

Chapter E 215

FEEDERS

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E 215.01 Scope. This chapter deals with installation requirements for, and, the size of conductors in the feeders needed to supply power to branch circuits and, the loads as calculated under chapter E 220.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 215.02 Conductor size. (1) Feeder conductors shall have a current rating not smaller than the feeder load as determined by section E 220.04. A 2-wire feeder supplying 2 or more 2-wire branch circuits or a 3-wire feeder supplying more than two 2-wire branch circuits, or 2 or more 3-wire branch circuits, shall not be smaller than 30 amperes. Where a feeder carries the total current supplied by the service-entrance conductors, such feeder, for services of 55 amperes and smaller, shall be of the same size as the service-entrance conductors.

Note: See section E 230.041 (1) for minimum size of feeders in multi-occupancy residential buildings.

(2) Where at any time it is found that feeder conductors are, or will be overloaded, the feeder conductors shall be increased in capacity to accommodate the actual load served.

Note: See examples Nos. 1 to 7 of chapter E 900.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 215.03 Voltage drop. The size of the conductors for feeders should be such that the voltage drop for the load as computed by section E 220.04 would not be more than 3% for power, heating or lighting loads or combinations thereof. Providing further that the maximum total voltage drop for conductors for feeders and branch circuits should not exceed 5% overall.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 215.04 Overcurrent protection. Feeders shall be protected against overcurrent in accordance with the provisions of chapter E 240.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 215.05 Common neutral feeder. A common neutral feeder may be employed for 2 or 3 sets of 3-wire feeders, or 2 sets of 4-wire or 5-wire feeders. When in metal enclosures, all conductors of feeder circuits employing a common neutral feeder shall be contained within the same enclosure as provided in section E 300.20.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 215.06 Diagram of feeders. If required by the administrative authority, a diagram showing feeder details shall be supplied previous

to installation. This diagram should show: Area in square feet; load (before applying demand-factors); demand-factors selected; computed load (after applying demand-factors); and the size of conductors.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 215.07 Installation requirements. Where a feeder supplies branch circuits in which grounding conductors are required, the feeder shall include or provide a grounding means to which the grounding conductor of the branch circuit shall be connected.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.