

DTL C

BAUR oil tan delta and resistivity tester



Precise analyses, extensive diagnoses, maximum efficiency

- Fully automatic dissipation factor measurement
- Pre-programmed standards
- Maximum accuracy

The established analysis and diagnosis of insulating oils with DTL C provides valuable findings in the scientific work, research and development. The extensive knowledge about the current state of insulating liquids becomes more important even for the operational power network expert.

DTL C offers the latest and most precise information for efficient oil management in plants in the electricity industry, the medical and safety industry. DTL C is the only device in the market which combines measurement of the dissipation factor, specific resistance and relative permittivity.

Maximum economic and safe maintenance planning

At present, the DTL C is the leading standard in insulating oil testing across the world. In practice, the comprehensive analysis with DTL C impacts a precise and, hence more economic maintenance planning. The saving potential for network operators, depending on the network size, and the associated insulating oil requirement is several hundred thousand Euros per year.

Features

- Dissipation factor measurement from 4.0 to 1×10^{-6}
- Measurement of the specific resistance with both polarities up to 100 TΩm
- Measurement of the relative permittivity ϵ_r
- Highly precise induction heating of the cell with accurate temperature control
- Functional design for high efficiency, user-friendliness and safety in case of minimum space requirement
- Test cell with protective ring electrode, three electrodes and quartz glass rings
- Test cell according to IEC 60247 Fig. 3
- Calibration of the empty cell
- Emptying of the test cell possible without disassembly (automatic/manual)
- Direct temperature measurement by placing the sensor in the measurement electrodes
- Fully automatic measuring sequences from 12 pre-programmed test standards and 10 user-programmable test sequences
- Multilingual user interface
- Ergonomic operating unit with oil-proof membrane keyboard, easy-to-read colour LCD display and integrated printer
- Efficient measuring data management with BAUR Software ITS Lite*

* Free download at www.baur.eu

Technical data

Measurements	Range	Resolution
Dissipation factor measurement	4 – 1x10 ⁻⁶	1x10 ⁻⁶
Relative permittivity	1 – 30	1x10 ⁻²
Specific resistance measurement	2.5 MΩm – 100 TΩm	1x10 ⁻² (complete range)
Temperature measurement	11 – 110 °C	0.1 °C
General information		
Power supply	90 – 264 V (50/60 Hz)	
Max. power consumption	500 VA	
Display	Colour LCD (approx. 3.5"), screen resolution 320 x 240 pixels	
Software available in	German, English, French, Spanish, Italian, Portuguese, Dutch, Polish, Russian, Chinese (Cn), Chinese (Tw), Czech, Turkish, Korean	
Pre-programmed standards	IEC 60247:2004 Standard/Routine, VDE 0380- 2:2005_01 Standard/Routine, BS 5737:1979 Standard/Routine, ASTM D924-15 Standard/Routine, ASTM D1169-19a Standard/Routine, IEC 61620:1998-11, JIS C2101:2010, NBR 12133 Standard/Routine	
Programmable test sequences	10	

Interface	<ul style="list-style-type: none"> USB 2.0 (type B plug) BAUR Report Manager external USB interface (type A plug)
Printer	Matrix printer, 24 characters, 57mm plain paper
Ambient temperature	-10 to +45 °C
Storage temperature	-20 to +55 °C
Relative humidity	Non-condensing
Dimensions (W x H x D)	545 x 458 x 384 mm (closed) 545 x 770 x 465 mm (open)
Weight	28 kg
Degree of protection	IP 32
Safety and EMC	CE-compliant in accordance with Low Voltage Directive (2014/35/EC), EMC Directive (2014/30/EC), EN 60068-2-ff Environmental testing

BAUR software ITS Lite

Software for efficient measurement data management (free download from www.baur.eu)

For technical data see ITS Lite data sheet

Test cell according to IEC 60247 Fig. 3

Content	45 ml
Idle capacity tolerance	67.8 to 73 pF
Electric strength in air	2 000 V _{rms}
Oil viscosity	<150 mm ² /s at 20 °C

Standard delivery includes

- DTL C oil tan delta and resistivity tester incl. integrated plain paper printer
- Dust cover
- Oil drain hose 1.5 m
- Test cell according to IEC 60247 Fig. 3 with transport case
- Temperature sensor
- One-way syringe 50 ml
- Mains supply cord 2.5 m
- User manual

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