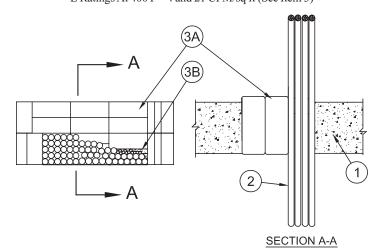




System No. F-B-3013 September 20, 2011

ANSI/UL1479 (ASTM E814) F Rating – 2 Hr T Ratings – 3/4 and 2 Hr (See Item 2) L Ratings At Ambient – 7 and 22 CFM/sq ft (See Item 3) L Ratings At 400 F – 4 and 21 CFM/sq ft (See Item 3)

CAN/ULC S115 F Rating – 2 Hr FT Ratings – 3/4 and 2 Hr (See Item 2) FH Rating – 2 Hr FTH Ratings – 3/4 and 2 Hr (See Item 2) L Ratings At Ambient – 7 and 22 CFM/sq ft (See Item 3) L Ratings At 400 F – 4 and 21 CFM/sq ft (See Item 3)



- 1. Floor Assembly Min 8 in. (203 mm) thick lightweight or normal weight (100-150 pcf or 1600 to 2400 kg/m<sup>3</sup>) reinforced concrete. Max area of opening is 360 sq in. (0.23 m<sup>2</sup>) with max dimension of 30 in. (763 mm).
- 1A. Riser (Not Shown) Nom 1-5/8 by 4 in. (41 by 102 mm) high C4X5.4 structural steel channels with mitered ends formed into four-sided enclosure with welded corners. Inside dimensions of enclosure, between flange tips, to be equal to the inside dimensions of the floor opening. Channels secured to floor with min 3/16 in. (5 mm) diam by min 1-1/4 in. (32 mm) long masonry anchors.
- 2. Cables Max 40 percent fill (based on the available area of the opening). The cables are to be laced to the cable rack and to each other to form a tight bundle against one side of the opening with min interstices between cables. The annular space between the cables and periphery of opening shall be min 0 in. (point contact) to max 12 in. (305 mm). Any combination of the following types and sizes of cables may be used:
  - A. Max 750 kcmil single-conductor power cables; cross-linked polyethylene (XLPE) insulation.
  - B. Max 7C No. 12 AWG (or smaller) multi conductor power and control cables; XLPE insulation, XLPE or polyvinyl chloride (PVC) jacket.
  - C. Max 300 pair No. 22 AWG (or smaller) copper conductor with PVC insulation and jacket.
  - D. Max No. 18 AWG RG 6/U coaxial cable with PVC insulation and jacket.
  - E. Max 4/C No. 2/0 AWG (or smaller) copper or aluminum conductor cables with XLPE or PVC insulation and jacket.
  - F. Max 1-10/125 Fiber Optic (F.O.) cable with PVC insulation and jacket.

## T, FT and FTH Ratings are 2 Hr for cable F and 3/4 Hr for all other cables.

- 2A. Cable Rack (Not shown) Max 20 in. (508) wide ladder type cable rack fabricated from min 0.136 in. (3.5 mm) thick steel channels with nom 2 in. (51 mm) wide side rails and nom 1 in. (25 mm) wide rungs spaced 9 in. (229 mm) OC. Cable rack shall be welded to top flange of riser (Item 1A).
- 3. Firestop System The firestop system shall consist of the following:
  - A. Fill Void or Cavity Material\* Pillows Max 9 in. (229 mm) long by 6 in. (152 mm) wide by 2 and 3 in. (51 and 76 mm) thick plastic covered pillows tightly-packed to fill annular space between cables and periphery of opening. Pillows installed with 9 in. (229 mm) dimension projecting through floor or wall and centered within the opening.

3M COMPANY - Fire Barrier Pillow or Fire Barrier Self-Locking Pillows

B. Fill Void or Cavity Material\* – Putty – After installation of pillows (Item 3B) all voids within the opening shall be filled with a min 1 in. (25 mm) thickness of putty. The individual cables may be wrapped with a min 1/4 in. (6 mm) thick by min 2 in. (51 mm) width of putty such that the putty extends approximately 1/2 in. (13 mm) above top surface of floor.

3M COMPANY - MP+, Cable Wrap

L Ratings are 7 and 4 CFM/sq ft. at ambient and 400° F, respectively, when individual cables are wrapped with 3M Cable Wrap or MP+ putty in accordance with the installation instructions. L Ratings are 22 and 21 CFM/sq ft. at ambient and 400° F, respectively, when individual cables are not wrapped with 3M Cable Wrap or MP+ putty.

\*Bearing the UL Classification Mark

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**3M** Fire Protection Products www.3m.com/firestop

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Product Support Line 1-800-328-1687

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