

SECTION 27 05 26 – GROUNDING AND BONDING TECHNOLOGY EQUIPMENT

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes the requirements for grounding and bonding of the technology systems.

1.2 QUALITY ASSURANCE

- A. All equipment shall be UL listed.
- B. All equipment shall be installed in a neat and professional manner.
- C. Communication grounding and bonding shall be in accordance with applicable codes and regulations. It is recommended that the requirements of IEC, NEC, and ANSI/EIA/TIA-607 shall be observed throughout the entire space.

1.3 SUBMITTALS AND PRODUCT DATA

- A. Include shop drawings depicting wiring and connection diagrams in addition to the requirements in other parts of this Specification.
- B. The drawings submitted need to show the amount of space, mounting design, and power requirements needed for the systems.

PART 2 – PRODUCTS

2.1 GROUNDING PLATE

- A. Wall Mount Busbar
 - 1. Hole patterns on Busbars accommodate two-hole lugs per the recommendation of ANSI/BICSI N3-20 and ANSI/TIA-607 standards. Insulators electrically isolate Busbars from the wall or other mounting surfaces, thereby controlling the current path.
 - 2. 4"H x 12"W x 1/4"D (50 mm x 100 mm x 6.4 mm); Copper.
 - 3. Mounting brackets are manufactured from high-quality 300 series stainless steel with 3/8" (9.53 mm) diameter mounting holes spaced 5.75" (146.1 mm) apart.
 - 4. Chatsworth part# 40153-012 or approved equal.
- B. Rackmount Busbar
 - 1. Use Rack Bonding Busbar for consolidating equipment bonding.
 - 2. Constructed of 3/16"-thick x 3/4"H (4.763 mm x 19.1 mm) hard-drawn electrolytic tough pitch 110 alloy copper bar with eight #6-32 tapped lug mounting holes on 1" (25.4 mm) centers and two pairs of 5/16" (7.938 mm) diameter holes spaced 3/4" (19.1 mm) apart for attaching ground jumpers.
 - 3. Chatsworth part# 10610-019 (-023) rack width dependent.

2.2 CABLE

- A. #6 AWG for ground equipment within the MDF/IDF etc. Refer to NEC and ANSI requirements to determine cable size for longer runs.
- B. Terminals
 - 1. Irreversible compression fitting that deforms when crimped, extruded copper.
 - 2. Tin electroplated corrosion resistant material.
 - 3. Brundy YGA or YGHA or approved equal.

PART 3 – INSTALLATION

3.1 GROUNDING EQUIPMENT

- A. Wall mount busbar
 - 1. A busbar for technology equipment shall be placed at all MDF and IDF, equipment rooms, and IT spaces.
 - 2. Install on plywood backboard, 12” from floor, adjacent to rack.
- B. Rackmount busbar
 - 1. Provide rackmount busbar at each rack for equipment grounding.
- C. Cable
 - 1. Route cable from equipment to rack mount busbar to consolidate and route a single cable to wall mount busbar.
 - 2. Ground ladder rack together and ground to wall mount bus bar.

END OF SECTION