  
open-close-open-close

All tests are done according to the international standard IEC56.  
Pulse width:                                      0 to 999 s, with 1 ms precision  
Pulse delay:                                      0 to 999 s, with 1 ms precision

### MULTIPURPOSE ANALOG INPUTS

Number:    5 or 8  
Resolution:    12 bits A/D converter  
Universal Analog input range:                      0 to 10 V DC  
Type of connector:                                  3-pin neutrik female  
3 or 6 general-purpose ANALOG inputs  
(software-configurable)  
Can fit various transducers

### WET CONTACT INPUTS (Digital 2 states)

Number:    0, 3 or 6  
Response time:                                      5  $\mu$ s in turn on or 40  $\mu$ s in turn off  
Input voltage:                                      Range from 0 to 300 V AC/DC  
Activation mode:                                      50 V DC

### DIGITAL INPUTS FOR OPTICAL ENCODERS

Number:    0, 3 or 6  
Resolution:    8000 pulses / revolution  
Type of transducer:                                  Incremental  
Type of connector:                                  4-pin neutrik male  
5 V DC supplied on Neutrik connector  
Automatic reset to 0  
3 or 6 ENCODER inputs (software-configurable)

### MEASUREMENTS

Sampling time:                                      32  $\mu$ s to 32,000  $\mu$ s  
Sampling rate:                                      31.25 Hz - 31,250 Hz  
Recording time:                                      1 ms to 17 minutes  
Resolution:    32  $\mu$ s  
Accuracy:     $\pm 32 \mu$ s  
Graphic representation resolution: Unlimited software  
zoom

### GENERAL

Dimensions:    13"x13.5"x7" (33x35x18 cm)  
3 cases available                                  17"x16.5"x10" (43x42x25.4 cm)  
18"x19"x8.9" (46x48x22.6 cm)  
Weight:    CBA-32P 8C : 27.5 lb (12.5 kg)  
CBA-32P 16C : 34.2 lb (15.5 kg)  
CBA-32P 24C : 38 lb (17 kg)  
Power supply:                                      110-120 VAC or 220-240 VAC,  
50/60 Hz  
Working temperature:                                  0°C (32°F) to 50°C (122°F)  
Storage temperature:                                  20°C (-4°F) to 70°C (158°C)  
Humidity:    0-95% Non Con.  
Language:    English, French and Spanish

### SYSTEM INCLUDES

CbaWin software with Unlimited free upgrades  
Adapter for RS232/fiber optic data link (57600 baud) with  
10 feet fiber optic cable  
Complete set of I/O cables including contact cables,  
displacement cables, ground cable, and command cable  
2 years warranty  
Complete set of manuals including operator's guide,  
installation, set-up and analysis manual and tabular  
report designer manual  
Unlimited free manuals download  
Certificate of calibration & test reports

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