Chapter E 620

ELEVATORS, DUMBWAITERS, ESCALATORS, AND MOVING WALKS OR RAMPS

E 620.01 Scope. This chapter shall apply to electrical equipment and wiring used in connection with elevators, dumbwaiters, escalators, and moving walks or ramps.

History: Cr. Register, April, 1964, No. 100, eff. 5–1–64.

E 620.02 Motor circuit conductors. (1) Conductors supplying elevator, dumbwaiter, escalator, moving walk or ramp motors shall have a carrying capacity conforming to subsections (a), (b) and (c) below, based on the nameplate current rating of the motor. With generator field control, the carrying capacity shall be based on the nameplate current rating of the driving motor of the motor-generator set which supplies power to the elevator motor.

Note: The heating of conductors depends on root mean square current values which, with generator field control, are reflected by the nameplate current rating of the motor-generator set driving motor rather than by the rating of the elevator motor which represents actual but short time and intermittent full-load current values.

(a) *Conductors supplying a single motor.* Conductors supplying a single motor shall have a carrying capacity in conformance with section E 430.022, table E 430.022 (1) Exception.

(b) *Conductors supplying several motors.* Conductors supplying two or more motors shall have a current carrying capacity of not less than 125% of the nameplate current rating of the highest rated motor in the group plus the sum of the nameplate current ratings of the remainder of the motors in the group.

(c) *Feeder demand factor.* Feeder conductors of less capacity than required by subsection (b) above may be furnished subject to the requirements of section E 430.026.

History: Cr. Register, April, 1964, No. 100, eff. 5–1–64.

E 620.03 Prohibited equipment in hoistways. (1) No wires, cables, pipes or conductor enclosures shall be installed in any hoistway except those needed to serve the elevator or dumbwaiter equipment, including wiring for heating, ventilation, lighting the car or hoistway and wiring for communication with the car.

(a) *Exception No. 1.* Other raceways or cables may in exceptional cases be installed in the hoistway only if approved in writing by the industrial commission providing that all openings, terminals, outlet or junction boxes are located outside the hoistway.

(b) *Exception No. 2.* In existing installations, pipes in hoistways many remain unless carrying noxious gases, or steam with a pressure exceeding 15 pounds.

History: Cr. Register, April, 1964, No. 100, eff. 5–1–64.

E 620.04 Disconnecting means. (1) An externally operated circuit-breaker or fused disconnecting switch opening all lines, shall be installed separately in the supply circuit of every elevator, escalator, and moving walk or ramp. This breaker or switch shall be of the enclosed type, and shall be provided with proper overcurrent protection, and shall not be made to close from any other part of the building, and shall be located to be visible from the elevator machine in the machine room at the lock-jamb side of the entrance door. This switch shall be a horsepower rated motor circuit switch for motors up to and including 50 horsepower.

(2) An externally operated circuit-breaker or fused disconnecting switch opening all lines, shall be installed separately in the supply circuit of every power dumbwaiter hereafter installed. This breaker or switch shall be of the enclosed type and shall be provided with proper overcurrent protection and shall conform with the requirements as outlined in the following subsections.

(a) Where the hoisting machine is located in the hoistway, directly above or below the dumbwaiter, the controller and circuit-breaker or switch shall be mounted on the outside of the hoistway, on the hoistway wall.

(b) Where a machine room is provided and isolated from the hoistway enclosure, the circuit-breaker or switch shall be mounted adjacent to the controller.

History: Cr. Register, April, 1964, No. 100, eff. 5–1–64.

E 620.05 Lighting. (1) Lighting and convenience outlets shall be provided to conform with requirements outlined in this section.

(a) *Landing lights.* Every elevator hoistway landing entrance within or in connection with an occupied building shall be provided with illumination of an intensity of not less than 5 foot-candles at the landing sill.

(b) *Machine room, penthouse and overhead lighting.* Every machine room and penthouse shall be provided with uniform artificial illumination of an intensity of not less than 5 foot-candles at the floor. Every area about a ceiling-type machine, including overhead sheave rooms or lofts shall be amply lighted. Control of such lighting shall be at the approach to the machine room, penthouse or overhead equipment.

(c) *Work lights.* Every power elevator hereafter installed shall be equipped with a work light receptacle and convenience outlet located in the hoistway approximately level with the lowest terminal landing floor if hoistway landing doors are used.

(d) *Outlet.* An outlet shall be provided in the hoistway for the car lighting.

History: Cr. Register, April, 1964, No. 100, eff. 5–1–64.