

SECTION 26 28 19

ENCLOSED SWITCHES

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes fusible and non-fusible switches.
- B. Related Sections:
 - 1. Division 26 - Fuses.

1.02 REFERENCES

- A. National Electrical Manufacturers Association:
 - 1. NEMA FU 1 - Low Voltage Cartridge Fuses.
 - 2. NEMA KS 1 - Enclosed and Miscellaneous Distribution Equipment Switches (600 Volts Maximum).
- B. International Electrical Testing Association:
 - 1. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.
- C. Underwriters Laboratory, Inc. (UL)
 - 1. 98 – Enclosed and Dead-Front Switches.
 - 2. 198C – High Interrupting Capacity Fuses, Current Limiting Types
 - 3. 198E – Class R Fuses
 - 4. 489 – Molded Case Circuit Breakers and Circuit Breaker Enclosures
 - 5. 512 – Fuseholders

1.03 SUBMITTALS

- A. Division 01 - Submittal Procedures: Submittal procedures.
- B. Product Data: Submit switch ratings and enclosure dimensions.

1.04 CLOSEOUT SUBMITTALS

- A. Division 01 - Execution and Closeout Requirements: Closeout procedures.
- B. Project Record Documents: Record actual locations of enclosed switches and ratings of installed fuses.

1.05 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum five years documented experience.

PART 2 PRODUCTS

2.01 FUSIBLE SWITCH ASSEMBLIES

- A. Manufacturers:
 - 1. Eaton Electric / Cutler Hammer Products
 - 2. Siemens/ITE
 - 3. Square D
- B. Product Description: NEMA KS 1, FS W-S-865; Type HD, quick-make/quick-break, load interrupter knife switch with externally operable handle interlocked to prevent opening front cover with switch in ON position. Handle lockable in OFF position.
- C. Fuse clips: FS W-F-870.
- D. Enclosure: NEMA KS 1, to meet conditions. Fabricate enclosure from steel finished with manufacturer's standard gray enamel.
 - 1. Interior Dry Locations: Type 1.
 - 2. Exterior Locations: Type 3R.
- E. Furnish switches with entirely copper current carrying parts.

2.02 NONFUSIBLE SWITCH ASSEMBLIES

- A. Manufacturers:
 - 1. Eaton Electric / Cutler Hammer Products
 - 2. Siemens/ITE
 - 3. Square D
- B. Product Description: NEMA KS 1, FS W-S-865; Type HD, quick-make/quick-break, load interrupter knife switch with externally operable handle interlocked to prevent opening front cover with switch in ON position. Handle lockable in OFF position.
- C. Enclosure: NEMA KS 1, to meet conditions. Fabricate enclosure from steel finished with manufacturer's standard gray enamel.
 - 1. Interior Dry Locations: Type 1.
 - 2. Exterior Locations: Type 3R.
- D. Furnish switches with entirely copper current carrying parts.

2.03 SWITCH RATINGS

- A. Switch Rating: Number of poles, voltage, current and horsepower rating as required for particular installation.
- B. Short Circuit Current Rating: UL listed for 200,000 rms symmetrical amperes when used with or protected by Class R or Class J fuses (30-600 ampere switches employing appropriate fuse rejection schemes).

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install enclosed switches plumb. Provide supports in accordance with Division 26.
- B. Height: 5 feet to operating handle.
- C. Install fuses for fusible disconnect switches. Refer to Division 26 for product requirements.
- D. Install engraved plastic nameplates in accordance with Division 26.

3.02 FIELD QUALITY CONTROL

- A. Division 01 - Quality Requirements and Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Inspect and test in accordance with NETA ATS, except Section 4.
- C. Perform inspections and tests listed in NETA ATS, Section 7.5.

END OF SECTION