Where the conductor ampacity does not correspond to the standard ampere rating of a circuit breaker or fuse, this exception permits the next-larger standard size circuit breaker or fuse to be installed. The permission to "round up" is limited by 240.4(B)(3) to ratings not exceeding 800 amperes. This exception permits rounding up only to the next standard size fuse or circuit breaker rating and does not permit the load to exceed the allowable ampacity of the service conductors.

See also

240.6 for standard ampere ratings of fuses and circuit breakers

Exception No. 3: Two to six circuit breakers or sets of fuses shall be permitted as the overcurrent device to provide the overload protection. The sum of the ratings of the circuit breakers or fuses shall be permitted to exceed the ampacity of the service conductors, provided the calculated load does not exceed the ampacity of the service conductors.

Section 230.90 requires an overcurrent device to provide overload protection in each ungrounded service conductor. However, Exception No. 3 allows two to six circuit breakers or sets of fuses to be considered as the overcurrent device. None of the individual overcurrent devices can have a rating or setting higher than the ampacity of the service conductors.

In complying with these rules, it is possible for the total of the six overcurrent devices to be greater than the rating of the service-entrance conductors. However, the size of the service-entrance conductors is required to be adequate for the computed load only, and each individual service disconnecting means is required to be large enough for the individual load it supplies.

The combined ratings of the five service disconnecting means OCPDs (350 amperes) shown in Exhibit 230.23 exceed the ampacity of the service-entrance conductors (310 amperes) permitted by this exception. As specified, the ampacity of the service-entrance conductors is sufficient to carry the calculated load. The combined rating of the five service disconnecting means also complies with 230.80, which requires that the combined rating (350 amperes) not be less than the calculated load (305 amperes), the minimum size required for the service OCPD specified by 240.4 and 230.80.

Exception No. 4: Overload protection for fire pump supply conductors shall comply with 695.4(B)(2)(a).

Exception No. 5: Overload protection in accordance with the conductor ampacities of 310.12 shall be permitted for single-phase dwelling services.

(B) Not in Grounded Conductor. No overcurrent device shall be inserted in a grounded service conductor except a circuit breaker that simultaneously opens all conductors of the circuit.

230.91 Location. The service overcurrent device shall be an integral part of the service disconnecting means or shall be located immediately adjacent thereto. Where fuses are used as the service overcurrent device, the disconnecting means shall be located ahead of the supply side of the fuses.

230.92 Locked Service Overcurrent Devices. Where the service overcurrent devices are locked or sealed or are not readily accessible to the occupant, branch-circuit or feeder overcurrent devices shall be installed on the load side, shall be mounted in a readily accessible location, and shall be of lower ampere rating than the service overcurrent device.

230.93 Protection of Specific Circuits. Where necessary to prevent tampering, an automatic overcurrent device that protects service conductors supplying only a specific load, such as a water

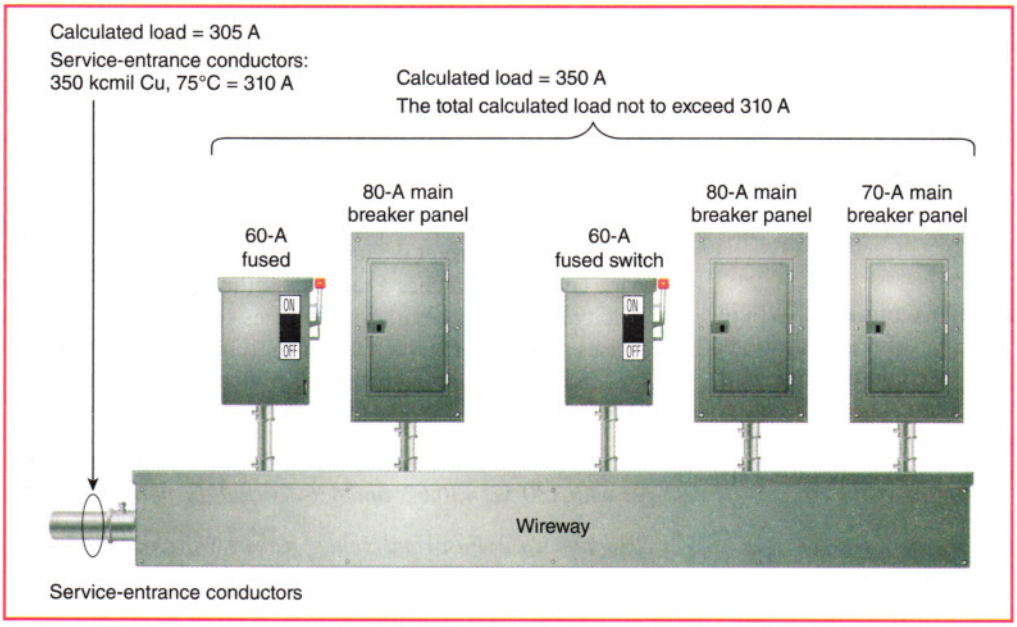

EXHIBIT 230.23 An example in which the combined ratings of the five service disconnecting means OCPDs are permitted to exceed the ampacity of the service conductors.