

60A 90A 100A *Portatest Oil Test Systems* 90S



Features

- Portable fully automatic Oil Test Set
- Compact folding design
- Complies with national and international testing standards
- Built-in printer for test records
- User-selectable supply voltage
- Fully automatic test routines for 12 national standards*
- Two user defined test routines programmed via menu
- RS232C Serial interface for download of test record
- Optional PC software to capture and store results (for Windows 95, 98 or NT)

*60A, 90A and 100A only

The PORTATEST Series of oil test systems has been designed to provide the test and maintenance engineer with a simple to use fully automatic test set for determination of the dielectric strength of insulating oil. The unit is portable, allowing measurements to be made directly on site in substations. The portatest is an essential tool for routine tests or commissioning.

User-selectable mains voltages of 110V, 230V or 240V at 50 or 60Hz allow the use of the units across the globe.

Two types of unit are available; semi-automatic (90S), and fully automatic (60A, 90A and 100A). The fully automatic units are pre-programmed for 12 different test standards, selectable via an easy to use menu system. Additionally there are two user programmable test routines. To identify the oil-sample tested, the portatest automatically assigns a sequential number to the sample.

The built-in dot matrix printer provides a detailed report for every test. The test report includes the selected test standard, date and time, sample number, all individual breakdown values, mean value and standard deviation.

The 90S semi-automatic unit may be used to measure single breakdown values with user-programmable rate of voltage rise and stirrer control. The 60A, 90A and 100A fully automatic units may be used in semi-automatic mode.

Despite this wide range of measurements the portatest is very simple to use. All measurements and menus are displayed on an easy to read two line liquid crystal display. The unit is operated via a pressure sensitive membrane keyboard, protecting the instrument against oil splashing and dust.

When testing is complete, the unit folds, enclosing and protecting the front panel and test vessel.



T&R Test Equipment Ltd



Portatest Specification

PORTATEST Type	90 S	60 A	90 A	100 A
Test Voltage:	90kV RMS	60kV RMS	90kV RMS	100kV RMS
Weight approx.	45 kg	40 kg	45 kg	45 kg
Dimensions:	505x470x260 mm	505x470x260 mm	505x470x260 mm	505x470x260 mm
Power Supply	110, 230, 240V / 50 or 60Hz user-selectable			
Power Consumption:	Max. 900 VA			
Voltage Measurement:	Synchronised peak value measurement, calculation of RMS Voltage, accuracy +/- 2% of nominal value			
Switch-off Response Current / Time	Max. 4 mA / max. 6 ms			
Voltage withstand tests:	Hold voltage and, hold time programmable via editor			
Rate of Voltage Rise:	0.5/ 1/ 2/ 3/ 5 kV/s set automatically or manually			
Testing Standards:	All standards covered by 90A, but tests are carried out manually.	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 2		
Display:	LCD display, 2 x 16 characters alphanumeric			
Built-in printer:	Epson matrix printer, 16 characters/ line, cartridge ribbon type ECR-05			
Agitator:	Magnetic agitator 12 Vdc, PTFE-agitator sticks			
Sample No.:	Automatically successive numbering of sample or set via editor			
Date, Time and User Programs:	Back-up buffer battery on control board, life time approximately 5-10 years			
External Interface:	Serial interface RS 232C/ V 24), baud rate setting via DIP-switch up to 4800 baud, SUB-D socket			
Max. Temperature:	Operation 0 to 50°C, Storage -20° to +50° C			

Standard Accessories

Oil Test Vessel Glass 0,4l complete with electrodes requested.

Mains Connecting Cable

2 x PTFE agitator stick

2 x Gap gauge

Lift-off stick for agitator stick

Spare fuses 2 x T4A, 2 x T8A

Paper roll 45x50 mm for printer, 2 pcs

Operating Manual

Optional Accessories

Spare paper rolls, 45x50 mm package of 10 pcs

Cartridge ribbon type ECR-05 for printer

Spare electrodes: mushroom IEC/VDE, sphere 12,5 mm or disc according to ASTM 877

PC Software PortaCOM 2000 for receiving and storing test records on harddisc (for Windows 95, 98 or NT)

Note

Unlike all other T&R Test Equipment units (manufactured in the UK), the Portatest is manufactured in Austria.