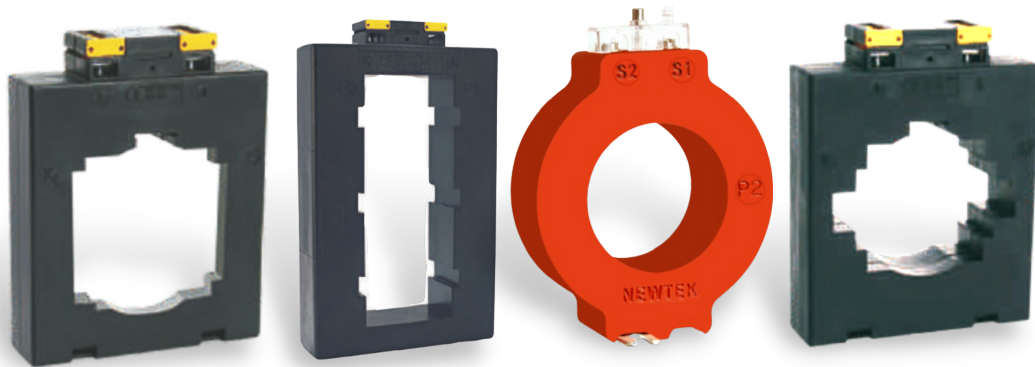


What happens when a higher VA CT is connected at actual load?





What happens when a higher VA CT is connected at actual load?



In this section illustrates the results of connecting a higher VA CT at actual load.

Take a look at this test case conducted at a laboratory.

A CT designed for 100/5A, 15VA is tested at connected burden of 15VA. Following errors are observed (These readings are checked by the CT manufacturer)

Rated Primary Current	Ratio Error	Phase Error	Accuracy Class
120%	-0.07	+ 21 min	0.5
100%	-0.05	+ 19 min	0.5
20%	-1.47	+ 65 min	1.0
5%	-3.0	+ 134 min	1.0





A CT Designed for 100/5A, 15VA is tested at connected burden of .5VA, The following errors observed at Actual Load

Rated Primary Current	Ratio Error	Phase Error	Accuracy Class
120%	2.77	+ 37 min	OUT
100%	2.75	+ 43 min	OUT
20%	2.59	+ 69 min	OUT
5%	2.4	+ 102 min	1.0

Conclusion

Results from the above-mentioned tests show that the CT has not been tested at actual burden & the error could be higher than the specification provided.

Demerits of having a higher VA

- 1.If CT Is designed for higher VA and the actual burden is less, then there may be a chance that the CT could be out of class at actual burden.
- 2.For higher VA, a higher grade and larger amount of core material is used. This increases cost of the CT for the same ratio.
- 3.The CT is bigger in size and havier in weight.

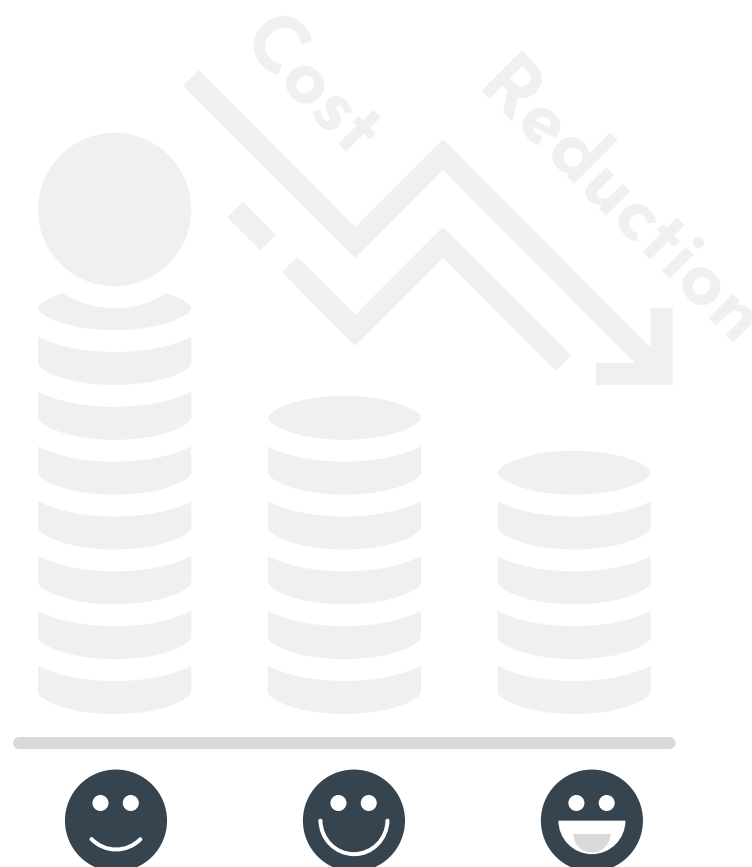




Merits of appropriate VA:

1. If the CT is designed to suit the required VA, it aids in achieving a particular output with standard class.
2. For the lowest possible VA, a smaller amount of core material is used, which reduces the cost of the CT
3. Techno-commercial design reduces the weight of CT.
4. Lower weight and smaller size of CT entails less load on the bus bar.

Newtek Electricals has educated many of its customers and consultants on this issue, leading them to implement our suggestions and reduce the unnecessary VA burden, in turn reducing costs.



Comprehensive Range of CT/PTs and Multi-Function Meters (MFMs)

Current Transformer Nylon Casing



Metering Type CT'S

- Window Type CT'S (Bus Bar)
- WPL Type
- Round ID Type CT'S

Protection Type CT'S

- Nylon Casing-Protective Type Bus Bar

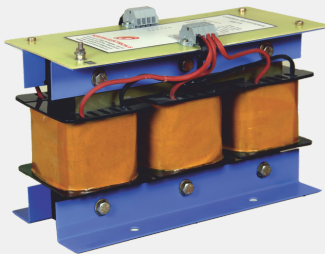
Resin Cast-Round ID



Metering Type CT'S

- Resin Cast - WPL
- Resin Cast - Bus Bar
- Resin Cast - Round ID

Control Transformer



- Single-phase Resin Cast
- Three-phase Resin Cast

Digital Meter



- Energy Meter
- MFM Meter
- VAF Meter
- DPM Meter

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