







POWER

High Voltage

ELECTRONICAL

Dielectric Diagnostics

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-  www.powerelectronical.com



Dielectric Diagnostic Products



HV/EHV Equipment Testing



Transformer Oil Testing

(Permanent + Mobile Lab) NABL Approved

PRODUCT DIVISION



PE-AOBDV-MXXX -

Automatic Oil Breakdown Voltage Tester

PE-AOBDV 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-AM can do both.



PE-LOBDV-MXXX –

Motorised Oil Breakdown Voltage Tester

PE-LOBDV series of Oil Breakdown Tester are available in a variety of maximum test voltages, denoted by their suffixes in kV

- Suffix M060 means – 0-60 kV AC
- Suffix M080 means – 0-80 kV AC
- Suffix M100 means – 0-100 kV AC

PE-LOBDV is a precise instrument, which is applied to accurately measure the dielectric breakdown voltage of the Oil under test. It consists of the high AC voltage generating unit, and the Oil vessel (as per applicable standard)



Automatic Oil Resistivity & Dielectric Loss Tester

PE-AORDF-3 is a low-budget equipment for those who want to automatize their Oil analysis process, but want to keep it simple and cost-effective. This is a highly precise instrument having measuring functions adopted from PE-AORDF-1, but does not include advanced features like USB interface, multi-step programming, pre-programmed test standards, but still does the essential task of measuring Resistance, Volume Resistivity, Dissipation Factor, and Capacitance of the oil under test. It is an integrated unit, consisting of Stainless Steel oil cell, controlled temperature heating, AC/DC high voltage supply, Tera-ohm meter, and precision electronic bridges to derive the readings.

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
- Calibrator (Resistance, Capacitance & Tan-Delta)
- High Voltage Breakdown testers (10kV-50kV)
- SF6 Gas filled Standard Capacitors (upto 1000kV)

PRODUCT DIVISION



PE-ACDF-1 -

Automatic Capacitance & Tan-delta tester 12kV 200mA

This is a complete integrated Capacitance and Tan-Delta test set including inbuilt 12kV AC power source, Measurement Bridge and a reference SF6 gas filled Standard Capacitor.

It is simple to use and easy to operate. It has a large backlit LCD display, and soft touch membrane buttons. The connections are simple and the set can be operated by inexperienced operators. The set is extremely light-weight and portable enough to be carried by a single person. Equipped with a RS232 serial output port, users can save their test results on PCs, or can use the internal 99 test storage facility. Integrated thermal Printer also allows printing of results on site. The instruments are calibrated in our in-house test laboratory to give you results traceable to national standards.



PE-HVTD-12/100 -

Manual Capacitance & Tan-delta tester 12kV 100mA

POWER ELECTRONICAL's Manual Capacitance and Tan-Delta Test System (Model HVTD-12/100) has inbuilt HV Power Source, Standard Capacitor (SF6 Gas Filled), and set of cables. The compact design of the system uses the principle of three winding differential transformer on a high permeability mu-metal core to measure the Capacitance of the object and its Tan-Delta value accurately.



PE-HVTD-XX/YYY - Manual Capacitance & Tan-Delta (Dissipation Factor) tester 15kV 500mA for testing HT Generators/Motors

15kV/500mA test sets have been specifically designed for testing very high Capacitances and Tan-Delta associated with large capacity HT Generators/Motors. These tan delta test sets used in conjunction with tuned reactors can test Generator windings at 13.8kV, either individually, or all the 3 phases together, without singling out each phase, thus saving a lot of testing time and giving a collective result.

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
- Calibrator (Resistance, Capacitance & Tan-Delta)
- High Voltage Breakdown testers (10kV-50kV)
- SF6 Gas filled Standard Capacitors (upto 1000kV)

CONDITION MONITORING OF POWER EQUIPMENTS

Undertaking preparation of Cable termination schedule, Laying, Termination, Testing & Commissioning of EHV Sub-Station Projects.
(From 66 Kv -- to – 400 Kv)

POWER TRANSFORMER TESTING

Special Tests

- Capacitance & Tan-Delta measurement winding
- Sweep Frequency Response Analysis (SFRA)
- Dielectric Frequency Response Analysis (DIRANA)
- Partial Discharge Measurement
- On Line Moisture Measurement (ppm)

General Tests

- AC Routine Test:- Voltage/Turns Ratio, Magnetic Balance, Open Ckt Test.
- Winding Resistance Measurement (WRM)
- Insulation Resistance and Polarization Index (I.R./P.I.)

Transformer Oil Tests

- General Routine Tests:
- Dissolved Gas Analysis [DGA]
- Furanic Compound Analysis (FURAN)

CT / PT Testing

- Capacitance & Dissipation Factor (Tan-Delta) measurement..
- Insulation Resistance / Polarization Index.
- Polarity
- Ratio
- Primary Current Injection.
- Knee Point Voltage Measurement
- On Line Partial Discharge Measurement

CIRCUIT BREAKER TESTING

- Insulation Resistance
- Timing Measurement
- Coil Current Measurement
- SF6 Gas due point measurement
- Contact Resistance Measurement.
- DCRM (Dynamic Contact Resistance Measurement.)
- Travel Measurement

LA TESTING

- Insulation Resistance
- On Line Leakage Current Measurement (LCM)

HT MOTOR / GENERATOR TESTING

- Capacitance & Dissipation Factor (Tan-Delta) measurement.
- Insulation Resistance / Polarization Index.
- Winding Resistance Measurement.
- Partial Discharge Test.
- Vibration & Current Signature Analysis.
- Harmonic Analysis
- D.C. Hi-Pot Test.

XLPE HT CABLE TESTING

- Capacitance & Dissipation Factor (Tan-Delta) measurement.
- Insulation Resistance
- D.C. / AC Hi-Pot Test.
- VLF, Tan-Delta & PD Testing.



CONDITION MONITORING OF POWER EQUIPMENTS

List of Testing Instruments

Sr. No.	Name of the Test	Instrument Use	Make	Qty
1.	Insulation Resistance Measurement & Polarization Index	10KV DC IR Tester	MEGGER, USA	05
2.	Winding Resistance Measurement	10A WRM	MEGGER, USA	02
3.	Tan-Delta & Capacitance Measurement	12 KV Tan-Delta & Capacitance Measurement Kit	Megger, USA, OMICRON ELTEL Power Electronical	01 01 02 03
4.	Sweep Frequency Responce Analysis	SFRA Kit	Megger, USA	01
5.	On Line Leakage current measurement of LA	LCM -II	DOBLE, USA	01
6.	Primary Injection or Ratio Test	5000 A Primary Injection Test Set	ISA , Italy	01
7.	CT Testing (Ratio, Knee Point, Winding Resistance etc..)	CT Analyzer	OMICRON	01
8.	Contact Resistance Measurement Kit	100 A CRM Kit	Scope make CRM	03
9.	Circuit Breaker Timing Measurement	Digital Timer	Scope make SCOT M3K	02
10.	DCRM Measurement	CB Analyzer	Scope Make CB Analyzer	01
11.	Relay Testing	Three Phase Relay Test Kit	OMICRON	01
12.	VLF AC Hipot Testing & PD Testing Kit of LT/HT Cables	VLF AC Hipot	HV Diagnostics, Germany	01
13.	Dielectric Frequency Response Analysis (DIRANA)	DIRANA	OMICRON	01
14.	Partial Discharge Measurement	PD test set	OMICRON	01
15.	On Line Moisture Measurement (ppm)	Domino	Doble	01



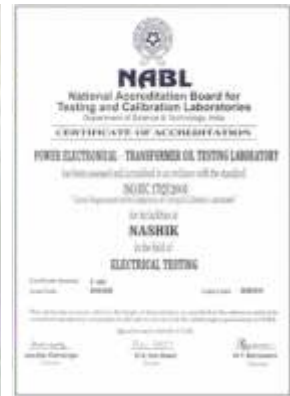
CONDITION MONITORING OF TRANSFORMER OIL

Transformer Oil Testing and Oil Analysis – NABL Accredited Laboratory

We are India's leading private laboratory for Transformer Oil testing as per IEC 17025:2000. Based in the same premises as the HQ office, it allows for constant supervision and monitoring of test methods and testing procedures. The NABL accreditation for this test laboratory allows us to certify our test results with authority that very few laboratories across India can match. Add the low turnaround time for sample testing, the precise and accurate results, and the record maintenance; our customers keep on coming back again.

We do transformer oil testing as per either IEC/ IS/ ASTM. Our laboratory is full equipped to carry out following tests as per NABL guide line.

Color & Appearance, Breakdown Voltage, Water Content, Acidity (Neutralization Value), Dielectric Dissipation Factor, Resistivity, Sediments & Sludge, Interfacial Tension, Flash Point, Pour Point, Density, Kinematic Viscosity, Dissolved Gas Analysis, Furan Analysis



NABL ACCREDITED MOBILE OIL TESTING LABORATORY

Now things are changed and we need to take decisions instantly, we are growing and we do not have time to wait until 1 month for getting test results of my very important asset like Transformer. We don't need only result on site but we need results with interpretation and with trending so that we are able to take quick decisions.

Our NABL Accredited Oil Testing Laboratory able to visit your plant.

Mobile Oil Testing Van equipped with well convergent Technicians who specially trained for Oil sampling as per IS Standard.

Mobile Oil Testing Lab equipped with Oil Testing Engineer as well, who is able to do the Oil Testing as per IS Standards and analyze the results.

Our Mobile Oil Testing lab able to do the following testing on site and as per relevant standards.

You can able to Monitor Oil Testing.

If any abnormal results found during testing then you can repeat the testing of particular oil sample immediately, so your repeatability will be increase and you can get the reliable results.

We have DGA testing facility with Auto sampler method (Method C) which is worldwide approved and acceptable (Without human error). In India only we have such facility of DGA testing.

Normally you can get Oil Testing Reports after 15 to 30 days in conventional process, but here you can get the results on site itself.

We are maintaining pervious Oil Testing data in our data base for our regular customers, so in this way you are able to get Trend Analysis on site itself.



POWER ELECTRONICAL
High Voltage Dielectric Diagnostics

OUR VALUABLE CUSTOMERS.....



AND MANY MORE.....



POWER ELECTRONICAL
High Voltage Dielectric Diagnostics



OUR ACHIEVEMENTS.....

GEICO
GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED
Regd. Office: Vidyal Bhavan, Race Course, VADODARA - 390 007.
Telephone No. (079) 2333888 (D)
Fax No. (079) 2332228 (GETCO) / (079) 2337948/2338064 (GUWJ)
Web site: getco@getco.com Email: getco@getco.com

No. CE/TH/TR/E/DS/D/DS/PO-66478/1713 Date: 24.10.13
By: RPAE

To: M/S Power Electronics
B-28, MDG, Ahmed
NASHIK - 422 001

Sub : Work for
PACKAGE - I : Tan delta & Capacitance testing of Bushing & Windings of 66 KV class power Transformers & Instrument Transformers.
PACKAGE - II : On-line Partial Discharge measurement of Instrument Transformers.
PACKAGE - III : On-line Gas Analysis & Oil Parameters Testing of voltage class 66 KV & above.

Ref. :
1) Tender No. GETCO/CE/TH/E/DS/D/DS/PO/1124-01 dated: 11.04.2013
2) Pre-bid meeting: 29.04.2013
3) Qualifying requirement Completion 03.05.13
4) Technical Bid opened on 02.07.13
5) Price bid opened on 13.07.13
6) ID-1-CE/TH/SE/TR/E/DS/D/DS/PO/1124-01 dated: 26.07.2013
7) ID-2-CE/TH/SE/TR/E/DS/D/DS/PO/1124-01 dated: 29.07.2013
8) Kick off meeting at: 17.08.2013.

Dear Sir,
With reference to your above offer & subsequent correspondence, GETCO is pleased to accept your offer for subject work as per the scope and terms & conditions mentioned in tender specifications and subsequent amendments, taking in to account all provisions, subsequent correspondence and clarifications till date forming the part of order on firm price basis as per schedule attached.

1. TERMS AND CONDITIONS AS PER TENDER SPECIFICATION:
Tender No. : GETCO/CE/TH/E/DS/D/DS/PO/1124-01 - 09.04.2013
Part-I : General Condition of contract
Part-II : Technical terms and Condition (Scope of work)
Pre-bid meeting at: 29.04.2013
Kick off meeting at: 17.08.2013

L&T Special Steels and Heavy Forgings

100% EXPORT OBTAINED

INTERNATIONAL CERTIFICATE
No. PEI No. 13/000007/0007 (PEI/CE/2013)

The following certificate is for a supplied testing of which the items PEI. It is a certificate and we are satisfied with Power Electronics India Fully Automatic Oil Breakdown Voltage Tester PEI/CE/2013/0007.

These items have 12 ratings, we are using the test for testing of Transformers (11 to 220KV) and we appreciate the reliability, consistency & technical support & service from Power Electronics India.

This PEI is well designed by Auto Programmed control and printed testing results under direct internet connection.

[Signature]
Sr. Manager
Tech. Service Manager, India

NTPC Limited
A Member of NTPC Limited
JANAKI DAModar DAM POWER PROJECT
P.O. BHARADWAJ, BHARUW
DIST - BHARUCH
GUJARAT - 392 011, INDIA
Telephone No. : 079-2576978/9799 Fax No. : 079-2576223

Service Purchase Order
SPP No. : 2571/000027
TIR No. : 2571/000027

Purchase Order No. : 0002/0000/001-2000-10-11-2013 (version : 0)
To: POWER ELECTRONICAL
62/2, ANAND INDUSTRIAL PROMISES
62/2, ANAND, NASHIK
MAHARASHTRA
422 001-2, INDIA
Tel : 020-26580136
Fax : 020-26580138
E-Mail : nashik@powerelectronics.com

Subject : Purchase Order for purchase of Transformer Oil at NTPC Bharsu
REF NO. : 0001/130000/1201-0006/07/000020
Your Offer No. : PE/0014/04/0000/0000-000000

Your Reference :
Dear Sir,
The work order for the above mentioned NTPC Bharsu oil purchase order is hereby issued. We are pleased to accept your offer dated on 08.04.2013 and hereby hereby attached in the form of Purchase Order. The quantity of Transformer Oil at NTPC Bharsu oil need order 886 MT/000000. Please refer below link BHARUW DAM POWER PROJECT TENDERS PEI PROPOSED ONLY mentioned in the order of work order terms & conditions, B.O.D. attached with it.
The evaluation of the various panel bids for lots 18 to 20/2013 is PEI/2013. Though the details of contract will remain same, we advise you to coordinate with the contract area as per the direction of EPC Sr. Manager. Sr. Manager CHANDEY (Email: 0001/130000/1201-0006/07/000020).
The contract documents including order documents is being issued to you in the form of Purchase Order. The contract documents are being issued to you as per the direction of EPC Sr. Manager. Sr. Manager CHANDEY (Email: 0001/130000/1201-0006/07/000020). The contract documents are being issued to you as per the direction of EPC Sr. Manager. Sr. Manager CHANDEY (Email: 0001/130000/1201-0006/07/000020). The contract documents are being issued to you as per the direction of EPC Sr. Manager. Sr. Manager CHANDEY (Email: 0001/130000/1201-0006/07/000020).
It is your duty to the extent of your job to ensure and the cooperation extended to us. We request to continue your continued cooperation in future also.

Thanking you,
For & on behalf of NTPC Limited
S. D. SHARMA
Sr. Manager
EPC/CHD

Enclosures:
Signed/Sealed and Terms & Conditions

ORIGINAL

PLEASE SUBMIT CONTRACT AGREEMENT IMMEDIATELY

GAIL India Limited

Date: 27.07.2013

Performance Report
HQ No. : GAIL/PEI/J/2500/000007/CEX/Contd 14-06-13/17

It is to certify that M/S Power Electronics, received above reference work order for the RL4 testing of Transformers. In this regard M/S Power Electronics India Limited to GAIL India Limited. Please and since the testing successful as per safety rules & regulations of GAIL.

M/S Power Electronics submitted detailed test & analysis reports.

M/S Power Electronics provided the job successfully and up to the satisfactory level of GAIL India Limited.

[Signature]
Waseem Singh
Sr. Manager (Elect.)
GAIL India Limited, India

100% EXPORT OBTAINED

AND MANY MORE.....