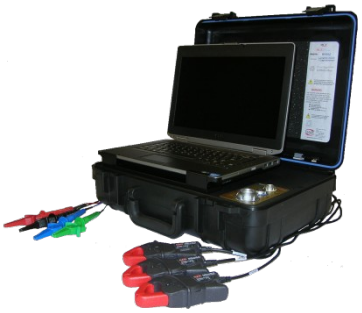
EMAX Product Information

M-Series 5kV Electric Motor Analyzer

- Portable and battery powered
- Monitors Power quality, Power Circuit, Stator, Rotor, and Air Gap
- Low, medium, and high voltage motors
- Six channel simultaneous acquisition
- Torque and efficiency analysis
- Impedance and phase angle measurement
- Power and current signature tests



Description

The EMAX On-line motor test equipment offers the most versatile approach to troubleshooting and trending de-energized electric motors on the market today.

It is equipped with a fully functional laptop computer and loaded with MCEGold, the gold standard in motor management software.

With MCEGold the entire test history of your electric motor along with the latest in acceptance criteria from IEEE and NEMA is at your fingertips. Immediately following the test, Red or Yellow color-coded alarms identify any test data that is outside the acceptance criteria.

The case is made of ultra high impact ABS material for ruggedness. It is easy to carry and no AC power is required, making tough to reach motors or starters easier to test.

Data Includes:

- Current Spectral Analysis
- High Frequency Eccentricity Analysis
- Three Phase In-Rush/Start-Up
- Phase-to-Phase Voltage RMS
- Line-to-Neutral Voltage RMS
- Voltage Imbalance
- Crest Factor
- Total Harmonic Distortion (THD)
- % Full Load Amps
- Average Current RMS
- Phase Current RMS
- Phase Impedance
- Impedance Imbalance
- Power (KW, KVA, KVAR)
- Power Factor
- Efficiency
- Energy Cost Analysis
- Output Power
- AC/DC Motor Testing
- Torque

Voltage Measurement:
AC Voltage 0-1000 Vrms
Direct line ±1% (10 to 100% of range)
Secondary line ±1% + PT error (10 to 100% of range)
MTAP Leads 0-35 VAC ±1% +PT error (10 to 100% of range)

DC Voltage 0-1000 Vpeak (Qualitative only)

Current Measurement AC/DC:
±0.5% of input (± accuracy of the probes)

Standard Current Probe Set:
PdMA 2128.14
±1%(of reading) ±0.1mV from 1 to 12A @100mV/A
±1%(of reading) ±2mV from 10 to 80A @10mV/A
±2.5%(of reading) ±2mV from 100 to 150A @10mV/A

Power Measurement:
THD/HVF/ Spectrum – 50th harmonic

Current Spectrum Analysis:
8,000 lines resolution

In-Rush/Start-Up Test:
Sampling rate 3,600/second
Test duration 1 minute

Rotor Evaluation Test:
Sampling rate 960/second
Fmax 0-480 Hz
Resolution 8,000 lines

Eccentricity and Power Test:
Sampling rate 12,288/second
Fmax 0-6,000 Hz
Resolution 8,000 lines

Dimension:
18.5x14.5x6 in.
(46.99x36.83x15.24 cm)

Weight:
26 lbs (11.79 kg)

Test Lead Set:
10 ft. (3.05 m.) fused voltage leads for 3 phases and ground.
10 ft. (3.05 m) current probe cable connects 3 probes via BNC connector
Voltage probe accessory kit
Three 6 ft. (1.83 m.) current probes for three phases

Tester Battery:
Li Ion – 6.6Ah

Computer Voltage Input:
AC 100-240 V, 50/60 Hz

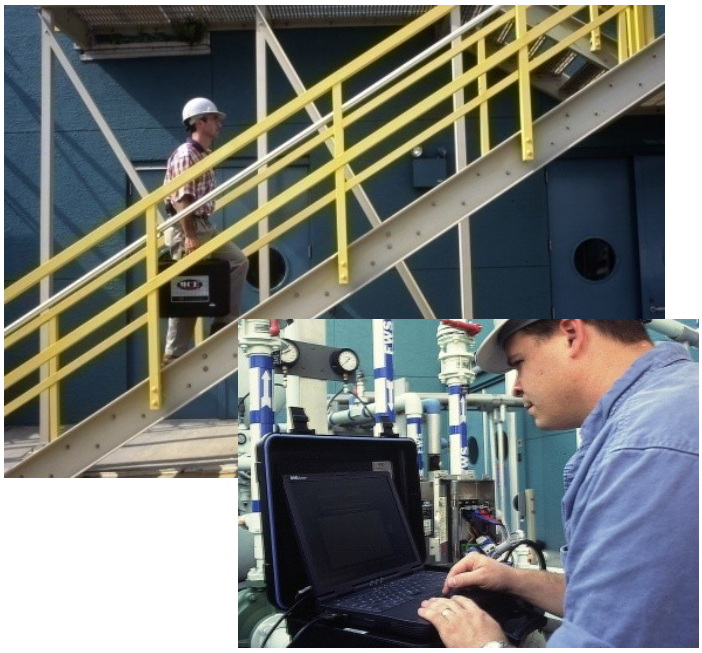
Environmental
Operating temperature:
32°F to 95°F (0°C to 35°C)

Storage temperature:
-40°F to 149°F (-40°C to 65°C)

Operating Humidity:
10% - 90% (non-condensing)

5% - 95% (non-condensing)

Accuracies to within the specified +/- % accuracy or +/- two resolution steps whichever is greater.



Lightweight Portable Electric Motor Analyzer