

## TR-Mark III 250V: Fully Automatic, Three Phase Transformer Turns Ratio Meter

### Features

- Extended test voltage measurement range of up to 250V
- Automatic measurements of voltage, turns ratio, current, and phase displacement
- Easy one-time hook up to the transformer
- Automatic test voltage range
- Displays deviation from a nominal ratio
- Tap changer interface with graphic results
- Load on test object <0.05 VA
- Measures power transformers, PTs and CTs
- Automatic vector group detection
- Enhanced heavy-duty protection circuitry
- Emergency stop button immediately turns off output
- Internal printer
- Data storage of over 10,000 measurements
- Simple to operate color LCD touch screen with back light
- Two USB interfaces
- 5-Year standard warranty



TR-Mark III 250V

### Accuracy

Range	Accuracy at 100V or 40V	Accuracy at 10V	Resolution
0.8 ... 2,000	±0.06% Rdg ±1 LSD	±0.15% Rdg ±1 LSD	5 Digits
2,001 ... 4,000	±0.1% Rdg ±1 LSD	±0.3% Rdg ±1 LSD	5 Digits
4,001 ... 13,000	±0.3% Rdg ±1 LSD	not specified	5 Digits
13,001 ... 16,000	±0.4% Rdg ±1 LSD		5 Digits

Range	Accuracy at 250V	Resolution
0.8 ... 5,000	±0.06% Rdg ±1 LSD	5 Digits
5,001 ... 10,000	±0.1% Rdg ±1 LSD	5 Digits
10,001 ... 32,500	±0.3% Rdg ±1 LSD	5 Digits
32,501 ... 45,000	±0.4% Rdg ±1 LSD	5 Digits

Current	Accuracy	Resolution
0 ... 1A	±0.001A	0.1mA

Phase Angle	Accuracy	Resolution
±90 Degree	±0.05 Degree	0.01 Degree

### Specs

Size: **L:** 470 mm (18.5") **W:** 371 mm (14.6") **H:** 190 mm (7.5")

Weight: 10.2 kg (22.4 lbs.)

Input Power: 100 to 250 VAC 50/60 Hz auto ranging. Fuse: 2A

Turns Ratio Range: 0.8 to 45,000

Test Voltage: User Selectable: 250, 100, 40, 10, and 1VAC. 1A

Temperature: **Operating:** -10°C to 60°C (14°F to 140°F); **Storage:** -20°C to 70°C (-4°F to 158°F)

See Instruction Manual for more Parameters. Specifications subject to improvement at any time.

Panel Display: 5.7" Color LCD with back light and touch screen

Front Panel: Sealed, anodized

Interface: 2 USB 1.1 (1 host/1 device) and 9 Pin RS-232 serial

Memory Storage: Internally stores more than 10,000 test results

### Standard Accessories Included

H and X Lead Set – 5m (16 ft.)

Red Extension Lead Set (2) – 10m (32 ft.) each

Power Cord – 6.09m (20 ft.)

Ground Lead – 5m (16 ft.)

Cable Bag with Shoulder Strap

External USB drive and touch screen Stylus

A-B USB Cable – 3.05m (10 ft.)

External Zippered Pouch

Paper Refill for Panel-mount Printer – 5 rolls

Spare Fuse Set

Instruction Manual

Certificate of Accuracy

## TR-Mark III 250V: Fully Automatic, Three Phase Transformer Turns Ratio Meter

### Optional Items Available

- 1003N-31001: External Trigger Switch for Tap Changer Testing – 10m (32 ft.)
- 1002A-05002: Red Extension Lead – 10m (32 ft.)
- T-Rex: 3 Phase Test Voltage Option for TR-Mark III 250V
- 1004N-15002: Annual Warranty Extension

### Rackmount Version Available

For your convenience, Raytech offers a 4U rackmount version, the TR-Mark III R 250V.

All of the features and accuracy of the portable field unit are incorporated into the rackmount, except the internal printer. There are a total of four (4) USB interfaces to provide additional access to the instrument.



### Specs

Size: L: 490 mm (19.3") W: 436 mm (17.2") H: 177 mm (7")      Rack Unit: 4U      Weight: 8.1 kg (17.9 lbs.)

### Standard Accessories Included

The same accessories are included as the portable field version, except printer paper refill will not be included because the rackmount does not contain a printer.

### Optional Items Available

The same optional items that are available to the field unit are also available to the rackmount unit, except a rackmount T-Rex goes with the rackmount TR-Mark III R 250V and has the part number T-Rex R.

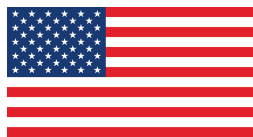


Rear View

Raytech is a world leader in the design and manufacture of precision electronic measuring instruments and systems. The unique design approach of the engineering team at Raytech has resulted in the development of highly regarded measuring instruments, which have set new standards in the electrical testing industry.

Our exceptional reputation for support and service is unmatched.

Raytech products are designed for many years of trouble-free use, which is why we can offer a **standard 5-year warranty** – guaranteeing the highest quality instrumentation available.



#### Raytech USA

118 S. 2nd Street  
Perkasie, PA 18944  
Tel: +267 404 2676

Email: [Welcome@RaytechUSA.com](mailto:Welcome@RaytechUSA.com)  
[www.RaytechUSA.com](http://www.RaytechUSA.com)



#### Raytech GmbH

Oberebenestrasse 11  
5620 Bremgarten, Switzerland  
Tel: +41 56 648 6010

Email: [Welcome@Raytech.ch](mailto:Welcome@Raytech.ch)  
[www.Raytech.ch](http://www.Raytech.ch)

