



## Three Phase Turns Ratiometer

### SPECIFICATIONS:

<b>MODEL:</b>	<b>TR-MARK III</b>
<b>SIZE:</b>	L: 470mm (18.5") W: 371mm (14.6") H: 190mm (7.5")
<b>WEIGHT:</b>	9.5 kg (21 lbs.)
<b>INPUT LINE POWER:</b>	100 to 250 VAC 47-63 Hz, auto ranging, Fuse: 2A
<b>TEST VOLTAGE:</b>	User selectable 100, 40, 10, and 1Vac, 1A
<b>PANEL DISPLAY:</b>	Color LCD with back lighting and touch screen
<b>FRONT PANEL:</b>	Sealed anodized
<b>INTERFACE:</b>	9 pin RS232 serial / 2 USB 1.1 (1 host, 1 device)
<b>MEMORY STORAGE:</b>	Stores over 10,000 complete test results
<b>RATIO RANGE:</b>	0.8...16,000
<b>OPERATING TEMPERATURE</b>	-10° C to 60° C
<b>STORAGE TEMPERATURE</b>	-20° C to 70° C



Range	Accuracy at 100 V or 40 V	Accuracy 10 V	Resolution
0.8 ... 2000	±0.06% Rdg ±1 LSD	±0.15 % Rdg ±2 LSD	5 Digits
2001 ... 4000	±0.1% Rdg ±1 LSD	±0.22% Rdg ±2 LSD	5 Digits
4001 ... 13000	±0.3% Rdg ±1 LSD	±0.5% Rdg ±2 LSD	5 Digits
13000 ... 16000	±0.4% Rdg ±1 LSD	not specified	5 Digits

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

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

### FEATURES:

- 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
- Simple touch screen operation
- Graphical tap changer display
- Tap changer interface
- Load on test object <0.05 VA
- Measures power transformers PTs and CTs
- Displays % error vs. name plate value
- Automatic phase vector detection
- Enhanced heavy-duty protection circuitry
- Emergency stop push button immediately turns off output
- Internal printer
- Data storage of over 10,000 measurements
- Data exchange with USB-key
- Mounted in rugged case for field-testing
- 5 Year standard warranty\*

### CABLE SET / ACCESSORIES:

- H and X lead-set – 5m each
- H and X extensions – 10m each
- Safety ground, power cord
- External USB-key, USB and RS-232 Cable
- Instruction manual, printer paper (5 rolls)
- Cable bag

### OPTIONAL ITEMS:

External trigger for tap changer testing  
 Three phase supply for phase shifting and Zig-Zag transformers  
 TR-Mark IIIR – 19" 4U Rackmount version available

Specifications are subject to improvement at any time.