

CBA-32P

CIRCUIT BREAKER ANALYZER



What is the CBA-32P ?

The CBA-32P is a universal analyzer with up to 24 contacts, for testing all types of circuit breakers. It can perform measurements of timing, motion and dynamic resistance of contacts, all in one single test.

Example of 24 contacts configuration CBA-32P-24C:



Detected problems	Test methods	CB14		CBA-32P		CBV-X		OTM-XB	
		Online	Offline	Online	Offline	Online	Offline	Online	Offline
Contact timing	Timing test		✓		✓		✓		
Contact bounce	Timing/motion test		✓		✓		✓		
Bad damping	Motion test		✓		✓		✓		
Main contact wear	Micro-ohmmeter test		✓		✓		✓		✓
Arcing contact wear	Dynamic resistance test		✓		✓		✓		✓
Open and close coil assessment	Coil current test	✓	✓	✓	✓	✓	✓	✓	✓
Motor assessment	Current and voltage test	✓	✓	✓	✓	✓	✓	✓	✓
First trip	Measure current over 3 phases	✓		✓		✓	✓	✓	✓
Bad mechanical adjustment	Vibration test					✓	✓	✓	✓
Bad alignment	Vibration test					✓	✓	✓	✓
Bad contact timing	Vibration test					✓	✓	✓	✓



Complete solution: performs multiple tests on many breakers at once

Up to 8 contacts/phase and 12 accessories (motion, dynamic and static resistance, first trip monitoring...)

A complete front panel !

No need for extra accessories to increase the number of inputs

Simple and secure cable connections

No loose connections such as dangerous and chaotic banana plugs.

Accurate measurement of insertion resistance even in noisy environments

Use of the RES module.

Approved by our partners, leader in their field.



RECORDING CHARACTERISTICS

Sampling time: 32 μ s to 32 ms
Sampling rate: 31.25 Hz to 31.25 kHz
Recording time: 1ms to 17 mins
A/D conversion: 12 bits

DIGITAL INPUTS FOR CONTACTS

Number available: 8, 16 or 24 contacts
Contact power supply: 40 VDC
Model:
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 ($r > 2.4 \text{ k}\Omega$)

Each input contains 2 contacts and detects both main and resistive contacts. each contact may also be used to measure auxiliary (a/b type) or any other dry contact.

ANALOG CONTACT INPUTS

(12 bits, internal option)

RES-8, RES-16, RES-24 pour 8, 16 ou 24 contacts.
A preinsertion resistance measurement module able to measure the true ohmic resistance value (0 à 7 k Ω , +/- 5%) of preinsertion resistors on any type of circuit breaker during both close and open operations. The close and open connections use the same cables and inputs as the digital contacts.
Note: this module is the equivalent of an ultra-fast ohmmeter.

MULTIFUNCTION ANALOG INPUTS (12 bits)

Number: 3 or 6
Resolution: A/D conversion 12 bits
Accuracy: +/- 2.44 mV
Input voltage range: 0 -10 V CC
It's possible to connect a wide range of transducers (motion, voltage, current, pressure, humidity, temperature...)
Note: 10 VCC is supplied Neutrik connector.

COMMAND OUTPUTS/CURRENT INPUTS

Command outputs : 2 completely independent contactors (close and open, able to break up to 30 A and 300 V AC/DC).
Current inputs : 2 integrated and independent current transducers

(in series with the two contactors). Eight software selectable current ranges ; +/-20A +/- 10A +/- 5A +/- 1A, 0-1A 0-5A 0-10A 0-20A
Hall effect current transducer needs no shunt to measure current.

DIGITAL INPUTS FOR OPTICAL ENCODERS (16 bits)

Number available : 3 or 6
Resolution: 8000 pulses/revolution
Type of transducer: Incremental
Automatic reset to zero before each.

DIGITAL INPUTS FOR WET CONTACTS (2 states) (internal or external option)

Number available: 0, 3 or 6
Response time: 5 μ s turn-on, 40 μ s turn off
Input voltage: 0-300 AC/DC
Switching voltage: 50 V CC

FIRST TRIP DETECTION INPUTS (External option)

AC current clamp which is easily connected to the analog inputs.
Typical input current: 1 to 20 A AC
Number: 0 or 3

GENERAL

3 available case sizes: 13" x 13.5" x 7" (33 x 35 x 18 cm)
17" x 16.5" x 10" (43 x 42 x 25.4 cm)
18" x 19" x 8.9" (46 x 48 x 22.6 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
Operating temperature range: 0°C to 50°C (32°F to 122°F)
Storage temperature range: -20°C to 70°C (-4°F to 158°F)
Humidity: 0 to 95% non condensing

THE SYSTEM INCLUDES

- CbaWin© software
- Complete set of manuals
- Calibration certificate and test reports
- 2 year warranty