15 KVA Transformer with I-Line Components

Installation, Operation, and Maintenance Manual

IMPORTANT:

Save this instruction sheet for future use of the product

Warning

Electrical potentials hazardous to human life can exist within this equipment when energized. Disconnect all input power before opening case or touching internal parts. Use proper lock-out/tag-out procedures.

The Information contained herein may not cover all variations in equipment or provide for all contingencies. Failure to follow instructions may result in death or serious injury.

Introduction

This manual covers up to 600V three phase and single phase I-line/15 KVA Transformer Units. These instructions set out the limiting factors for satisfactory performance of the cabinets. The information contained herein outlines and describes the proper inspection, installation and maintenance of the cabinets.

Inspection upon Receiving

Cabinets should be carefully inspected upon receipt to ensure that no damage has occurred during shipment. Any damage should be reported at once and a claim should be placed against the transportation company. If any problems are found or parts are missing please contact Trystar at 1-866.TRYSTAR.

Installation and operating safety

The cabinets are provided with access panels to facilitate installation and should never be operated without these access covers securely mounted in place. A safety program must be established, verified and followed by all personnel involved with the cabinets.

Warning

Only qualified personnel should install, inspect, or maintain cabinets since the normal operating voltages can be hazardous.

Caution

Cabinet may be top heavy.

Unit Placement and Spacing

Make sure cabinet is mounted at all anchor points. If unit is in a steel cage, make sure it is set on level ground to avoid a tip over hazard. There must be at least 36 inch clearance in front of panel or any points of access.

Grounding

The cabinet should be grounded securely and effectively as a safety precaution. Grounding must be in accordance with NEC and local electrical codes.

Wire Selection

Connection cables must be rated for at least 90 degrees C insulation. Connection cables must meet NEC and local electrical codes.

Inspection during Installation

The cabinet should be carefully inspected for any damage due to handling after receipt. The nameplate rating on the unit should be checked against the job specifications to ensure installation of the correct cabinet. The cabinet should be connected only as described on its nameplate to match the available line voltage. All bolted electrical connection should be checked and tightened since fasteners may have loosened during shipment.

Warning!! NEVER SUPPLY A TRANSFORMER WITH A NEUTRAL CONDUCTOR!! If a transformer has a dual voltage secondary (ex. 120/208), it will have a neutral terminal (commonly labeled X0). The neutral for the secondary is derived from this neutral terminal in the transformer. This terminal is only used for load connections, never line connections.

Installation and Operation Procedures

1. Ensure the area is well ventilated and free from explosive or corrosive gas or vapors.
2. Place the cabinet in an area where it will not be subject to physical damage.
3. Check the cabinet nameplate and verify that it is the correct line and load voltage for the application.
4. Shut off primary voltage using approved lock-out/tag-out procedures
5. Ground the cabinet (Cage) in accordance with NEC and local electrical codes.
6. Use properly sized cable in accordance with the NEC.
7. Connect the Line and Load wires to the appropriate labeled connection points.
8. Double check all terminations for loose connections and proper torque values.

Note: After installation of cables and connectors, a minimum of 1" clearance should be maintained between the enclosure and any energized parts, unless insolated by another means.

9. Replace all access covers and removable doors.
10. If for any reason you suspect the unit has been exposed to moisture during transit or storage, it should be dried out before being energized.
11. Energize and restore primary voltage to the unit.
12. Then turn on the primary breaker to the transformer and if applicable, the secondary breaker as well. The transformer should now be energized and your load should be powered.

Installation Outdoors

- Select appropriate location, cable, installation, and mounting hardware to meet applicable codes.
- Use water tight fittings on all electrical connections.

Torque Values for Screws and Bolts

When attaching the wires to the terminals use the recommended bolts for the wiring lugs. It is recommended to use two wrenches "where applicable" when tightening or loosening bolted connections to prevent damage. Torque 2S350 lugs to 375 IN. LBS and 2S600 lugs to 500 IN. LBS. The chart below shows recommended torque values for standard size bolts.

Torque Values for Screws and Bolts	
Screw/bolt Size (SAE Grade 5)	Torque Value (+/-5%)
1/4	8 ft-lbs
5/16	17 ft-lbs
3/8	30 ft-lbs
7/16	50 ft-lbs
1/2	75 ft-lbs

Maintenance

Transformers units shall only be maintained, serviced and inspected by qualified personnel.

All power to the Transformer Unit must be disconnected and tested to confirm that the box is safe to work on.

Check Integrity of the enclosure by visually inspecting it for any defects.

Check all badges

1. Make sure that all badges are on the enclosure.
2. Make sure all badges are clean and legible.
3. If badges are losing adhesion, replace.

Check door latches and cams

1. Make sure that the door latches turn freely.
2. Make sure that when latched the door is firmly closed so that the gasket creates a good seal.

Check door hinges

1. Make sure door hinges swing freely and do not bind.
2. Make sure the fasteners for door hinges are tight.

Circuit Breakers

1. Refer to manufactures instructions for maintenance or anything to do with the components of the circuit breaker.