

WR100 (100A) For Winding Resistance measurements

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The Raytech WR100 is the more powerful version of WR50 which is designed for laboratory as a part of the Raytech ATOS system. It is a Winding Resistance meter specially designed for high precision DC winding resistance measurement of high inductive windings such as very large power transformer windings.

The powerful 100A output together with smart features enable WR100 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 WR100-12R can inject current to both high voltage and low voltage side (WR100-13 also to tertiary side) using the jumper cable provided, and resistance measurement can be performed simultaneously. Additionally, by using the Raytech MUX-R in ATOS, the same cables for winding resistance and turns ratio measurement can be used even for transformers with tertiary windings and fully automatic measurement of all three phases and all taps is possible with just one time to hook up of the test clamps.



Temperature		<i>Resistance range</i>	0.00 $\mu\Omega$ to 100 k Ω
<i>Operating</i>	-10°C to 40°C	<i>Accuracy</i>	$\pm 0.1\%$ Rdg
<i>Storage</i>	-20°C to 70°C	<i>Resolution</i>	5 Digits or 0.05 $\mu\Omega$
<i>Abs. Input Voltages</i>	(2x) 90 to 264 VAC, 47-63Hz Max. 1900VA	<i>Current range</i>	25 mA...100 A/50 V DC
		<i>Output power</i>	Max. 3000W
		<i>Inductance range</i>	0 ... 1500 Henry

Measurement Parameters

Current Range	Measuring Range	Accuracy	Resolution
30 – 100 A	0.00 $\mu\Omega$... 1.7 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 – 100mA	0.00 m Ω ... 2 k Ω	$\pm 0.1\%$ Rdg $\pm 20 \mu\Omega$	5 Digits or 20 $\mu\Omega$
– 25mA	2 k Ω ... 10 k Ω	$\pm 0.2\%$ Rdg $\pm 200 m\Omega$	5 Digits or 200 m Ω
– 25mA	10 k Ω ... 100 k Ω	$\pm 0.8\%$ Rdg $\pm 20 \Omega$	4 Digits or 20 Ω

Accessories

- Current cables 2 x 10 meters
- Potential cables CH1 2 x 10 meters
- Potential cables CH2 2 x 10 meters
- Jumper cable 10 meters
- Instruction manual
- T-Base Pro software for data exchange and analysis

Specifications

Model with 2 channels

WR100-12R (rackmount unit)

Model with 3 channels

WR100-13R (rackmount unit)

Weight

21.9 kg (48.3 lbs.)

Interface

4 USB 2.0 full speed (3 host, 1 device) and 9 Pin RS232 serial

Memory Storage

Internally stores up to 10 000 test results

Panel Display

5.7" Color LCD with LED back lighting and touch screen

Options

- WRO 112 10m cable extension set
- TP 01 External temperature probe
- TP 03 External temperature probes
- Extension for T-Base Pro software Remote Control Fully automatic test sequences
- AHRT 01 Automatic heat run test software
- MUX R Multiplexer



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