OTS60SX
Semi Automatic Oil Test Set

- **Lightweight portable unit for field use**
- **Simple, semi-automatic operation**
- **Suitable for all oil breakdown testing to 60 kV**
- **Automatic 1 minute timer for easy withstand testing**

DESCRIPTION

The Megger® OTS60SX is a lightweight, semi-automatic, oil dielectric strength test set. The instrument is suitable for field use and can be powered from a range of mains supplies. The maximum 60 kV output allows tests to be performed on oil from a wide variety of electrical installations including transformers, circuit breakers and other equipment. The operation of the test set is extremely simple and the results are displayed on a bright LED display. A selection of vessels allows the instrument to be configured for a variety of test standards.

The microprocessor controlled, semi automatic operation allows the user to select a choice of voltage rise rates as specified in many national standards. The start button will then initiate the test. If oil breakdown occurs the instrument will remove the test voltage and display the breakdown value. Alternatively the user can pause the test voltage at any time to carry out a withstand test. The voltage will be maintained at this level for one minute or until breakdown. After one minute the voltage will automatically continue to rise until breakdown occurs or to the maximum output of the instrument.

A sheet steel enclosure makes the instrument rugged and safe. A strong polycarbonate window covers the high voltage chamber. A mesh screen enables the oil breakdown to be viewed and reduces electro-magnetic emissions. Operator safety is ensured by an interlock on the chamber door. The power cord and other accessories are stored in a pouch which is fitted to the side of the test set. An optional carrying bag with shoulder strap is also available.

The oil vessel is located in the top of the instrument. An external nut varies the electrode gap. The design of the vessels and test chamber makes them easy to clean. The instrument is supplied with a spacing gauge for setting the electrode gap.

A range of vessels are available suitable for testing to a wide range of national specifications. Three types of electrode are available; spherical (IEC type), mushroom (VDE/ASTM D1816) and cylindrical (ASTM D877). The oil sample can be stirred by a motor driven propeller available in some of the vessels. Spare electrodes can also be supplied suitable for all types of oil testing.

APPLICATIONS

Oil has been used as an insulating medium in transformers for over one hundred years. From the earliest days of transformer design, oil has been recognised as being an efficient coolant with a high flash point and high electric strength. Oil can be used in electrical equipment for a long time if adequately maintained.

Many factors can lead to a weakening of the insulation properties of oil. Oil degradation takes place due to oxidation, acids, sludge, gas and water absorption. These processes change the electrical properties of the oil which can be seen from a dielectric strength test.

The range of oil test sets available from Megger Limited offers solutions for all oil testing applications. The popular OTS60PB is a fully automatic portable unit. The automatic, laboratory OTSAF/2 series incorporate a built in printer and enable the user to program custom tests.

FEATURES AND BENEFITS

- Simple to use
- Low cost, low weight (17,5 kg) (38.5 lbs)
- Strong, safe construction
- Suitable for testing to national standards
- Auto 1 minute timer for easy withstand testing
- 0,1 kV measurement resolution
- Large, clear LED display
- Reliable operation controlled by microprocessor
- Powered from a range of mains supplies
- Wide range of optional vessels
- Easy to clean vessel and chamber

SPECIFICATIONS

High Voltage Output

Voltage:

0 - 60 kV

Test Frequency:

61,8 Hz

Transformer rating:
500 VA

Output disconnection

Within 1 ms of detection of breakdown

Input

Power supply:

115/230 V, switch selectable

(99-132 V, 198-264 V)

50/60 Hz, max 80 VA

Operation

Semi automatic with selectable 500/2000/3000 V/s voltage rise rate

Pause function with automatic 1 minute timer for withstand testing

Controls

Start, pause, stop & ramp rate select

Display

0,0 - 60,0 kV 25 mm LED digital display 'HV On' LED

Measurement Accuracy

2% +/- 3 digits

Safety

The instrument meets the requirements of IEC61010-1

EMC

In Accordance with IEC61326-1

Fuses

250 mA (T) HRC to IEC127/5 for 220/240 V supply

500 mA (T) HRC to IEC127/5 for 110/120 V supply

Environmental

Temperature Range

Operating:

0 to 40°C (32 to 104°F)

Storage:

-40 to +70°C (-40 to +158°F)

Humidity Range

Operating:

80% RH at 40°C (104°F)

Storage:

93% RH at 40°C (104°F)

95% RH at 25°C (77°F)

Physical Dimensions

336 mm x 400 mm x 235 mm

(13,2 in. x 15,7 in. 9,3 in.)

Weight

17,5 kg (38,5 l

ORDERING INFORMATION

Item	Order Code
Semi Automatic 60 kV Oil Test Set	OTS60SX
Included Accessories	
Spacing Gauge (0,5 mm x 6)	6132-009
Accessory Pouch	6320-232
User Guide	6172-120
Power cord unterminated	25424-860
Power cord US plug	25970-002
Optional Accessories	
Padded carrying case	6420-106
0,5 l Vessels with:	
Spherical electrodes for IEC156	6320-233
Spherical electrodes for IEC156 with stirrer	6320-236
Mushroom electrodes for VDE0370	6320-234
Mushroom electrodes for ASTM D1816 with stirrer	6320-237
0.15 litre vessel with cylindrical electrodes for ASTMD 877	6111-356
Spare Electrodes for 0.5 L vessels	
Spherical (pair)	6220-484
Mushroom (pair)	6220-580
Cylindrical (pair)	6220-483
Cylindrical with 0,5 mm edge radius (pair)	6220-538

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