SECTION 26 09 19

ENCLOSED CONTACTORS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. General purpose contactors.

B. Lighting contactors.

1.02 RELATED REQUIREMENTS

A. Section 26 05 29 - Hangers and Supports for Electrical Systems.

B. Section 26 05 53 - Identification for Electrical Systems: Identification products and requirements.

C. Section 26 28 13 - Fuses.

1.03 REFERENCE STANDARDS

A. NEMA ICS 2 - Industrial Control and Systems: Controllers, Contactors, and Overload Relays, Rated Not More Than 2000 Volts AC or 750 Volts DC; National Electrical Manufacturers Association.

B. NEMA ICS 5 - Industrial Control and Systems: Control Circuit and Pilot Devices; National Electrical Manufacturers Association.

C. NEMA ICS 6 - Industrial Control and Systems: Enclosures; National Electrical Manufacturers Association.

D. NEMA KS 1 - Enclosed and Miscellaneous Distribution Equipment Switches (600 Volts Maximum); National Electrical Manufacturers Association.

E. NETA STD ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems; International Electrical Testing Association.

F. NFPA 70 - National Electrical Code; National Fire Protection Association.

1.04 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide dimensions, size, voltage ratings and current ratings.

C. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

D. Maintenance Data: Include instructions for replacing and maintaining coil and contacts.

1.05 QUALITY ASSURANCE

A. Conform to requirements of NFPA 70.

B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience and with service facilities within 100 miles of Project.

C. Products: Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Allen-Bradley/Rockwell Automation: www.ab.com.

B. Eaton Corporation; Cutler-Hammer Products: www.eaton.com.

C. Schneider Electric; Square D Products: www.schneider-electric.us.

D. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 GENERAL PURPOSE CONTACTORS

A. Description: NEMA ICS 2, AC general purpose magnetic contactor.

B. Coil operating voltage: 120 volts, 60 Hertz.

C. Poles: As required to match circuit configuration and control function.

D. Enclosure: NEMA ICS 6, Type 1.

E. Accessories:
   1. Selector Switch: ON/OFF/AUTOMATIC.
   2. Indicating Light: RED.
   3. Auxiliary Contacts: One, normally open.

2.03 LIGHTING CONTACTORS

A. Description: NEMA ICS 2, magnetic lighting contactor.

B. Configuration: Mechanically held, 3 wire control.

C. Coil operating voltage: 120 volts, 60 Hertz.

D. Poles: As required to match circuit configuration and control function.

E. Contact Rating: Match branch circuit overcurrent protection, considering derating for continuous loads.

F. Enclosure: NEMA ICS 6, Type 1.

G. Accessories:
   1. Selector Switch: ON/OFF/AUTOMATIC.
   2. Indicating Light: RED.
   3. Auxiliary Contacts: One, normally open.

2.04 ACCESSORIES

A. Auxiliary Contacts: NEMA ICS 2, 2 normally open contacts in addition to seal-in contact.

B. Cover Mounted Pilot Devices: NEMA ICS 5, oiltight type.

C. Pilot Device Contacts: NEMA ICS 5, Form Z, rated A150.

D. Pushbuttons: Lockable type.

E. Indicating Lights:, LED type.

F. Selector Switches: Rotary type.

G. Relays: NEMA ICS 2,.

H. Control Power Transformers: 120 volt secondary, 50 VA minimum, in each enclosed contactor. Provide fused primary and secondary, and bond unfused leg of secondary to enclosure.

2.05 DISCONNECTS

A. Combination Contactors: Combine contactor with disconnect in common enclosure.

B. Disconnects: Thermal magnetic circuit breaker with integral thermal and instantaneous magnetic trip in each pole; UL listed.

C. Disconnects: Fusible switch assembly; NEMA KS 1, enclosed knife switch with externally operable handle. Fuse clips: Designed to accommodate Class R fuses.

PART 3 EXECUTION

3.01 INSTALLATION

A. Install enclosed contactors where indicated, in accordance with manufacturer's instructions.

B. Install enclosed contactors plumb. Provide supports in accordance with Section 26 05 29.

C. Height: 5 ft to operating handle.

D. Provide fuses for fusible switches; refer to Section 26 28 13 for product requirements.

E. Provide engraved plastic nameplates; refer to Section 26 05 53 for product requirements and location.

3.02 FIELD QUALITY CONTROL

A. Perform field inspection and testing in accordance with Section 01 40 00.

B. Inspect and test in accordance with NETA STD ATS, except Section 4.

C. Perform applicable inspections and tests listed in NETA STD ATS, Section 7.16.1.

END OF SECTION