

Technical Notes

CT Class Definitions

GE Power Management No. GET-8418A

Copyright © 2003 GE Multilin

DEFINITIONS

Current transformers are available from GE Multilin for use as phase current inputs with motor protection relays. They are specified by current ratio, window size, and CT class.

C100 CLASS

For example, a C100 CT class means that the CT is capable of passing 20×5 A (CT secondary) = 100 A through a standard 1 Ω resistor with a current accuracy less than 10%. In more practical terms, it guarantees a 10% accuracy provided the voltage across the total burden does not exceed 100 V. If the burden is less than 1 Ω , the CT is within 10% accuracy for more than $20 \times I_{secondary}$. If the burden is larger then less current will exceeds the accuracy limit.

10P10 CLASS

The 10P10 class is typically found in European applications.

It indicates 10% accuracy at 10 times rated secondary current at rated burden. From the burden the rated impedance can be calculated and consequently the maximum voltage for 10% accuracy.

For example, the maximum voltage for a 10P10, 15 VA CT for guaranteed 10% accuracy is:

$$V_{max} = \Omega_{burden} \times I_{secondary} \times 10 = \frac{15}{25} \times 5 \times 10 = 30 \text{ V}$$
 (EQ 1)