

The Portable Oiltester



Introduction

The PORTATEST is a fully automatic tester for determination of the dielectric breakdown voltage of insulating liquid. It has been designed for laboratory use as well as for field use for service and commissioning.

The PORTATEST is very comfortable and easy in use. The requested testing standard may be selected via menu. The corresponding electrode type as well as the electrode spacing will be displayed for confirmation before starting the test.

After placing the test vessel with the oil sample into the test chamber, the protection lid needs to be closed. For maximum operator security the protection lid is equipped with a security interlock key switching off the HV when opened during testing. When starting the test, sample temperature as well as a customer specific sample number may be entered and will then be integrated to the test report printout. The testing sequence according to the selected testing standard is performed fully automatically.

Common test sequences for national and international standards are stored in the oil tester. In addition, the operator can define and store up to 10 freely programmable test sequences. The following test processes are available:

- 1.] 12 standard test sequences for the respective standards
- 2.] 10 freely programmable test sequences
- 3.] Short test program for a fast evaluation of the condition (duration of the test: 5min)
- 4.] Single breakdown tests
- 5.] Voltage withstand test (1min ... 24h) with programmable rate of rise, hold voltage and hold time
- 6.] Step test (1 ... 10 steps) with progr. step, rate of rise and hold times.

Every oil sample is either automatically marked with a serial number or with a number entered by the operator. After every test, a detailed test report is printed on the built-in printer. In addition to the standard used for the test, the print-out contains the date, the time, the sample number, individual breakdown values, average value and standard deviation.

The last 20 test reports will be stored in the tester for later recall or printout. Additionally test results can be transmitted to a PC using the optionally available Windows program PrintCom. With PrintCom, test results can be stored on the PC and test reports may be printed on the connected office printer. PrintCom stores the results in EXCEL® format. The operator may configure an own suitable EXCEL® form.

Features

- Fully automatic Oil tester for laboratory and field use during service and commissioning
- Testing voltage up to 100KV
- Pre-programmed for common national and international testing standards
- Up to ten free programmable user testing sequences
- Short switch off time < 1ms avoiding carbonisation of the sample
- Indication of individual breakdown values, average value and standard deviation
- Graphic-Display with backlight
- Clear operator guiding via four soft keys F1...F4
- Input dialog for sample temp. and sample number if require.
- Multi language menu, language selected via Setup menu
- PC-data storage via serial interface RS232
- Glass test vessel with lid and magnetic stirrer
- Different electrodes available (mushroom, sphere or disc)
- Electrode spacing adjustable
- Integrated printer
- Rugged aluminium housing with shielded test chamber

precise . . .
save . . .
User friendly ->

PORTATEST

Model PORTATEST Article-No.	60A-2 4018300	80A-2 4018301	100A-2 4018302
Testing voltage:	60 kV RMS	80 kV RMS	100 kV RMS
Weight approx.	35 kg	39 kg	39 kg
Dimensions (WxHxD):	503 (+70 carrying handles) x 450 x 390 mm		
Mains supply voltage:	110, 230, 240 V / 50 or 60 Hz - selectable via voltage selector		
Power consumption	Max. 900 VA		
Voltage measurement:	True RMS measurement, Resolution 0.1 kV, Accuracy +/- 1 kV		
Switch-off current/time	programmable 1...5 mA / <1ms		
Breakdown monitoring	Detecting insulating liquids with insulation resistance below 30 MOhms		
Voltage withstand tests:	Rate of rise, hold voltage and hold time selectable in 5 steps		
Rate of rise	0,1... 10 kV/s programmable, in automatic mode selected by testing standard		
Testing standards:	IEC 156/95, VDE 370/96, BS 5874/80, UTE C 27-221/74, UNE 21309/89, NEN 10156, SEV 3141/69, CEI 10-I/73, ASTM D1816/90, ASTM D877/90, JIS 2101-82, JIS Silicon 2101/82, selectable via menu, additionally 10 User testing sequences freely programmable		
Display:	LCD Graphic display with backlight		
Printer:	Built in Matrix printer, 24 Characters/line		
Stirrer:	Magnetic stirrer, PTFE-bar		
Sample No.:	Successive Number or entered by operator before starting the test		
Date and time:	Built in clock with calendar function		
Interface:	Serial Interface RS 232C on the front panel		
Max. temperature:	Operation 0 to 50°C, storing -20° to +50° C		

Standard accessories

- Oil test vessel glass 0,4 lit complete with Electrodes requested.
- Mains connecting cable.
- PTFE stirrer bar, 2 pcs.
- Gap gauge 2.5 mm.
- Lift-off stick for stirrer bar.
- Spare paper roll for printer, 2 pcs.
- Operating manual.

Optional accessories

- Spare paper rolls, pack of 10 rolls.
- Printer cartridge ribbon.
- Spare electrodes mushroom (VDE), Sphere 12,5 mm or Disc 1" according to ASTM D877
- PrintCom Software for date link to PC

