

## **PROVA 1660**

# **Transformer Turns Ratio Meter**



**CE CAT IV 50V** 



#### **Features:**

- Measurements of  $1 \oplus$  and  $3 \oplus$  Transformer/VT/CT Turns Ratio.
- VT/PT ratio 0.8~10000, CT ratio 0.8~2000.
- **Graphical and Literal Illustration** of Measurements and Connections with Large Back-lighted Dot Matrix 240 x 128 LCD. Display Test Data with Nameplate Transformer Values for Easy Interpretation.
- Ten Test Frequencies (50~400Hz).
- Display Turns Ratio, Deviation, Secondary Output, Excitation Voltage and Current,

  Phase Angle and Nameplate Transformer/VT/CT Values in one page for easy transformer quality interpretation.

- Check for Live Test Points, Short Circuit, Open Circuit, and Reverse Polarity before Each Measurement. Message is displayed to Warn Users (But, checking is not performed once measurement starts).
- Store 4096 Files of Transformer Nameplate Values (VT/PT/CT, 1Φ/3Φ, Test Frequency, Primary and Secondary Voltages or Ratio, RCF) and Measuring Data.
- **9 types of 3** $\Phi$  **Windings** Connections pre-installed for easy user selection.
- Wireless Blue Tooth Communication with PC.
- Select Filter to Remove Field Noise (Slow, Normal, Fast).
- Disable or Enable Auto-Power-Off with Programmable Time.
- Built-in calendar clock.Records with Date and Time Stamp.
- Powerful Lithium Battery (3400mAH) with built-in Charging Circuit.
- User Programmable RCF (Reference Correction Factor, 0.99~1.01) to Correct Accuracy within 1% Error.
- Friendly **File System** for Easy On-site Data Retrieval and Nameplate Values Management.
- PC Application Software included.

#### **Electrical Specifications:**

Reference Conditions:  $23^{\circ}$ C  $\pm$  5°C (30 to 50% RH) range. Add 25ppm/°C for 0° to 18°C and 28° to 50°C to all accuracy specifications. No external electrical or magnetic fields. Output current  $\leq$ 150 mA for VT/PT and  $\leq$ 50mA for CT. Calibration cycle is 1 year.

Ratio Range (VT/PT)	Autoranging: 0.8000 to 10000: 1	
Accuracy (70Hz)	Ratio Range	Accuracy (% of Reading)
	0.8000 ~ 999.99	± 0.1%
	1000.0 ~ 4999.9	± 0.2%
	5000.0 ~ 10000	± 0.25%
Ratio Range (CT)	Autoranging: 0.8000 to 2000.0	
Accuracy (70Hz)	Ratio Range	Accuracy (% of Reading)
	0.8000 to 2000.0	± 0.5%
Excitation Signal	VT/PT Mode: 34Vrms max	
	CT Mode: Auto Level 0 to1A, 0.1 to 20Vrms	
Excitation Current	Range:0 to 1000mA	
Display	Accuracy: ± (2% of Reading +2mA)	
Excitation Frequency (Hz)	50, 55, 60, 70, 100, 120, 200, 240, 300, 400	
Display	5" Large dot matrix LCD display (240*128) with backlight	

Power Source	Rechargeable Lithium Battery, 3400mAh	
Battery Life	Over 10 hrs of continuous operation. Battery life (%) indication	
Battery Charger	Universal input (90 to 264Vrms input)	
Charging Time	<4 hrs	
Data Storage	4096 Files Each (VTM, CTM, VTR, CTR, BMP)	
Date/ Time	Battery-backed, Real-time Calendar clock	
Measurement Method	ANSI / IEEE C57.12.90 and IEC 600076.1	
Operation Environment	5°C ~ 50°C, 85% RH	
Storage Environment	-20℃ ~ 60℃, 75% RH	

### **Accessory:**

- 1. Test leads (set of 2)
- 2. Alligator clips (4pcs.)
- 3. Rechargeable lithium battery
- 4. User manual
- 5. AC adaptor
- 6. Power cord
- 7. Software CD & Manual
- 8. Carrying bag



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