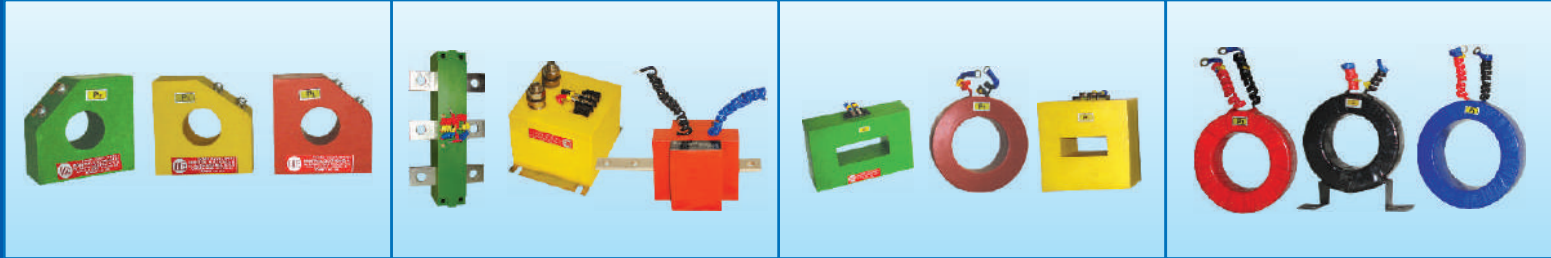


Low Tension Current Transformers



**Perfect
Engineering Works**

Low Tension Current Transformers

Industrial Electronics (India), a company of Choksi Group, manufactures L.T.C.T.s of various descriptions for last 28 years. The product quality, back-up services and "Value for Money" price structure have earned confidence of discerning customers. Renowned companies like NELCO, L & T, Bhartia Industries Ltd. and many others are our regular customers. **Our C. T.s are accepted by leading electricity boards.**

This leaflet is intended to give a general idea about our Low Tension Current Transformers. For special requirements of any other standard or non-standard C.T.s, enquiries are solicited. We assure our most careful attention to such enquiries.

Guiding Specifications

For most commonly used C.T.s the applicable standards are IS:2705 and IEC:185. We also make C. T.s as per other standards such as B.S.:3938 or customer's own specification.

General Specifications of L.T.C.T.S.

Unless otherwise stated the following general specifications apply to L.T.C.T.s:- Ambient Temperature Range:- 0 to 70 degree C. Frequency: 50 Hz Voltage Class : 660 V. Dielectric Withstand: 3 KV for 1 minute

Classes Of Insulation

As per customer's choice we make C.T.s for different insulation classes, viz, A, F, B, F, H or C (corresponding to 105,120, 130, 155, 180 or 220 degree class as per IEC : 216).

Types Of Terminals

Options available are :- 1) Flying leads with lugs or pins. 2) Brass inserts. 3) Studs. 4) Terminal Blocks of standard makes. 5) As per customer's requirements.

Colour Options

For resin-cast C.T.s colour options will depend on the availability of suitable pigment for the particular resin required. Blue, Yellow, Green, Grey, Black are normally readily available.

Available Testing Facilities

All facilities for routine tests are available with us. In particular following equipments deserve mention :

- A) Microprocessor based Automatic C.T. Test Set with Printer-ELTEL
- B) Autocompute LCR-Q meter - APLAB
- C) Micro ohmmeter - Digital - Prestige Electronics
- D) Digital VAW meter - Delta Controls.
- E) Current Injection Test Set - Upto 6000 amps-Multiple units
- F) High Voltage Test Sets - Upto 40 KV
- G) Standard C.T.s. - .1 class - Upto 1200 amps
.2 class - Upto 4000 amps

Ring Type

Tape Insulated or Resin Cast Round / Rectangular

For Metering or Protection Application.

Primary Rating - Round C.T. - 50 A. to 10000 A.

Rectangular C.T. 50 A. to
10000 A.

Secondary Rating - 1 A. or 5 A.

Burden in VA - 1, 2.5, 3.75, 5, 7.5, 10, 15, 20,
25, 30, 40, 50, 60.

Class of Accuracy : Metering - 0.5, 1.0, 3.0, 5.0,
Protection - 5P, 10P, 15P.

Alf - Protection - 5, 10, 15, 20.

ISF - Metering - Less than 5

Special Rating can be offered.

Multi core, Multi ratio C.T.s can be offered.

Wound Primary

Tape Insulated or Resin Cast Round / Rectangular

For Metering or Protection Application.

Primary Rating - 1 A. to 150 A.

Secondary Rating - 1 A. or 5 A.

Burden in VA - 1, 2.5, 3.75, 5, 7.5, 10, 15, 20,
25, 30, 40, 50, 60.

Class of Accuracy : Metering - 0.5, 1.0, 3.0, 5.0,
Protection - 5, 10, 15, 20.

ISF - Metering - Less than 5.

Special Rating can be offered.

Multi core, Multi ratio C.T.s can be offered.

STC - As per customer's requirement.

Primary Terminals - Stud Type / Bar type.

Wound Primary / Bar Primary

3 Ph. C.T Block / C.T. Bank.

For 3 Ph. 4W., metering Application.

Almost pilfer-proof.

Easy Installation.

all three C.T.s of each phase and neutral are
casted in a single casting.

The neutral & potential leads are brought out
from inside the casting. (If required)

The secondary terminals can be casted
suitably to match meter terminals to avoid any
secondary cross connections.

Very useful for Electricity Boards /
Undertakings.

Summation

Tape Insulated or Resin Cast Round / Rectangular

For Metering or Protection Application.

Primary Rating - 1 A. or 5 A.

Secondary Rating - 1 A. or 5 A.

Burden in VA - 1, 2.5, 3.75, 5, 7.5, 10, 15, 20,
25, 30, 40, 50, 60.

Class of Accuracy : Metering - 0.5, 1.0, 3.0, 5.0,
Protection - 5P, 10P, 15P.

ALF - Protection - 5, 10, 15, 20.

Primary & Secondary Terminals - Stud Type

No. of Primary Windings - As per customer's
requirement. Generally 2, 3, or 4.

Interposing (Auxiliary)

Tape Insulated or Resin Cast Round / Rectangular

Primary Rating - As required.

Secondary Rating - As required.

Burden in VA - 1, 2.5, 3.75, 5, 7.5, 10, 15, 20,
25, 30, 40, 50, 60.

Class of Accuracy : metering - 0.5, 1.0, 3.0, 5.0,
Protection - 5P, 10P, 15P.

Alf - Protection - 5, 10, 15, 20.

ISF - Metering - Less than 5.

Special Mounting arrangement can be
provided.

Multi core, Multi ratio C.T.s can be offered.

Ring tape / Wound Primary

Plastic Moulded

For Metering Application.

Primary Rating - Ring Type - 50 A. to 800 A.

Wound Primary - 5A. to 150A.

Secondary Rating - 1 A or 5 A.

Burden in VA - 1 VA to 15 VA

Class of Accuracy : 0.5, 1.0, 3.0, 5.0.

ISF - Less than 5.

**Class PS CT's can be offered against enquiry
We can also assist in selecting
PS CT's if requested.**



**Perfect
Engineering Works**

With order / enquiry, Please specify :

- Rated Primary Current : Rated Secondary Current. • Rated Burden : • Class of Accuracy : • System Voltage & frequency : • Accuracy Limit Factor (ALF) for protection C.T.s. • Instrument Security Factor (ISF) for metering C.T.s.
- Minimum Knee Point Voltage (VK) and limiting excitation current for Class PS (special Purpose) C.T.s • Insulation level and type of Insulation (Resin Cast, Plastic Moulded or Tape) • Busbar or cable size and any other limiting dimension.
- Any optional requirement like mounting brackets / plates, Secondary terminals of long leads / brass stud, etc.

Selection Of Class Of Accuracy

Application	Class of Accuracy
Precision Testing	0.1
For Testing along with precision instruments	0.2
Precision Metering	0.5
Commercial and Industrial Metering	0.5 or 1
Indicating Instruments	1 or 3
For purpose where ratios have less importance	3 or 5

Maximum Short-time Factors Obtainable Economically

Ref : IS:4201 - 1983 TABLE 1 & 2

Class	Rated output VA	Short Time Factors Obtainable for			Class	Rated output VA	Short Time Factors Obtainable for		
		0.5 sec	1.0 sec	3.0 sec			0.5 sec	1.0 sec	3.0 sec
0.5	5	750	525	300	5P10	5	375	275	150
0.5	10	500	350	200	5P10	10	225	150	90
0.5	15	375	275	150	5P10	15	150	100	60
0.5	30	200	125	75	5P20	5	200	125	75
1	5	1000	700	400	5P20	10	100	75	40
1	10	675	475	275	10P 10	5	425	300	175
1	15	500	350	200	10P 10	10	275	200	110
1	30	275	200	110	10P 10	15	200	125	75
3	5	1000	700	400	10P 20	5	275	200	110
3	10	675	475	275	10P 20	10	125	75	50
3	15	500	350	200	10P 20	15	85	60	35
3	30	275	200	110					

Practical Output Vs Rated Primary Current Of Bar Primary And Bushing C.T.s.

Ref : IS:4201 - 1983 TABLE 3

Class of accuracy available for the maximum output of C.T. is dependent upon its rated PRIMARY AMPERETURNS. The table given below gives the practicable maximum output for bar primary or bushing C.T.s. of various accuracy classes and rated primary current. The table is based on the assumption that the diameter of the bushing insulator over which C.T. is threaded does not exceed 90 mm and the space available is adequate. Otherwise it will be necessary for the burden to be reduced or permissible errors to be increased.

Rated Primary Current In Amperes

Type	Class	60 VA	75 VA	100 VA	150 VA	200 VA	300 VA	400 VA
MEASURING	1	2.5	5	10	15	30	30	30
	3	5	7.5	15	30	30	30	30
PROTECTION	5P 10			10	15	15	30	30
	10P 10			10	15	15	30	30

Note : The output of protective C.T.s mentioned are for an ALF 10. The output for other accuracy limit factors will be inversely proportional to the factor.

