

ARTICLE 225

OUTSIDE BRANCH CIRCUITS AND FEEDERS

Introduction to Article 225—Outside Branch Circuits and Feeders

This article covers the installation requirements for equipment, including overhead and underground branch-circuit and feeder conductors outdoors on or between buildings, poles, and other structures on the premises. Conductors installed outdoors can serve many purposes such as area lighting, power for outdoor equipment, or for providing power to separate buildings or structures. It is important to remember that the power supply for buildings is not always a service conductor but may be feeder or branch-circuit conductors originating in another building. Never just assume that the conductors supplying power to a building are service conductors until you have identified where the service point is [Article 100] and have reviewed the Article 100 definitions for feeders, branch circuits, and service conductors. If you have correctly determined the conductors are service conductors, then use Article 230.

Part II of this article limits the number of feeders plus branch circuits to a building and provides rules regarding their disconnects. These requirements include the disconnect rating, construction characteristics, labeling, where to locate the disconnect, and the grouping of multiple disconnects.

225.41 Emergency Disconnects

This new section requires outside emergency disconnects for feeders supplied to one- and two-family dwelling units, and mirrors the requirements in 230.85 for service-supplied dwelling units.

Analysis



NEW

This new section requires outside emergency disconnects for feeders supplied to one- and two-family dwelling units. This mirrors the requirements in 230.85 for service-supplied dwelling units so first responders are always able to shut off the power on the exterior of a dwelling regardless of how it is supplied.

Section 225.41(B) requires the identification of the location of other isolation disconnects for other power sources where those disconnects are not located adjacent to the emergency disconnect.

225.41 Emergency (Shutoff) Disconnects

For one- and two-family dwelling units, an emergency disconnect must be installed for first responders and others.

(A) General.

(1) Location. The emergency disconnect must be installed in a readily accessible outdoor location on or within sight of the dwelling unit. ▶Figure 225-3

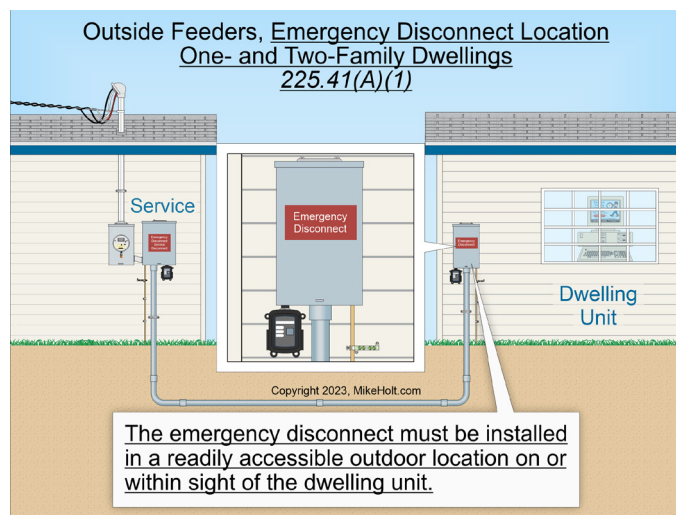
(2) Rating. The emergency disconnect must have a short-circuit current rating equal to or greater than the available fault current.

(3) Grouping. If more than one emergency disconnect is provided, they must be grouped.

(B) Identification of Other Disconnects. Where disconnects for other energy source systems are not adjacent to the emergency disconnect, a plaque or directory identifying the location of other energy source disconnects must be adjacent to the emergency disconnect.

Note: See 445.18, 480.7, 705.20, and 706.15 for examples of other energy source system isolation means.

(C) Marking. The emergency disconnect must be marked “EMERGENCY DISCONNECT.”



►Figure 225-3

Markings must be permanently affixed and be sufficiently durable to withstand the environment involved in accordance with 110.21(B) and comply with following:

- (1) The emergency disconnect marking or label must be on the outside front of the disconnect with a red background and white text.
- (2) The letters must be at least $\frac{1}{2}$ in. high.