



# CIBRE-30B

## 3-Contact Circuit Breaker Analyser with Built-in Battery & Printer





## Contact Timing & Motion Tests

## 3 Dry Contact Inputs

### CIBRE-30B 3-Contact Circuit-Breaker Analyser with Built-in Battery & Printer

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

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

CIBRE-30B is a battery-powered device, which allows 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-30B 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 manufacturer's specifications.

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

With the HighTest Data Management Platform (DMP Software), users can analyse and manage measurement results on PCs.

Operators can easily print the measurement results with the 2.28-inch built-in printer of CIBRE-30B. 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-30B.

CIBRE-30B is a light-weight, compact and rugged device 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  $\pm$  0.1 ms
- Timing Windows: 1s, 10s & 20s
- Contact Detection Range: Closed  $\leq$ 20  $\Omega$  & Open  $\geq$ 5000  $\Omega$
- Built-in Battery
- Optional Bluetooth Communication
- PC Software
- 2.28" Built-in Printer
- 7" TFT Touch Colour Display
- Light-weight and Portable
- Protection Class IP67 (case closed)

## Technical Specifications

<b>Measurement Parameters</b>	Contact Timing (O, C, O-C, C-O & O-C-O), Motion Tests (Transducer Speed, Stroke, Bounce)		
<b>Dry Contact Inputs</b>	3 dry input channels (each detects main) and insertion resistor contacts		
<b>Timing Windows</b>	1s, 10s, 20s		
<b>Timing Resolution</b>	1 s duration	10 s duration	20 s duration
	$\pm$ 50 $\mu$ s	$\pm$ 500 $\mu$ s	$\pm$ 1 ms
<b>Timing Accuracy</b>	0.05% rdg $\pm$ 0.1 ms		
<b>Dry contact channel protection</b>	Fuses and Diodes protection, All contacts grounded until test		
<b>Contact detection range</b>	Closed	$\leq$ 20 $\Omega$	
	Open	$\geq$ 5000 $\Omega$	
<b>Resistor detection range</b>	20 $\Omega$ - 5000 $\Omega$		
<b>Trigger input voltage</b>	24 – 300 V DC or AC <sub>peak</sub>		
<b>Dry contact input protection</b>	Diode Protection/ ESD		
<b>Breaker Operations</b>	OPEN, CLOSE, OPEN-CLOSE, CLOSE-OPEN, OPEN-CLOSE-OPEN		
<b>Voltage sensing input range</b>	V1 (Analogue Input)	V2 (Presence/Absence Detector)	
	0 – 250 V DC or AC <sub>peak</sub>	24 – 300 V DC or AC <sub>peak</sub>	
<b>Breaker Initiate Capacity</b>	20 A, 300 V DC or AC <sub>peak</sub>		
<b>Digital Travel Transducer Input</b>	5V/12Vdc TTL		
<b>Initiate current reading range</b>	0 – 20A DC, 5 kHz		
<b>Input Power</b>	100-240 V, 47/63 Hz		
<b>Built-in Battery</b>	Yes, 14.4 Vdc 6.9 Ah		
<b>Display</b>	7-inch Colour Touch Display		
<b>Memory</b>	Up to 200 records (recommended for better device performance)		
<b>Communication</b>	USB 2.0/1.1 Standard-A, USB 2.0/1.1 Standard-B Bluetooth (Factory install option; Model: CIBRE-30B BLUE)		
<b>Printer</b>	2.28 inches Built-in Printer		
<b>PC Software</b>	DMP Software (Windows 10)		
<b>Dimensions</b>	16.9" x 12.9" x 9.3" (429 mm x 328 mm x 236 mm)		
<b>Weight</b>	8.2 kg (models with battery)		
<b>Working Temperature</b>	-10 °C to + 60 °C		
<b>Humidity</b>	90% RH non-condensing		
<b>Protection Class</b>	IP67 (case closed)		

Specifications are valid at/under 25 °C temperature. \*Contents subject to change without notice.

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.



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