WR50-12: 50 Amp, 2 Channel Winding Resistance Meter with Demagnetization and Discharge

Features

Pure, filtered DC power source for the highest accuracy readings Highest Accuracy and Precision of any high current test system Complete, automatic calibration system and system diagnostics Automatic measurements of resistance from $0.00\mu\Omega\dots100k\Omega$

Demagnetizing Circuit (Advanced design)

Microprocessor-based system with internal storage for over 10,000 test results

Data exchange via USB-Key or USB / RS Connection

Printing and storing of test results while the test system is measuring

Temperature channels with automatic resistance correction

Automatic, high efficiency cooling system to dissipate internal heat

Automatic shut off for over-temperature condition

Simple to operate color LCD touch screen with back light

Panel-mounted Emergency Stop Switch

Fully automatic cooling curve analysis (option AHRT 01)

Fastest discharge time on the market

5-Year standard warranty



WR50-12

Accuracy

| Accuracy | | | |
|---------------|---|---------------------------------------|----------------------------|
| Current Range | Measuring Range | Accuracy | Resolution |
| 30 – 50A | 0.00 μΩ 1.3 Ω | \pm 0.1% Rdg \pm 0.05 $\mu\Omega$ | 5 Digits or 0.05 μΩ |
| 15 – 30A | 0.0 μΩ 3.3 Ω | \pm 0.1% Rdg \pm 0.1 $\mu\Omega$ | 5 Digits or 0.1 μΩ |
| 8 – 15A | $0.0000~\text{m}\Omega\ldots6.3~\Omega$ | \pm 0.1% Rdg \pm 0.2 $\mu\Omega$ | 5 Digits or 0.2 μΩ |
| 3 - 8A | $0.0000~\text{m}\Omega\ldots16.7~\Omega$ | \pm 0.1% Rdg \pm 0.5 $\mu\Omega$ | 5 Digits or 0.5 μΩ |
| 1 – 3A | $0.000~\text{m}\Omega\ldots47.2~\Omega$ | \pm 0.1% Rdg \pm 1 $\mu\Omega$ | 5 Digits or 1 μΩ |
| 0.7 – 1A | $0.000~\text{m}\Omega\dots71.4~\Omega$ | \pm 0.1% Rdg \pm 2 $\mu\Omega$ | 5 Digits or 2 μΩ |
| 0.3 - 0.7A | $0.000~\text{m}\Omega\dots167~\Omega$ | \pm 0.1% Rdg \pm 5 $\mu\Omega$ | 5 Digits or 5 μΩ |
| 0.1 - 0.3A | $0.00~\text{m}\Omega$ $500~\Omega$ | \pm 0.1% Rdg \pm 10 $\mu\Omega$ | 5 Digits or 10 μΩ |
| 25 – 100 mA | $0.00~\text{m}\Omega\ldots2~\text{k}\Omega$ | \pm 0.1% Rdg \pm 20 $\mu\Omega$ | 5 Digits or 20 μΩ |
| < 25 mA | 2 kΩ 10 kΩ | \pm 0.2% Rdg \pm 200 m Ω | 5 Digits or 200 m Ω |
| < 25 mA | 10 kΩ 100 kΩ | \pm 0.8% Rdg \pm 20 Ω | 4 Digits or 20 Ω |

Specs

Size: L: 521 mm (20.5") W: 432 mm (17") H: 216 mm (8.5") Input Power: 90 to 264 VAC (1.5 kW max.), 47...63 Hz, auto ranging Panel Display: 5.7" Color LCD with back light and touch screen Interface: 2 USB 1.1 (1 host, 1 device) and 9 Pin RS-232 serial Memory Storage: Internally stores more than 10,000 test results

Inductance Range: 0 to 1,500 Henry

Temperature: **Operating:** –10°C to 60°C (14°F to 140°F); **Storage:** –20°C to 70°C (-4°F to 158°F) *See Instruction Manual for more parameters. Specifications subject to improvement at any time.*

Standard Accessories Included

Current and Potential Lead Set - 10m (32 ft.)Ground Lead - 10m (32 ft.)Power Cord - 6.09m (20 ft.)External USB drive and touch screen StylusJumper Cable - 10m (32 ft.)Paper Refill for Panel-mount Printer - 5 rollsExternal Zippered PouchA-B USB Cable - 3.05m (10 ft.)Instruction ManualSpare fuse set (10A), Qty. 5Cable Bag with Shoulder StrapCertificate of Accuracy

Optional Items Available

2040N-05003: Cable Extension Set — 10m (32 ft.) 2021N-26001: Temperature Probe — 10m (32 ft.)

2042N-11001: Heat-Run Curve Analysis Software (AHRT-01)

WR50-12R: Rackmount Version

Weight: 17.2 kg (37.9 lbs.)

Output Voltage: 0 to 50V DC

Front Panel: Sealed, anodized

Resistance Range: $0.00 \, \mu\Omega$ to $100 \, k\Omega$

Test Current: User Selectable: 25 mA ... 50 A

2042N-15001: Annual Warranty Extension

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Rackmount Version Available

For your convenience, Raytech offers a 4U rackmount version, the WR50-12R.

All of the features and accuracy of the portable field unit are incorporated into the rackmount, except the internal printer. There are a total of four (4) USB interfaces to provide additional access to the instrument.



Specs -

Size: **L:** 490 mm (19.3") **W:** 436 mm (17.2") **H:** 177 mm (7")

Rack Unit: 4U

Weight: 13.5 kg (29.7 lbs.)

Standard Accessories Included

The same accessories are included as the portable field version, except printer paper refill will not be included because the rackmount does not contain a printer.

Optional Items Available

The same optional items that are available to the field unit are also available to the rackmount unit.



Rear View

Raytech is a world leader in the design and manufacture of precision electronic measuring instruments and systems.

The unique design approach of the engineering team at Raytech has resulted in the development of highly regarded measuring instruments, which have set new standards in the electrical testing industry.

Our exceptional reputation for support and service is unmatched.

Raytech products are designed for many years of trouble-free use, which is why we can offer a standard 5-year warranty – guaranteeing the highest quality instrumentation available.



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