

CB11

CIRCUIT BREAKER ANALYZER



What is the CB11 ?

The CB11 is a 3 contacts circuit breaker analyzer designed to measure timing, motion and static & dynamic contact resistance in a single test. It has also 3 multifunction analog inputs and an optical encoder input.



Detected problems	Test method	CB11		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					✓	✓	✓	✓



The little guy that plays along with the big boys !

You are able to test any type of circuit breaker with accurate and efficient performance, even in voltage ranges of up to 800kV.

Competitively-priced solution that is able to perform all tests required for proper maintenance

You will have an optimal QUALITY, SPEED and ACCURACY for all your tests

Sampling time : 5 μ s.

Sampling rate : 200kHz.

You will be certain to ensure operator SAFETY

You will be amazed how compact and lightweight the CB11 is.

Technical specifications

CB11

www.zensol.com www.zensol.net

RECORDING CHARACTERISTICS

Sampling time: 10 μ s to 26 ms
Sampling rate: 38 Hz to 100 kHz
Recording time: 10 ms to 30 min
A/D conversion: 16 bits

DIGITAL INPUTS FOR DRY CONTACTS (3 states)

Number available: 3
Contact power supply: 40 VDC
Resistance range: 500 k Ω Closed ($r < 30 \Omega$)
Preinsertion: ($30 \Omega < r < 4$ or 7 k Ω)
Open: ($r > 4$ or 7 k Ω)

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

DIGITAL INPUTS FOR WET CONTACTS (2 states)

Number available: 2
Response time: 5 μ s (rising) / 40 μ s (falling)
Input voltage: 0-300V AC/DC
Switching voltage: 50 V DC

MULTIFUNCTION ANALOG INPUTS (16 bits)

Number available: 3
Resolution: 16 bits conversion A/D
Accuracy: +/- 0.3 mV
Input voltage range: +/- 10 VDC (compatible with all industrial transducers)

DIGITAL INPUTS FOR OPTICAL ENCODERS (16 bits)

Number available: 1
Resolution: 8000 pulses/revolution
Type of transducer: incremental
Automatic reset to zero before each test.

COMMAND OUTPUTS / CURRENT INPUTS

Command outputs: 2 completely independent contactors (close and open, able to break up to 30A et 300V AC/DC)
Current inputs: 2 integrated and independent current transducers (in series with the two contactors)
Software selectable current ranges: +/- 20A +/- 10A +/- 5A +/- 1A
Note: Hall effect current transducer needs no shunt to measure current !

IMPORTANT NOTE : All CBA/CBV accessories (cables, transducers, adaptors, etc.) may be used with the CB11.

ANALOG INPUT TESTS

Static contact resistance test - main contact:
KIT MO-SD 100/200 (1 micro-ohm to several ohms)

Dynamic Contact Resistance Measurement- DCRM - Arcing contacts:
KIT MO-SD 100/200 (1 micro-ohm to several ohms)

First trip test:
Z-FT (AC current clamp: 100 mA/V et 10 mA/V)

Linear motion test:
ZLT-150/300/600 Analog linear transducers
ZLD-200/300 Digital magnetic transducers
KIT-ZLB Mechanical base for transducers
KIT-ZLR Linear-to-rotary motion converter and base (used with ZOT-2000)

Rotary motion tests:
ZRT-01/03/05/10 Analog rotary transducers
ZOT-2000 Digital optical encoder transducers
KIT-ZMS Magnetic mechanical base

Voltage tests:
ZVS-300V voltage transducers from 0 to +/- 300 V or +/- 1000 V

Currents tests:
CT-CLAMP-AC (100 mA/V and 10 mA/V ranges)
CT-CLAMP-AC/DC up to 30 A
ZCS 100/200/600 current transducers for up to 100/200/600 A

GENERAL

Size: L18.7" x I14.8" x H7" (L47.5cm x I37.5cm x H18cm)
Weight: < 7kg (15,43 lb)
Power supply: 100-240 VAC, 50/60 Hz, +/- 10%
Operating temperature range: 0 to 50°C (32°F to 122°F)
Storage temperature range: -20°C to 70°C (-4°F to 158°F)
Humidity: 0-95% Non Condensing
2 year warranty

COLOR OPTIONS

