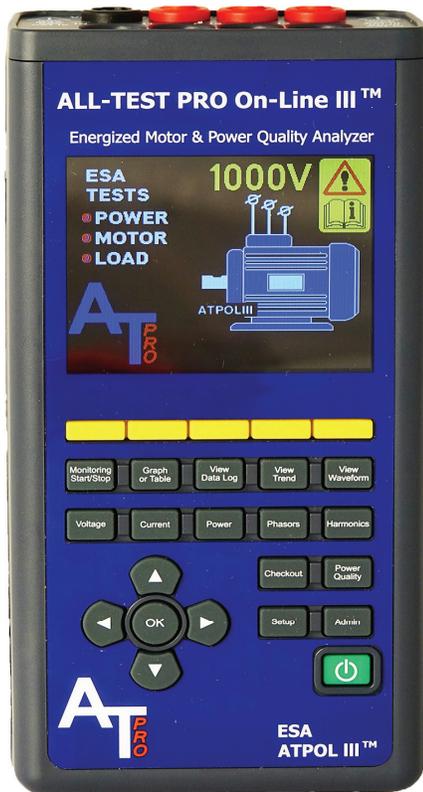


# ALL-TEST PRO On-Line III™

ENERGIZED ELECTRICAL SIGNATURE ANALYSIS  
(ESA) MOTOR TESTING INSTRUMENT



Identify faults in the process, incoming power & motor system

ESA software generates a complete and easy to read analysis report for each motor tested!

## PERFORMANCE SUMMARY

### Bottom Line Commentary

- This induction motor is operating normally, no action is required.
- This induction motor exhibits suspicious operation, trending of the induction motor is warranted.
- This induction motor exhibits abnormal indications, action is warranted, NOW.

- Electrical Signature Analysis (ESA)
- Safe, Easy to Use, Remote Capability
- Analyze the Entire Motor System
- Power Analyzer
- Easily Identify Faults From Remote Locations

| Induction Motor [LF: 60 Hz] |      |       |                                 |         |
|-----------------------------|------|-------|---------------------------------|---------|
| Results                     | Time | Freq. | Bearings                        | Phasors |
| Power factor                |      |       | PF is below 0.85                |         |
| Current                     |      |       | Variation is too much           |         |
| Voltage                     |      |       | OK                              |         |
| Load                        |      |       | OK [Ld:90.1%]                   |         |
| Vlt-GND ref.NOT neutral     |      |       | OK                              |         |
| Connection                  |      |       | OK                              |         |
| Rotor                       |      |       | RB health is questionable (C:4) |         |
| Stator (mechanical)         |      |       | OK                              |         |
| Air gap                     |      |       | OK                              |         |
| Harmonic distortion         |      |       | Too much (C)                    |         |
| Misalignment/Unbalance      |      |       | OK                              |         |
| Bearing/Unidentified        |      |       | OK                              |         |
| Bottom line                 |      |       | Abnormal indications            |         |

ESA uses the motor as a transducer to identify faults in the entire motor system including incoming power, motor, driven machine and final process.

The most complete electrical signature and power analysis instrument on the market for AC/DC motors, generators, and transformers. **Analyze and report** both the electrical and mechanical condition of the entire motor system in only a minute.

## Electrical Signature Analysis Capabilities

Using advanced analysis techniques such as Fast Fourier Transformation (FFT) of both Voltage and Current, identifies faults in the entire motor system and easily separates these faults between incoming power and motor system.

- Energy Data logging
- Complete Harmonic Analysis
- Analyze Current and Voltage Waveforms in real time
- Waveform Sags and Swells, Transient, and Event Captures

- Complete Mechanical Analysis of Motor and driven load
- Trending and Route Based Analysis
- Automatic Calculation of Motor Load, Power Factor, Running Speed, & Pole Pass Frequency

- Broken/Fractured Rotor Bars
- Stator Eccentricity
- Early Stage Bearing Failure
- Misalignment
- Faulty Connections
- Harmonic Distortion

## SAFE, ENERGIZED CONNECTION POINT

The ALL-SAFE PRO® is a permanently installed connection box used with the ATPOL III™. This connection point eliminates the need to open electrical panels when recording motor data. Improves operator safety, simplifies, and expedites the testing process. Eliminates the need for bulky protective gear. Unit connects with 6' cord plug combo to the ALL-SAFE PRO® which is permanently installed inside the electrical cabinet.



Installed ALL-SAFE inside starter box, connected to ATPOL III™ to start taking readings.

## The ALL-TEST Pro Promise

ALL-TEST Pro delivers on **the promise of true predictive maintenance and troubleshooting**, with innovative diagnostic tools, software, and support that enable you to keep your business running. We ensure the reliability of motors in the field and help to maximize the productivity of maintenance teams everywhere, backing every ALL-TEST Pro product with unmatched motor testing expertise.

LEARN MORE AT [ALLTESTPRO.COM](http://ALLTESTPRO.COM)

## ALL-TEST Pro

P.O. Box 1139  
Old Saybrook, CT 06475 USA

Tel: 860-399-4222

Email: [info@alltestpro.com](mailto:info@alltestpro.com)

Web: [alltestpro.com](http://alltestpro.com)