



# DIGITAL MOTOR CHECKER EMC-38

**Electric Motor, Generator and Transformer Trouble Shooter Know in a few minutes what the problem is: Electrical or Mechanical? Coil or Rotor, Internal Fault or Ground Fault ?**



## Features:

- ❖ Insulation Resistance (IR) Measurement
- ❖ Identify open and short circuits / loose connections in a winding coil
- ❖ Identify inter turn 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.
- ❖ Shock Proof Rubber Casing

## Fast Checks of On-Site Motors:

EMC-38 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-38 will immediately detect it, without having to dismantle the equipment.

The instruments has three separate operating modes to measure different types of faults like fully insulation, **open circuits** / **loose connections**, **short circuits** and **rotor defects**. Motor insulation is tested with a high voltage at **500V & 1000V** DC supplied by the instrument.

## Technical Specifications

**A) INSULATION RESISTANCE :** 0 – 200 MΩ at 500 V DC ± ( 2% + 1digit), 0.1 MΩ resolution  
0 – 2000 MΩ at 1000 V DC ± ( 2% + 1digit), 1 MΩ resolution

| <b>B) RESISTANCE:</b> | <b><u>RANGE</u></b> | <b><u>RESOLUTION</u></b> | <b><u>TOLERANCE</u></b> |
|-----------------------|---------------------|--------------------------|-------------------------|
|                       | 0 - 200 milli Ω     | 0.10 milli Ω             | ± 2%                    |
|                       | 0 – 2 Ω             | 0.001 Ω                  | ± 2%                    |
|                       | 0 – 20 Ω            | 0.01 Ω                   | ± 2%                    |
|                       | 0 – 200 Ω           | 0.10 Ω                   | ± 2%                    |

| <b>C ) INDUCTANCE:</b> | <b><u>RANGE</u></b> | <b><u>RESOLUTION</u></b> | <b><u>TOLERANCE</u></b> |
|------------------------|---------------------|--------------------------|-------------------------|
|                        | 0 – 2 mH            | 0.001 mH                 | ± 3%                    |
|                        | 0 – 20mH            | 0.01 mH                  | ± 3%                    |
|                        | 0 –200 mH           | 0.1 mH                   | ± 3%                    |
|                        | 0 –2000 mH          | 1 mH                     | ± 3%                    |

\* Display:3½ LCD \* Temp.Range:0- 55°C \* Size:210x125x65 \* Weight:1000gms \* Power:1.5V x 6 AA size Cells

## Standard Supply:

- 1). Motor Checker EMC-38, 2) Leads (Clips)-1set, 3) Batteries-6 nos,
- 4) Test & Calibration Report with Warranty/Guarantee Certificate, 5) Manual & 6) Carry Case.

Technical Data are subject to change without Prior Notice.

## **MCM INSTRUMENTS**

**(An ISO 9001:2015 Certified Company)**

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