

1.01 POWER DISTRIBUTION – OUTLET AND PIGTAIL BOXES

A. General

1. Connectors shall be available as 20A, 50A and 100A grounded stage pin, 20A twist lock and 20A “U” ground (dual rated “T-slot”); other connectors shall be available as specified.
2. Pigtails shall be three-wire type “SOW” rubber jacketed cable sized for the maximum circuit ampacity.
3. Pigtails with 20 amp stage pin connectors shall be terminated using 12 gauge 4 way indent crimp (with inspection window) type where the wire is inserted and crimped directly in the socket.
4. Terminations for pigtail connectors shall utilize feed- through terminals individually labeled with corresponding circuit numbers.
 - a. 20 amp circuits shall use screwless tension clamp terminals listed for 20 – 8 gauge wire.
 - b. 50 amp circuits shall use compression terminals listed for 10 – 1 gauge wire.
 - c. 100 amp circuits shall use compression terminals listed for 8 – 2/0 gauge wire.
 - d. Terminals that place a screw directly on the wire are not acceptable.
5. Outlet and pigtail boxes shall be supplied with appropriate brackets and hardware for mounting as shown on the drawings
 - a. Standard mounting options shall include pipe or wall mounting
 - b. Brackets shall be made from ASTM A 36 steel
 - c. Hardware shall be ASTM A307 grade 5.
6. A low voltage distribution system shall be available to incorporate DMX, Ethernet or other protocols as specified in the power distribution box.
 - a. A voltage barrier shall be used to separate the low voltage wiring for the electrical circuits.
7. Power distribution equipment shall be listed by a nationally recognized test lab (nrtl).

B. Physical

1. Outlet and pigtail boxes shall be 6.25” H x 3.3” D and fabricated from 18 gauge galvanized steel and finished in black fine-texture powder coat paint.
 - a. Covers shall be fabricated from 16-gauge galvanized steel
2. Outlet and pigtail boxes shall be available in any length specified in increments of 3-inches with a maximum length of up to 3-feet.
3. Pigtails and outlets shall be spaced on 18” centers, or as otherwise specified.

4. Outlets shall be mounted on individual 3" panels.
5. Circuits shall be labeled with 1.25" lettering.
 - a. Circuit labeling options shall include:
 - 1) Circuits shall be labeled on the front side of the connector strip with white lettering on black background labels.
 - 2) Circuits shall be labeled on front and back sides of the connector strip with white lettering on black background labels.
 - 3) Circuits shall be labeled on the front side of the connector strip with engraved lamicoïd labels utilizing white lettering on black background labels.
 - 4) Circuits shall be labeled on the front and rear sides of the connector strip with engraved lamicoïd labels utilizing white lettering on black background labels.
 - 5) Circuits shall be labeled on one side of the connector strip using individual circuit cover plates with lettering engraved in the cover and filled with the specified color.
 - 6) Circuits shall be labeled using specified labeling per plans and drawings
6. Outlet and pigtail boxes shall support optional LED indicators to indicate the presence of power at each local circuit. The indicator shall be red in color and mounted in outlet or pigtail box.
 - a. The LED indicator shall be mounted in the lower right corner of the outlet panel
 - b. The LED indicator shall be mounted in the bottom of the outlet or pigtail box directly below the outlet panel.
 - c. The LED indicator shall be mounted in the cover plate directly below the circuit label for pigtail circuits