

LCM500



LEAKAGE CURRENT MONITOR

ON-LINE ASSESSMENT OF SURGE ARRESTERS

A surge arrester may be inexpensive, but it has an important function protecting your transformers. The LCM500 can measure condition while the arrester is still in service, measuring the quality of the metal oxide blocks and helping manage the risk of failure. With the LCM500, it takes less than 15 minutes to establish that your surge arresters are healthy and the transformer is still protected.

Features

Portable

Battery-operated instrument for inspection of surge arresters for condition assessment on a regular basis.

Arrester ID

Unique identification of each surge arrester makes data management easy. LCM500 can store 1000 surge arrester IDs 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 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 15 minutes on location and can be performed with the arrester in live operation (no disturbance of power distribution).

Continuous Monitoring

The LCM500 can be used for short-term monitoring of one arrester to investigate details in leakage current changes versus time.

Benefits

- Safe and effective assessment of metal oxide surge arresters
- 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



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The Technique

Well-proven and acknowledged monitoring technique using third-order harmonic analysis with compensation. Rated according IEC 60099-5 as the best field monitoring technique for Metal Oxide Surge Arresters (MOSA). 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 trending the condition of metal oxide surge arresters. Arrester ID is downloaded from PC software to LCM500 instrument prior to performing inspection of surge arresters. LCM500 can store 1000 arrester IDs. On location choose correct arrester ID and perform measurement. 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

The Doble leakage current monitors can be used to trend the condition of all types of metal oxide surge arresters on an insulated base with one separate grounding system conductor. Power generation and transmission companies in more than 50 countries use the LCM instruments from Doble.

Technical Specifications

Mechanical:

Dimensions (WxHxD) 47 x 35.7 x 17.6 cm
18.50 x 14.06 x 6.93 in
Weight 7.5 kg / 16.5 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
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 0-5Vac
Accuracy ±5 % or ±5 uA

Wireless sensors:

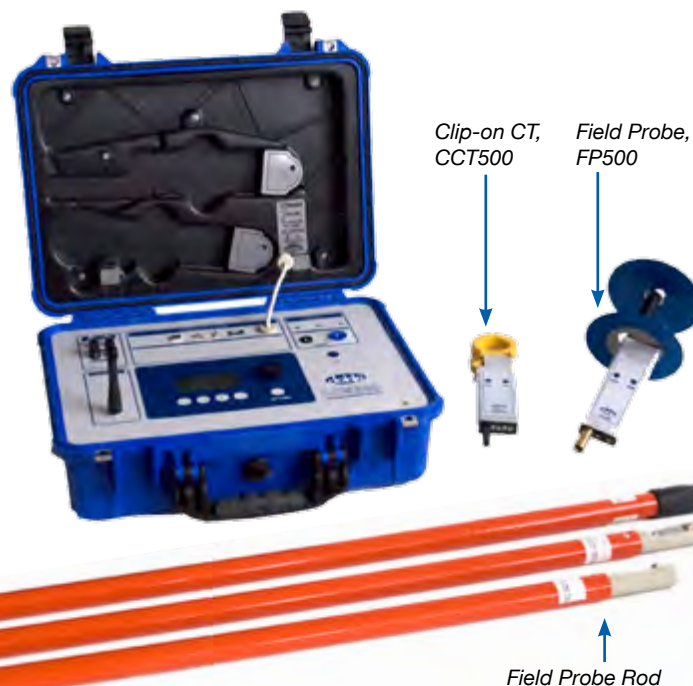
Battery powered wireless current probe and field antenna:

- 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

* May vary between countries

Ordering Information

Part Number	Product
TN-25000	LCM500 with case, Clip-on CT, Field Probe, Rod Adapter, power cable and test cables <i>Field Probe rod is not included.</i>
Optional Accessories	
TN-25156	Field Probe Rod (delivered in separate transport case) <i>Field Probe Rod made of insulating materials.</i>



Specifications are subject to change without notice.

Doble is ISO Certified

Doble is an ESCO Technologies Company

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TOGETHER WE POWER THE WORLD®



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