

General Information

Current Transformers

Technical Specification

Reference Standards	EN60044-1
Housing	Self extinguishing thermoplastic classification VO to UL94* (*unless otherwise stated)
Temperature Range	Working -25 to +50°C, relative humidity 85%
Frequency	47-63Hz (400Hz on request)
System Voltage	720V max.
Test Voltage	3KV for 1 minute
Rated short-time current (I _{th})	60 I _n (TAQ1, TAQ2 and TAQ6 30 I _n)
Dynamic short circuit current (I _{dyn})	2.5 I _{th}
Saturation Coefficient	<5 C for class 0.5/1/3
Terminal Markings	Primary P1 & P2 (K & L) Secondary S1 & S2 (k & f)
Safety Factor (f.s.)	≤5 for class 0.5 - 1 - 3

Options

Tropicalized execution	Working temperature -25 to +60°C relative humidity >95% Max conductor temperature 90°C
System Voltage	1.2KV
Test Voltage	6KV for 1 minute

Important Note

1. It is essential with certain instrumentation that the CT is physically positioned correctly on the conductor. P1 (K) must face the supply feeder, and P2 (L) must face the load. It is also important to ensure that secondary connections are made in accordance with instrument diagrams.
2. The secondary terminals of the CT must NOT be open-circuited on load as dangerously high voltages may be present under these conditions. It is recommended that one side of the secondary windings is earthed, unless where specified otherwise on the equipment itself.

Application Note

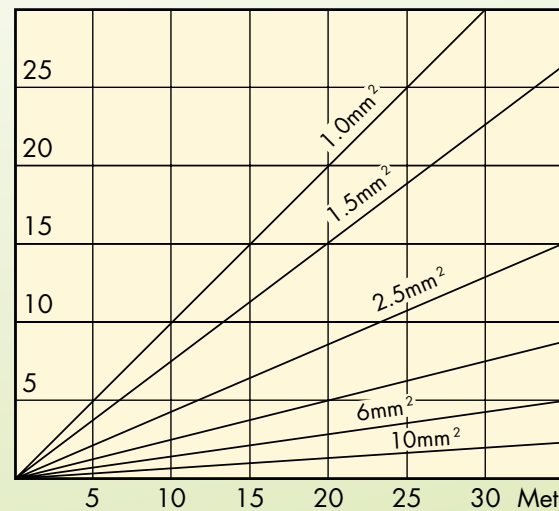
When using CT's with an aperture, it is possible to reduce primary ratio by passing multiple turns of the primary conductor cable through the aperture. The resultant ratio will be CT primary divided by the number of turns, e.g. a 200/5A CT with the primary conductor passed through the aperture twice will produce a CT ratio of 100/5A.

Secondary Lead Burden

When selecting a current transformer, it is important to consider the power absorbed by the cables connected between the CT secondary terminals and the measuring instrument. The resultant cable burden should be added to the equipment burden, and the total should not exceed the available VA of the CT. Where the current transformer is to be mounted remotely, a -/1A secondary is recommended.

For every 10°C variation in temperature, the VA absorbed by the cables will increase by 4% (Ambient Reference Temp °C).

VA Burden for 5A C.Ts.



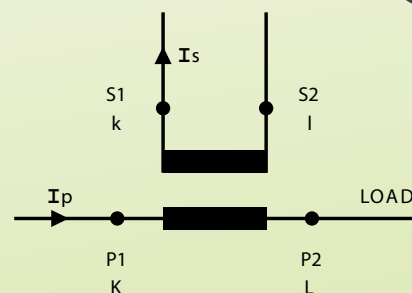
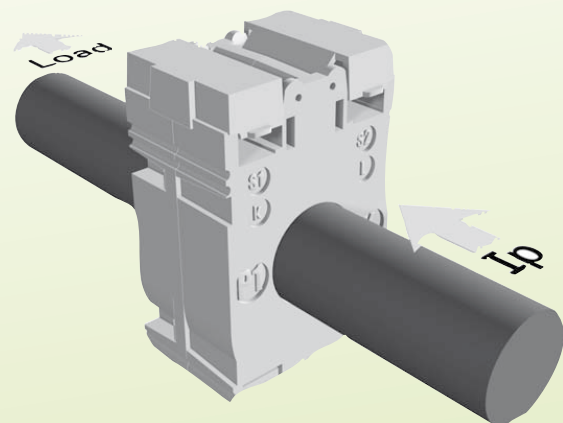
Note : With -/1A transformer losses are reduced by 25 times.

Accuracy of a Transformer

The percentage of error, produced in a transformer, is established by IEC60044-1. In measurement transformers: 25% and 100% of nominal power. In protection transformers: 100% of nominal power.

Error Limits / Accuracy Classes

Class	± % Error for % I _n				Phase difference ± for % I _n							
					Minutes				Centiradians			
	5	20	100	120	5	20	100	120	5	20	100	120
0.1	0.40	0.20	0.10	0.10	15	8	5	5	0.45	0.24	0.15	0.15
0.2	0.75	0.35	0.20	0.20	30	15	10	10	0.9	0.45	0.30	0.30
0.5	1.50	0.75	0.50	0.50	90	45	30	30	2.7	1.35	0.90	0.90
1.0	3.00	1.50	1.00	1.00	180	90	60	60	5.4	2.70	1.80	1.80



DATA SHEET : RD1190

