



## Features

- ✓ Simultaneous display of fundamental & 3 Harmonic Leakage Current and Resistive 3 Harmonic Leakage Current.
- ✓ Highly immune to noise in the system
- ✓ Data Transfer to your smart phone
- ✓ Android Application to trend monitor your LA
- ✓ Export report to excel/graphical pdf format directly from the App.
- ✓ User-friendly, rugged and very light weight.

## MLCM

### Leakage Current Monitoring

CAT III	IP	CE
600V	54	

The MLCM is a light weight, cost effective, portable and comes handy to monitor the healthiness of lightning arrester. MLCM measures the fundamental and third harmonic leakage current down to micro ampere. This makes it easy for maintenance engineer to check and monitor in-service lightning arresters periodically and determine their healthiness. As and when the LA deteriorate, the third harmonic leakage current also increases which provides a clear indication for maintenance engineer to take immediate action.

## Applications

Lightning arrester is connected between high voltage terminals and ground terminals for the protection of the equipment at the substations against travelling waves i.e., in parallel with the equipment to be protected at the substation. In other words, when a lightning surge (or switching surge) travels along the power line to the arrester, the current from the surge is diverted through the arrester, in most cases to earth without affecting the continuity of supply.

Lightning arresters at substations are exposed to a variety of stress factors originating both from the network and from their service environment. These stressors can then cause premature ageing or even damage to their varistor blocks. The main types of such degradation can be classified as either:

- Degradation of insulation properties
- Degradation of protective characteristics

Even though they are not very costly device, their maintenance is very critical of the view that they protect substation's essential assets. It is a necessity that these LA's are periodically monitored to ensure all essential assets are protected. There are various methods as per IEC 60099-5 to monitor the LA's. Out of which, it is very simple and easier to monitor the in-service lightning arrester without dismantling it by measuring the 3 harmonic leakage current using B1 and B2 methods.

### Main Application

- Used to check healthiness of lightning arresters
- Used to measure leakage currents.

## Technical Details

## MLCM

### Power

#### Transmitter

Rechargeable Li-ion Batteries charged By 9V Charger

### Range

1µA to 30mA total and 3rd harmonic resistive current (B1 Variant),

1µA TO 30 mA - resistive current after compensation of capacitive current,

Temperature and voltage coefficients (B2 Variant).

Continuous update of display and app every second without delay in processing.

### Accuracy

+/- 5 % , +/- 5 least counts

### Variant's

IEC 60099-5 B1, B1& B2.

### Software

Android app to download test data and to monitor the trend of LA's.

#### Clamp Diameter

20mm / 40mm / 68mm

### Correction Factor

Temperature and voltage correction for B1 and B2 variant. System 3<sup>rd</sup> harmonic compensation as per B2.

#### Calibration

Inbuilt calibration of both B1 & B2

### Temperature

#### Storage

-20 to 70°C

#### Operating

-10 to 50°C

### Dimensions

95mm (H) x 175mm (W) x 40mm (L)

### Weight

#### MLCM Unit

less than 2kg

## Accessories

### Standard

- 1 No. Leakage Current Monitor unit MLCM
- 1 No. 20mm/40mm/68mm High sense Current Probe.
- 1 set hook stick, base plate, cables for B2 method.
- 1 No. Smart Phone (Optional).
- 1 No. Android App
- 1 No. Charger for MLCM
- 2 No. Battery for MLCM
- 1 No. USB cables and Smart Phone Charger.
- 1 No. Operating and Instruction Manual