

CIBRE-30 SERIES

3-Contact Circuit Breaker Analyser with Built-in Printer





Contact Timing & Motion Tests

3 Dry Contact Inputs

CIBRE-30 Series 3-Contact Circuit Breaker Analyser with Built-in Printer

CIBRE-30, 3-Contact Circuit Breaker Analyser is designed using advanced engineering technology to test contact timings of circuit breakers.

CIBRE-30 has fast, easy and accurate measurement features through its user-friendly software.

CIBRE-30 is a battery-powered device (optional feature), allowing users to perform tests even without a power supply during field tests.

Why do we need to test circuit breakers?

It is essential to test circuit breakers regularly. Contact Timing Tests and Motion tests are performed to determine the optimal performance of the breakers. The testing can determine improper breaker operations in case of system fault and improve system reliability.

Contact Timing Tests

Contact timing tests are performed to compare the breakers' main & resistor contact performance against the manufacturer's specifications.

The breakers OPEN, CLOSE, OPEN-CLOSE, CLOSE-OPEN & OPEN-CLOSE-OPEN operations are timed in milliseconds (ms) and cycles and then compared with the manufacturer's specifications to determine the performance of the circuit breaker.

Motion Tests

CIBRE-30 can use to perform motion tests such as Transducer Speed, Stroke and Bounce. Slower transducer speed can reduce the breaking capacity of the main contact, while faster speed can cause mechanical damage to the damping components and cause excessive vibration. So it is necessary to test the transducer speed to compare it with the manufacturer's specifications.

CIBRE-30 Series feature with a 7-inch large colour touch display, which is visible under both bright sunlight as well as dim light conditions.

Operators can easily print the measurement results with the 2.28-inch built-in printer of CIBRE-30 Series. The results can also save to a USB flash drive or to the device's internal memory.

Multi-language capability and user-friendly operation menu make it easy to control CIBRE-30 Series.

CIBRE-30 Series devices are light-weight, compact and rugged with the protection of IP67 (case closed) which makes it perfect for the field test.



Features

- ▮ Contact Timing (O, C, O-C, C-O and O-C-O)
- ▮ Motion Tests (Transducer Speed, Stroke, Bounce)
- ▮ 3 Dry Contact Inputs
- ▮ Timing Accuracy: 0.05% rdg ± 0.1 ms
- ▮ Timing Windows: 1s, 10s & 20s
- ▮ Contact Detection Range: Closed ≤20 Ω & Open ≥5000 Ω
- ▮ Optional Battery
- ▮ Optional Bluetooth Communication
- ▮ 2.28" Built-in Printer
- ▮ 7" TFT Touch Colour Display

Technical Specifications

| | | | |
|--|---|-------------------------------------|---------------|
| Measurement Parameters | Contact Timing (O, C, O-C, C-O & O-C-O), Motion Tests (Transducer Speed, Stroke, Bounce) | | |
| Dry Contact Inputs | 3 dry input channels (each detects main) and insertion resistor contacts | | |
| Timing Windows | 1s, 10s, 20s | | |
| Timing Resolution | 1 s duration | 10 s duration | 20 s duration |
| | ± 50 μs | ± 500 μs | ± 1 ms |
| Timing Accuracy | 0.05% rdg ± 0.1 ms | | |
| Dry contact channel protection | Fuses and Diodes protection, All contacts grounded until test | | |
| Contact detection range | Closed | ≤20 Ω | |
| | Open | ≥5000 Ω | |
| Resistor detection range | 20Ω- 5000Ω | | |
| Trigger input voltage | 24 – 300 V DC or AC _{peak} | | |
| Dry contact input protection | Diode Protection/ FSD | | |
| Breaker Operations | OPEN, CLOSE, OPEN-CLOSE, CLOSE-OPEN, OPEN-CLOSE-OPEN | | |
| Voltage sensing input range | V1 (Analogue Input) | V2 (Presence/Absence Detector) | |
| | 0 – 250 V DC or AC _{peak} | 24 – 300 V DC or AC _{peak} | |
| Breaker Initiate Capacity | 20 A, 300 V DC or AC _{peak} | | |
| Digital Travel Transducer Input | 5V/12Vdc TTL | | |
| Initiate current reading range | 0 – 20A DC, 5 kHz | | |
| Input Power | 100-240 V, 47/63 Hz | | |
| Built-in Battery | Yes, 14.4 Vdc 6.9 Ah (Optional; Models: CIBRE-30B, CIBRE-30B BLUE) | | |
| Display | 7-inch Colour Touch Display | | |
| Memory | Up to 200 records (recommended for better device performance) | | |
| Communication | USB 2.0/1.1 Standard-A, USB 2.0/1.1 Standard-B Bluetooth (Factory install option; Models: CIBRE-30 BLUE & CIBRE-30B BLUE) | | |
| Dimensions | 16.9" x 12.9" x 9.3" (429 mm x 328 mm x 236 mm) | | |
| Weight | 8.2 kg (<i>models with battery</i>) | | |
| Temperature | Working: -10 °C to +60 °C ; Storage: -30 °C to +70 °C | | |
| Humidity | 95% RH non-condensing | | |
| Protection Class | IP67 (case closed) | | |
| Scope of Supply | CIBRE-30, 6m Contact Cable, 10m Contact Extension Cable, 1m Initiate Cable, 5m Initiate Extension Cable, 1m External Trigger Cable, 5m External Trigger Extension Cable, 1m Voltage Measurement Cable, 5m Voltage Measurement Extension Cable, Power Cable, Ground Cable, USB Cable, Printer Paper (x2), USB flash drive, Instruction Manual (Soft Copy), Cable Bag | | |
| Options | 325 mm Linear Encoder, Rotary Encoder, Battery, Bluetooth | | |
| Ordering Information | CIBRE-30 , 3-Contact Circuit Breaker Analyser with Built-in Printer | | |
| | CIBRE-30 BLUE , 3-Contact Circuit Breaker Analyser with Built-in Bluetooth & Printer | | |
| | CIBRE-30B , 3-Contact Circuit Breaker Analyser with Built-in Battery & Printer | | |
| | CIBRE-30B BLUE , 3-Contact Circuit Breaker Analyser with Built-in Battery, Bluetooth & Printer | | |

HIGHTEST Technology Ltd. is a leading manufacturing company based in the UK that produces high precision test equipment. Our focus is on the development, manufacture, and marketing of Transformer test and measurement equipment.

We have been designing and manufacturing high-end test equipment for many years and we supply our instruments worldwide to Transformer manufacturers, Electrical utilities, general contractors and service companies. Our test equipment is designed and produced according to the most widely adopted international standards and our experienced team provides excellent after-sales support and technical assistance as we endeavour to uphold customer satisfaction at all times.



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