

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 26 09 23.01 - Metering and Switchboard Instruments.
- .2 Section 26 22 19 - Control and Signal Transformers.
- .3 Section 26 41 00.03 - Surge Protection Devices.
- .4 Section 26 28 16.02 - Moulded Case Circuit Breakers.

1.2 REFERENCES

- .1 Service equipment to: CAN/CSA-C22.2 No. 31-04.

1.3 SHOP DRAWINGS AND PRODUCT DATA

- .1 Submit shop drawings and product data in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Indicate on shop drawings.
 - .1 Floor anchoring method and foundation template.
 - .2 Dimensioned cable entry and exit locations.
 - .3 Dimensioned position and size of bus.
 - .4 Overall length, height and depth.
 - .5 Dimensioned layout of internal and front panel mounted components.
- .3 Include time-current characteristic curves for circuit breakers and fuses.

1.4 CLOSEOUT SUBMITTALS

- .1 Provide maintenance data for service entrance board for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.
- .2 Submit copies of maintenance data for complete assembly including components. Required number of copies as indicated in Section 01 78 00 - Closeout Submittals.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management And Disposal.
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- .2 Remove from site and dispose of all packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal paper packaging material in appropriate on-site bins for recycling in accordance with Waste Management Plan.
- .4 Divert unused metal and wiring materials from landfill to metal recycling facility as approved by Departmental Representative.

1.6 EXTRA MATERIALS

- .1 Provide maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Include:
 - .1 3 fuses for each type for instrument transformers.

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 SERVICE ENTRANCE BOARD

- .1 Service: to CAN/CSA-C22.2 No.31.
 - .2 Rating: 600/347 V, 3 phase, 4 wire, amps and short circuit current (rms symmetrical) ratings as indicated on drawings.
 - .3 Equipment: dead front, size as indicated. Enclosure to provide a degree of environmental protection equal to or higher than CSA Type 1.
 - .4 Instrument transformers (CT's and PT's) for Owners metering.
 - .5 Owners meter: Remote in accordance with Section 26 09 23.01 - Metering and Switchboard Instruments.
 - .6 Distribution section.
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- .7 Hinged access panels with captive knurled thumb screws.
- .8 Bus bars and main connections: 99.3% copper.
- .9 Identify phases with colour coding.

2.2 MOULDED CASE CIRCUIT BREAKERS

- .1 Moulded case circuit breakers to Section 26 28 16.02 - Moulded Case Circuit Breakers.

2.3 GROUNDING

- .1 Copper ground bus extending full width of enclosure and located at bottom.
- .2 Lugs at each end for size 2/0 grounding cable.

2.4 GROUND FAULT UNIT

- .1 Moulded case circuit breaker with integral ground fault unit in accordance with Section 26 28 16.02 - Moulded Case Circuit Breakers.

2.5 METERING

- .1 Mounting accessories and wiring for metering equipment:
 - .1 3 potential transformers.
 - .2 3 current transformers.
- .2 Instrument transformers in accordance with Section 26 22 19 - Control and Signal Transformers.

2.6 SURGE PROTECTION DEVICES

- .1 Surge protection devices in accordance with Section 26 41 00.03 - Surge Protection Devices.

2.7 FINISHES

- .1 Apply finishes in accordance with Section 26 05 00 - Common Work Results for Electrical.
 - .1 Service entrance board exterior: gray.

2.8 EQUIPMENT IDENTIFICATION

- .1 Provide equipment identification in accordance with Section 26 05 00 - Common Work Results for Electrical.
- .2 Nameplates:
 - .1 White plate, black letters, size 7.
 - .2 Complete board labelled: as indicated on drawings.
 - .3 Main disconnect labelled: "Main Breaker".
 - .4 Branch disconnects labelled: as indicated.

2.9 WARNING SIGNS

- .1 Provide potential electric shock and arc flash hazard warning sign in accordance with Section 26 05 00 - Common Work Results For Electrical.

2.10 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 INSTALLATION

- .1 Locate equipment as indicated on drawings.
- .2 Connect main secondary service to line terminals of main breaker.
- .3 Connect load terminals of distribution breaker's to feeders.
- .4 Check factory made connections for mechanical security and electrical continuity.
- .5 Run one grounding conductor ground bus to building ground.
- .6 Check trip unit settings against co-ordination study to ensure proper working and protection of components.