

TRAN SERIES

Automatic Transformer Analyser with Built-in Printer





TRAN SERIES 3Φ Transformer Analyser with Built-in Printer

TRAN Series is designed using advanced engineering technology to measure the turns ratio and winding resistance of three-phase and single-phase transformers. TRAN has easy, fast and accurate measurement features using its user-friendly software.

URNS RATIO MEASUREMENT

By using ANSI/IEEE C57.12.90 measurement method, TRAN can produce precise results. TRAN is one of the most accurate devices with its wide range (0.8 to 50,000) ratio measurement capability and high precision (0.08 %).

TRAN can also measure excitation current, phase angle, polarity, ratio error, and magnetic balance, apart from the ratio measurement. Even though TRAN has a three-phase cable configuration, users can also make single-phase transformer tests.

TRAN can detect vector groups automatically. It has a wide operation range from high excitation value current transformers to high powered power transformers at substations with 1V, 4V, 10V, 40V, 100V and 250V AC test voltages generation capability.

WINDING RESISTANCE MEASUREMENT

TRAN Series can measure the winding resistance of current, voltage and power transformers. Applying up to 20A Direct Current allows TRAN Series to measure the resistance of the transformers fast and accurate. The intelligent design of the TRAN Series makes it easier to automatically determine the end of measurement according to users' decisions. TRAN's measurement channels are designed in such a way that it can measure both three-phase and single-phase transformers' winding resistance. Simultaneous primary & secondary measurement without disconnecting and reconnecting cables.

3Φ Ratio Measurement

0.8 to 50,000

Test Voltages

1 V to 250 V

3Φ Resistance Measurement

0.1 μΩ - 100,000 Ω

Current Output

0.001 A - 20 A DC

Users need to connect the test cables just one time to measure all three phases while testing three-phase transformers. Starting from 0.1 μΩ resistances, TRAN Series can measure up to 100,000 Ω resistance.

TRAN Series discharges the measured circuit after each test. For inductive load, TRAN Series can demagnetise the load. The temperature measurement input enables one to automatically connect an optional sensor to TRAN Series and perform temperature correction.

TRAN Series' intelligent software allows controlling the current flow if there is a failure in the current circuit. With this feature, TRAN Series procures added safety for users.

GENERAL FEATURES

A 7-inch TFT touch display allows TRAN Series to show all measurement results on a single screen. With the Hightest Data Management Platform (DMP Software), TRAN can be controlled by a PC using the USB cable or the optional Bluetooth interface. And users can analyse, edit and store measurement results on the PC.

If setting up a Laptop or PC for the field test is difficult, users can record data to the device's internal memory or an external USB flash memory.

Operators can easily print the measurement results with the 2.28-inch built-in Printer of the TRAN Series. TRAN Series has an optional battery power feature that allows users to make tests even with no electricity.

Multi-language capability and user-friendly operation menu make it easy to control TRAN Series. With its tap changer outputs, TRAN Series can control the tap changer (raise and lower).

TRAN Series is a light, compact and rugged device with the protection class IP67 (case closed).

Technical Specifications

Measurement Parameters	3-Phase Turns Ratio Measurement, Excitation Current, Phase Angle, Polarity, Ratio Error (%), Vector group detection, Magnetic Balance; 3-Phase Winding Resistance Measurement
URNS RATIO MEASUREMENT FEATURES	
Ratio Measurement Modes	CT Mode, PT Mode (Single-Phase and Three-Phase)
Measurement Method	ANSI/IEEE C57.12
Test Voltages	CT Mode: 1 V and 4 V ; PT Mode: 1, 4, 10, 40, 100 & 250 V
Ratio Range	0.8 – 50,000
Phase Angle Measurement	0-360 Degree, ±0.2 degree
Excitation Current	Up to 2 A
Excitation Current Accuracy	±0.1 mA
WINDING RESISTANCE MEASUREMENT FEATURES	
Test Voltage	50 V
Current output	From 0.001 A to 20 A DC (User-selectable)
Resistance Measurement	From 0.1 $\mu\Omega$ to 100,000 Ω
Accuracy	0.1%
Resolution	5 digits
Demagnetisation	Yes
GENERAL FEATURES	
Power Supply	100-240 V, 47/63 Hz,
Battery	14.4 V 6.9 Ah battery (Models: TRAN-B, TRAN-B BLUE)
Internal Memory	Yes
Printer	2.28-inch Built-in Printer
Communication	USB 2.0/1.1 Standard-A, USB 2.0/1.1 Standard-B, Bluetooth(Models: TRAN- BLUE & TRAN- B BLUE)
PC Software	DMP Software
Display	7-inch TFT touch display
Dimensions	(16.9 × 12.9 × 9.3)" (429 x 328 x 236) mm
Weight	13.5 kg
Working Temperature	-10 °C to +60 °C
Storage Temperature	-30 °C to +70 °C
Humidity	95% RH Non-condensing
Protection Class	IP67 (case closed)
Set of Package	TRAN, Power Cable, Ground Cable, 2x 5m H&X Measurement Cable Set, 2x 10m H&X Extension Cable Set, 5m Tap Changer Cable Set, USB Cable, Jumper Cable, Printer Paper (x2), USB flash drive, Instruction Manual (Soft Copy), DMP Software, Cable Bag
Options	Hard Carrying Case, Bluetooth (factory install option), Battery (factory install option)

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

Ordering Information

TRAN



Three-Phase Transformer Analyser with Built-in Printer

TRAN-BLUE



Three-Phase Transformer Analyser with Built-in Bluetooth & Printer

TRAN-B




Three-Phase Transformer Analyser with Built-in Battery & Printer

TRAN-B BLUE



Three-Phase Transformer 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 and Solar test devices. 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, PV module/ Solar panel manufacturers, 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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