

DTA 100 C

BAUR oil breakdown voltage tester



The standard in oil testing in the laboratory

- Fully automatic testing of the breakdown strength in compliance with international and national standards
- Suitable for mineral or silicone oils and ester liquids
- Reliable, reproducible measurement results using the latest measurement technology
- Designed for daily continuous operation in laboratories

The BAUR DTA 100 C oil breakdown voltage tester fully automatically tests the electrical breakdown strength of insulating liquids. Test sequences can be accomplished easily and fully automatically in compliance with all international and national standards. With reliable, informative test results it is possible to determine the exact condition of the insulating material and initiate any necessary measures, e.g. preparation of transformer oil.

The high precision of the BAUR oil breakdown voltage testers is based on a tried and tested and very accurate test voltage measurement principle performed directly on the HV part of the device, as well as the permanent monitoring of the voltage slew (RBM). The especially short switch-off time after a breakdown counteracts the contamination of the oil sample, thus ensuring reliable reproducibility of the measurement results.

The DTA 100 C oil breakdown voltage tester has been specially designed for continuous operation in laboratories. The robust and sophisticated design guarantees safe and failure-free operation for several hundred thousands of oil sample measurements.

Features

- Test voltages of 0 to 100 kV_{rms}
- Reliable, reproducible measurement results across multiple measurements thanks to short switch-off time < 10 μs
- Clear breakdown detection by means of very precise measurement principle performed directly in the HV part and RBM technology
- Fully automatic test sequences for 18 common test standards around the globe and spot tests
- Easy creation of user-specific test sequences
- Built-in sensor for measuring the temperature of the insulating liquid
- Precise adjustment of standard electrode distances
- Automatic self-test with HV output voltage test each time you start
- EMC screen for preventing damage to electronic devices nearby
- Comprehensive safety concept, incl. high voltage shutdown through hood contacts
- User interface available in 13 languages
- Illuminated test vessel
- Ergonomic operating unit with oil-proof membrane keyboard, easy to read LCD colour display and integrated printer
- Automatic reading of measurement results and creation of measurement logs in PDF format or as text file with BAUR oil tester data management software ITS Lite *
 - Management of measurement results for multiple oil testers possible
 - Customised layout of measurement logs

* Free download at www.baur.eu

Technical data

General		Insulating oil testing	
Input voltage	90 – 264 V (50/60 Hz)	Output voltage	0 – 100 kV _{rms} symmetrical
Power consumption	Max. 70 VA	Voltage slew rate	0.5 – 10 kV/s
Display	LCD colour display (320 x 240)	Switch-off time	< 10 µs
Data interface	<ul style="list-style-type: none"> ▪ USB 2.0 (type B plug) ▪ BAUR Report Manager external USB interface (type A plug) 	Voltage slew monitoring	Real Breakdown Monitoring (RBM)
Printer	Matrix printer, 24 characters, 57 mm plain paper	Accuracy	0 – 100 kV ± 1 kV
Ambient temperature (operational)	-10°C to +55°C	Resolution	0.1 kV
Storage temperature	-20°C to +60°C	Internal temperature recording of the oil sample	0 – 99°C
Humidity	Non-condensing	Temperature resolution	1°C
Dimensions (W x H x D)	545 x 458 x 380 mm (closed) 545 x 770 x 461 mm (open)	Test standards	ASTM D1816:2012 1 mm, ASTM D1816:2012 2 mm, ASTM D1816/97, ASTM D877/D877M:2013 PA, ASTM D877/D877M:2013 PB, BS EN 60156, CEI EN 60156, CSSR RVHP:1985, IEC 60156:1995, IRAM 2341:1972, JIS C2101:2010, PN 77/E-04408, SEV EN 60156, UNE EN 60156, NF EN 60156, SABS EN 60156, VDE 0370 Part 5:96, AS 1767.2.1
Weight	Approx. 39 kg	User-specific test sequences	10
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		
Software available in	German, English, French, Spanish, Portuguese, Italian, Russian, Czech, Polish, Dutch, Chinese (CN), Chinese (TW), Korean		

Standard delivery includes

- BAUR DTA 100 C oil breakdown voltage tester incl. integrated plain paper printer
- 1 x test vessel (test standard acc. to choice)
- Magnetic stirrer
- Lifting stick for magnetic stirrer
- Setting gauge
- Mains supply cord
- User manual

Options

- Dust cover
- Transport case
- Magnetic stirrer
- Lifting stick for magnetic stirrer
- Setting gauges, 1 / 2 / 2.5 / 2.54 / 4 / 5 mm
- Face pin wrench for disassembling the test vessel
- Paper roll for printer, 57 mm width, Ø 30 mm
- Ink ribbon (blue) for printer
- Test vessels 0.4 litre made of glass according to IEC 60156 Fig. I or Fig. II, ASTM D1816 or ASTM D877
- Pairs of electrodes for test vessels in accordance with IEC 60156 Fig. I or Fig. II, ASTM D1816 or ASTM D877
- BAUR Report Manager – External USB interface for measurement data management

Available test vessels 0.4 litres made of glass (with lid)

