GENERATOR TAP BOX SPECIFICATION

1. General

A Scope

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

A.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.

B Purpose

B.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.

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

C Quality

C.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.

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

D Warranty

D.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 ten-gauge galvanized steel 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.