

have a fault-closing rating that is not less than the available fault current at its supply terminals.

Where fused switches or separately mounted fuses are installed, the fuse characteristics shall be permitted to contribute to the fault-closing rating of the disconnecting means.

N (C) Remote Control. For multibuilding, industrial installations under single management, the service disconnecting means shall be permitted to be located at a separate building or structure. In such cases, the service disconnecting means shall be permitted to be electrically operated by a readily accessible, remote-control device.

N 235.406 Overcurrent Devices as Disconnecting Means. Where the circuit breaker or alternative for it, as specified in 235.408 for service overcurrent devices, meets the requirements specified in 235.405, it shall constitute the service disconnecting means.

N 235.408 Protection Requirements. A short-circuit protective device shall be provided on the load side of, or as an integral part of, the service disconnect, and shall protect all ungrounded conductors that it supplies. The protective device shall be capable of detecting and interrupting all values of current, in excess of its trip setting or melting point, that can occur at its location. A fuse rated in continuous amperes not to exceed three times the ampacity of the conductor, or a circuit breaker with a trip setting of not more than six times the ampacity of the conductors, shall be considered as providing the required short-circuit protection.

Informational Note: See Table 315.60(C)(1) through Table 315.60(C)(20) for ampacities of conductors rated 2001 volts to 35,000 volts.

Overcurrent devices shall conform to 235.408(A) and (B).

N (A) Equipment Type. Equipment used to protect service-entrance conductors shall meet the requirements of Article 495, Part II.

N (B) Enclosed Overcurrent Devices. The restriction to 80 percent of the rating for an enclosed overcurrent device for continuous loads shall not apply to overcurrent devices installed in systems operating at over 1000 volts.

N 235.409 Surge Arresters. Surge arresters installed in accordance with the requirements of Parts II and III of Article 242 shall be permitted on each ungrounded overhead service conductor.

Informational Note: Surge arresters may be referred to as lightning arresters in older documents.

N 235.410 Service Equipment — General. Service equipment, including instrument transformers, shall conform to Part I of Article 495.

N 235.411 Switchgear. Switchgear shall consist of a substantial metal structure and a sheet metal enclosure. Where installed over a combustible floor, suitable protection thereto shall be provided.

A vault in accordance with 235.412 can be used in lieu of switchgear for voltages below 35,000 volts.

N 235.412 Over 35,000 Volts. Where the voltage exceeds 35,000 volts between conductors that enter a building, they shall terminate in a switchgear compartment or a vault conforming to the requirements of 450.41 through 450.48.

ARTICLE

240

Overcurrent Protection

Part I. General

Δ 240.1 Scope. Parts I through VII of this article provide the general requirements for overcurrent protection and overcurrent protective devices not more than 1000 volts, nominal. Part VIII covers overcurrent protection for those portions of supervised industrial installations operating at voltages of not more than 1000 volts, nominal.

Informational Note No. 1: Overcurrent protection for conductors and equipment is provided to open the circuit if the current reaches a value that will cause an excessive or dangerous temperature in conductors or conductor insulation.

Informational Note No. 2: See 110.9 for requirements for interrupting ratings and 110.10 for requirements for protection against fault currents.

N 240.2 Reconditioned Equipment.

N (A) Reconditioning Not Permitted. The following equipment shall not be reconditioned:

- (1) Equipment providing ground-fault protection of equipment
- (2) Ground-fault circuit interrupters
- (3) Low-voltage fuseholders and low-voltage nonrenewable fuses
- (4) Molded-case circuit breakers
- (5) Low-voltage power circuit breaker electronic trip units.

N (B) Reconditioning Permitted. The following equipment shall be permitted to be reconditioned:

- (1) Low-voltage power circuit breakers
- (2) Electromechanical protective relays and current transformers

Reconditioned equipment shall be listed as reconditioned and comply with 110.21(A)(2).

240.3 Other Articles. Equipment shall be protected against overcurrent in accordance with the article in this *Code* that covers the type of equipment specified in Table 240.3.

240.4 Protection of Conductors. Conductors, other than flexible cords, flexible cables, and fixture wires, shall be protected