Current Transformer

AKANKSHA®

Current Transformer CT

A **Current Transformer (CT)** is an instrument transformer designed to reproduce the current in its primary circuit in a reduced and proportional value for metering, measurement, and protection applications. CTs are vital components in power systems, ensuring accuracy, isolation, and safety.

Construction:

A Current Transformer consists of:

- Primary Winding – Connected in series with the line carrying the current to be measured.
- Magnetic Core – CRGO core for Protection & PS Nano Crystal core for High Accuracy
- Secondary Winding – Delivers a reduced current proportional to the primary. (1Amp/5Amp/0.577Amp)
- Insulation – High-grade insulation between windings and core for safety and reliability.
- Type – Epoxy resin Cast / Oil cooled and environmental resistance.

Features:

- High Accuracy for metering & protection
- Wide Range of Current Ratios
- Excellent Insulation Strength
- Compact & Robust Design
- Thermal Stability under fault conditions
- Low Maintenance & Long Service Life

Typical applications:

- Measurement and metering of line currents
- Protection relays in switchgear
- Monitoring Current in transmission & distribution systems
- Industrial and utility substations
- Used in Differential Protection

Technical data and specifications:	
Parameter	**33 kV**
Rated Primary Current	5A to 1600A
Rated Secondary Current	5A / 1A/0.577A
Rated Voltage	3.3 kV /6.6 kV /11 kV /22 kV /33 kV
Frequency	50 Hz
Accuracy Class	0.2s/0.5s / 0.2/0.5 / 1.0 / 5P / 10P/PS
Short Time Thermal Current	Up to 40 kA for 1 sec
Dynamic Current	Up to 100 kA peak
Power frequency withstands voltage (60 sec)	Up to 70kV
Lightning impulse withstand voltage	Up to 170 kV peak

Routine Test on Current Transformers

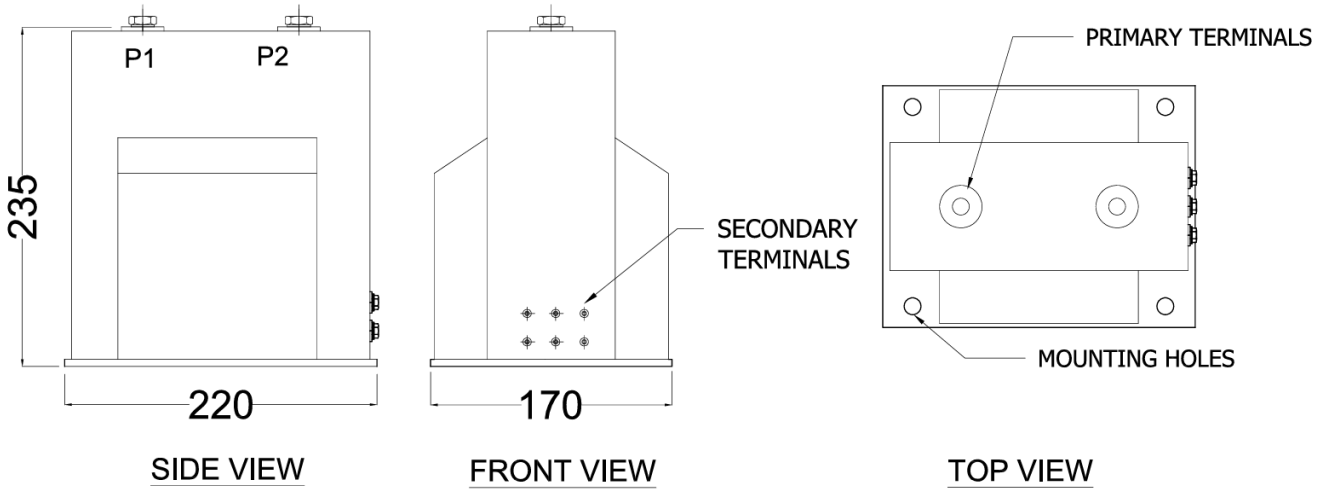
- Verification of terminal markings and polarity
- Power frequency withstand test
- Insulation resistance measurement
- Ratio and polarity check
- Secondary winding resistance measurement
- Accuracy test
- Instrument Safety Factor (ISF) measurement for Metering CT
- Composite error test for Protection CT
- knee point voltage for PS class CT

Maximum rating:

Parameter	Maximum Rating
Voltage	Up to 36 kV
Current	Up to 1600 A
Frequency	50 Hz
Short Time Current	Up to 75 kA peak
Impulse Voltage	Up to 170 kVp

Current Transformer CT

Dimensional drawing



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Rating Plate

Current Transformer				
Customer :				
CT Ratio:			SR. No. AKCT/	
Core	1	2	Type:	
VA			HSV:	STD:
Class			BIL:	kVp
ISF/ASLF			Frequency:	Hz
STC:			M/Year:	

Manufactured By:
AKANKSHA POWER AND INFRASTRUCTURE LTD.
87/4, MIDC, SATPUR, NASHIK 422007.

Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain statements about the suitability of our products for certain areas of application. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless point out that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application. As a rule, we are either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether a product with the properties described in the product specification is suitable for use in a particular customer application.

2. We also point out that in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art infrastructure, even if they are operated as specified. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.

3. The warnings, cautions and product-specific notes must be observed.

4. To satisfy certain technical requirements, some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous). Useful information on this will be found in our Material Data Sheets on the Internet (www.apil.co.in). Should you have any more detailed questions, please contact our sales offices.

5. We constantly strive to improve our products. Consequently, the products described in this publication may change from time to time. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order.

We also reserve the right to discontinue production and delivery of products. Consequently, we cannot guarantee that all products named in this publication will always be available. The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.

1. Unless otherwise agreed in individual contracts, **all orders are subject to our General Terms and Conditions of Supply.**
2. **Our manufacturing lines are certified by ISO 9001-2015 standard.** The ISO certifications confirm our compliance with requirements regarding the quality management system. Referring to customer requirements and customer specific requirements (“CSR”) APIL always has and will continue to have the policy of respecting individual agreements. we hereby like to emphasize that **only requirements mutually agreed upon can and will be implemented in our Quality Management System.**
3. The trade names “AKANKSHA” is **registered under trademark law of India, f**urther information will be found on our website www.apil.co.in, or can contact us.