

Design Standard

Low-Voltage Circuit Protective Devices

Purpose:

This design standard has the purpose of creating a consistent application of low-voltage circuit protective devices throughout the East Side Union High School District therefore achieving a standard of maintenance, reliability and quality throughout all renovation and new building projects.

Design Standard:

Low-voltage circuit protective devices include but are not limited to:

- Fusible switches
- Fuses
- Circuit breakers
- Fuse cabinet

Low-voltage circuit protective devices are to meet the following requirements based on Code requirements and industry standard of care:

- For each class and ampere rating of protective device installed, provide the following quantities of spares for quantity of devices installed:
 - i) 0 to 24: Provide 6 spares
 - ii) 25 to 48: Provide 9 spares
 - iii) 49 and Above: Provide 12 spares
- Provide testing of ground fault interrupting breakers
- Provide circuit breakers for installation in panelboards, individual enclosures or combination motor starters
- Provide ground fault interrupter circuit breakers for equipment in damp or wet locations
- Provide device on handle to lock breaker in "ON" position for breakers feeding time switches, night lights and similar circuits required to be continuously energized
- All enclosed switches or breakers shall be provided with lock-off capability built into the device

Approved Manufacturers:

- Fuses:
 - Bussmann Division

- McGraw-Edison
- Shawmut Division
- Gould Electronic
- Littelfuse
- Fusible Switches:
 - Eaton Electrical
 - General Electric
 - Siemens
 - Square D
- Fuse Cabinet:
 - Bussmann
 - Circle AW
 - Ferraz-Shawmut
 - Littelfuse
 - Siemens
 - Square D
- Circuit Breakers
 - Square D

Substitutes Allowed:

- Fuses, fused switches, fuse cabinets: Yes, if performance and quality equivalency can be evidenced.
- Circuit breakers: No substitutes allowed.

Pursuant to Section 3400 of the Public Contract Code: Square D circuit breakers are now in use on the particular public improvement described as East Side Union High School District. At each instance in these specifications that a circuit breaker is designated by the brand name "Square D", that product is designated to support the existing electrical distribution system that is in place at East Side Union High School District. The Contractor will furnish and apply only "Square D" circuit breakers as required, and no substitutions shall be deemed to be "or equal" or allowed.

Associated Design Standards and Construction Specifications:

- Division 26 Electrical Design Standards

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