Operation & Maintenance Recommendations
for Low Voltage General Purpose Ventilated & Encapsulated transformers

CAUTION

Installation and maintenance should be performed only by qualified personnel. De-energize the transformer before performing any maintenance or service work.

CAUTION

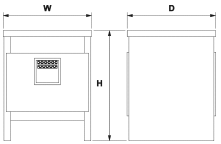
Never lift from or apply force to coils, terminals or terminal boards.

CAUTION

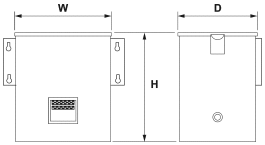
Always permanently and adequately ground the transformer case.

CAUTION

Never make connections while the transformer is energized.



Ventilated



Encapsulated

Receiving:

Inspect for external damage during shipment. Remove covers and panels to inspect for any damage to internal parts.

Handling:

Ventilated enclosures are designed to be fork or sling lifted, with enclosure panels in place. Lifting ears are provided on larger encapsulated units.

Installation and Ventilation:

Select a location complying with all local and national safety codes, that will not interfere with the normal movement of people, trucks, equipment and material. A dent in the enclosure may reduce the insulation clearances to an unsafe level. Remove shipping bolts and braces when provided. Ventilated units require minimum 6” clearance on sides and top. Mount encapsulated units only on vertical surfaces.

Ventilated Unit Grounding:

Grounding is necessary for safety. Make certain the grounding jumper between the core/coil assembly and case is intact, or that the core/coil assembly is directly grounded from the core clamp through the flexible lead. Ensure the grounding or bonding meets the N.E.C. and local codes.

Connections:

Conduit should enter through the conduit access area only. Refer to the wiring diagram for correct line and tap connections. Before changing taps on ventilated units, scrape protective varnish from tap terminals to expose bare metal. Replace hardware in the same order it was removed with flat and spring washers. Make sure all connections are tight.

CAUTION

Always de-energize transformer before any inspection or cleaning.

CAUTION

De-energize transformer before removing from service.

Sound Levels:

Avoid hallways or a corner near the ceiling or floor. Mount transformers on a floor, wall or structure with as great a mass as possible. To minimize sound levels:

A. Use flexible connectors for connections to the primary and secondary terminals.
B. Tighten all panels to prevent vibration.

Maintenance for Ventilated Units:

Periodic Inspection: For clean, dry locations, annual inspections should suffice. Where the air is contaminated with dust or chemical fumes, monthly inspections may be required. After the first few inspections, set up a schedule based on existing conditions. With the transformer de-energized:

A. Remove enclosure panels.
B. Inspect for loose connections, rust, corrosion and the general condition of the transformer
C. Look for signs of overheating or of voltage creepage over insulating surfaces (indicated by tracking or carbonization).

Cleaning: With a vacuum cleaner, blower, or low pressure compressed air, clean accumulations of dirt found on the windings or insulators. Carefully clean both ends of the winding assemblies and ventilating ducts.

Removing from Service:

If a ventilated unit must be moved, replace the core and coil transit bolts plus any shipping braces.

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Storage:

Protect the transformer from dust and moisture at all times.

Accessory Installation:

Wall Mounting Brackets are available for ventilated transformers, 15 - 75 KVA.

Weather Shields are available for ventilated designs rated 15 - 500 KVA, making the unit UL-3R listed for outdoor applications. Encapsulated units are UL-3R listed without weather shields.