

KPM 3 Phase LA Characteristic Tester (KPM LA-103+)



KPM's 3 Ph LA Characteristic Tester (KPM LA-103+) is the special instrument used to detect the electrical properties of Lightning Arrestors (LA/MOSA) of all the three phases .

Technical Parameters

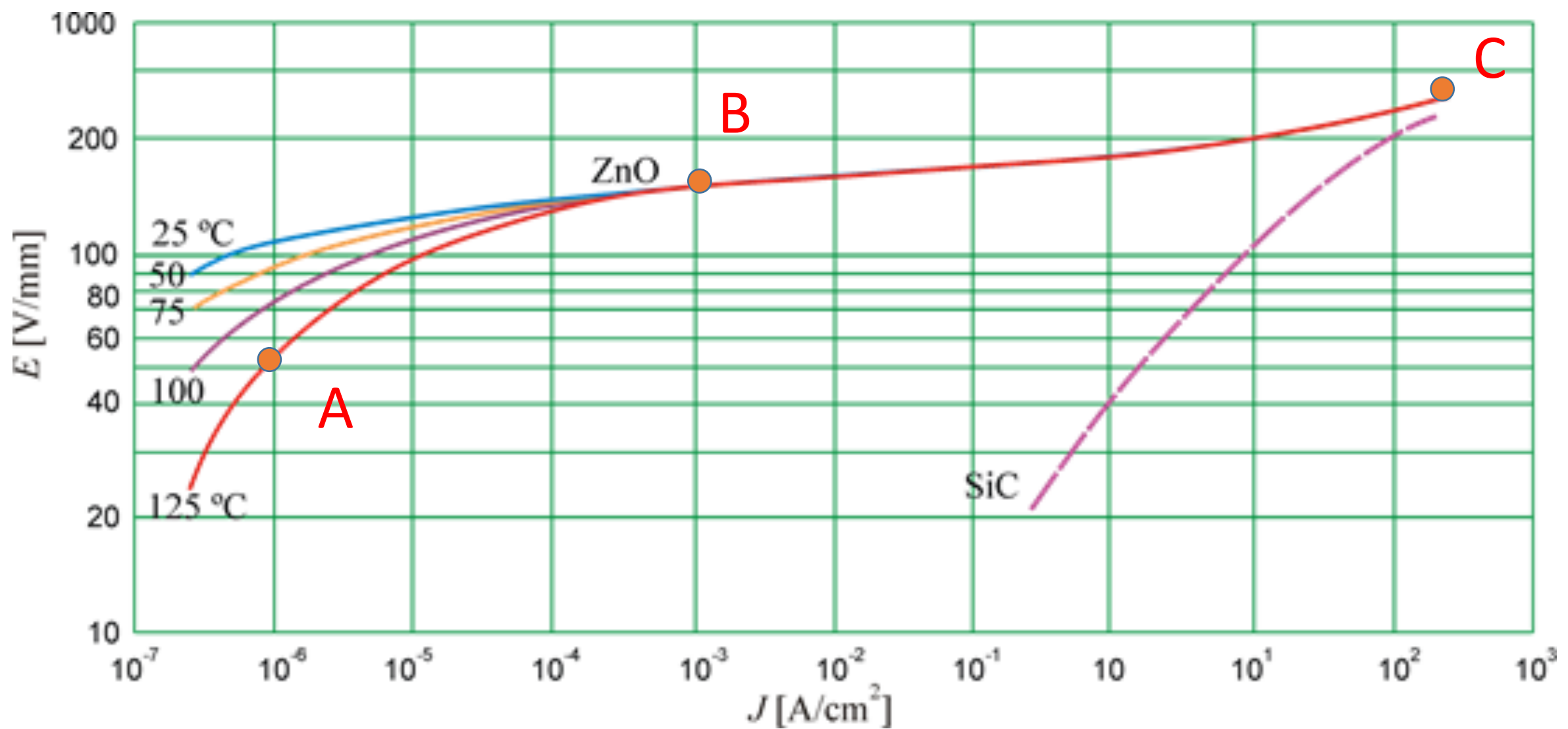
- Whole current measurement range: 0 ~ 10mA RMS
- Accuracy: $\pm(\text{reading } 5\% + 5\mu\text{A})$
- Fundamental resistance current measurement accuracy (wired do not contain phase to phase interference): $\pm(\text{reading } 5\% + 5\mu\text{A})$
- Current harmonics measurement accuracy: $\pm(\text{reading } 10\% + 10\mu\text{A})$
- Current channel input resistance: $\leq 2\Omega$
- Reference voltage input range: 25V ~ 250Vrms
- Accuracy: $\pm(\text{reading } 5\% + 0.5 \text{ V})$
- Voltage harmonic measurement accuracy: $\pm(\text{reading } 10\%)$

- Six Test Methods
- User friendly
- Wireless capture of input voltage signals.
- Advance Sampling and Fourier harmonic analysis
 - Reference voltage channel input resistance: $\geq 1800\text{k}\Omega$
 - Battery Continuous working time: 8 hours
 - Battery charging time: 6 hours or more
 - AC charging: 180V~270VAC, 50Hz \pm 1% , Mains supply or generator.
 - Tester size: 32cm \times 27.5cm \times 14cm
 - Weight: 5kg

Product Features

- Large-screen LCD display ,easy to use.
- Using high-precision sampling and processing circuits, advanced Fourier harmonic analysis techniques to make data reliable .
- The instrument uses voltage and current signals directly captured and inputted by a unique high-speed magnetic isolation digital sensor to ensure the reliability and security of data
- This equipment can use induced electric field or wireless transmission method instead of PT secondary wiring.
- The instrument don't need to connect PT secondary and can measure resistive current directly.

KPM 3 Phase LA Characteristic Tester (KPM LA-103+)



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.

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 milliamperes flowing through the resistor elements.

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.

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”.

KPM 3 Phase LA Characteristic Tester (KPM LA-103+)

LA testing & Leakage Current :

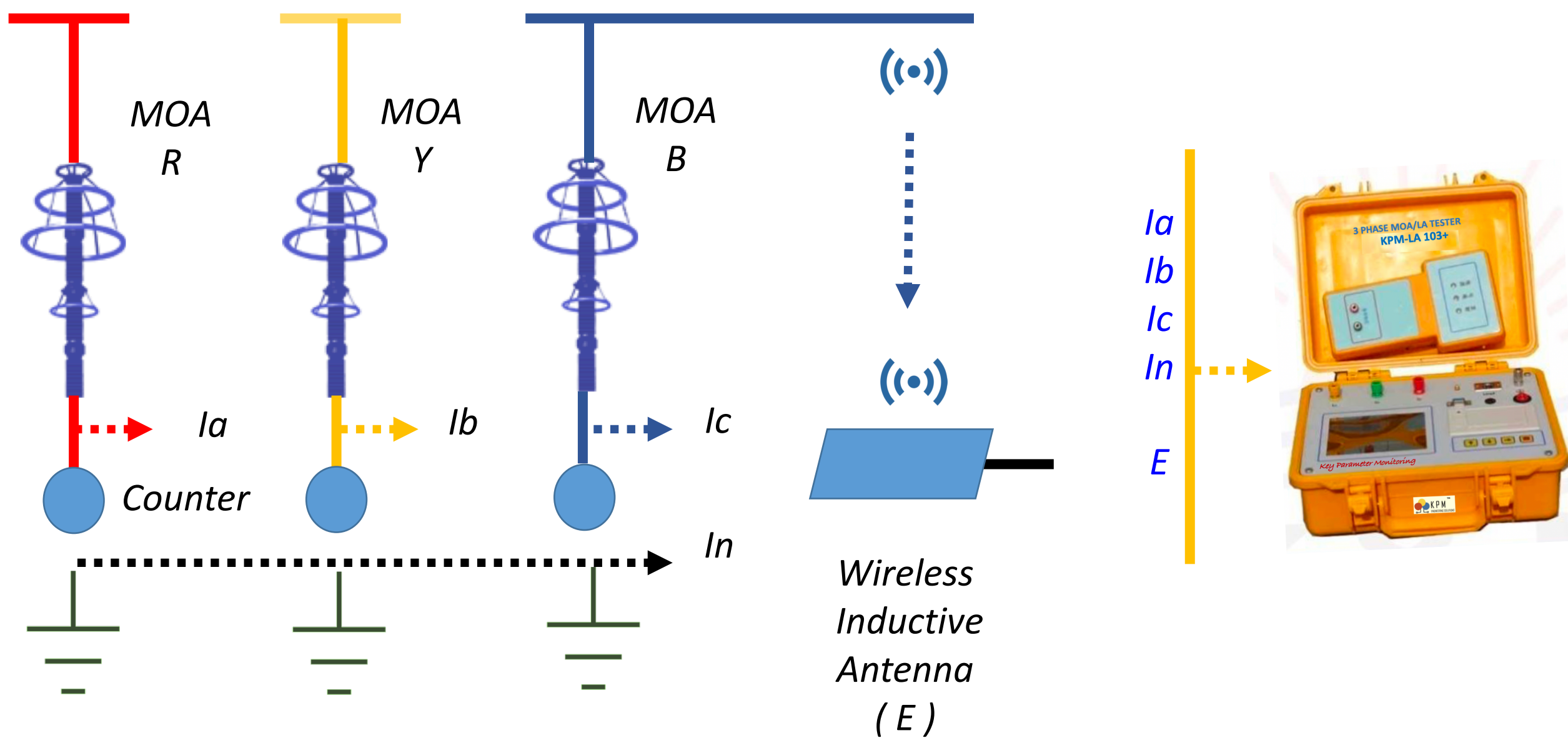
The measurement of total leakage current flowing through an LA under normal conditions is also used as one of the health monitoring techniques. However, the total leakage current measurement does not indicate the severity of degradation of Zinc Oxide elements as the resistive current (I_r) is only 15-25% 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-103+	1
2. Current, voltage input line	3
3. Power Line	1
4. Grounding line	1
5. Manual	1

Connection Diagram



KPM ENGINEERING SOLUTIONS PVT. LTD.
815 A, 8th Floor, Unitech Arcadia, Sec 49,
Gurugram – 122018 ,Haryana
Website : www.kpmttek.com
Email : info@kpmttek.com
Phone No : +91 124 4001088

