

AT PRO

AT33 IND

ALL-TEST PRO[®] 33 INDUSTRIAL



Resistance	OK
Stator	Bad
Rotor	OK
Contamination	OK

EASY TO USE INSTRUMENT WITH IMMEDIATE INFORMATION ABOUT THE COMPLETE CONDITION OF YOUR STATOR, ROTOR AND CONNECTIONS!

The AT33IND instrument is the PERFECT TOOL for trouble shooting, inspection of incoming or stored motors before installation or repair and shows the complete condition of the Stator Windings, the Rotor, Contamination, Ground Fault and Connections.

EASY AND QUICK TEST TO CHECK YOUR ELECTRIC MOTORS

This instrument presents an exciting break-through in off-line (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.

NO NEED TO CARRY ALONG HARD TO READ USER MANUALS

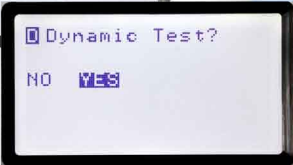
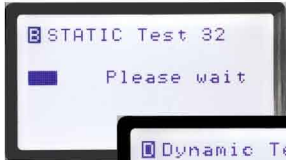
How to proceed is shown step by step on the screen and virtually anybody who can read can do the testing and understand the results.



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.

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 gives you the information whether any change in Stator or Rotor has occurred between prior test (baseline) and the present test.

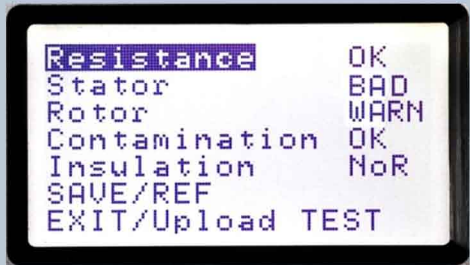
It measures Resistance, Inductance, Impedance, Capacitance and Phase Angle. The fault indicator is not dependent on Rotor position.

Meg-ohm-test with 500 and 1000 V reading up to 999 Mohm is standard. (Special test-voltage requirements available by request and special quote).



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.

DYNAMIC TEST BY ROTATING SHAFT



The AT33IND Dynamic Test analyzes the results for you by showing Bad, Warning or OK for Resistance, Stator, Rotor and Contamination. It is developed for testing 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 by an experienced user and supports data of other faults showing in the report.

Additionally, a “Test Value Dynamic” is automatically calculated which can be compared to a “Reference Test Value Dynamic” using the optional computer software. A deviation between tests indicate a change in condition has occurred.

ACCURACY and EASY TESTING

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



The lithium batteries supports more than 8 hours of continuous use. A spare battery pack, which is easy and quick to install, is available with a special charger.

No need to carry along a manual when testing, 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 AT33IND 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.

If our software is used, the instrument quickly up-loads its test-data and the report can be printed. The data can also be further analyzed by a technician and compared to prior data of the same motor; or motor of the same model to create a history of any problems and solutions.



Specifications AT33 IND



Test Frequencies

25, 50, 100, 200, 400, 800 Hz

Test Value Static / Reference Value Static

0.01 – 10000 $\pm 1\%$, (Dimensionless calculated value)

Test Value Dynamic / Reference Value Dynamic

0.01 – 10000 $\pm 2\%$, (Dimensionless calculated value)

Stator Test Dynamic

Repeatability $\pm 1\%$, (of measured data and calculated deviations)

Rotor Test Dynamic

Repeatability $\pm 2\%$, (of measured data and calculated deviations)

Resistance

0.01 – 999 $\Omega \pm 1\%$, Max Resolution: 0.01 m Ω

Relative Accuracy "Phase to Phase" $\pm 0.1\%$

True 4-wire Kelvin measurement.

(Includes automatic compensation for thermoelectric offset voltages)

Dissipation factor - DF (expressed as a percentage)

0 – 100% measurement range

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)

(Measured dielectric phase angle displayed as ϕ)

Capacitance (frame – stator)

2 – 2000 nF measurement range

10 – 1000 nF $\pm 3\%$, all other values $\pm 5\%$

(This specification is based on battery operation and USB not connected to PC)

Insulation Resistance

0 – 999 M Ω @1000V, 0 – 500 M Ω

@500V 1 – 100 M Ω $\pm 3\%$,

all other values $\pm 5\%$

Enclosure

Material - Polycarbonate, UL94-V2

Safety

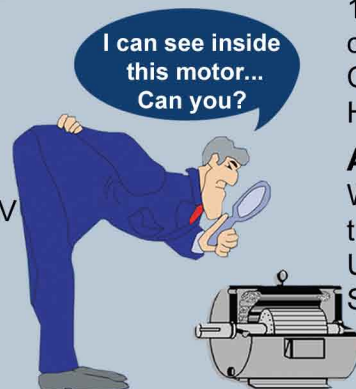
According to IEC 61010-1 cat.III 1000V

Approvals

CE

Keyboard

Sealed tactile touch, XL size keys



Connections

3 x Motor input/output - Lemo/Redel

1P series professional push-pull

connectors 4-pole High Voltage output - \emptyset

4mm safety jack PC communication - USB type B connector

Charger input - 2.5mm diameter center pin DC-jack, Universal input type 85-260VAC, output 9VDC @ 1.7A

Display

Graphic LCD, monochrome 128 x 64 pixels (3.1")

Viewing Area=69 x 36.5mm, white LED backlight.

Batteries

2 x LiION cells with ≥ 2100 mAH capacity

Temperature range storage

-20 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$ (-4 $^{\circ}\text{F}$ to +140 $^{\circ}\text{F}$)

Temperature range operating

-10 $^{\circ}\text{C}$ to +50 $^{\circ}\text{C}$ (+14 $^{\circ}\text{F}$ to +122 $^{\circ}\text{F}$)

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 (3.2"x8.6"x2") (WxLxH)

(basic enclosure size without minor protrusions)

Weight: 0.7 kg (1.55 lb)

Shipping Specifications

Gross Size: 45.7x40.6x15.2 cm (18"x16"x6") (WxLxH)

Gross Weight: 5.0 kg (9lb)

AT33 IND Comes With

3x Test Leads with custom Kelvin Clips

1x Test Lead with 4mm safety plug and MC "Dolphin" clip

Charging adapter,

Hard Case

Accessories NOT Included

Windows based software for test reporting and trending (Windows XP/7 compatible).

USB Cable 1m

Soft Carrying Pouch for instrument and test leads

Patent Pending

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