TDR900

CIRCUIT BREAKER TEST SYSTEM

Performs timing functions for up to 4 breaks per phase with motion measurements for any circuit breaker.

The TDR900 is a state-of-the-art Circuit Breaker Test System engineered to test all types of circuit breakers. The TDR900 provides efficient and accurate performance measurements for circuit breakers. It allows simple to complex testing of circuit breakers using a single, rugged, field-portable instrument.

TDR900 Benefits:

- Rugged and Reliable - the TDR900 is a single box solution, providing the accuracy of a laboratory instrument with durability for field use.
- Complete Test Reports - provided in MS Excel™ format.
- User-friendly PC interface - the new T-Doble Software with its intuitive control panel provides quick, efficient and simple testing of circuit breakers.
- High Accuracy Motion Recording - a patented digital rotary and linear transducer provide early diagnosis of mechanical problems.
- Detects main contact and resistor switch timing errors.
- Other analog transducers supported.
- Immune to Interference - accuracy of test results is unaffected by the severe conditions of electrostatic and electromagnetic interference, normally present in harsh substation environments.
- Controlled by user supplied PC.

T-Doble Software (included with the TDR900) allows simple configurable display of results and user configurable reports

TDR900 Features:

TDR900 controls circuit breaker trip and close commands, allowing the user to perform the following operations:

- Trip (O)
- Close (C)
- Reclose (O-0.3s-C)
- Tripfree (CO)
- O-CO
- O-0.3s-CO
- First Trip (O)
- Slow Close (C)
- Self Diagnostics

The TDR900 comes with New T-Doble Software for improved data management capability.

- Intuitive and clear: easy-to-use test plans and test results
- Data can be plotted, overlaid, analyzed, and printed
- Will import all TR3100 and TDR9000 test result data and test plans

TDR900 Accessories:

- Doble Current Probes (20 A / 200 A ranges)

- Optional 90 ft / 27 m Test Cable
  (Specify O.C.B. or E.H.V. and quantity)

- Safety Cable 25 ft

- Safety Flag Plug

- Printer Model P1 External USB Thermal Printer

- Mechanical Adapter Clamp Set
  (Kit includes three (3) C-Clamps and six (6) Vise-Grip C-Clamps)

TDR900 Technical Specifications:

Main Contact and Resistor Switch Timing

Number of Phases:	3
Breaks Per Phase:	4
OCB Configuration:	3 Contacts
EHV Configuration:	[3, 6, 9, 12] Contacts
Resolution:	100 µs
Resistor Detection Range:	10 Ω to 10 kΩ
Voltage Isolation to Chassis:	1.0 kV

Trip/Close Initiation Control

Maximum Input Current:	± 25 A
Maximum Input Voltage:	± 300 V
Voltage Isolation to Chassis:	1.0 kV

Motion Channels

Number of Channels:	3
Connector:	15-pin "D"
Voltage Isolation to Chassis:	1.0 kV

Analog Measurement Channels (3A)

Number of Channels:	3
Maximum Input Voltage:	± 300 V
Input Impedance:	1 MΩ
Resolution:	12 Bit
Ranges:	± 300 V, ± 10 V, ± 2 V, ± 0.2 V
Voltage Isolation to Chassis:	1.0 kV

Auxiliary Contact Channels (3X)

Number of Channels:	3
Maximum Input Voltage:	± 300 V
Open Circuit Voltage:	29 V ± 10%
Close Circuit Current:	28 mA ± 10%
Voltage Isolation to Chassis:	1.0 kV

Digital Linear/Rotary Motion Transducer

	Linear	Rotary
Range:	0.0 to 40.0" 0.0 to 1000.0 mm	0.0 to 2880.0°
Accuracy:	+/-0.1% of the value +/- 0.1" max error	+/-0.1% of the value +/-0.1° max error
Measurement Resolution:	0.00125" 0.03 mm	0.09°
Velocity:	50 ft/s 15 m/s	120 rev/s max
Acceleration:	1200 g for 50 µs max	$30 \times 10^{6 \circ}/s^2$ max

General

Recordings:	25 seconds (all channels at max resolution) Up to 30 min (reduced resolution)
Communication:	USB or Ethernet
Safety:	Safety Ground Safety Switch (local and remote) Audible Indication (test in progress)

Physical Specifications:

Dimensions:	24.0 X 15.5 X 8.5 in 60.9 X 39.4 X 21.6 cm
Weight:	22 lbs / 10 kg
Power Supply:	100 – 240 V, 50/60 Hz
Temperature:	0° to 50° C operating, -25° to + 70° C storage
Humidity:	Up to 95% relative humidity non-condensing

Specifications are subject to change without notice.

Doble is ISO Certified
Doble is an ESCO Technologies Company
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