

MCE™ Product Information

5 kV Electric Motor Analyzer



- Portable and battery powered
- Monitors Power Circuit, Insulation, Stator, Rotor, and Air Gap
- Variable test voltage from 250 to 5000 V
- Automatic IR, PI, DAR, and Step Voltage Tests
- Measures insulation resistance to 3 TΩ
- Precision resistance from 10μΩ to 2000Ω using 4-wire bridge test measurement
- Measures capacitance (pF) and inductance (mH)

DESCRIPTION

The MCE™ Motor Circuit Evaluation 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 is at your fingertips and equipped with the latest in acceptance criteria from IEEE and NEMA. Red or Yellow color-coded alarms identify any test data that is outside the acceptance criteria immediately following the test.

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:

- Phase-to-phase Resistance
- Phase-to-phase Inductance
- Balance of Resistance
- Balance of Inductance
- Ground Capacitance
- Polarization Index
- Dielectric Absorption Ratio
- Measured Ground Resistance
- Corrected Ground Resistance
- Rotor Influence Check
- Field Inductance
- Field Resistance
- Field Capacitance
- Field Ground Resistance
- DC Armature Tests
- Synchronous Motor Tests
- Wound Rotor Motor Tests
- More...

Ground resistance test voltages:

250-5000 V in 50 V steps

Accuracy:

±2.5% 100 KΩ to 1 GΩ @500/2500v

±5% 10 KΩ to 100 GΩ @2500v

±5% 100 KΩ to 100 GΩ @5000v

±20% 100 GΩ to 3 TΩ (≥1000 V)

Short circuit/charge current: 2 mA

Capacitance measurement:

±5% 1000 to 999,750 pF

Inductance measurement:

±1% 100 to 1000 mH

±2% 1000 to 2500 mH

±5% 2500 to 5000 mH

Resistance measurement:

Accuracy/Range:

±1% 10 μΩ to 2000 Ω

Resolution

.00001Ω 0Ω to .02Ω

.0005Ω .02Ω to 2.0Ω

.005Ω 2.0Ω to 50Ω

.01Ω 50Ω to 1000Ω

.1Ω 1000Ω to 2000Ω

Dimension:

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

Weight:

19 – 23 lbs (8.62 – 10.43 kg)

Test Lead set:

10 ft. (3.05 m.)

Voltage input range:

AC 100-240 V, 50/60 Hz (Computer)

Environmental

Operating temperature:

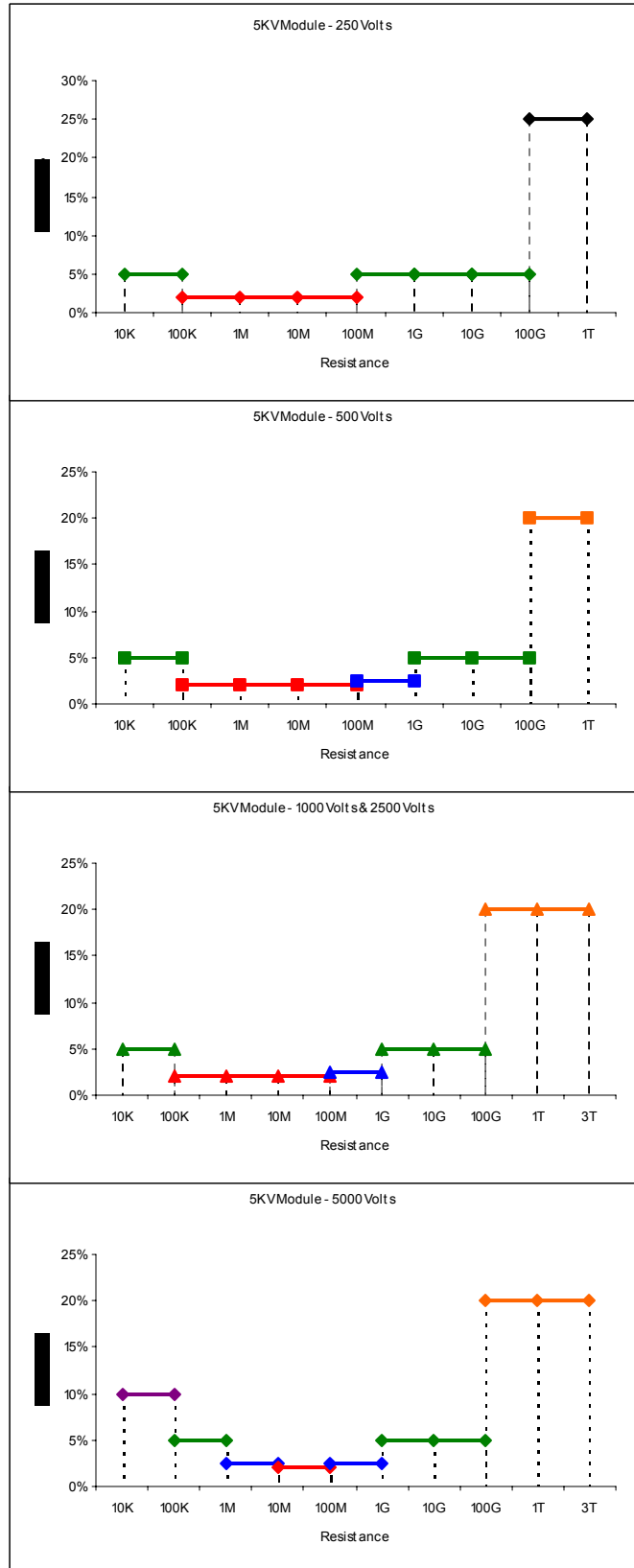
41°F to 95°F (5°C to 35°C)

Storage temperature:

-4°F to 104°F (-20°C to 40°C)

Humidity:

20% - 80% non-condensing



ATTENTION Accuracies and Resolutions are subject to change without notice.

EMAX Product Information

On-Line 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 energized electric motors on the market today.

It is equipped with a fully functional laptop computer and loaded with MCE^{Gold}, the golden standard in motor management software.

With MCE^{Gold} the entire test history of your electric motor is at your fingertips and equipped with the latest in acceptance criteria from IEEE and NEMA. Red or Yellow color-coded alarms identify any test data that is outside the acceptance criteria immediately following the test.

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
- 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
- Output Power
- Torque
- More...

DESCRIPTION

Voltage input range:

AC 100-240 V, 50/60 Hz (computer)

Voltage measurement:

0-600 VAC

Direct line $\pm 1\%$ (10 to 100% of range)

Secondary line $\pm 1\%$ + PT error (10 to 100% of range)

Current measurement:

$\pm 0.5\%$ of input (plus the \pm accuracy of the probes)

Standard current probes:

PdMA 2128.14

$\pm 1\%$ (of reading) $\pm 0.1\text{mV}$ from 1 to 12A
@100mV/A

$\pm 1\%$ (of reading) $\pm 2\text{mV}$ from 10 to 80A
@10mV/A

$\pm 2.5\%$ (of reading) $\pm 2\text{mV}$ from 100 to 150A
@10mV/A

Power measurement:

THD/HVF/ Spectrum – 50th harmonic

Current spectrum analysis:

8000 lines resolution

Dimension:

18.5 x 14.5 x 6 in.

46.99 x 36.83 x 15.24 cm.

Weight:

19 – 23 lbs.

8.62 – 10.43 kg.

Lead set:

Four 8 ft. (2.44 m.) fused voltage leads for 3 phases and ground.

Voltage probe accessory kit

Three 15 ft. (4.57 m.) AC/DC current probes for three phases

Environmental Operating temperature:

41°F to 95°F

5°C to 35°C

Storage temperature:

-4°F to 104°F

-20°C to 40°C

Humidity:

20% - 80% non-condensing

ATTENTION

Accuracies and Resolutions are subject to change without notice.