



PE-ACDF-1

Automatic Capacitance & Dissipation Factor (Tan-Delta) test system



Insulation properties change with time, and it is very necessary that key parameters are tested accurately, to guide on the relative deterioration level of the insulation. High Voltage C&DF systems are hence used. Since they are mostly used for field measurements, it is preferable to have the High Voltage power source included with the ratio bridge, in the form of a portable set.

This the most advanced automatic version of the C&DF sets in our product range. The automatic 12kV 200mA test set integrates the high voltage power source and the measuring bridge into one single compact unit. It is designed to measure Dissipation Factor and Capacitance in heavy electromagnetic interference environment such as in power plants and substations. Using digital filters it eliminates interference signal to specimen signal by a ratio as high as 2:1.

It can also be used in laboratory for high accuracy tests on High Voltage Bushings, Transformer windings, shunt reactors, Current transformer, Capacitor Voltage transformer (CVT), grading capacitors of Circuit Breakers, Surge Arrestors and Generator windings.

Added to the technical features is the very user friendly GUI of the system which allows all settings and display of results on the same big back-lighted colored LCD display, and the feather touch membrane key panel. The parametric settings are very simple, and do not require any skilled operators. The set has inbuilt safety protections to take care of any operational or unintentional mistakes that may occur.

Features

- Just set test parameters, push start, and everything is automatically done in sequence right up to printing of test results.
- High Interference suppression, good signal-to-noise ratio.
- UST, GST ad GSTg test modes
- CVT test facility
- Input overvoltage protection
- Output short-circuit protection
- Can be used with external power supply up to 12kV for enlarged current to 1A, for generator related testing
- Electronic Calibration done at our lab, with results traceable to national standards.
- RS-232 output
- Poor ground rejection
- Fault protection and indication
- Thermal Printer integrated



Specifications

- Input Supply – 1-phase 220V 50Hz, or, 110V 60Hz (also available on request)
- Internal HV frequency – 45 to 55 Hz (single)
- 45/55Hz (auto multiple frequency measure & avg for interference suppression)
- Dissipation Factor Range – no limit
- DF Resolution – 0.001% (1 X 10⁻⁵)
- DF Accuracy – 1% + 4 digits
- Capacitance Range – 3pF to 50000pF @ 12kV
60pF to 1uF @ 0.5kV
- Capacitance Range Accuracy – 1% + 1 digit
- Test Voltage range – 0.5kV to 12kV, 200mA(max)
- Test time – 30s typical
- Test Voltage accuracy – 1% + 10 digits
- CVT test mode – O/p Voltage 3 to 50V, O/p Current 3 to 30A
- Humidity - <90% condensing
- Dimensions (excluding accessories) – 45 X 35 X 35 (all dims in cms)
- Test Voltage resolution – 1V
- Input Current Range – 10uA to 5A
- Printer – Thermal printer
- Operating Temperature – minus 10 deg C to 50 deg C
- Communication Port – RS-232
- Weight including accessories – 35 kgs
- Storage Temperature – minus 20 deg C to 60 deg C

Standard Accessories

- Test equipment – 1 no
- Test leads (HV, LV, Gnd) – 1 set (20mtrs length)
- Connecting AC mains cable – 1 no
- Printer roll – 1 no (already loaded)
- User manual – 1 no
- Test certificate – 1 no
- Warranty Certificate – 1no (Standard warranty 1 yr)

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.

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)