

NEW

# DIGITAL MOTOR CHECKER EMC-38A

Ñ Electric Motor, Generator and Transformer Trouble Shooter

Ñ Know in a few minutes what the problem is: Electrical or Mechanical ?

Ñ Complete Condition of STATOR, ROTOR, Coil, Connections, internal fault or ground fault ?



## Features:

- ❖ Very handy
- ❖ Light Weight
- ❖ Insulation Resistance (IR) Measurement
- ❖ Identify open and short circuits / loose connections in a winding coil
- ❖ Identify interterm shorts
- ❖ Detect rotor bar problems without dismantling the rotor
- ❖ Inductance of the winding with respect to different positions for rotor for detecting blow holes or cracks in the rotor bars.
- ❖ Simple operation, accurate & quick assessment of motor condition.
- ❖ Low battery Indication

## PREDICTIVE MAINTENANCE:

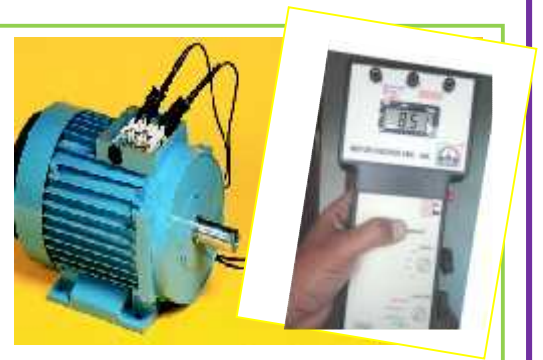
Regular testing can identify developing faults before a failure occurs. All measurement data can be trended for predictive maintenance condition monitoring. By making proactive repairs and eliminating unscheduled down- time, plant productivity is greatly improved.

**EMC-38A** is a Digital portable diagnostic tool for Electrical Engineer and is used for quick on - site checks of electric motor and other three - phase machines.

A reduction in machine performance, such as inefficient operation or tripping of overloads, may indicate mechanical or electrical faults. If the fault is electrical the EMC-38A will immediately detect it, without dismantling the equipment. The instrument has three separate operating modes to measure different types of faults like fully insulation, open circuits / loose connections, short circuits, Ground faults and rotor defects. Motor insulation is tested with a high voltage at 500V & 1000V DC supplied by the instrument.

**Motor Checker EMC-38A** finds the faults you can't see with any other hand held instrument

- Turn -to-turn , coil-to-coil and phase-to-phase faults
- Open phase
- Burned or contaminated winding
- Poor Connections
- Broken / Cracked rotor bars
- Grounded windings
- Cable faults.



## Technical Specifications

|                                  |   |
|----------------------------------|---|
| <b>A) INSULATION RESISTANCE:</b> | 0 – 200 M at 500 V DC $\pm$ ( 2% + 1digit), 0.1 M resolution<br>0 – 2000 M at 1000 V DC $\pm$ (2% + 1digit), 1 M resolution |
|----------------------------------|---|

| <b>B) RESISTANCE</b> | <b>RANGE</b> | <b>(OHMS) F.S.R</b> | <b>RESOLUTION</b> | <b>TOLERANCE</b> |
|----------------------|--------------|---------------------|-------------------|------------------|
|                      | 1            | 200                 | 0.10              | $\pm$ 2%         |
|                      | 2            | 20                  | 0.01              | $\pm$ 2%         |
|                      | 3            | 2                   | 0.001             | $\pm$ 2%         |
|                      | 4            | 0.2 (200m )         | 0.10 milli        | $\pm$ 2%         |

| <b>C) INDUCTANCE</b> | <b>RANGE</b> | <b>(mH) F.S.R</b> | <b>RESOLUTION</b> | <b>TOLERANCE</b> |
|----------------------|--------------|-------------------|-------------------|------------------|
|                      | 1            | 2000              | 1 mH              | $\pm$ 3%         |
|                      | 2            | 200               | 0.1 mH            | $\pm$ 3%         |
|                      | 3            | 20                | 0.01 mH           | $\pm$ 3%         |
|                      | 4            | 2                 | 0.001 mH          | $\pm$ 3%         |

- Display: 3½ LCD
- Temp. Operating Range:0- 55°C
- Size: 237x131x45
- Weight:500gms
- Power: 1.5V x 6 AA size Cells / (Optional Accessory: Rechargeable Battery Pack with Charger)
- Enclosure: Moulded in high impact ABS

### **Standard Supply:**

1. Motor Checker EMC-38A
2. Test Leads (Clips) - 1set
3. Batteries - 6 nos / (Optional Accessory: Rechargeable Battery Pack with Charger)
4. Instruction Manual
5. Test & Calibration Report with Warranty/Guarantee Certificate
6. Carry Case



## **MCM INSTRUMENTS**

**(An ISO 9001:2008 Certified Company)**

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