

**Part 1            General**

**1.1            RELATED SECTIONS**

- .1        Section 26 05 00 - Common Work Results for Electrical.

**1.2            REFERENCES**

- .1        CSA International.
  - .1        CAN/CSA C22.2 No.144-M91(R2006), Ground Fault Circuit Interrupters.
- .2        National Electrical Manufacturers Association (NEMA).
  - .1        NEMA PG 2.2-1999(R2009), Application Guide for Ground Fault Protection Devices for Equipment.

**1.3            ACTION AND INFORMATIONAL SUBMITTALS**

- .1        Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2        Product Data:
  - .1        Submit manufacturer's instructions, printed product literature and data sheets for ground fault circuit interrupters and include product characteristics, performance criteria, physical size, finish and limitations.
- .3        Shop Drawings:
  - .1        Submit drawings stamped and signed by professional engineer registered or licensed in Province of Québec, Canada.
- .4        Test and Evaluation Reports: submit test report for field testing of ground fault equipment to Departmental Representative and certificate that system as installed meets criteria specified.

**1.4            CLOSEOUT SUBMITTALS**

- .1        Submit in accordance with Section 01 78 00 - Closeout Submittals.
- .2        Operation and Maintenance Data: submit operation and maintenance data for ground fault circuit interrupters for incorporation into manual.

**1.5            DELIVERY, STORAGE, AND HANDLING**

- .1        Deliver, store, and handle materials in accordance with manufacturer's written instructions.
- .2        Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3        Storage and Handling Requirements:
  - .1        Store materials off ground, indoors, and in accordance with manufacturer's recommendations in clean, dry, and well-ventilated area.

- .2 Store and protect ground fault circuit interrupters from nicks, scratches, and blemishes.
- .3 Replace defective or damaged materials with new.

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 Equipment and components for ground fault circuit interrupters (GFCI): to CAN/CSA C22.2 No.144.
- .2 Components comprising ground fault protective system to be of same manufacturer.

### **2.2 BREAKER TYPE GROUND FAULT INTERRUPTER**

- .1 Two pole ground fault circuit interrupter for 15 A or 20 A, 120 V, 1 phase circuit c/w test and reset facilities, as indicated.
  - .1 Solid state ground sensing device, Class A.

### **2.3 GROUND FAULT PROTECTOR RECEPTACLE**

- .1 Self-contained with 15 A, 120 V circuit interrupter and duplex or single receptacle complete with:
  - .1 Solid state ground sensing device.
  - .2 Facility for testing and reset.
  - .3 CSA Enclosure 1, flush mounted with stainless steel face plate.

## **Part 3 Execution**

### **3.1 EXAMINATION**

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for ground fault circuit interrupters installation in accordance with manufacturer's written instructions.
  - .1 Visually inspect substrate.
  - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
  - .3 Proceed with installation only after unacceptable conditions have been remedied.

### **3.2 INSTALLATION**

- .1 Do not ground neutral on load side of ground fault relay.
- .2 Pass phase conductors including neutral through zero sequence transformers.
- .3 Connect supply and load wiring to equipment in accordance with manufacturer's recommendations.

### **3.3 FIELD QUALITY CONTROL**

- .1 Perform tests in accordance with Section 26 05 00 - Common Work Results for Electrical and co-ordinate with Section 01 45 00 - Quality Control if required.
- .2 Arrange for field testing of ground fault equipment by independent testing laboratory before commissioning service.
- .3 Demonstrate simulated ground fault tests.

### **3.4 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning

**END OF SECTION**