



PE-AOBDV-MXXX

Automatic Oil Breakdown Voltage Tester



Oil has been used for a long time as an insulating medium in Transformers, HV Capacitors, XLPE Cables and Switchgear. It is also an effective coolant and transfer medium of various impurities from windings and paper insulation. It is necessary for Oil to be a perfect insulator as it was intended to be at the time of manufacture, for the HV equipment to function satisfactorily. But oil suffers from electrical degradation due to the contaminations and other electrical and mechanical stresses, rendering its properties ineffective for its intended purpose after sustained period of operation. Dielectric Breakdown Voltage testing of Oil is one such means to detect the voltage at power frequency at which it is likely to cause a flash-over.

PE-AOBDV-M series of Automatic Oil Breakdown Voltage Testers are highly precise instrument, which can be used to conduct either a breakdown voltage test or do a proof (withstand) test. Usual available automatic test sets only perform the former function, but PE-AOBDV-M can do both.

Features

- Available in 100kV (M100), 80kV (M080) and 60kV (M060) versions.
- World's only "True BDV set" ...measures HV secondary voltage across Oil vessel electrodes, instead of across HV primary
- Complete Automatic operation. Just select and Start!
- Input overvoltage protection
- "Most accurate test set". 1% Accuracy. 0.01kV resolution
- Programmable Stand, Stir and Intermediate stand times from 0-100 min
- Repetitive test sequence (up to 99 iterations) and average readings (from first to last)
- Proof test possible with 5 break sequences
- Non-contact magnetic stirring
- User and object information included
- Touch panel, Backlit big LCD screen for comfortable user interface
- Programmable voltage ramp rate from 0.5kV/sec to 5kV/sec to meet requirements of all regional standards
- Vacuum cast resin HV transformer designed for min 100K test cycles
- Integrated thermal Printer
- Internal memory for 100 test data storage and recall via USB port
- Programmable 5 custom test sequences as per requirement
- High Voltage 100kV digital meter 1% accuracy available for on-site calibration
- Poor ground rejection
- Included IEC 60156, ASTM D877, ASTM D1816, UNE 21, BS 5730a, BS 148, BS 5874, VDE 0370, NFC 27, CE1344, OCT 6581, SABS 555, AS 1767, STA 8286, IP 295 standard test sequences



Specifications

Input / Output

- Power Supply –
-Single Phase AC 200V-250V,or
- Single Phase AC 90V -150V
- Voltage output
– for M100, 0 – 100kV
(variable in steps of 100V for proof test)
– for M080, 0 – 80kV
(variable in steps of 100V for proof test)
– for M060, 0 – 60kV
(variable in steps of 100V for proof test)
- BD Voltage accuracy – $1\% \pm 2$ digits
("True BDV test")
- BD Voltage resolution– 0.01 kV (10V)
- Trip Current – programmable from 5mA to 20mA,
in steps of 1mA

Safety systems

- Interlock for Zero start
- Interlock for HT cover open
- Auto trip and reset

Standard Accessories

Test equipment – 1 no
Choice of

- PE-BDVOV-A-Oil vessel with Mushroom Electrodes – 1 set,or,
- PE-BDVOV-B-Oil vessel with Spherical Electrodes – 1 set,or,
- PE-BDVOV-C-Oil vessel with Cylindrical Electrodes – 1 set
- go-no go gauge (as per choice of Oil vessel)
– 1 no

Note – Power Electronical reserves the right to change product specifications for continual improvement. Please order a fresh copy of specs from contact@powerelectronical.com, before placing new orders. Jurisdiction limits within territory of Republic of India only.

Programmable Parameters

- Stand time– 0 to 100 mins
- Stirring Time – 0 to 100 mins
- Intermediate stand time– 0 to 100 mins
- Voltage Ramp-up– 0.5kV/sec to 5kV/sec
(variable in steps of 0.5kV/sec)
- Trip Current – 5 to 20 mA, 1mA step
- Sequence Repetition– 1 to 99 times

Atmospheric

- Operating Temp – minus 10 deg C to +60 deg C
- Humidity < 90% non-condensing

Physical

- Size – 450mm(W) × 450mm(D) × 400mm(H)
- Gross Weight– 45kgs (incl accessories),
except packing



- Printer roll – 1 no (already loaded)
- Connecting AC mains cable – 1 no
- User manual – 1 no
- Test certificate – 1 no
- Warranty Certificate – 1no (Standard warranty 1 yr)

Our other Products are

- Automatic Cap & Tan Delta test system 10kV / 12kV
- Manual C&DF test system 12kV
- Auto Oil Breakdown Voltage Tester 80kV / 100kV
- Motorised Oil BDV set
- 3-pc Oil Resistivity & DF test kit
- Insulation Testers (10M to 15T, 2% accuracy)
- High Voltage Breakdown testers (10kV-50kV)
- SF6 Gas filled Standard Capacitors (upto 1000kV)