

installations up to and including 2000 volts, or with Table 315.60(C)(3) and Table 315.60(C)(4) for installations 2001 volts to 35,000 volts.

Where conductors in cablebus terminate at circuit breakers, distribution switchgear, and similar electrical equipment, the temperature limitations of the electrical equipment terminals should be coordinated with the conductor ampacity. See commentary for 370.20.

Part III. Construction Specifications

Δ 370.120 Marking.

N (A) Nameplates. Each cablebus system shall include a nameplate at each terminating end of the system with the manufacturer's name or trade designation and the maximum diameter, number, voltage rating, and ampacity of the conductors to be installed. Nameplates shall be visible after installation.

N (B) Identification. Each section and fitting of a cablebus system shall be identified with a marking that corresponds to the manufacturer's installation instructions.

ARTICLE

N 371 Flexible Bus Systems

N Part I. General

N 371.1 Scope. This article covers the use and installation requirements of flexible bus systems and associated fittings.

New Article 371 has been created to recognize flexible bus systems as a wiring method. Flexible bus systems are required to be listed and must be designed and specified by a qualified engineer based upon site-specific installation applications.

N 371.6 Listing Requirements. Flexible bus systems shall be listed.

N Part II. Installation

N 371.10 Uses Permitted. Flexible bus systems shall be permitted for the following:

- (1) Services, feeders, and branch circuits
- (2) Indoors
- (3) Outdoors where identified for outdoor use
- (4) Installed in corrosive, wet, or damp locations where identified for use
- (5) Exposed
- (6) Behind access panels where the space behind the access panel is not used for air-handling purposes
- (7) To penetrate through walls and floors in accordance with 371.18

N 371.12 Uses Not Permitted. Flexible bus systems shall not be permitted to be installed in the following:

- (1) Hoistways
- (2) Where exposed to severe physical damage
- (3) Hazardous (classified) locations, unless specifically permitted in Chapter 5
- (4) Air-handling spaces

N 371.14 Installation Design. Flexible bus systems shall be designed and specified for specific installation site applications by a qualified engineer within the limits of the listing and manufacturer's installation instructions. All documentation shall be available to the authority having jurisdiction.

N 371.17 Overcurrent Protection. Overcurrent protection shall be provided in accordance with 371.17(A) through (G).

N (A) Rating of Overcurrent Protection — Services. Flexible bus systems installed for services shall be protected against overcurrent in accordance with 230.90.

N (B) Rating of Overcurrent Protection — Feeders. Flexible bus systems installed as feeders shall be protected against overcurrent in accordance with 215.3.

Exception: The applicable requirements of 240.4 shall be permitted.

N (C) Rating of Overcurrent Protection — Branch Circuits. Flexible bus systems installed as branch circuits shall be protected against overcurrent in accordance with 210.20.

Exception: The applicable requirements of 240.4 shall be permitted.

N (D) Transformer Secondary Flexible Bus Systems. Flexible bus systems installed on a transformer secondary to the disconnect and overcurrent protection device shall be protected from overcurrent in accordance with 240.21(C).

N (E) Flexible Bus Systems from Generator Terminals. Flexible bus systems installed from generator terminals that meet the size requirement in 445.13 shall be permitted to be protected against overload by the generator overload protective device(s) required by 445.12.

N (F) Flexible Bus Systems from Battery Terminals. Flexible bus systems installed for battery systems shall be protected from overcurrent in accordance with 240.21(H).

N (G) Reduction in Size of Flexible Bus Systems. Overcurrent protection shall be required at the point where flexible bus systems are reduced in size.

Exception: For industrial establishments only, omission of overcurrent protection shall be permitted at points where a flexible bus system is reduced in size, provided that the length of the flexible bus system having a reduced size does not exceed 15 m

(50 ft) and has a current rating at least equal to one-third the rating or setting of the overcurrent device ahead of the point of connection and provided that such a flexible bus system is free from contact with combustible material.

N 371.18 Flexible Bus Systems Installation. Installation of flexible bus systems shall comply with 371.18(A) through (E).

N (A) Manufacturer's Installation Instructions. Flexible bus systems shall be installed under design engineering supervision and in accordance with the manufacturer's instructions, including supporting and securing. All documentation shall be available to the authority having jurisdiction.

N (B) Physical Damage. Flexible bus systems subject to physical damage shall have approved protective means installed.

Informational Note: Typical methods of protecting flexible bus systems from physical damage include suitable barriers, guards, or elevation.

N (C) Transversely Routed. Flexible bus systems shall be permitted to extend transversely through partitions or walls if the section within the wall is continuous and protected against physical damage. Where the flexible bus systems penetrate a fire-resistant-rated wall or partition, the installation shall be made in accordance with 300.21.

N (D) Through Dry Floors and Platforms. Flexible bus systems shall be permitted to extend vertically through dry floors and platforms. Where the flexible bus systems penetrate a fire-resistant-rated floor or ceiling, the installation shall be made in accordance with 300.21.

N (E) Through Floors and Platforms in Wet Locations. Flexible bus systems shall be permitted to extend vertically through floors and platforms in wet locations as follows:

- (1) Where there are curbs or other suitable means to prevent waterflow through the floor or platform opening
- (2) Where the flexible bus system provides a means to seal the floor penetration

Where the flexible bus systems penetrate a fire-resistant-rated floor or ceiling, the installation shall be made in accordance with 300.21.

N 371.20 Terminations. Flexible bus system terminations shall comply with 371.20(A) and (B).

N (A) Termination Fittings or Connectors. Flexible bus systems shall be terminated with fittings or connectors listed for flexible bus systems.

Informational Note: See 110.14(C) for conductor temperature limitations due to termination provisions.

N (B) Connection to Equipment. The connection of a flexible bus system to the distribution equipment shall comply with one of the following:

- (1) Be listed and marked by the specific distribution equipment as an acceptable means of termination
- (2) Be listed and identified for the specific distribution equipment as an acceptable means of termination
- (3) Incorporate, as part of the listed flexible bus system, a transition box to interface between the flexible bus system and the distribution equipment

N 371.30 Securing and Supporting. Flexible insulated bus conductors shall be supported on identified mounting means at intervals not greater than 900 mm (3 ft) for horizontal runs and 450 mm (1½ ft) for vertical runs unless otherwise permitted by the product listing. Flexible bus systems shall be secured and supported by listed associated fittings in accordance with 371.30(A) through (C).

N (A) Associated Fittings. Associated fittings shall be part of a listed flexible bus system.

N (B) Support Brackets. The support brackets for flexible bus systems shall be secured to the building structure or to other associated fittings that are secured to the building structure.

N (C) Support Tray. Flexible bus systems shall be permitted to be installed in support trays supplied as associated fittings for the listed flexible bus system. Support trays shall not be required to be continuous.

N 371.40 Short Circuit Current Rating. Flexible bus systems shall have a short circuit current rating sufficient for the available fault current.

N 371.60 Grounding. Conductive associated fitting supports for flexible bus systems shall be bonded together and grounded.

N Part III. Construction Specifications

N 371.120 Marking. Each section of flexible bus systems shall be marked with the manufacturer's name or trade designation, voltage rating, and current rating. Markings shall be located so as to be visible after installation.

N (A) System Nameplate. A system nameplate shall contain the manufacturer's name or trademark and the flexible bus system ratings. The ratings shall include the voltage, phase, current rating, short circuit current rating, and applicable environmental ratings. The nameplate shall be installed at each end of the flexible bus system. The nameplate shall be visible after installation.

N (B) Associated Fittings. Associated fittings shall be marked as suitable for flexible bus systems.

N (C) Flexible Insulated Bus. The flexible insulated bus shall be marked along the insulation with the manufacturer's name or trademark, voltage, manufacturer's part identification, and insulation temperature ratings.