



WR50 (50A)
For Winding
Resistance
measurements



The Raytech WR50 is a Winding Resistance meter system specially designed for high precision DC winding resistance measurement of high inductive windings such as large power transformer windings. It can also be used for precisely diagnosing and for preventive maintenance. Many power transformer's faults such as shorted turns, tap changer problems and loose connections can be detected precisely.

The powerful 50A/50V output together with smart features enable WR50 to charge and discharge the winding quickly. It includes also special tools such as advanced transformer core demagnetizing, temperature rise measurement and analysis (optional), and automatic temperature correction using up to 3 temperature probes.

The WR50-12 can inject current to both high voltage and low voltage side (WR50-13 also to tertiary side) using the jumper cables provided, and resistance measurement can be performed simultaneously.



Temperature		Resistance range	0.00 $\mu\Omega$ to 100 k Ω
Operating	-10°C to 55°C	Accuracy	$\pm 0.1\%$ Rdg
Storage	-20°C to 70°C	Resolution	0.05 $\mu\Omega$
Abs. Input Voltage	90 to 264 VAC, 47-63 Hz	Current range	25 mA...50 A/50 V DC
		Inductance range	0 ... 1500 Henry

Measurement Parameters

Current Range	Measuring Range	Accuracy	Resolution
30 - 50 A	0.00 $\mu\Omega$... 1.3 Ω	$\pm 0.1\%$ Rdg $\pm 0.05 \mu\Omega$	5 Digits or 0.05 $\mu\Omega$
15 - 30 A	0.0 $\mu\Omega$... 3.3 Ω	$\pm 0.1\%$ Rdg $\pm 0.1 \mu\Omega$	5 Digits or 0.1 $\mu\Omega$
8 - 15 A	0.0000 m Ω ... 6.3 Ω	$\pm 0.1\%$ Rdg $\pm 0.2 \mu\Omega$	5 Digits or 0.2 $\mu\Omega$
3 - 8 A	0.0000 m Ω ... 16.7 Ω	$\pm 0.1\%$ Rdg $\pm 0.5 \mu\Omega$	5 Digits or 0.5 $\mu\Omega$
1 - 3 A	0.000 m Ω ... 47.2 Ω	$\pm 0.1\%$ Rdg $\pm 1 \mu\Omega$	5 Digits or 1 $\mu\Omega$
0.7 - 1 A	0.000 m Ω ... 71.4 Ω	$\pm 0.1\%$ Rdg $\pm 2 \mu\Omega$	5 Digits or 2 $\mu\Omega$
0.3 - 0.7 A	0.000 m Ω ... 167 Ω	$\pm 0.1\%$ Rdg $\pm 5 \mu\Omega$	5 Digits or 5 $\mu\Omega$
0.1 - 0.3 A	0.00 m Ω ... 500 Ω	$\pm 0.1\%$ Rdg $\pm 10 \mu\Omega$	5 Digits or 10 $\mu\Omega$
25 - 100 mA	0.00 m Ω ... 2 k Ω	$\pm 0.1\%$ Rdg $\pm 20 \mu\Omega$	5 Digits or 20 $\mu\Omega$
- 25 mA	2 k Ω ... 10 k Ω	$\pm 0.2\%$ Rdg $\pm 200 m\Omega$	5 Digits or 200 m Ω
- 25 mA	10 k Ω ... 100 k Ω	$\pm 0.8\%$ Rdg $\pm 20 \Omega$	4 Digits or 20 Ω

Accessories

- Current and potential lead set 10 meters
- Jumper cable 10 meters
- Instruction manual
- T-Base Pro Software for Data Exchange and Analysis

Specifications

Model with 2 channels
WR50-12 and WR50-12R (rackmount version)

Model with 3 channels
WR50-13 and WR50-13R (rackmount version)

Size (field case)
L: 521 mm (20.5")
W: 432 mm (17")
H: 216 mm (8.5")

Weight
16.6 kg (36.6 lbs.)

Interfaces
USB 2.0 full speed (1 host, 1 device) and 9 Pin RS232 serial

Memory Storage
Internally stores more than 10 000 test results

Panel Display
5.7" Color LCD with LED back lighting and touch screen

Front Panel
Sealed, Anodized

Options

- WRO 102
10 meters cable extension set
- TPO1
External temperature probe
- AHRT01
"Heat run test" software



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