:: Save Energy For Benefit Of Self & Nation ::



PASCHIM GUJARAT VIJ COMPANY LIMITED

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TECHNICAL SPECIFICATIONS FOR 100/5A & 200/5A RING TYPE TAPE WOUND CURRENT TRANSFORMER

| 1. | SCOPE | This specification covers design, manufacture |
|-----|-------------------------|---|
| | | and testing of 100/5A & 200/5A ratio Current |
| | | Transformers of Ring type. |
| 2. | APPLICABLE STANDADRD | IS 2705, 1992. |
| 3. | CURRENT RATIO | a. 100/5Amp. |
| | | b. 200/5Amp. |
| 4. | BURDEN | 5 VA |
| 5. | ACCURACY CLASS | Class 0.5 |
| 6. | SYSTEM VOL TAGE | 440 V AC, 50 Hz. |
| 7. | INSTRUMENT SECURITY | Less than 5. |
| | FACTOR. | |
| 8. | RATED CONTINUOS THERMAL | 1.2 Times Continuous. |
| | FACTOR | |
| 9. | | 3 kA r.m.s. for 1 Second. |
| | THERMAL CURRENTR | |
| | b. RATED DYNAMIC PEAK | 2.5 Times the rated Short Time Thermal |
| | CURRENT | Current (i.e. 7.5 ka Peak). |
| 10. | HIGH VOLTAGE POWER | 3 kV for 1 Minute. |
| | FREQUENCY TEST | |
| 11. | TEMPERATURE RISE TEST | 70 Deg C Maximum. |
| 12. | INSULATION CLASS | Class E |
| 13. | NUMBER OF TURNS | Primary - Single |
| | | Secondary - For 100/5A Ratio 20 T |
| | | For 200/5A Ratio 40 T |

(B) CONSTRUCTION

| CORE MATERIAL | Low loss, CRGO M4 or better grade. (Core Losses should not exceed 0.8 Watts / Kg. At 1.5 Tesla). |
|----------------------|---|
| COPPER WIRW METERIAL | Enameled wire as per IS 4800 Part IX. |
| TEST CERTIFICATE | To be Submitted. |
| CROSS SECTION AREA | Minimum 1.6 mm2. |
| OUTER INSULATION | Suitable for class E or batter insulation class, Electrical Insulation grade tape. |
| INNER DIAMETER OF CT | a. For ratio 100/5A - 30 mm Minimum.b. For ratio 200/5A - 30 mm Minimum. |

| Signature of Tenderer | Company's Round Seal | Date: | Place: |
|-----------------------|----------------------|-------|--------|

| OPLARITY & TERMINAL MARKING | Clear marking as, P2, S1 & S2 with PVC Sticker. |
|-----------------------------|---|
| SECONDARY TERMINALS | Winding wires to be bought out with 1 Meter lead length and to be provided with Red, Yellow & Blue coloured PVC sleeves constituting one set. Secondary leads to be terminated by tinned copper crimping pins. |
| DIMENSION TOLERANCE | Party has to submit drawing for CT along with tender offer. Overall dimension tolerance to be within + 10 %. |
| NAME PLATE | Metal plate (Aluminium / Brass) with following details. Embosses or printed on it:- 1. Ratio, burden, system voltage, & frequency 2. Accuracy Class 3. Applicable Standard 4. B.I.L. & insulation class 5. Batch No. & Sr. No. of CT 6. Manufactures Name & manufacturing year 7. Words "PROPERTY OF G.U.V.N.L" 8. A/T Number |
| DRAWING APPROVAL | Party must get final drawing approval from PGVCL before commencement of supply. No separate period for Drawing approval will be given. |

(C) TESTS

A. TYPE TEST REPORTS:-

Type test report as per IS 2705, 1992 must be submitted along with offer with dully certified drawings bearing all details of winding size, turns & dimensions with tolerances. All the Tests must be carried out on same sample unit. Type test report must not be older than 3 years from date of tender.

B. ROUTINE TESTS:-

The party has to submit routine test certificates along with inspection call in the form of CD.

C. ACCEPTANCE TESTS:-

Party has to offer lot for inspection to PGVCL 5% random samples shall be selected from the lot and acceptance tests as per IS 2705 - 1992 & latest amendments if any shall be carried out. On successful passing of all the tests, clearance will be given to dispatch the material by the Board. From each lot of CTS offered, one set of CT shall be selected, sealed & signed & handed over to supplied for onward deposit to ERDA for type testing. The testing charges shall be borne by the supplier. (bidder)

| Signature of Tenderer Company's Round Seal Date: Place: | |
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(D) TESTING FACILITIES

The firm should have following Testing Facilities

- Automatic test set up (Class 0.1) for ratio Error & Phase Angle Error Measurement with facility of Printer interface.
- Standard CT of class 0.2 or higher accuracy.
- Burden Box having Full & Quarter Burden at 0.8 P.F.
- High Voltage Tester.
- Test Facility for over Voltage Inter Turn testing.

All the test equipments and standard CT must be calibrated at the third party government approved laboratory. At the stage of tender offer and along with call. Copy of the Calibration certificates must be submitted.

A. List of Plant & Machinery and Test Equipments with relevant details like make, capacity, accuracy, model must be submitted along with tender offer.

(E) QUALITY ASSURANCE PLAN

Party must submit Quality Assurance Plan for the checks carried out at various stage from Raw material to finish goods. Documents for the checks out may be verified by inspector at the time of inspection.

(F) GUARANTEE

The party should guarantee for free replacement / rectification for the CT under the guarantee period of 12 months from the date of installation or 18 months from the date of supply.

(G) PACKING

A set of 3 CTs shall be packet in a box / carton marking serial number on each box.

(H) TENDER SAMPLE

The bidder has to submit Two sets of CT of each rating (total 6 nos.) along with offer at Deputy Engineer, Regional Store Office, PGVCL, Dudhsagar Dairy Road, Rajkot. The offer without submission of tender sample shall be out rightly rejected. The tender sample shall be tested for acceptance tests as per IS 2705/92 & latest amendments if any at ERDA. If required the sample shall be further tested for type tests as per IS 2705/92 & PGVCL specifications. In case of failure of sample in any of the test carried out at ERDA, the offer of bidder shall be considered as disqualified.

Signature of Tenderer Company's Round Seal Date: Place:

BIDDERS ARE REQUESTED TO READ THE FOLLOWING AS A PART OF TENDER DOCUMENT.

- [A] As per tender technical specification and tender document if tender sample (s) shall have to be submitted the following conditions are mandatory.
- [1] The sample (s) submitted shall have ISI marking as well as relevant IS Number".
- [2] The Sample (s) not complying the above condition shall not be tested and shall be rejected and no further correspondence shall be make in this regard.
- [B] At the end of the tender technical specification, following paragraph should be added and read as under.

The material supplied shall be conforming to Indian Standard Specification and also with ISI marking and even after inspection of the lot, if the material received at site is found without ISI marking, the loot shall be rejected and no further correspondence shall be entertained in this regard.

Signature of Tenderer Company's Round Seal Date: Place: