

SECTION 16468 – TRACK BUSWAY SYSTEM

1.01 SUMMARY

- A. This specification covers the electrical characteristics and general requirements for a track busway system, hereafter referred to as (Track Busway). The system shall be designed primarily for overhead distribution of electrical power. Supporting designated work areas and equipment. Once installed the Busway will provide a simple, versatile, fast and economic means of distributing power. Loads fed from a variety of plug-in units can be easily added or removed without shutting power down to the busway.

1.02 STANDARDS AND CERTIFICATION

- A. The Track Busway shall be designed and manufactured to the following standards:
1. Low Voltage Directive (73/23/EEC) including Amendment (93/68/EEC).
 2. Low Voltage Switchgear and Controlgear Assemblies, Part 1: Type Tested and partially type tested Assemblies, IEC 60439-1: 1999.
 3. Low Voltage Switchgear and Controlgear Assemblies, Part 2: Particular Requirements for Busbar Trunking systems (Busways), IEC 60439-2: 2000.
 4. Underwriters Laboratories Standard, UL 857 – The common UL, CSA, and ANCE Standard for Busways that is derived from the fifth edition of CSA Standard C22.2 No. 27, the twelfth edition of UL 857, and the second edition of NMX-J-148-1998-ANCE.
 5. ETL Classified (US/Canada) to UL857
 6. National Electric Code (NEC) – Article 368 – Busways
 7. NEMA AB1, Molded Case Circuit Breakers and Molded Case Switches
 8. NEMA KS-1, Enclosed and Miscellaneous Distribution Equipment Switches (600VAC).
 9. NFPA 70 – National Fire Protection Agency

1.03 SYSTEM DESCRIPTION

A. Electrical Requirements

STARLINE Track Busway – Manufactured by Universal Electric Corp.
168 Georgetown Rd.
Canonsburg, PA 15317
Phone # (724) 597-7800

Voltage: 600V (B400N-480V)
Frequency: 60 Hz
Ampacity: 400A
Neutral Ampacity: 400A or 480A
Conductors: Qty 4 (Phases A, B, C and Neutral)
Grounding: Aluminum Casing

System Designation:

System	Amperage	Neutral	Iso Ground
B400	400	400	No
B400N	400	480	No
B400G	400	400	Yes
B400NG	400	480	Yes

B. Environmental

Indoor, Low Impedance System

Ambient Operating Temperature: 40°C / 104°F
60°C / 140°F (0.8 Amp Rating Multiplier)

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1.04 SUBMITTALS

- A. Submittals shall be in accordance with specified procedures. Submit shop drawing and product data for record purposes prior to shipment.
- B. Indicate construction details, including dimensions, weights, clearances, major component layout, power details. Include circuit breaker, fused plug-in, and cable schedule (if applicable), including cable lengths and plug-in schedules.
- C. Include connection diagram for external wiring, and details of conduit and wiring connections and terminations.
- D. Indicate special receiving and handling procedures.
- E. Provide electrical characteristics and connection requirements for the system and accessories.

1.05 WARRANTY

- A. The Track Busway manufacturer shall guarantee the entire system against defective material and workmanship for a period of one (1) year from date of shipment.

1.06 COMPONENTS

- A. **Frame and Enclosure:**
 - 1. Extruded Aluminum housing designed to act as a 100% ground. Housings to be 5 or 10 ft standard length. This housing should be properly extruded with slots to receive rod mount hangers to hang from a ceiling. This housing should be open on the bottom to accept plug-in units anywhere along its length. This opening shall pass UL's hypothetical finger probe test.
 - 2. All conductors shall be made of copper and sized to handle 100% of it's rating continuously with ambient temperatures below 40°C / 104°F. The conductors shall be electrically isolated from the housing.
- B. **Plug-in Units**
 - 1. Plug-in units shall be polarized to avoid incorrect installation.
 - 2. Plug-in units shall use {{circuit breakers} {fuses}} for branch circuit protection.
 - 3. Plug-in units shall have locking clips or bolt-on tabs to secure units to the busway.
 - 4. Plug-in units that include drop cords shall be manufactured with cord grips and receptacles as specified in the drawings.

1.07 INSTALLATION

- A. **Track Busway Sections** – The runs will consist of lengths as shown on the drawings.
- B. **Hanging of the Track Busway** – Using supplied 'Rod Mount Hangers' the busway will be hung from the ceiling using all thread. The installing contractor shall be responsible for the connections on the ceiling end. The supplied Rod Mount Hangers will connect the track busway to the all thread. The maximum spacing is 10 ft on center for the hangers. The height of the track busway shall be coordinated with the Architect.
- C. **Connecting Sections of Track Busway** – At a junction of Track Busway sections, the installer will install the top housing coupler; the bus connector is inserted, centered and seated in the slot of the Busway. The installation tool is inserted into jointed intersection and rotated 90 deg. Forcing stabs into u-shaped female conductors. Housing coupler is positioned over the bottom joint and tightened. A manufacturer supplied tool will assist in joining sections together.
- D. **End of Runs** – End caps will be provided to install at the ends of each run.
- E. **Closure Strip** – The closure strip can be cut and fitted to cover the bottom opening of the Track Busway housing to prevent dust and debris from gathering in the Track Busway (if applicable).

Supply as manufactured by Universal Electric Corporation; 168 Georgetown Rd; Canonsburg, PA 15317; (800) 245-6378; (724) 597-7800; fax (724) 916-2221. No known equal.