

University of Houston Master Specification

<Insert Project Name>

<Insert U of H Proj #>

<Insert Issue Name>

<Insert Issue Date>

SECTION 26 2813 - LOW VOLTAGE VOLT FUSES

Maintain Section format, including the UH master spec designation and version date in bold in the center columns of the header and footer. Complete the header and footer with Project information.

Revise this Section by deleting and inserting text to meet Project-specific requirements.

This Section uses the term "Engineer." Change this term to match that used to identify the design professional as defined in the General and Supplementary Conditions.

Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

Delete hidden text after this Section has been edited for the Project.

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. The Contractor's attention is specifically directed, but not limited, to the following documents for additional requirements:
 - 1. The current version of the *Uniform General Conditions for Construction Contracts*, State of Texas, available on the web site of the Texas Facilities Commission.
 - 2. The University of Houston's *Supplemental General Conditions and Special Conditions for Construction*.

1.2 DESCRIPTION OF WORK

- A. Work Included: The extent of fuse work is as shown and scheduled, as indicated by the requirements of this Section, and as specified elsewhere in these Specifications.
- B. Types: The types of fuses required for the project include, but are not limited to, the following:
 - 1. 250 volt current-limiting fuses.
 - 2. 600 volt current-limiting fuses.

1.3 STANDARDS

- A. Products shall be designed, manufactured, tested, and installed in compliance with the following standards:
 - 1. ANSI/UL 198E Standard Safety for Class R Fuses.
 - 2. UL 198C Standard for High-Interrupting-Capacity Fuses, Current Limiting Types, Class L.
- B. Where application of applicable codes, Trade Association standards, or publications appears to be in conflict with the requirements of this Section, an interpretation shall be obtained from the **[Engineer]** **[Architect]**.

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1.4 QUALITY ASSURANCE

- A. Manufacturers: Provide products produced by Eaton Bussmann Manufacturing.
 - 1. The Contractor shall base his proposal upon Eaton ~~by~~ Bussmann fuses. If the Contractor wishes to use fuses other than specified, and produced by one of the manufacturers listed below, written request shall be submitted to the Engineer for approval review as required in Section 26 0001 "Electrical General Provisions", under "Prior Approval", together with proof that the substituted fuses "are equal", and that all proposed fuses have been selected for proper fuse coordination with all components of the power system.
 - a. Mersen.
 - b. Littelfuse.
- B. Coordination: All fuses shall be from the same manufacturer to facilitate positive selective coordination of protective devices.

1.5 SUBMITTALS

- A. Shop drawing submittals shall include, but not be limited to, the following:
 - 1. Cut sheet submittals shall be provided for all fuse types required for the project.
 - 2. Additional information as required in Section 26 0001 "Electrical General Provisions."

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Store fuses in a clean and dry space and protected from weather. When necessary to store outdoors, elevate materials well above grade and enclose with durable, waterproof wrapping.

PART 2 - PRODUCTS

2.1 250/600 VOLT CURRENT-LIMITING FUSES

- A. General: Provide 200,000 amperes interrupting capacity (AIC) current-limiting fuses of the current ratings shown and with a voltage rating equal to or greater than the voltage at the point of application.
- B. Types:
 - 1. Fuses in circuits supplying individual motors, groups of motors or loads including motors, 600 amperes or less, shall be UL Class RK1 true dual-element, time-delay fuses, unless otherwise shown. Dual-element fuses must hold 500 percent of rated current for a minimum of 10 seconds and clear 20 times rated current in 0.01 seconds or less.
 - 2. Fuses in circuits supplying individual motors, groups of motors or loads including motors, 601 to 4000 amperes, shall be UL Class L time-delay fuses, unless otherwise shown. Time delay fuses shall hold 500 percent of rated current for 4 seconds and clear 20 times rated current in 0.01 seconds or less.
 - 3. Fuses in circuits supplying other than motor loads, 600 amperes or less, shall be UL Class RK1 true dual-element, time-delay fuses, unless otherwise shown. Dual-element fuses must hold 500 percent of rated current for a minimum of 10 seconds and clear 20 times rated current in 0.01 seconds or less.

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2.2 SPARE FUSES

- A. General: Provide spare fuses in the amount of 10 percent of each type and size installed, but not less than three spares of a specific size and type. Deliver these spares to the Owner at the time of acceptance of the project. Fuses shall be neatly encased in a properly labeled steel enclosure with padlock provision, to be wall mounted as directed.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Install fuses in fuse holders immediately prior to energization of the circuit in which the fuses are installed. Fuses shall not be installed and shipped with equipment. Test each fuse prior to installation.
- B. Labels: Place fuse identification labels, showing fuse size and type installed, inside the cover of each switch or other location where fuses are installed.

END OF SECTION 26 2813