



CIBRE-60 SERIES

6-Contact Circuit Breaker Analyser with Built-in Printer





Contact Timing & Motion Tests

6 Dry Contact Inputs

CIBRE-60 Series 6-Contact Circuit Breaker Analyser with Built-in Printer

CIBRE-60 Series, 6-Contact Circuit Breaker Analysers are designed using advanced engineering technology to test contact timings of circuit-breakers.

CIBRE-60 Series has fast, easy and accurate measurement features by our user-friendly software.

CIBRE-60 Series is a battery-powered device (optional feature), which allow users to perform tests even without power supply during field tests.

Why do we need to test circuit breakers?

It is very important 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 to 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 specification to determine the performance of the circuit breaker.

Motion Tests

CIBRE-60 Series can 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 manufacturer's specifications.

CIBRE-60 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-60 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-60 Series.

CIBRE-60 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)
- ▮ 6 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
- ▮ Light-weight and Portable
- ▮ Protection Class IP67 (case closed)

Technical Specifications

Measurement Parameters	Contact Timing (O, C, O-C, C-O & O-C-O), Motion Tests (Transducer Speed, Stroke, Bounce)		
Dry Contact Inputs	6 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/ ESD		
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		
Battery	Yes, 14.4 Vdc 6.9 Ah (Optional ; Model: CIBRE-60B, CIBRE-60B BLUE)		
Display	7-inch Colour Touch Display		
Memory	Up to 200 records		
Communication	USB 2.0/1.1 Standard-A, USB 2.0/1.1 Standard-B Bluetooth (Factory install option; Model: CIBRE-60 BLUE, CIBRE-60B BLUE)		
Printer	2.28-inch Built-in Printer		
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>)		
Working Temperature	-10 °C to +60 °C		
Humidity	90% RH non-condensing		
Protection Class	IP67 (case closed)		
Standard Supply	CIBRE-60, 6m Contact Cable (2x), 10m Contact Extension Cable (2x), 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-60 , 6-Contact Circuit Breaker Analyser with Built-in Printer		
	CIBRE-60 BLUE , 6-Contact Circuit Breaker Analyser with Built-in Bluetooth & Printer		
	CIBRE-60B , 6-Contact Circuit Breaker Analyser with Built-in Battery & Printer		
	CIBRE-60B BLUE , 6-Contact Circuit Breaker Analyser with Built-in Battery, Bluetooth & Printer		

HighTest Technology Ltd. is a leading manufacturing company based in the UK which produces highly precise test equipment. We mainly focus on the development, manufacture, and marketing of Transformer test systems.

We have several years of experience in the field of developing and producing high-end test equipment. Customer satisfaction is our prime motto. We supply our test equipment 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. As we value our customers the most, our well-experienced team always provide excellent after-sales support and technical assistance.



HIGHTEST TECHNOLOGY LIMITED
4F Great Northern Works, Hartham Lane, Hertford,
Hertfordshire, SG14 1QN, United Kingdom
Tel: +44 203 900 2710, +44 203 287 2302
info@hightest.co.uk www.hightest.co.uk

• Distributor / Representative