

LCM500



Leakage Current Monitor

ON-LINE ASSESSMENT OF SURGE ARRESTERS

- Safe and effective assessment of MOSA
- Wireless sensors
- For non-invasive routine surveys of substations
- According to IEC 60099-5 method B2
- Advanced user-friendly diagnostic tool
- Perfect for Condition Based Maintenance (CBM) program

LCM500 Features

The new LCM500 System features the following benefits for handling all your surge arrester monitoring needs:

Portable

Instrument for inspection of surge arresters for condition assessment on a regular basis. New LCM500 is battery operated.

Arrester ID

Unique identification of each surge arrester makes Data Management easy. LCM500 can store 1000 surge arrester ID's and measurements performed in the field.

Data Management

Secured through new Windows® LCM500 Software handling all your surge arrester readings. Defines individual surge arrester types including operational parameters. Software includes e.g. possibility to perform evaluation of groups of surge arresters e.g. same type of arresters or alternatively for a region.

Cost effective

Inspection of a surge arrester takes less than 10 minutes on location and can be performed with the arrester in live operation (no disturbance of power distribution).

Continuous Monitoring

LCM500 can be used for continuous monitoring of one or more arresters to investigate details in leakage current changes versus time. Can also be used for continuous registration in substations of big importance to the system operation reliability.



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LCM500 – The Technique

Well-proven and acknowledged monitoring technique using third-order harmonic analysis with compensation. Rated according to IEC 60099-5 as the best field monitoring technique for Metal Oxide Surge Arresters (MOSA). LCM500 records operating voltage and temperature during field measurements. The LCM500 measurements are automatically normalized to standard ambient temperature (+20°C) and 0.7x rated arrester voltage based on recorded temperature and operating voltage during field measurement. Measurements performed under different conditions can thereby easily be compared.

Performing Field Measurements

LCM500 is designed for use on arresters. Arrester ID is downloaded from PC software to LCM500 instrument prior to performing inspection of surge arresters. LCM500 can store 1000 arrester ID's. On location choose correct arrester ID and perform measurement. LCM500 can store 1000 measurements performed in the field. After completion of field measurements stored data are transferred from LCM500 instrument to PC software. You are now ready to perform analysis and plan your next inspection.

APPLICATION

Predecessors of the new LCM500 have been used to determine short term as well as long term measurements on arresters from 66kV to 765kV networks. Power companies and utilities in 50+ countries use the LCM instrument.

Order information

| | |
|--------------------|--|
| Item | LCM500 |
| Description | Instrument with case, Clip-on CT, Field Probe, Rod Adapter, power cable and test cables. <i>Field Probe rod is not included.</i> |
| Order no. | TN-25000 |

Optional Accessory

| | |
|--------------------|---|
| Item | Field Probe Rod (delivered in separate transport case) |
| Description | Field Probe Rod made of insulating materials. Users without a working rod need to order this rod. |
| Order no. | TN-25156 |

Technical Specifications

Mechanical:

| | |
|--------------------|--|
| Dimensions (WxHxD) | 47 x 35.7 x 17.6 cm / 18.50 x 14.06 x 6.93 in |
| Weight | 6.5 kg / 14.3 lbs |

Environmental:

| | |
|-----------------------|---------------------------------------|
| IP classification | IP67 (closed case) IP51 (open lid) |
| Operating temperature | -10°C to +50°C / 14°F to 122°F |
| Storage temperature | -20°C to +70°C / -4°F to 158°F |

Power Supply:

12 - 15 VDC or 85 - 264 VAC 47 - 63 Hz

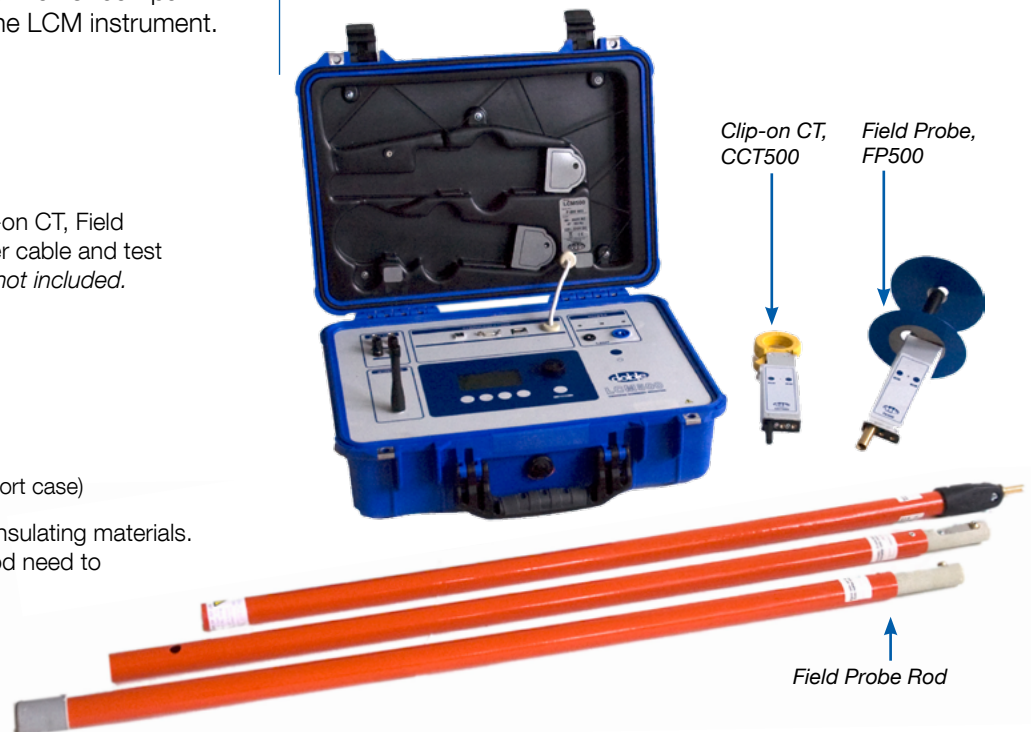
| | |
|---------------|---------------|
| Battery | 9.6V 2600 mAh |
| Capacity | 8 hours use |
| Charging time | 1.5 hours |

Measuring range:

| | |
|--------------------------------|---|
| Total arrester leakage current | 200 – 16000 µA |
| Resistive current | 0 – 9000 µA |
| Frequency range | 47 – 63 Hz (system voltage 50Hz or 60Hz) |
| Field probe Accuracy | 0-5Vac ±5 % or ±5 uA |

Wireless sensors:

- Battery powered wireless current probe and field antenna:
- Rechargeable (charges in instrument lid) 9V 500mAh
 - Digital radio communication at 434.075-434.525 MHz
 - Probes can be set at 16 distinct channels
 - Probes are in addition separated by their serial numbers



For more information, contact

info@doble.no

or visit

www.doble.com

Specifications are subject to change without notice.

Doble is ISO Certified
Doble is an ESCO Technologies Company

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