LPD Monitor

Online PD monitoring system

Benefits

- **Portable online PD measuring system for monitoring MV and HV systems**
- **16 channels**
- **Allows efficient forward planning of necessary maintenance work**
- **Quick and easy to install**
- **Integrated automatic knowledge-based evaluation of measured PD levels**
- **Current status can be viewed at any time via remote access**

Description

The LPD (live partial discharge) Monitor can be used for temporary or constant monitoring of partial discharge on medium- and high-voltage systems and cables up to a rated voltage of 66 kV.

With its 16 input channels, the lightweight LPD Monitor is an ideal, portable system for a fast check of local PD within cables or their accessories.

Even a quick test can provide useful information on the condition of the cable as a basis for identifying the required maintenance work, such as a comprehensive offline PD diagnosis.

The PD signals are recorded using inductive (HFCT) and/or capacitive (TEV) sensors. The inductive sensors are placed directly around the insulated conductor or the cable sheath. The capacitive sensors can be easily attached to metal parts of the switchgear using a magnetic holder.

Depending on the number of sensors, the signals from each sensor are recorded at set intervals (every 1 to 20 minutes). These readings are immediately analysed by the integrated software. The signals are categorised either as a “local PD” or a “cable PD”. The measured level is compared to the values stored in a database and then assigned to one of four possible assessment categories. PD activity rated as “critical” automatically generates an alarm message.

The user can check the current readings and the progress of the PD activity at any time via remote access.

Scope of delivery

- LPD Monitor
- 6 inductive sensors (HFCT 100/50)
- 2 capacitive sensors (TEV)
- Set of coaxial cables (2×5 m, 4×10 m and 2×15 m)
- Accessory bag
- Keyboard/mouse/modem

Technical data	
LPD Monitor	
Measuring channels	16
Sampling rate	100 MS/s
Power supply	110 ... 240 V AC, 50…60 Hz
Power consumption	90 VA
Operating temperature	-20 °C … +45 °C
Remote access via…	LAN/GPRS/HSDPA/ dial-up modem
Protection class	IP 20
Weight	approx. 15 kg
Dimensions (W x H x D)	524 x 206 x 428 mm
HFCT Sensor (100/50)	
Transfer impedance	4.0 mV / mA ±5%
-3 dB frequency response	100 kHz–20 MHz
Typical fall time	2.5 µs ±5%
Typical rise time	≤ 20 ns
Load impedance	50 Ω
Max. 50 Hz current	300 A
TEV Sensor	
Frequency response	1 MHz–50 MHz
Typical fall time	0.4 ms ±5%
Typical rise time	≤ 5 ns
Spare capacity	150 pF
Load impedance	50 Ω

Options

- Set of additional sensors (6 x HFCT 100/50, 2 x TEV)
- Different-sized HFCT sensors (ask SebaKMT for details)
- Flat coaxial cables for enclosed switchgears

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