

TRIORES-20 SERIES

20A Three-Phase Winding Resistance Tester
with Built-in Printer

Measurement Range
**0.1 $\mu\Omega$ to
100,000 Ω**

Current Output
**0.001 A
to 20 ADC**





TRIORES-20 SERIES 20A Three-Phase Winding Resistance Tester with Built-in Printer

TRIORES-20 Series is designed using advanced engineering technology to measure the winding resistance of transformers.

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

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

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

TRIORES-20's measurement channels are designed in such a way that it can measure both three-phase and single-phase transformers' winding resistance. Users need to connect the test cables just one time to measure all three phases while testing three-phase transformers.

Beginning from 0.1 $\mu\Omega$ resistances, TRIORES-20 Series can measure up to 100,000 Ω resistance. TRIORES-20 Series discharges the measured circuit after each test.

Dynamic resistance (OLTC) measurement of on-load tap changers, which can be performed simultaneously on all three phases, or a single phase.

For inductive load, TRIORES-20 Series can demagnetise the load. The temperature measurement input enables one to connect an optional sensor to TRIORES-20 Series and perform temperature correction automatically.

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

A 7-inch TFT touch display allows TRIORES-20 Series to show all measurement results on a single screen.

TRIORES-20 Series 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 field test is difficult; users can record data to the device's internal memory (up to 100 Test Records) or to an external USB flash memory.

With the HighTest Data Management Platform (DMP Software), users can control TRIORES-20 Series, analyse and manage measurement results using a PC.

Operators can easily print the measurement results with the 2.28-inch built-in Printer of TRIORES-20 Series.

TRIORES-20 Series 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 TRIORES-20 Series, even by less trained staffs.

TRIORES-20 Series can control tap changer (raise and lower) with its tap changer outputs.

TRIORES-20 Series is a light, compact and rugged device with the protection class IP67 (case closed).



Features

- Fully Automatic Three-phase and single-phase resistance measurement
- Simultaneous primary & secondary measurement without disconnecting and reconnecting cables
- Measurements from 0.1 $\mu\Omega$ to 100,000 Ω
- 0.001 A to 20 A DC adjustable current output
- High accuracy (0.1%)
- Test Voltage 50 V
- Demagnetisation feature
- Dynamic resistance (OLTC) measurement
- Built-in printer
- Optional Battery
- Internal memory, USB Flash Drive
- PC control via USB cable
- Optional Bluetooth control and communication
- 7-inch large colour touch display
- Temperature correction (1 input, sensor optional)
- User-friendly operation menu
- Data Management Platform (DMP Software) allows to control TRIORES-20, analyse and manage results on PC

Technical Specifications

Measurement Parameters	Three-phase and single-phase resistance measurement
Test Voltage	50 V (Continuous)
Current output	From 0.001 A to 20 A DC (User-selectable)
Resistance Measurement	From 0.1 $\mu\Omega$ to 100,000 Ω
Accuracy	0.1%
Resolution	5 digits
Demagnetisation	Yes
Power Supply	100 - 240 V, 47/63 Hz
Battery	14.4 V 6.9 Ah battery (Optional) (Models: TRIORES-20B, TRIORES-20B BLUE)
Memory	Up to 100 records (include up to 25 tap results) Unlimited Storage using an external USB
Printer	2.28-inch built-in Printer
Communication	USB 2.0/1.1 Standard-A, USB 2.0/1.1 Standard-B, Optional Bluetooth(Models: TRIORES-20 BLUE, TRIORES-20B BLUE)
PC Software	DMP Software
Display	7-inch Colour Touch Display
Dimensions	(16.9 × 12.9 × 9.3)" (429 x 328 x 236) mm
Weight	9 kg (models with battery)
Working Temperature	-10 °C to +60 °C
Storage Temperature	-30 °C to +70 °C
Humidity	95% RH Non-condensing
Protection Class	IP67 (case closed)
Set of Package	TRIORES-20, Power Cable, Ground Cable , 1 x 5 m (16.4 ft.) Current Cable Set, 2 x 5 m (16.4 ft.) Voltage Cable Set, USB Cable, Tap Changer Cable Set, Jumper Cable, Printer Paper (x2), USB flash drive, Instruction Manual (Soft Copy), DMP Software, Cable Bag
Options	Hard carrying case, Battery, Bluetooth (factory install), Three-Phase Adapter TPA-03, Temperature Sensor, 10 m (33 ft.) Long Cable Set
Ordering Information	TRIORES-20, 20A Winding Resistance Tester with Built-in Printer
	TRIORES-20 BLUE, 20A Winding Resistance Tester with Built-in Bluetooth & Printer
	TRIORES-20B, 20A Winding Resistance Tester with Built-in Battery & Printer
	TRIORES-20B BLUE, 20A Winding Resistance Tester with Built-in Battery, Bluetooth & Printer



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.



HIGHTEST TECHNOLOGY LIMITED
Unit 14, First Quarter, Blenheim Road, Epsom,
Surrey, KT19 9QN, United Kingdom
Tel: +44 203 900 2710, +44 203 287 2302
info@hightest.co.uk www.hightest.co.uk

• Distributor / Representative