

## SECTION 16410 - CIRCUIT AND MOTOR DISCONNECTS

### PART 1 - GENERAL

#### 1.01 SUBMITTALS

- A. Shop Drawings: Submit in accordance with Section 01300, Shop Drawings covering the items included under this Section. Shop Drawing submittals shall include:
  - 1. Product data for each type of product specified.
- B. Operation and Maintenance Manuals: Submit in accordance with requirements of Sections 01782 and 13410, operation and maintenance manuals for items included under this Section, including circuits and motor disconnects.

#### 1.02 QUALITY ASSURANCE

- A. Codes and Standards:
  - 1. Electrical Component Standards: Provide components which are listed and labeled by UL. Comply with UL Standard 98 and NEMA Standard KS 1.

### PART 2 - PRODUCTS

#### 2.01 MANUFACTURERS

- A. Subject to compliance with specified requirements, manufacturers offering products which may be incorporated in Work include:
  - 1. Allen-Bradley.
  - 2. Appleton.
  - 3. Crouse-Hinds Co.
  - 4. Furnas Electric Co.
  - 5. General Electric Co.
  - 6. Siemens, Inc.
  - 7. Square D Company.

#### 2.02 CIRCUIT AND MOTOR DISCONNECT SWITCHES

- A. Provide NEMA 4, 4X, 7, 9, or 12 enclosure to match the rating of the area in which switch is installed. For motor and motor starter disconnects through 100 horsepower, provide units with horsepower ratings suitable to loads. For motor and motor starter disconnects above 100 horsepower, clearly label switch, "DO NOT OPEN UNDER LOAD."
- B. Fusible Switches: (Heavy-duty) switches, with fuses of classes and current ratings indicated. See Section "Fuses" for specifications. Where current limiting fuses are indicated, provide switches with non-interchangeable feature suitable only for current limiting type fuses.
- C. Circuit Breaker Switches: Where individual circuit breakers are required, provide factory-assembled, molded-case circuit breakers with permanent instantaneous magnetic and thermal trips in each pole, and with fault-current limiting protection, ampere ratings as indicated. Construct with

overcenter, trip-free, toggle type operating mechanisms with quick-make, quick-break action and positive handle indication. Provide push-to-trip feature for testing and exercising circuit breaker trip mechanism. Construct breakers for mounting and operating in any physical position and in an ambient temperature of 40 degrees C. Provide with AL/CU-rated mechanical screw type removable connector lugs.

- D. Non-fusible Disconnects: (Heavy-duty) switches of classes and current ratings as indicated.
- E. Double-Throw Switches: (Heavy-duty) switches of classes and current ratings as indicated.
- F. Service Switches: (Heavy-duty) fusible/circuit breaker switches. UL listed for use as service equipment under UL Standard 98 or 869.
- G. Switches for Classified (Hazardous) Locations: Heavy-duty switches with UL labels and listings for hazardous location classifications in which installed.

### 2.03 ACCESSORIES

- A. Special Enclosure Material: Provide special enclosure material as follows for switches indicated:
  - 1. Stainless Steel for NEMA 4/4X switches.
  - 2. Molded fiberglass-reinforced plastic for NEMA 4X switches located in chlorine chemical areas.

### PART 3 - EXECUTION

NOT USED

END OF SECTION