

GE Power Management Technical Notes

## T60 Connection Winding Monitoring

**GE Power Management No. GET-8430** 

Copyright © 2002 GE Power Management

Normally, the T60 Transformer Management Relay requires the main CT to be wye-connected. When the relay is connected as recommended, the T60 Percent Differential algorithm performs magnitude and phase shift compensations, and under normal conditions displays zero differential current.

In cases where the T60 relay is required to substitute an old analog transformer protection relay, the customer should take action to reconnect the CT secondary circuits to match the requirement described above.

If the above is not feasible, an alternative method is to connect the secondary circuits to perform external ratio and vector group compensation and set the relay to "External compensation".

For any given CT connection and transformer type, an advanced user can analyze the currents and determine a **TRANSFORMER TYPE** setting that forces the T60 to perform correct operations and take into account connections beyond the Wye connections of the main CTs. However, for correct metering purposes and to reduce chances for incorrect wiring, Wye connections of the main CTs are strongly recommended.

The T60 metering and connection conventions are illustrated in the following diagram.

**GET-8430: T60 Connection Winding Monitoring** 



The T60 relay displays the transformer winding currents in primary Amps, in directions as shown above reference to phase A.