ALL-TEST Pro, LLC

AT33 IND™ MOTOR TESTER

Meg-ohm-meters and multi-meters see only 10% of possible electric motor faults...

Don't overlook the other 90% of motor faults that can lead to unexpected downtime.

THIS REVOLUTIONARY, EASY-TO-USE INSTRUMENT OFFERS IMMEDIATE INFORMATION ABOUT THE COMPLETE CONDITION OF YOUR STATOR, ROTOR AND CONNECTIONS!

The AT33 IND™ instrument is the PERFECT TOOL for troubleshooting, inspection of incoming or stored motors before installation, or repair. It quickly shows the complete condition of the Stator Windings, the Rotor, Contamination, Ground Fault and Connections.

www.alltestpro.com

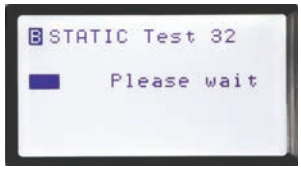
EASY AND QUICK TEST TO CHECK YOUR ELECTRIC MOTORS

This instrument presents an exciting breakthrough in de-energized testing. Within minutes the operator can get a complete picture of the condition of a motor without having to stress-test the windings or use other more expensive or elaborate instruments, which can be difficult to operate and analyze captured data with.

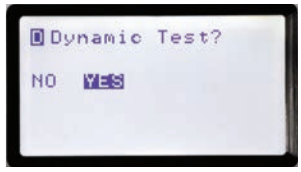
TWO TESTS IN ONE

The instrument can be used in two modes: Static and Dynamic. Both quickly collect data in auto mode and there is no need to operate a lot of difficult to understand buttons.

THE STATIC TEST can be performed at the control panel and takes only a few minutes per motor! It tests "the whole loop", i.e. cable, connections and stator/rotor from the starter/motor drive. No need to disconnect drives and machinery for the phase to phase test. It reports whether a change has occurred between a prior test (the baseline) and the present test. Use this as an initial test reference as a motor specific parameter value, and to confirm the health of an Induction motor. Subsequent test results can be immediately compared to the reference TVS™ to instantly show developing problems or changes with the stator or squirrel-cage rotor.

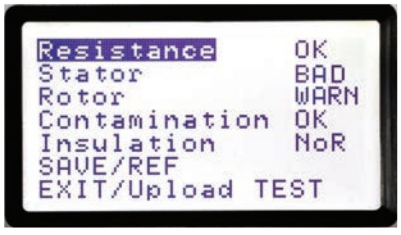


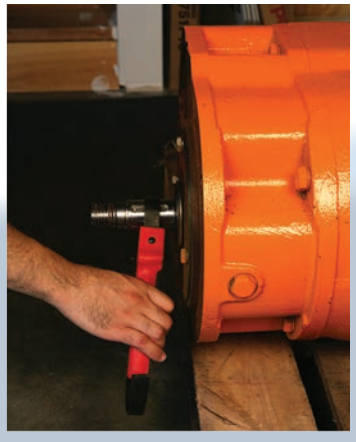
It measures Resistance, Inductance, Impedance, Capacitance and Phase Angle. The fault indicator is not dependent on Rotor position.



The Static test is compared to a base-line test that can be retrieved from "Reference Value Static" records in the instrument, or from the optional software.

Meg-ohm-test with 500 and 1000 V reading up to 999 Mohm is standard.





DYNAMIC TEST BY ROTATING SHAFT

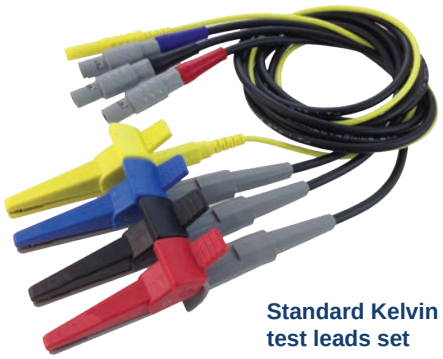
The AT33 IND™ Dynamic Test analyzes the results for you by showing Bad, Warning or OK for Resistance, Stator, Rotor and Contamination. It is developed for testing <1000V induction motors with squirrel cage rotor.

If the Static test needs to be further evaluated, or if no baseline is available a Dynamic test should be done. The DYNAMIC TEST is done with the rotor shaft disconnected to the machinery.

It measures in real time, during the manual rotation of the shaft, several measurements. Any problem is easily recognized by even inexperienced operators.

It also collects data used for a "signature" of the Stator and Rotor and these signatures allow for a more in-depth evaluation and supports data of other faults showing in the report.

ACCURACY and EASY TESTING



Standard Kelvin test leads set

The AT33 IND™ comes with high-quality test leads and 4 wire Kelvin Clips for very accurate data collection. Please see specifications.

The lithium batteries support more than 8 hours of continuous use.

NO NEED TO CARRY ALONG HARD TO READ USER MANUALS

The unit can be used stand-alone or with software, which enables you to see all the underlying data from the test. For accuracy see our specifications. All instructions are shown step-by-step on the instrument's large screen. The result is then automatically shown on the screen as well. By calling up a prior test of the same motor you can easily see if a change has occurred.

The AT33 IND™ is made for safe operation and for harsh environments incorporating CE Certification and a casing rated CAT III. The tester has a large memory storage capacity for reference and test-data and can be used as a stand-alone tester without software.

Optional AT33 IND™ Software
The instrument quickly up-loads its test-data and the report can be printed. Instrument can quickly upload test data and compile reports. The data can also be further analyzed and compared to prior data of the same motor; or motor of the same model to create a history of any problems and solutions. (Software available in English, Spanish, Portuguese and Chinese)

Optional larger custom Kelvin test leads set

AT33 IND™ Specifications

Test Frequencies
50, 100, 200, 400, 800 Hz

Test Value Static / Reference Value Static
0.01 – 10000 ±1%, (Dimensionless calculated value)

Stator Test Dynamic
Repeatability ±1%, (of measured data and calculated deviations)

Rotor Test Dynamic
Repeatability ±2%, (of measured data and calculated deviations)

Resistance
0.01 – 999 Ω measurement range
0.01 – 99.9 Ω ±1%, Max Resolution: 0.01 mΩ
100 Ω - 500 Ω ±1.5%, displayed as whole numbers
501 Ω - 999 Ω ±2.5%, displayed as whole numbers
Relative Accuracy “Phase to Phase” ± 0.1%
True 4-wire Kelvin measurement
(Compensation for thermoelectric offset voltages)

Dissipation factor - DF (frame – stator)
1 – 100% measurement range (expressed as a percentage)
1 – 10% ±0.5 (C = 10 – 1000 nF)
10 – 30% ±1.0
(This specification is based on battery operation and
USB not connected to PC)

Capacitance (frame – stator)
2 – 2000 nF measurement range
10 – 2000 nF ±5%
(This specification is based on battery operation and
USB not connected to PC)

Insulation Resistance
0 – 999 MΩ @1000V, 0 – 500 MΩ @500V
1 – 100 MΩ ±3%, all other values ±5%

Enclosure
Material - Polycarbonate, UL94-V2

Safety
According to IEC 61010-1 cat.III 1000V

Approvals
CE

Keyboard
Sealed tactile touch, XL size keys

Warranty: 1 year limited warranty;
Optional 2 years available with calibration

Connections
3 x Motor input/output - push-pull
connectors 4-pole High Voltage
output - Ø
4mm safety jack
PC communication - USB type B connector
Charger input - 2.5mm diameter center pin DC-jack

Display
Graphic LCD, monochrome 128 x 64 pixels (3.1”)
Viewing Area = 69 x 36.5mm, white LED backlight

Batteries
2 x Li-ION cells with ≥ 2100 mAH capacity

Temperature range storage
-20 °C to +60 °C (-4 °F to +140 °F)

Temperature range operating
-10 °C to +50 °C (+14 °F to +122 °F)

Humidity
0-80% relative humidity, non-condensing

EMC
- EN61000-6-4 (Emission)
- EN61000-6-2 (Susceptibility)

Instrument Specifications
Size: 126 x 218 x 51 mm (5”x8.6”x2”) (WxLxH)
(basic enclosure size without minor protrusions)
Weight: 0.7 kg (1.5 lb.)

Shipping Specifications
Gross Size: 45.7x40.6x15.2 cm (18“x16”x6”) (WxLxH)
Gross Weight: 5.0 kg (11 lb.)

Accessories (included)
3x Test Leads with Kelvin Clips and push-pull connectors
1x Test Lead with 4mm safety plug and MC “Dolphin” clip
Charging adapter, Universal input type 100-240VAC,
output 9VDC @ 1.7A
Attaché type hard case with pre-cut foam liner
User Manual on CD

Accessories NOT Included
AT33 IND™ Software for further analysis,
reporting, trending and database storage.
Available in English, Spanish, Chinese
and Portuguese.
1x USB cable 1m
Soft carrying pouch for instrument and test leads

Patent Pending

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Represented by:

Specifications are subject to change without notice