

Transformer Turns Ratio Testers

TTRT-01 S3

Turns-ratios from 0,8 to 15000 Test voltages: 4 Vac o 40 Vac Self-adjusts before each measurement PC controllable

amperis

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AMPERIS PRODUCTS S.L Agricultura,34 27003, Lugo, Spain

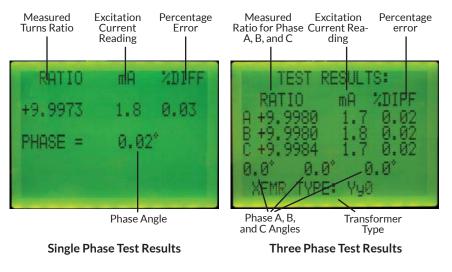
⊠ Contact

+T [+34] 982 20 99 20 | F [+34] 982 20 99 11 info@amperis.com | www.amperis.com The TTRT-01 S3 is Amperis' fourth generation, micro-processor based, single phase, and automatic transformer turns-ratio tester with line power only. The TTRT-01 S3 uses the IEEE C57.12.90 measuring method to determine the transformer turns-ratio. The transformer turnsratio is determined by precisely measuring the voltages across the unloaded transformer windings. The TTRT-01 S3's measuring circuitry self-adjusts before each measurement to ensure turns-ratio accuracy. Two selectable test voltages, 4Vac and 40Vac, offer flexibility in testing different types of transformers.

The TTRT-01 S3 can measure transformer turns-ratios ranging from 0.8 to 15,000 and can be used to test voltage regulators, power transformers, current transformers (CT), and potential transformers (PT). The TTRT-01 S3 also measures and displays transformer- winding excitation current, winding polarity, and winding phase angle. Test results are displayed on a back-lit LCD screen (128 x 64 pixels) that is viewable in bright sunlight and low-light conditions.

In addition to measuring a transformer's turns-ratio, the transformer's name plate voltages can also be entered, and the TTRT-01 S3 will then display the turns-ratio percentage error. This convenient feature eliminates any user calculation errors when testing transformers.

When testing a 3-phase transformer, the TTRT-01 S3 provides connection information (H and X test leads to the transformer bushings) for phase A, B and C tests. The three phase test results (turns-ratio, excitation current, winding polarity, phase angle, and percentage error) are displayed on the LCD screen.



Sample Test Results

User Interface

The TTRT-01 S3 features a back-lit LCD screen (128 x 64 pixels) that is viewable in direct sunlight and low-light levels. A rugged 16-key membrane keypad is used to enter test information and to operate the unit.

Test Record Storage

The TTRT-01 S3 can store 128 records of 33 readings internally, and up to 999 test records on an external USB Flash drive. Test records can be recalled using the included Transformer Analysis PC software.

Computer Interface

A Windows®-based Transformer Analysis application is provided with each unit and can be used to remotely control the TTRT-01 S3 via the RS-232C port. Using the Transformer Analysis software, the user can retrieve test records (from the TTRT-01 S3's memory or a USB Flash drive), analyze test results, and print test results on a desktop printer. Test results are automatically exported to Excel, PDF and XML formats.

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TTRT-01 S3's Specifications

T /20	Transformer turns ratio tester
Type Physical specifications	Dimensions: 12"W x 10"H x 8" D (30.4 cm x 25.4 cm x 20.3 cm); weight: 8 lbs. (3.6 Kg),
Input power	120 or 240 Vac (selectable), 50/60 Hz
Measuring method	ANSI/IEEE C57.12.90
Turns ratio accuracy	40 Vac: 0.8 - 1,999 (0.1%), 2,000 - 3,999 (0.25%), 4,000 - 15,000 (1%)
	4 Vac: 0.8 - 1,999 (0.1%), 2,000 - 3,999 (0.25%), 4,000 - 15,000 (2%)
Test voltages	4 Vac @ 1.0A, 40 Vac @ 0.6A
Phase angle measurement	0 - 360 degrees, Accuracy ±0.2 degree (±1 digit)
Polarity reading	In-Phase or Out of Phase indication
Current reading range	0 - 2 Amperes, Accuracy: 2% of reading (±1 mA)
Display	Back-lit LCD (128 x 64 pixels), viewable in direct sunlight and low light levels
Computer interface	RS-232C
Pc software	Windows®-based Transformer Analysis Software (included with purchase)
Internal test record storage	128 records of 33 readings
External test record storage	Up to 999 test records on external USB Flash drive
Safety	Designed to meet IEC 61010 (1995), UL 61010A-1, and CSA-C22.2 standards
Environment	Operating: -10°C to +50°C (+15°F to +122°F); Storage: -30°C to +70°C (-22°F to +158°F)
Humidity	90% RH @ 40°C (104°F) non-condensing
Altitude	2,000 m (6,562 ft) to full safety specifications
Cables	One 15 ft (4.6m) single phase cable, one power cord, one cable bag
Options	Transportation case (can hold unit and cables)
Warranty	1 year on parts and labor

NOTE: the above specifications are valid at nominal voltage and ambient temperature of +25°C (+77°F). Specifications are subject to change without notice.

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