GENERATOR TAP BOX SPECIFICATION

1. General

A Listings/Certifications

A.1- Product shall be listed and tested by an OSHA accredited NRTL (Nationally Recognized Test Lab) to UL Standard 1008 for both US and Canada, as well as conform to CSA C22.2 #178.1

B Scope

B.1- This specification defines the requirements for Generator Tap Boxes assembled by PSI Control Solutions.

B.2- Generator Tap Boxes provided by PSI Control Solutions shall be completely assembled by a certified ISO facility. PSI Control Solutions is ISO9001 certified. Number-C0098005-IS1.

C Purpose

C.1- The purpose of the Generator Tap Box when installed properly is to provide an easy means to quickly connect a temporary generator to a site due to utility or other power source failure.

C.2- The Generator Tap Box shall be installed on the building exterior and be hardwired to the main switchboard or transfer switch.

D Quality

D.1- Generator Tap Boxes shall be completely assembled and undergo a functional test procedure prior to shipment from PSI Control Solutions. This test shall be documented and included with the Generator Tap Box.

D.2- All Generator Tap Boxes shall be built in accordance with the National Electric Code.

E Warranty

E.1- PSI Control Solutions warrants the products manufactured by it and delivered hereunder will be free from defects in material and workmanship for a period of twelve (12) months after date of shipment.

1. Product Requirements

A General

A.1- All components shall be new and free of defects.

B Electrical Ratings

B.1-Generator Tap Boxes shall be rated for single phase 100-240VAC and three phase 208-600VAC.

B.2-Generator Tap Boxes shall be available in an ampacity range of 400-4000A.

B.3-Generator Tap Boxes shall be available in both three and four wire configurations.

C Enclosure

C.1- Enclosure shall be NEMA Type 3R, wall-mount with welded mounting tabs or free-standing with mounting feet.

C.2- Enclosure material shall be galvanized steel with RAL7035 light-gray finish or Type 316 stainless-steel.

C.3- Enclosure shall have both a hinged front access door with padlockable wing knob latch, and hinged bottom access door for cable entry. Bottom access door shall have rubber bumpers to limit range of motion.

C.4- Enclosure shall have two louvered side vents for additional airflow.

C.5- Enclosure shall have a ten-gauge interior angled shelf with welded support brackets and cutouts for interchangeable cam-plates.

C.6- Enclosure shall have removable cover secured with slotted hex head screws.

C.7- Enclosure bottom access door is mechanically interlocked with front door and cannot be opened unless front door is opened.

D Cam-Plates

D.1- Cam-plates shall be 1/8” aluminum plate with RAL7035 light-gray finish or Type 316 stainless-steel.

D.2- Cam-plates shall be interchangeable with hole-cutouts for E1016 Cam-Lok receptacles.

D.3- For single phase or three-wire applications, a blank cam-plate shall be installed in the empty cutout.

E Cam-Lok Receptacles

E1- Cam-Lok receptacles shall be insulated single pole, Cooper E1016 series, male or female with a single hole busbar connection.

E.2- Cam-Lok receptacles shall be color coded for each phase depending upon system voltage.

Phase Conductors

208-240VAC-Black, Red, Blue

480VAC-Brown, Orange, Yellow

575/600VAC-Black, Black, Black

Neutral Conductor-White

Ground Conductor-Green

 E.3- Ground Cam-Lok receptacles shall be bonded to the enclosure.

F Busbar

F.1-Busbar shall be tin-plated copper with mounting holes for mechanical lugs or boltholes for compression lugs.

F.2-Busbar shall be sized at 1000A/sq. in.

G Lugs

 G.1- Lugs for permanent conductors shall be aluminum, dual rated, with a mechanical screw.

 G.2- Lugs shall accept a wire-range of (1) #2-750 MCM.

1. Execution

A Installation

A.1- The Generator Tap Box shall be installed correctly according to the provided manual and in an appropriate location.

A.2- Wall-mounted Generator Tap Boxes shall be installed on a building exterior or equivalent.

A.3- Free-standing Generator Tap Boxes shall be installed on a flat, level surface.

A.4- Installation shall be in accordance with all applicable codes and standards.

B Cable-Entry

B.1- Enclosure penetrations for cable entry shall be used with appropriate components to maintain the NEMA 3R rating.

C Use

C.1-When the Generator Tap Box is properly installed and ready to accept a portable generator, the installer should follow operational instructions specified in the manual provided.