

SPECIFICATIONS FOR GENERATOR TAP BOX

PART 1 – GENERAL REQUIREMENTS

1.01 **Scope:**

- A. Contractor shall furnish, deliver, install and test the generator tap boxes as specified herein and in accordance with the drawings.

1.02 **Quality Assurance:**

- A. Generator tap boxes shall be UL listed and labeled under the UL 1008 standard with a minimum 22KA withstand rating.
- B. Generator tap box manufacturer shall provide a complete factory assembled and tested generator tap box.
- C. Generator tap box manufacturer shall submit UL 1008 certification of authenticity.
- D. Generator tap box installation shall meet all applicable NEC standards.

1.03 **Submittals:**

- A. Contractor shall submit manufacturer's drawings and data of generator tap boxes for Engineer's approval prior to start of fabrication. Drawings and data shall include, as a minimum, dimensioned general arrangement drawings, UL listing information including UL control or file number, withstand rating, component data, mounting provisions, conduit entry locations and installation instructions.
- B. Upon installation of generator tap box, contractor shall submit manufacturer's Operating & Maintenance Manual which shall include as a minimum:
 - 1. Certified as-built General Arrangement drawings
 - 2. Materials / Component List including part numbers.
 - 3. Maintenance and service requirements.

1.04 **Warranty:**

- A. Generator tap boxes shall be covered by manufacturer's standard warranty for a minimum period of (1) one year after shipment from manufacturer.

SECTION 2 - PRODUCTS

2.01 **General:**

- A. All equipment shall be new.
- B. Generator tap box manufacturer must have produced and sold UL 1008 listed generator tap boxes as a standard product for a minimum of (3) years.
- C. Contractor shall be responsible for the equipment until it has been installed and is finally inspected, tested and accepted in accordance with the requirements of this Specification.
- D. Generator tap boxes shall be TempTap Inlet Boxes as manufactured by ESL Power Systems, Inc. or equal as approved by the Engineer.

2.02 **Generator Tap Boxes:**

- A. Generator tap box shall consist of cam-style male connectors and grounding terminals, all housed within a padlockable enclosure.
- B. Number of male input cams shall not exceed the number as shown on the drawings and must be rated for the specified amperage.
- C. Generator tap box enclosure shall be Type 3R, constructed of continuous seam-welded, powder coated galvanized steel and be equipped with a provision for a locking device. The main access shall be through a hinged door that extends the full height of the enclosure. Access for portable generator cables with female cam-style plugs shall be via cable entry openings in the bottom of the enclosure. A hinged flap door shall be provided to cover the cable openings when cables are not connected; the hinged flap door shall allow cable entry only after the main access door has been opened. Enclosure shall be powder coated after fabrication; color shall be wrinkle gray RAL 7035.
- D. Cam-style male connectors (inlets) shall be UL Listed single-pole separable type and rated 400 amps at 600VAC. Cam-style male connectors shall be color coded. Cam-style male connectors shall be provided for each phase and for ground, and shall also be provided for neutral if required. The ground cam-style male connectors shall be bonded to the enclosure, and a ground lug shall be provided for connection of the facility ground conductor. None of the cam-style male connectors shall be accessible unless the main access door is open.

SECTION 3 - EXECUTION

3.01 **Installation:**

- A. Prior to installation of generator tap boxes, Contractor shall examine the areas and conditions under which the generator tap box is to be installed and notify the Engineer in writing if unsatisfactory conditions exist.
- B. Generator tap box shall be installed as shown on the drawings and per the manufacturer's written instructions. In addition, the installation shall meet the requirements of local codes, the National Electrical Code and National Electrical Contractors Association's "Standard of Installation".
- C. Conduit entry into the manual transfer switch shall be by Contractor; Contractor shall furnish and install UL listed watertight conduit hubs, as manufactured by MYERS, T&B or equal, for each conduit entry on the generator tap box. The hub size shall match the conduit size for conductors and ground as shown on the drawings. Hubs shall be properly installed and tightened to maintain Type 3R integrity of the generator tap box.
- D. Contractor shall terminate conductors and ground per the manufacturer's instructions. Use copper wire only for all conductors and grounds. All field wiring terminations in the generator tap box shall be torqued as required per the instructions on the generator tap box.

3.02 **Field Testing:**

- A. Prior to energizing generator tap box, the Contractor shall perform the following checks and tests as a minimum:
 - 1. Verify mounting and connections are complete and secure.
 - 2. Verify internal components and wiring are secure.
 - 3. Perform continuity check of all circuits.
 - 4. Perform 1,000 VDC megger test on phase and ground cables.
 - 5. Verify deadfront is secure.
 - 6. Confirm operation of the generator tap box ground receptacle by attaching a plug to the generator tap box ground receptacle and then verify that the plug is grounded to the facility ground.

End of Section