



Type AC cable with insulated circuit conductors in a metal armor that also serves as the EGC



Type AC cable with insulated circuit conductors in a metal armor that also serves as one EGC, plus a second insulated wire-type EGC

EXHIBIT 320.1 Two examples of Type AC cable. (Courtesy of AFC Cable Systems, a Part of Atkore International)

- (1) Where subject to physical damage
- (2) In damp or wet locations
- (3) In air voids of masonry block or tile walls where such walls are exposed or subject to excessive moisture or dampness
- (4) Where exposed to corrosive conditions
- (5) Embedded in plaster finish on brick or other masonry in damp or wet locations

320.15 Exposed Work. Exposed runs of cable, except as provided in 300.11(B), shall closely follow the surface of the building finish or of running boards. Exposed runs shall also be permitted to be installed on the underside of joists where supported at each joist and located so as not to be subject to physical damage.

320.17 Through or Parallel to Framing Members. Type AC cable shall be protected in accordance with 300.4(A), (C), and (D) where installed through or parallel to framing members.

320.23 In Accessible Attics. Type AC cables in accessible attics or roof spaces shall be installed as specified in 320.23(A) and (B).

(A) Cables Run Across the Top of Framing Members. Where run across the top of framing members, or across the face of rafters or studding within 2.1 m (7 ft) of the floor or horizontal surface, the cable shall be protected by guard strips that are at least as high as the cable. Where this space is not accessible by permanently installed stairs or ladders, protection shall only be required within 1.8 m (6 ft) of the nearest edge of the scuttle hole or attic entrance.

A permanently installed stairway is typically one that is built in place and if constructed new is built in compliance with the applicable building code. A permanently installed ladder is simply a ladder that is installed so that access to the attic can be accomplished without having to bring a portable ladder to the attic access location. Permanently installed stairs and ladders promote use of the attic space for storage, which can lead to damaged cables if not protected as specified in this section.

(B) Cable Installed Parallel to Framing Members. Where the cable is installed parallel to the sides of rafters, studs, or ceiling or floor joists, neither guard strips nor running boards shall be required, and the installation shall also comply with 300.4(D).

320.24 Bending Radius. Bends in Type AC cable shall be made such that the cable is not damaged. The radius of the curve of the inner edge of any bend shall not be less than five times the diameter of the Type AC cable.

320.30 Securing and Supporting.

(A) General. Type AC cable shall be supported and secured by staples; cable ties listed and identified for securement and support; straps, hangers, or similar fittings; or other approved means designed and installed so as not to damage the cable.

Type AC cable fittings shall be permitted as a means of cable support.

(B) Securing. Unless otherwise permitted, Type AC cable shall be secured within 300 mm (12 in.) of every outlet box, junction box, cabinet, or fitting and at intervals not exceeding 1.4 m (4½ ft).