

LOT 8: CT Rings**4.1 SCOPE**

- 4.1.1 This specification covers manufacture, test, & supply of LT Current transformers of class 0.5s accuracy.
- 4.1.2 The CTs shall be suitable for metering purpose.

4.2 TYPE:

- 4.2.1 The CTs shall be of tape wound ring type (bar type or bus-bar type CT's shall not be accepted).

- 4.2.3 The secondary leads shall be terminated with Tinned Cooper rose contact terminals.

- 4.2.4 Polarity (both for primary and second leads) shall be marked.

4.2.5 Unless otherwise modified in this specification the LT CTs shall comply with the Indian Standard Specification IS: 2705/1992 (Part- I & II) and the latest version thereof. Equipment's conforming to other internationally accepted standards, which ensure equal or better quality than the standard mentioned above, will also be acceptable and in such case the copy of standards (English Version) adopted should be enclosed with the tender.

4.3 TECHNICAL DETAILS:

- 4.3.1 Technical details shall be as given below:

1.	Class of Accuracy	0.5s
2.	Rated Burden	5.00 VA
3.	Power Frequency Withstand Voltage	3KV
4.	Highest System Voltage	433 V
5.	Nominal System Voltage	400 V
6.	Frequency	50 Hz
7.	Supply System	3 Ph. Solidly grounded Neutral System

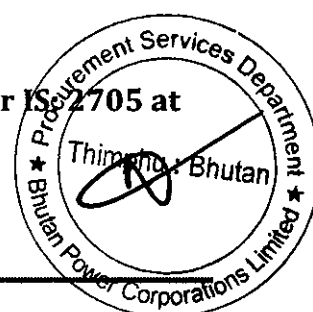
- 4.3.2 Transformation ratio shall be specified from the following standard ratings as per requirement:

Ratio	50/5	100/5	200/5	300/5	400/5	500/5
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(Secondary with 1 A may be specified by the utility in case the same is desired.)

- 4.3.3 Bore diameter of the CT shall not be less than 40 mm.

- 4.3.4 The limits of current error and phase angle displacement as per IS: 2705 at several defined percentage of rated current are:



Accuracy Class	% Ratio error at % of rated current				Phase displacement in minutes at % of rated current			
	5	20	100	120	5	20	100	120
0.5s	1.5	0.75	0.5	0.5	90	45	30	30

Note: Current error and phase displacement at rated frequency is required to be as above when the secondary burden from 25% to 100% of the rated burden i.e. 50 V A.

4.3.5 Rated extended primary current shall be 120% of rated primary Current in accordance with IS: 2705 Pt-II.

4.3.6 Rated ISF (Instrument Security Factor) shall be declared by the manufacturer & marked on the CT.

4.3.7 CT's shall be made with good engineering practices. Core winding shall evenly spread stress & avoid stress concentration at any one point.

4.4 TESTS:

4.4.1. TYPE TESTS:

Copies of all type tests as per IS.2705 Part-I and II including short time current & temperature rise tests in NABL accredited laboratory shall be submitted and got approved before commencement of supply.

4.4.2 ROUTINE TESTS:

The supplier shall conduct all the routine tests such as Ratio test, phase angle error test for 0.5 accuracy class as per IS 2705 Part I & II.

4.2.3 COMMISSIONING TEST :

In accordance with IS: 2705, Power frequency test on primary winding shall be carried out after erection on site on sample basis.

4.5 MARKING:

The CTs shall have marking and nameplate as per IS 2705 in addition to class of insulation & ISF. The markings shall be indelible. The nameplate shall be securely fixed to the body of the CT.

4.6 PACKING:

Each CT shall be securely packed so as to withstand rough handling during transit and storage.

4.7 QUALITY ASSURANCE PLAN:

The requirements of clause 29.0 of Section – I of main specification for Energy Meters shall apply.

