

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
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.

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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

ALL-TEST Pro

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