

# MAINTENANCE, OPERATING AND INSTALLATION INSTRUCTIONS DRY-TYPE "ENCAPSULATED" TRANSFORMERS

## 1. GENERAL:

Your transformer is designed for safe, cool, and quiet operation for a long time with minimum maintenance, provided certain guidelines are observed during installation.

Warning - DANGER: Power must be off before working inside a transformer.

## 2. INSPECTION UPON RECEIPT:

Upon receipt of transformers, check them against the shipping list. If any damage is discovered, file a claim immediately with the carrier.

#### 3. HANDLING:

The mounting structure may not be suitable skidding or rolling, depending on the size of the enclosure. Such units should be left on the skid for handling.

<u>CAUTION</u> – Handle the transformer with care to prevent physical damage to the transformer potting compound, which could compromise its insulating properties

#### 4. STORAGE:

Transformers which are not installed and energized immediately should be stored in a dry clean space having a uniform temperature to prevent condensation.

# 5. INSTALLATION:

| Enclosure Type:   | Type 3R (NEMA 3R) for indoor/outdoor application and suitable for outdoor service   |
|-------------------|---|
|                   | Type 4 (Water tight) when used with CSA certified water tight conduit hubs  |
| Location:         | Suitable for harsh environments where dust, moisture, and corrosive contaminants are present                                |
| Sound Level:      | Transformer noise is an inherent characteristic and cannot be completely eliminated. To minimize it, use resilient mounting |
|                   | pads and avoid locations (such as centre of long wall) that amplify the noise   |
| Mounting Brackets | Single phase up to 3 kVA are wall mounting only and 5 kVA to 50 kVA are floor/wall mounting                                 |
|                   | Three phase up to 30 kVA are wall/floor mounting, 45 kVA and up are floor mounting only                                     |
|                   | Optional wall mounting brackets are available for 45 kVA up to 112 kVA  |

CAUTION - Only experienced and qualified personnel should perform Installation.

<u>5.1 Connections</u>: Refer to the nameplate or the enclosed connection diagram for the primary and secondary voltages, tap arrangements, phases, and ratings at each tap. Do not make any connections other than those shown on the diagrams supplied. To ensure good electrical connections, the following torque values must be adhered to:

 $\frac{1}{4}$ -20 Bolt – 7 ft. lb. 3/8-16 Bolt – 20 ft. lb.  $\frac{1}{2}$ -13 Bolt – 30 ft. lb.

<u>CAUTION</u> - Before energizing, check all bolted connections for tightness to ensure good electrical connections. To prevent damage to the load, the output voltage on all terminals should be checked to insure that it agrees with the nameplate information and load ratings prior to connecting the load.

5.2. Grounding: A transformer ground stud or ground bus is provided. Follow the local electrical codes for grounding the transformer.

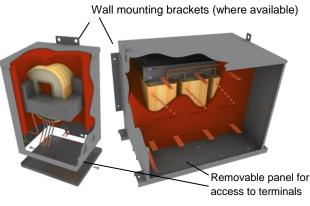
6. OPERATION: To maintain safe operating conditions, do not remove panels while the transformer is energized.

#### 7. MAINTENANCE:

- 7.1 Inspection: Inspection should be made at regular intervals:
- a) Dirt or dust accumulation on the top and sides of enclosure.
- b) Loose connections.
- c) Signs of overheating and of voltage creepage over insulating surfaces as evidenced by tracking or carbonization.

<u>7.2 Cleaning</u>: To permit efficient radiation of heat, and guarding against the possibility of insulation breakdowns, dust and dirt should be removed from the surface of the enclosure.

**<u>8. Warranty</u>**: Transformer Source warrants to its customers that the products delivered conform to the specifications and are free from defects in material and workmanship for a period of one year. For additional detail, consult factory or visit website.



Optional wall mounting brackets for 45 kVA and