

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 26 27 26 - Wiring Devices.

1.2 PAYMENT

- .1 Payment for field testing of ground fault equipment performed by equipment manufacturer in accordance with Section 01 29 83 - Payment Procedures: Testing Laboratory Services.

1.3 REFERENCES

- .1 CSA International
 - .1 CAN/CSA C22.2 No.144-M91(R2011), 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.

1.4 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 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.

1.5 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.
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1.6 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and 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, well-ventilated area.
 - .2 Store and protect ground fault circuit interrupters from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.
- .4 Packaging Waste Management: remove for reuse and return of packaging materials as specified in Construction Waste Management Plan Waste Reduction Workplan in accordance with Section 01 74 21 - Construction/ Demolition Waste Management and Disposal.

1.7 LEED 2009 REQUIREMENTS

- .1 LEED Documentation:
 - .1 Submit Material Safety Data Sheets (MSDS) or product data sheets, for all site applied interior paints, coatings, adhesives, sealants, sealant primers, concrete curing compounds, etc. to ensure compliance with LEED Requirements for low emitting materials as per Section 01 35 21.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Equipment and components for ground fault circuit interrupters (GFCI): to CAN/CSA C22.2 No.144 NEMA PG 2.2.
- .2 Components comprising ground fault protective system to be of same manufacturer.

2.2 BREAKER TYPE GROUND FAULT INTERRUPTER

- .1 Single or two pole ground fault circuit interrupter for 1 phase circuit c/w test and reset facilities. Rating as indicated on drawings.
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2.3 GROUND FAULT PROTECTOR UNIT

- .1 Self-contained with 15/20 A, 120 V circuit interrupter and duplex U-ground receptacle, CSA Type 5-20R, colour ivory, complete with:
 - .1 Solid state ground sensing device.
 - .2 Facility for testing and reset.
 - .3 Matching cover plate.

2.4 LEED 2009 REQUIREMENTS

- .1 All site applied interior paints, coatings, adhesives, sealants, sealant primers, concrete curing compounds, etc. to comply with LEED Requirements for low emitting materials as per Section 01 35 21 - LEED 2009 Requirements.

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 in presence of Departmental Representative.
 - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.2 INSTALLATION

- .1 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 ground fault equipment manufacturer before commissioning service.
 - .3 Demonstrate simulated ground fault tests.
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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.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.