

meets the other requirements of Article 350 and a separate equipment grounding conductor (EGC) is installed with the circuit conductors.

N 350.2 Reconditioned Equipment. LFMC shall not be reconditioned.

350.6 Listing Requirements. LFMC and associated fittings shall be listed.

Part II. Installation

Δ 350.10 Uses Permitted. LFMC shall be permitted to be used in exposed or concealed locations as follows:

- (1) Where conditions of installation, operation, or maintenance require flexibility or protection from machine oils, liquids, vapors, or solids.
- (2) In hazardous (classified) locations where specifically permitted by Chapter 5.
- (3) For direct burial where listed and marked for the purpose.
- (4) Conductors or cables rated at a temperature higher than the listed temperature rating of LFMC shall be permitted to be installed in LFMC, provided the conductors or cables are not operated at a temperature higher than the listed temperature rating of the LFMC.

350.12 Uses Not Permitted. LFMC shall not be used where subject to physical damage.

350.20 Size.

(A) Minimum. LFMC smaller than metric designator 16 (trade size ½) shall not be used.

Exception: LFMC of metric designator 12 (trade size ¾) shall be permitted as covered in 348.20(A).

(B) Maximum. The maximum size of LFMC shall be metric designator 103 (trade size 4).

Informational Note: See 300.1(C) for the metric designators and trade sizes. These are for identification purposes only and do not relate to actual dimensions.

350.22 Number of Conductors or Cables.

(A) Metric Designators 16 through 103 (Trade Sizes ½ through 4). The number of conductors shall not exceed that permitted by the percentage fill specified in Table 1, Chapter 9.

Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Table 1, Chapter 9.

(B) Metric Designator 12 (Trade Size ¾). The number of conductors shall not exceed that permitted in Table 348.22, "Fittings Outside Conduit" columns.

Table 4 of Chapter 9 provides the usable area within the selected conduit or tubing, and Table 5 provides the required area for each conductor. Examples using these tables to calculate a conduit or tubing size are provided in the commentary following Chapter 9, Notes to Tables, Note 6.

To select the proper trade size of LFMC, see the appropriate sub-table for Article 350, Liquidtight Flexible Metal Conduit (LFMC), in Table 4 of Chapter 9. If the conductors are of the same wire size, Tables C.8 and C.8(A) for LFMC in Informative Annex C can be used instead of performing the calculations.

The exception to 350.20(A) permits the use of trade size ¾ LFMC under the limited conditions specified for flexible metal conduit (FMC) in 348.20(A).

See also

Table 348.22 for the number of conductors permitted in trade size ¾ LFMC

Δ 350.24 Bends.

N (A) How Made. Bends in conduit shall be so made that the conduit will not be damaged and the internal diameter of the conduit will not be effectively reduced. Bends shall be permitted to be made manually without auxiliary equipment. The radius of the curve to the centerline of any bend shall not be less than required in Table 2, Chapter 9 using the column "Other Bends."

N (B) Number in One Run. The total degrees of bends in a conduit run shall not exceed 360 degrees between pull points.

350.28 Trimming. All cut ends of conduit shall be trimmed inside and outside to remove rough edges.

Proper trimming of the cut ends of LFMC is necessary to allow for the proper installation of the steel grounding ferrule, which is required to maintain ground continuity of the steel sheath.

350.30 Securing and Supporting. LFMC shall be securely fastened in place and supported in accordance with 350.30(A) and (B).

(A) Securely Fastened. LFMC shall be securely fastened in place by an approved means within 300 mm (12 in.) of each box, cabinet, conduit body, or other conduit termination and shall be supported and secured at intervals not to exceed 1.4 m (4½ ft). Where used, cable ties shall be listed and be identified for securement and support.

Listing of cable ties for securement and support of LFMC is necessary because the standard requires markings that identify critical performance characteristics. These characteristics can affect their suitability for the conditions of use, including minimum and maximum operating temperatures, and resistance to ultraviolet light for outdoor installations.

Exception No. 1: Where LFMC is fished between access points through concealed spaces in finished buildings or structures and supporting is impractical.