WINRES-20
20 A WINDING RESISTANCE TESTER

HIGHTEST TECHNOLOGY

WINRES-20
20 A Winding Resistance Tester

WINRES-20 is designed by advanced engineering technology to measure the winding resistance of transformers.

WINRES-20 can measure current, voltage, power transformer windings and shunt resistors.

Applying up to 20 A Direct Current current allows WINRES-20 to measure the resistance fast and accurate of the transformers.

The smart design of the WINRES-20 makes easier to determine the end of measurement automatically according to users' decision.

WINRES-20 can measure two resistance values simultaneously via its two voltage measurement channels.

Users can prefer to test two primary or two secondary or one primary and one secondary winding according to the transformer configuration.

Beginning from 0.01 µΩ resistances, WINRES-20 can measure up to 100,000 Ω resistance.

WINRES-20 discharges the measured circuit after each test. For inductive load WINRES-20 can demagnetise the load.

The temperature measurement input enables one to connect an optional sensor to WINRES-20 and perform temperature correction automatically.

WINRES-20's intelligent software allows controlling the current flow if there is a failure on the current circuit. With this feature, WINRES-20 procures added safety to users.

A 7-inch colour touch display allows WINRES-20 to show all measurement results on a single screen.

WINRES-20 can be controlled by USB and optional Bluetooth interface and users can record/store measurement results.

In case setting up Laptop or PC for the onfield test is difficult; users can record data to the device's internal memory (up to 100 Test Records) or external USB flash memory.

With the HighTest Data Management Platform (DMP), users can control WINRES-20 and analyse measurement results.
Operators can easily print the measurement results with the 2.28-inch built-in Printer of WINRES-20.

WINRES-20 has an optional battery power feature which allows users to make tests even when there is no electricity.

Multi-language capability and user-friendly operation menu make it easy to control WINRES-20, even by less trained staff.

Three Phase Adaptor TPA-03 (optional) allows connecting all primary and secondary sides concurrently, whereby users can select either to test the resistance of all phases or selective phases.

With the TPA-03 option, WINRES-20 can control tap changer (raise and lower) via its tap changer outputs.
WINRES-20 is a light, compact and rugged device with the protection of IP67.

Features

- 2 channels resistance measurement
- Measurements from 0.01 μΩ to 100,000 Ω
- 0.001 A to 20 A DC adjustable current output
- High accuracy (0.1%)
- Demagnetisation feature
- User-friendly operation menu
- Temperature correction (1 input, sensor optional)
- Built-in printer (2.28-inch)
- Data Management Platform (DMP) enables to control WINRES-20 and analyse results
- Battery Power (Option)
- Internal memory, USB Flash Drive
- PC control via USB cable
- Optional Bluetooth control and communication
- 7-inch large colour touch display
- Emergency stop
- Multi-language
- Optional Three Phase Adaptor (TPA-03) makes WINRES-20 outputs concurrently connectable to three-phase power transformers primary and secondary sides.

Technical Specifications

Measurement Parameters	2 channels resistance		
Test Voltage	50 V		
Current output	From 0.001 A to 20 A DC (User selectable)		
Resistance Measurement	From 0.01 μΩ to 100,000 Ω		
Accuracy	Current Value	Resistance Value	Accuracy
	1 mA - 10 mA	Up to 100 kΩ	0.1 % rdg 0.1 % of Fs
	10 mA - 100 mA	Up to 5 kΩ	0.1 % rdg 0.1 % of Fs
	100 mA - 1 A	Up to 500 Ω	0.1 % rdg 0.1 % of Fs
	1 A	Up to 50 Ω	0.1 % rdg 0.1 % of Fs
	20 A	Up to 2.5 Ω	0.1 % rdg 0.1 % of Fs
Demagnetisation	Yes		
Power Supply	85 - 240 V 50/60 Hz		
Battery (Option)	14.4 V 6.9 Ah battery (Option)		
Memory	Up to 100 records (include up to 25 tap results)		
Printer	2.28-inch Printer		
Communication	USB, Flash Drive, Bluetooth (Factory install Option)		
PC Software	DMP Software		
Display	7-inch Colour Touch Display		
Dimensions	16.7" x 13.4" x 6.8" (424 mm x 340 mm x 173 mm)		
Weight	10 kg		
Working Temperature	-10 °C to +50 °C		
Protection Class	IP67 (case closed)		
Cables	15 feet (4.5 m) cable set		
Set of Package	WINRES-20, Power Cable, 2 Printer Paper, USB Cable, 2 x 15 feet Current Cable, 2 sets of 15 feet Voltage Cable, Ground Cable, Cable Bag, User Manual, DMP Software		
Options	Hard carrying case, Battery, Bluetooth (factory install), Three Phase Adapter TPA-03, 30 feet Test cables for current and voltage channels		

*Specifications are valid under 25 °C temperature. *Contents subject to change without notice.*

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HighTest Technology Ltd. is a leading manufacturing company based in the UK which produces highly precise test equipment. We mainly focus on the development, manufacture, and marketing of Transformer test systems and Solar test devices. We have several years of experience in the field of developing and producing high-end test equipment. Customer satisfaction is our prime motto. We supply our test equipment worldwide to Transformer manufacturers, Electrical utilities, PV module/ Solar panel manufacturers, general contractors and service companies. Our test equipment is designed and produced according to the most widely adopted international standards. As we value our customers the most, our well-experienced team always provide excellent after-sales support and technical assistance.

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