

## LOCATING PHASE CONDUCTORS IN A ZERO-SEQUENCE-CT WINDOW

**Current Transformer Part Number:** HGF5

**Current Ratio:** 50:0.025 A

**Turns Ratio:** 2000:1

The HGF5 can be used as a ground-fault-current sensor with MPS, MPU-32, MPU-16A, FPU-16, SE-701, and SE-330 protective relays. Twisted pair, shielded conductors should be used to connect the CT to the relay. In certain applications, a SE-EFVC Voltage Clamp is required to protect the protective relay current-sensor input.

### MPS Motor Protection System

Connect the HGF5 to MPS terminals 21 and 24. On the Operator Interface (MPS-OPI) menu *Setup | System Ratings | EF-CT Primary*, program the primary rating as 100 A. An SE-EFVC voltage clamp is not required.

### MPU-16A Motor Protection Unit

- **ICT-2 connection**

Connect the HGF5 to ICT-2 terminals 23 and 26. An SE-EFVC voltage clamp is required if the prospective ground-fault current is above 500 A. Program the earth-fault-CT-primary rating as 100 A in Mode F. Connect the ICT-2 as shown in MPU-16A manual Figure 12b.

- **Direct connection**

Connect the HGF5 to MPU-16A terminals 21 and 22 (not the ICT-2). An SE-EFVC voltage clamp is required if the prospective ground-fault current is above 500 A.

### MPU-32 Motor Protection Unit

- **MPU-CIM (or ICT-2) connection**

Connect the HGF5 to MPU-CIM or ICT-2 terminals 23 and 26. An SE-EFVC voltage clamp is required if the prospective ground-fault current is above 500 A. On the MPU-32 menu *Setup | System Ratings | EF-CT Primary*, program the primary rating as 100 A. Connect the MPU-CIM as shown in MPU-32 manual Figure 3.3b.

- **Direct connection**

Connect the HGF5 to MPU-32 terminals 21 and 22 (not the ICT-2 or MPU-CIM). An SE-EFVC voltage clamp is required if the prospective ground-fault current is above 500 A.

### FPU-16 Feeder Protection Unit

- **ICT-2 Connection**

Connect the HGF5 to ICT-2 terminals 23 and 26 when using the FPU-16. An SE-EFVC voltage clamp is required if the prospective ground-fault current is above 500 A. Program the earth fault-CT-primary rating as 100 A in Mode 6 of the FPU-16. Connect the ICT-2 as shown in FPU-16 manual Figure 11b.

- **Direct connection**

Connect the HGF5 to FPU-16 terminals 21 and 22 (not the ICT-2). An SE-EFVC voltage clamp is required if the prospective ground-fault current is above 500 A.

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### **SE-701 Ground Fault Monitor**

Connect the HGF5 to SE-701 terminals 4 and 5. An SE-EFVC is required if the prospective ground-fault current is above 500A. The trip-setting range is 1 to 99% of 100 A in 1% increments.

### **SE-330 Neutral Grounding Resistor Monitor**

Connect the HGF5 to SE-330 terminals 8 and 11. The trip-setting range is 2 to 100% of 100 A. An SE-EFVC voltage clamp is not required.