

# KPM LA Characteristic Tester (KPM LA-100+)



- User friendly
- Direct capture of input voltage and current signals.
- Inbuilt algorithms to remove line Voltage noise components
- Advance Sampling and Fourier harmonic analysis

KPM LA Characteristic Tester (KPM LA-100+) is the special instrument to be used to detect the electrical properties of Lightning Arrestors (LA/MOSA) .

## Technical Parameters

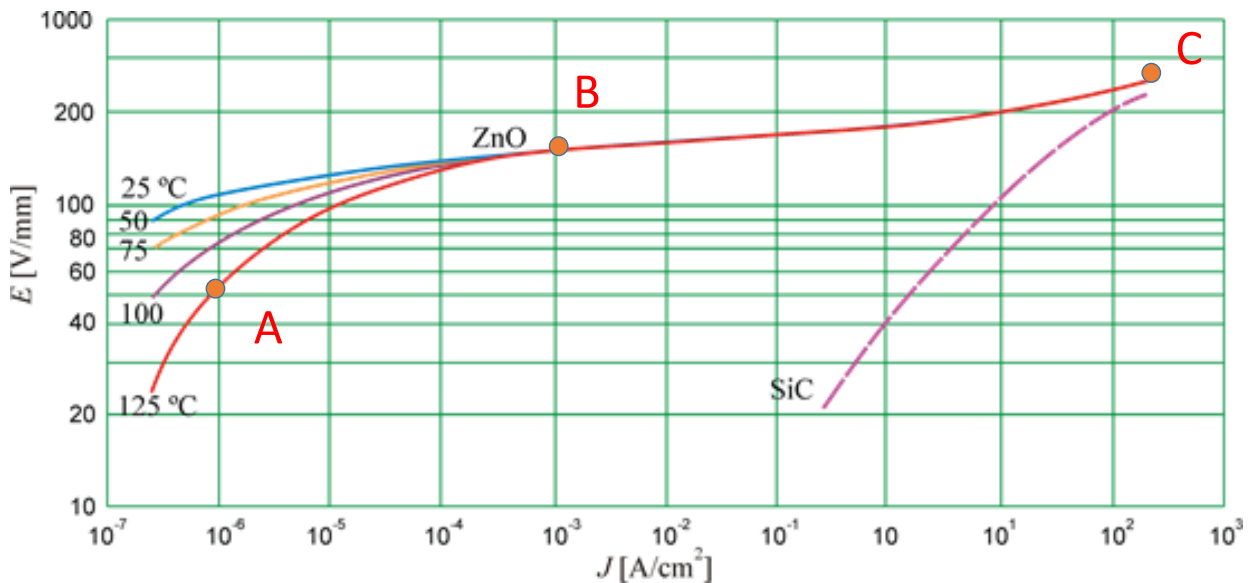
Range of reference voltage input (peak) :	10V-200V
Measurement range of full leakage current(peak):	100uA-10mA
Measurement range of resistive current(peak):	100uA-10mA
Measurement range of capacitive current(peak):	100uA-10mA
Measurement range of angle:	0° to 90°
Power consumption:	4W
System measurement accuracy:	+/- (reading 5% + .005mA
AC power supply :	AC 220V +/- 10% , 50Hz +/- 1%

## Product Features

- ❖ Large-screen LCD Display, Easy to use.
- ❖ Use Precision Sampling and Fourier harmonic analysis techniques to get reliable data.
- ❖ High-speed magnetic isolation digital sensor directly capture the input voltage and current signals ,Guarantee input data reliability and security.
- ❖ With resistive current fundamental peak output, side-phase correction functions.
- ❖ Rechargeable battery, calendar clock, micro printer, can store 120 group measurement data



## KPM LA Characteristic Tester (KPM LA-100+ )



### Product Advantages

- Prevent arrester failures by indicating and replacing arresters before breakdown.
- Increase the safety for the utility/maintenance staff.
- Avoid disturbances in the electric power supply.
- Reduce the risk for damages to other equipment due to arrester failures, for instance transformer bushings.

### Understanding LA ( MOSA )

The primary function of a zinc oxide surge arrester is to protect the power equipment from over voltages and to absorb electrical energy resulting from lightning or switching surges and from temporary over voltages.

The arrester is designed in such a way that the applied operating voltage gets located around point “A”. This results in a continuous resistive current of few micro amps flowing through the resistor elements.

Under overvoltage condition, the voltage increases and shifts operating point momentarily for overvoltage duration to point near “B” . This results in a resistive current of few milli amperes flowing through the resistor elements.

As soon as the overvoltage disappears, the operating point will shift back to “A”. In the event of transient switching or lightning over voltages, the operating point will shift to portion “C”.



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## LA testing & Leakage Current :

The measurement of total leakage current flowing through an LA under normal conditions is also used as one of the health monitoring techniques. However, the total leakage current measurement does not indicate the severity of degradation of Zinc

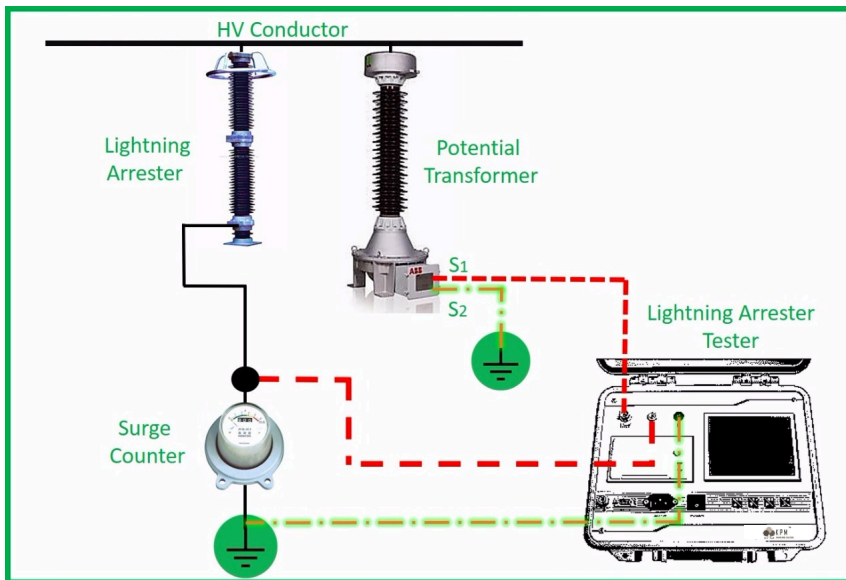
Oxide elements as the resistive current ( $I_r$ ) is only 15-25% of the total leakage current. Hence, a sharp increase in resistive current due to degradation/ageing of Zinc Oxide blocks does not affect the total leakage current considerably.

The higher resistive leakage current may ultimately bring the LA to thermal instability and may result in complete failure/breakdown of the Arrester. Hence, the resistive leakage current is the true indicator of health of an LA in service.

### Package List :

- |                                |   |
|--------------------------------|---|
| 1. KPM LA-100+                 | 1 |
| 2. Current, voltage input line | 3 |
| 3. Power Line                  | 1 |
| 4. Grounding line              | 1 |
| 5. Manual                      | 1 |

## Connection Diagram



## Test Report

Test Report	
KPM LA 100+	
Full U	: 100.0 kV
Fund U	: 99.67 kV
Freq	: 49.88 Hz
Ratio	: 1000
Cap I	: 0.981 mA
A Power	: 18.98 W
R Power	: 97.79 W
Angle	: 0.000 °
Full I	: 1.001 mA
Fund I	: 1.000 mA
Res Fund I	: 0.190 mA
Res I3	: 0.001 mA
Res I5	: 0.001 mA
Res I7	: 0.000 mA
Res IMax	: 0.269 mA
Diff Phase	: 80.0 °
Temperature	: °C
Date/Time	:

## Contact Us

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