



Up to  
**33,000**  
Ratio

1 V to  
**100V**  
Test Voltage

 **MADE IN UK**

Large  
Colour Touch  
Display

High  
Accuracy  
**0.08%**

Built-in  
Printer



Measurement  
0.8 to  
33,000 Ratio  
Test Voltage  
1V to 100V  
High Accuracy  
0.08%

## TURA-01 SERIES

### Transformer Turns Ratio Tester with Built-in Printer

TURA-01 is designed using advanced engineering technology to measure the turns ratio of single-phase and three-phase transformers.

TURA-01 has easy, fast and accurate turns ratio measurement features for current, voltage and power transformers using its user-friendly software.

TURA-01 is one of the most accurate devices with its wide range (0.8 to 33,000) ratio measurement capability and high precision (0.08 %).

Besides the ratio measurement, TURA-01 can also measure excitation current, phase angle, polarity, and ratio error.

Even though TURA-01 has a single-phase cable configuration, users can also make three-phase transformer tests. TURA-01 can show all kinds of connection diagrams on its display, depending on the transformer configuration. The operator doesn't need to search for any connection diagram.

TURA-01 has a wide operation range from high excitation current transformers to high powered power transformers at substations with the 1V, 4V, 10V, 40 V and 100 V AC test voltage generation capability.

A 4.3-inch TFT touch display allows TURA-01 to show all measurement results on a single screen.

USB, Bluetooth (Option), and Flash Memory features allow TURA-01 to control, record and store measurement results (up to 100 Test Records).

With the HighTest Data Management Platform (DMP Software), users can control TURA-01 and analyse measurement results on a PC.

Operators can easily print the measurement results

with the 2.25-inch built-in Printer of TURA-01.

Multi-language capability and user-friendly operation menu make it easy to control TURA-01, even by less trained staff.

Using the optional TPA-03 Three-Phase Adapter, users can make three-phase connections and test all phases simultaneously.

TURA-01 is a light, compact and rugged device with the protection class IP67 (case closed).






## Features

- Turns Ratio Measurement  
(Single-phase and three-phase measurement)
- Ranges from 0.8 to 33,000 ratio measurement
- High accuracy (0.08 %)
- 1V, 4V, 10V, 40 V and 100 V AC test voltage
- Ratio error measurement
- Excitation current, phase angle, polarity measurement
- Built-in Battery & Printer
- Internal memory, USB Flash Drive
- PC control via USB cable
- Optional Bluetooth control and communication
- 4.3-inch large colour touch display
- Optional expansion feature with Three-Phase Adapter (TPA-03)

## Technical Specifications

|                                |  |                                       |                           |
|--------------------------------|--|---------------------------------------|---------------------------|
| <b>Measurement Parameters</b>  | Turns Ratio Measurement, Excitation Current, Phase Angle, Polarity, Ratio Error (%), Magnetic Balance (Required TPA-03)  |                                       |                           |
| <b>Ratio Measurement Modes</b> | CT Mode, PT Mode (Single-Phase and Three-Phase)  |                                       |                           |
| <b>Test Voltages</b>           | CT Mode: 1 V and 4 V<br>PT Mode: 1, 4, 10, 40, 100 V   |                                       |                           |
| <b>Measurement Method</b>      | ANSI/IEEE C57.12.90  |                                       |                           |
| <b>Ratio Range</b>             | 0.8 – 33,000   |                                       |                           |
| <b>Ratio Resolution</b>        | 5 Digits   |                                       |                           |
| <b>Accuracy</b>                | <b>Mode</b>  | <b>Ratio</b>                          | <b>Accuracy</b>           |
|                                | CT Mode (1V -4 V)  | 0.8-399<br>400-4000                   | 0.08 %<br>0.1 %           |
|                                | PT Mode(10 V- 100 V)   | 0.8-5000<br>5001-12000<br>12001-33000 | 0.08 %<br>0.15 %<br>0.5 % |
| <b>Phase Angle Measurement</b> | 0-360 Degree, $\pm 0.2$ degree ( $\pm 1$ digit)  |                                       |                           |
| <b>Excitation Current</b>      | 2 A, 2 % of reading ( $\pm 1$ mA)  |                                       |                           |
| <b>Power Supply</b>            | 100 - 240 V 47/63 Hz   |                                       |                           |
| <b>Battery</b>                 | Yes, 14.4 V 3.45Ah   |                                       |                           |
| <b>Memory</b>                  | Up to 100 records (include up to 25 tap results)   |                                       |                           |
| <b>Printer</b>                 | 2.25-inch built-in printer, (Optional model without Printer is also available)   |                                       |                           |
| <b>Communication</b>           | USB 2.0/1.1 Standard-A, USB 2.0/1.1 Standard-B, Bluetooth (Model: TURA-01 BLUE)  |                                       |                           |
| <b>PC Software</b>             | DMP Software   |                                       |                           |
| <b>Display</b>                 | 4.3-inch TFT touch display   |                                       |                           |
| <b>Dimensions</b>              | 12.5" x 10.1" x 6.0" (318 mm x 257 mm x 152 mm )   |                                       |                           |
| <b>Weight</b>                  | 3.8 kg   |                                       |                           |
| <b>Working Temperature</b>     | -10 °C to +60 °C   |                                       |                           |
| <b>Storage Temperature</b>     | -30 °C to +70 °C   |                                       |                           |
| <b>Humidity</b>                | 95% RH non condensing  |                                       |                           |
| <b>Protection Class</b>        | IP67 (case closed)   |                                       |                           |
| <b>Set of Package</b>          | TURA-01, Power Cable, Ground Cable , 5 m Standard Test Cable Set, USB Cable, Printer Paper (x2), USB flash drive, Instruction Manual (Soft Copy), DMP Software, Soft Carrying Case |                                       |                           |
| <b>Options</b>                 | Carrying Case, TPA-03 Three-Phase Adapter, Bluetooth (factory-install option), 10 m Extension Cable  |                                       |                           |
| <b>Ordering Information</b>    | TURA-01 - Transformer Turns Ratio Tester With Built-in Printer & Battery   |                                       |                           |
|                                | TURA-01 BLUE- Transformer Turns Ratio Tester With Built-in Printer, Battery & Bluetooth  |                                       |                           |
|                                | TURA-01 WP- Transformer Turns Ratio Tester With Built-in Battery (model without Printer & Bluetooth)   |                                       |                           |

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



HIGHTEST Technology Ltd. is a leading manufacturing company based in the UK that produces high precision test equipment. Our focus is on the development, manufacture, and marketing of Transformer test and measurement equipment.

We have been designing and manufacturing high-end test equipment for many years and we supply our instruments 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 and our experienced team provides excellent after-sales support and technical assistance as we endeavour to uphold customer satisfaction at all times.



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