

CBA50

Circuit Breaker Analyzer System

سیستم تست کلیدهای قدرت با قابلیت DRM



CE

The complete toolbox for testing and analyzing circuit breakers with Dynamic/ Static Contact Resistance Metering

Tests

- Timing test: Contact Close/ Open time, Out of sync, Contact bounce rate, etc.
- Traveling test: Contact stroke, Close/ Open speed, Overtravel, Rebound, etc.
- Static contact resistance: Contact static resistance during close time
- Dynamic contact resistance test (DRM): Contact resistance variation curve during open operation

Features

- Three linear and rotary (encoder) sensor inputs
- Static and dynamic resistance metering by applying a current of 400A DC in range of $1\mu\Omega$ to $160m\Omega$
- Drawing curve of dynamic resistance operation and applied current
- Calculating Resistance, Length and Time of dynamic resistance of contact
- Drawing curve of contact movement, contact operation time, coil and motor current, Testing auxiliary equipment such as anti-pumping relay
- Calculating breaker test parameters such as stroke, speed, operation time, out of sync, ...
- Calculating minimum voltage of coils operation

Applications

- Circuit breaker manufacturers
- Power transmission, distribution repair and maintenance companies
- Electrical power plant EPC companies
- Electrical power labs
- Big factories e.g. Steel, petrochemicals, refineries, and ...

CBA50 Specifications

**Specifications are valid at nominal input voltage and an ambient temperature of +25°C, (77°F).
Specifications are subject to change without notice.**

General

Type	Portable Circuit Breaker Analyzer with Dynamic/ Static Contact Resistance Metering
Main Voltage	220V AC , 50 Hz
Dimensions (L x W x H)	Basic Unit: 2 x (460 x 330 x 120 mm)
Weight	2 Basic Unit: 10.5 kg and 9 kg

Resistance Metering Operation

Resistance Measurement Range	1μΩ To 16mΩ (±1 μΩ) 10μΩ To 160mΩ (±10 μΩ)
Output Test Current	30 to 400 A DC
Output Voltage	Up to 5 V DC
Accuracy	±1% reading ± 1dgt
Sampling Frequency	10 kHz
Maximum Continuous Test Time (With Thermal Protection)	15 Seconds @ 200 A, 25°C Ambient 3 Seconds @ 400 A, 25°C Ambient

Breaker Analyzer Operation

Sequences (C: Close, O: Open)	C , O , C-O , C-T-O , O-T-C , O-T-C-O
Close / Open1 / Open2 Coil Voltage And Current	0-250V AC/DC (Set Automatically) , 50 Hz , 10A
Motor Voltage And Current	0-250V AC/DC (Set Automatically) , 50 Hz , 10A

Time Measurement

Contact Inputs	16 Input Channels (3 Main , 13 Auxiliary)
Time Spring Charge Range	40 s
Resolution	0.1 ms
Inaccuracy	0.01% Of Printed Value ± 0.1 ms
Start Time Measurement	With Operation Mechanism (Coil Energizing)
	Without Operating Mechanism (With the start of movement or change in the main contact)
Time Difference Between Control Pulse And Timer Start	< 0.1 ms

Motion Analyzer

Measurement Resolution	< 0.1 mm
Basic Inaccuracy	0.5%
Time-Base Inaccuracy	0.02%
Sampling Frequency	10 kHz
Analog Travel Transducer Input	Three Resistive Transducer / 100 Ω to 10 kΩ
Digital Travel Transducer Input	One Rotary Encoder / 2500 Pulse/r

CE Marking

Tester	EMC 2004/108/EC LVD 2006/95/EC
Microohm meter (200A version)	EMCD 2014/30/EU

Environment

Operating Temperature	-20 to 55 °C (-4 to 131 °F)
Storage Temperature	-30 to 70 °C (-22 to 158 °F)
Humidity	20% – 95% RH , Non-Condensing

Miscellaneous

Storage Capacity For Over 96 Test Records, 500 Ohm Value and 140 Ohm Curve
Internal Thermal Printer
USB and RS-232 Interface
PC Software

Accessories

<p>Motor Test Lead Set (4 x 4m)</p>	<p>Coil Test Lead Set (5 x 4m)</p>	
<p>Main Contacts Test Lead Set (3 x 8m with Clamps)</p>	<p>Current Test Lead Set (2 x 4m with Clamps)</p>	
<p>Voltage Test Lead Set (2 x 4m with Clamps)</p>	<p>Earthing Cables (2 x 4m with Clamps)</p>	<p>Trig Cable (1m)</p>
<p>2 x (Case Cover & Cable Bag)</p>	<p>2 x (Power, USB & RS232) Cables</p>	

One Year Warranty, Five Years After Sales Services