

# 3 $\Phi$ Transformer Turns Ratio Tester with Built-in Battery & Printer



Up to  
**50,000**  
Ratio

1 V to  
**250 V**  
Test Voltage

Large  
Colour Touch  
Display

High  
Accuracy  
**0.08%**

Built-in  
Printer &  
Battery



Measurement  
0.8 to  
50,000 Ratio  
Test Voltage  
1V to 250V  
High Accuracy  
0.08%

## TURA-03B

### 3 $\Phi$ Transformer Turns Ratio Tester with Built-in Battery & Printer

TURA-03B is designed using advanced engineering technology to measure the turns ratio of single-phase and three-phase transformers.

TURA-03B has fast, easy and accurate TTR measurement features for current, voltage and power transformers using its user-friendly software.

By using ANSI/IEEE C57.12.90 measurement method TURA-03B can produce precise results.

TURA-03B is one of the most accurate devices with its wide range (0.8 to 50,000) ratio measurement capability and high precision (0.08 %).

Besides the ratio measurement, TURA-03B can also measure excitation current, phase angle, polarity and ratio error.

Even though TURA-03B has three-phase cable configuration, users can make single-phase transformer tests as well.

TURA-03B can detect vector groups automatically.

TURA-03B has a wide operation range from high excitation value current transformer to high powered power transformer at substations with the 1V, 4V, 10V, 40V, 100V and 250V AC test voltage generation capability.

A 7-inch colour touch display allows TURA-03B to show all measurement results on a single screen.

USB, Bluetooth (Option) and Flash Memory features allow TURA-03B to control, record and store measurement results (up to 100 Test Records).

With the HighTest Data Management Platform (DMP Software), users can control TURA-03B and analyse measurement results.

Operators can easily print the measurement results with the 2.28-inch built-in Printer of TURA-03B.

Multi-language capability and user-friendly operation menu make it easy to control TURA-03B, even by less trained staffs.

TURA-03B can control tap changer (raise and lower) via its tap changer outputs.

TURA-03B is a light, compact and rugged device with the protection of IP67 (case closed).

In addition to ratio tests, TURA-03B can be used to perform Magnetic Balance Test as well.





## Features

- Turns Ratio Measurement  
(Single-phase and three-phase measurement)
- Ranges from 0.8 to 50,000 ratio measurement
- High Accuracy (0.08 %)
- 1V, 4V, 10V, 40V, 100V and 250V AC test voltage
- Ratio Error Measurement
- Magnetic Balance Test
- Excitation Current, Phase Angle, Polarity Measurement
- Built-in Printer
- Automatic vector group detection feature
- Internal memory, USB Flash Drive
- PC control via USB cable
- Optional Bluetooth control and communication
- 7-inch large colour touch display

## Technical Specifications

<b>Measurement Parameters</b>	Turns Ratio Measurement, Excitation Current, Phase Angle, Polarity, Ratio Error (%), Vector Group Detection, Magnetic Balance		
<b>Ratio Measurement Modes</b>	CT Mode, PT Mode (Single-Phase and Three-Phase)		
<b>Measurement Method</b>	ANSI/IEEE C57.12		
<b>Test Voltages</b>	CT Mode: 1 V and 4 V PT Mode: 1, 4, 10, 40, 100, 250 V		
<b>Ratio Range</b>	0.8 – 50,000		
<b>Accuracy</b>	Mode	Ratio	Accuracy
	CT Mode (1V -4 V)	0.8000 - 399.99 400.00 - 4000.0	0.08 % 0.1 %
	PT Mode(10 V- 250 V)	0.8000 - 5000.0 5000.1 - 12000 12001 - 50000	0.08 % 0.15 % 0.5 %
<b>Phase Angle Measurement</b>	0-360 Degree		
<b>Excitation Current</b>	2 A		
<b>Accuracy</b>	Range	Resolution	Accuracy
	Up to 1.0000 mA	0.2 $\mu$ A	0.25 % rdg $\pm$ 500 $\mu$ A
	1.0000 mA to 10.000 mA	1 $\mu$ A	0.25 % rdg $\pm$ 500 $\mu$ A
	10.000 mA to 100.00 mA	10 $\mu$ A	0.25 % rdg $\pm$ 500 $\mu$ A
100.00 mA to 2000.0 mA	100 $\mu$ A	0.25 % rdg $\pm$ 500 $\mu$ A	
<b>Power Supply</b>	100-240 V 47/63 Hz		
<b>Battery</b>	Yes, 14.4 V 3.45 Ah, Built-in Battery		
<b>Memory</b>	Up to 100 records (include up to 25 tap results)		
<b>Printer</b>	2.28-inch Built-in Printer		
<b>Communication</b>	USB 2.0/1.1 Standard-A, USB 2.0/1.1 Standard-B, Bluetooth (factory install option)		
<b>PC Software</b>	DMP Software		
<b>Display</b>	7-inch Colour Touch Display		
<b>Dimensions</b>	16.7" x 13.4" x 6.8" (424 mm x 340 mm x 173 mm )		
<b>Weight</b>	7.1 kg		
<b>Working Temperature</b>	-10 °C to + 60 °C		
<b>Protection Class</b>	IP67 (case closed)		
<b>Set of Package</b>	TURA-03B, Power Cable, Ground Cable , 15 feet Standard Test Cable Set, 30 feet Extension Cable Set, Tap Changer Cable Set, USB Cable, Printer Paper (x2), USB flash drive, Instruction Manual (Soft Copy), DMP Software, Cable Bag		
<b>Options</b>	Hard Carrying Case, Bluetooth (factory install option)		

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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