



KPM Transformer Winding Resistance Tester (KPM-TWRT20A)



Winding resistance measurement of the Power Transformer is one of the critical test which ensures the healthiness of the transformer .

KPM offers a complete line of transformer testing equipment .The KPM TWRT Series Transformer Winding Resistance Tester are the product of the latest generation . KPM TWRT20A is an effective & easy to use equipment capable of testing a transformer as well as tap changer without interruption .

KPM TWRT20A is provided with the large-screen LCD and graphical interfaces which makes the operation visually clear and easy. Besides, it is provided with on-board printer and large non-volatile memory, so the measurement results can be stored and printed easily. With good stability of results, speediness and perfect repeatability, it is the best choice for the on-site measurement of DC resistance of transformer.

Connection Diagram

KPM offers a complete line of transformer testing equipment. The KPM TWRT Series can be classified in terms of below models

- TWRT-2A (2A , 1 Phase Testing)
- TWRT-10A (10A , 1 Phase Testing)
- TWRT-20A (20A , 1 Phase Testing)
- TWRT-40A (40A , 1 Phase Testing)
- TWRT-20 (40A , 1 Phase Testing & 20A, 3Phase Testing)

- High Current Source of 20A
- Winding Charging Indication
- Tap Changer fault finding ability.
- Simple Operation
- Rugged Design
- Automatic Discharge Function with Indication
- Reverse Connection Indication
- PC Connectivity with onboard printer.

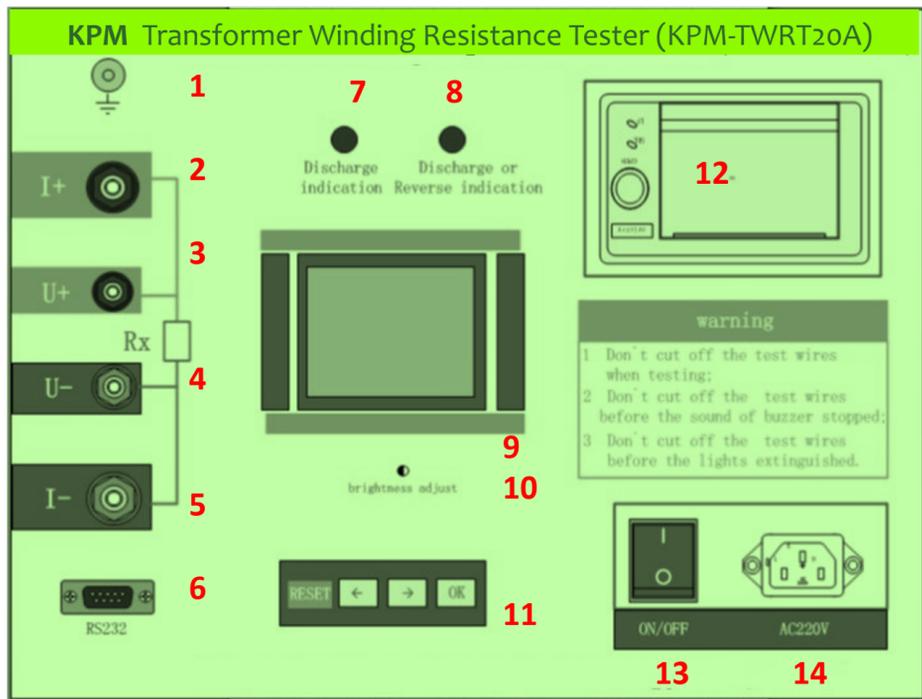
Technical Specifications

1. Resistance precision : $\pm (0.2\% \text{RGD} + 2d)$
2. Test range :
 1. $1.000\Omega - 1000\Omega (20\text{mA})$
 2. $100.0\text{m}\Omega - 100.0\Omega (200\text{mA})$
 3. $10.00\text{m}\Omega - 10.00\Omega (2\text{A})$
 4. $4.000\text{m}\Omega - 4.000\Omega (5\text{A})$
 5. $2.000\text{m}\Omega - 2.000\Omega (10\text{A})$
 6. $1.000\text{m}\Omega - 1.000\Omega (20\text{A})$
3. The least scale : $1\mu\Omega$
4. Output current precision: $\pm 5\%$
5. Support for data uploading to PC
6. Two hundred groups of data can be stored
7. With thermal printer to print the test data
8. Weight: 10KG
9. Power supply : $\text{AC}220\text{V} \pm 10\%$, $(50 \pm 1)\text{HZ}$
operation condition : $-10 \sim 50^\circ\text{C}$ Humidity $< 90\%$ No Condensation.



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Tester Operation



1. Earth Terminal
2. I+ Terminal
3. U+ Terminal
4. U- Terminal
5. I- Terminal
6. RS 232 Port
7. Discharge Indication
8. Reverse Connection Indication
9. LCD Screen
10. Brightness Adjustment Screen
11. Key Pad
12. Printer
13. Power Switch
14. Power Supply Port

Accessories

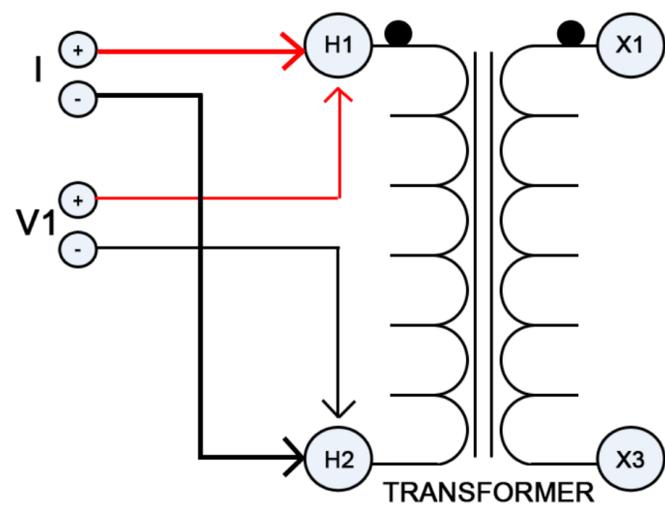
1. Tester
2. 220V power wire
3. Test wires
4. Ground wire
5. Fuse (3A)
6. PC software CD
7. Operational Manual
8. Production certification
9. USB-serial wire
10. Accessory bag

Applications

1. Verify factory test readings.
2. Help to locate the presence of defects in transformers such as increased contact resistance in terminal connections and tap-changers.
3. Check the operation of on-load tap changers.

Principle of working

Transformer winding resistance measurements are obtained by passing a known DC current through the winding under test and measuring the voltage drop across each terminal (Ohm's Law).



$$V = I \cdot R + L \cdot \frac{di}{dt}$$

$$R = \frac{V}{I}$$

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