

Pad-Mounted Transformers



Application:

Pad-mounted transformers are used in underground distribution systems. Their sealed high-voltage and low-voltage safety compartments ensure their safe operation and reduce the risk of accidents, making them ideally suited for use in residential applications, tourist sites, hotels and other buildings. Pad mounted transformers are placed inside a cabinet with doors and locks, usually located outdoors, with dead-front medium-voltage terminals. Single-phase transformers are designed to operate from the primary under a line-ground system, in order to avoid magnetic ferroresonance effects.

These transformers come in two basic configurations: radial and loop feed, which are selected based on the type of circuit on which the transformers will be installed.

Radial configuration: the transformer is connected to the primary feeding line and does not allow continuation of the line through the equipment.

Loop configuration: The transformer is connected to the primary feeding line and allows other loads to be fed through it.



Scope of the offer:

Manufactured in compliance with applicable NTC, IEC and ANSI standards and/or individual customer specifications.

Ratings (kVA):

Single Phase: 15 kVA to 500 kVA.

Three-phase: 30 kVA to 2500 kVA.

Basic Insulation Level:

Up to BIL 150 kV

Typical construction mode:

Transformers typically consist of an active part made up of the core (magnetic circuit), the coil (electric circuit) and the yoke clamp, which is determined in accordance with the type of transformer, placed in a tank that provides the equipment with specific features, depending on its intended application.

Coils:

- Rectangular sections and concentric copper or aluminum windings.
- Insulation: High-quality paper with epoxy resin coatings.

Cores:

- Shell Type or Core Type, wound, step-lapped for easy assembly and disassembly without loss of dimensional characteristics, guaranteeing low losses and excitation currents.
- Materials: Cold-rolled grain-oriented silicon electrical steel sheet with insulating coating on both sides, low core loss and high permeability.

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Yoke clamps:

- Made of cold-rolled and hot-rolled steel, they clamp the core, with individual bolted caps enabling easy disassembly for maintenance purposes.
- They guarantee high resistance to short circuit mechanical stresses, low noise levels and low excitation currents.

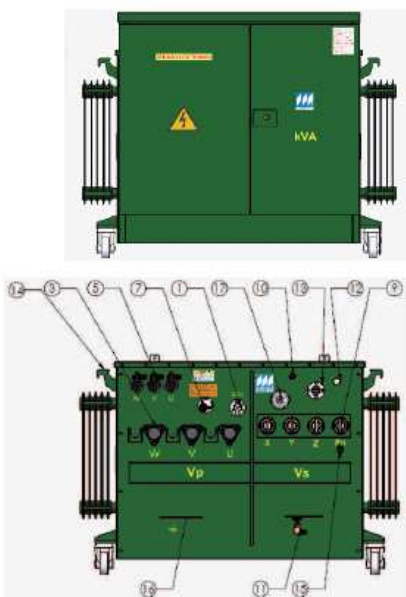
Tanks:

- Rectangular in shape, made of cold rolled or hot rolled steel sheet with reinforcements capable of withstanding internal pressures due to temperature rise and mechanical stresses due to equipment installation and handling.
- Three-phase TANKS include a separate cabinet that is studded to the transformer and serves as protection for the Low and Medium Voltage circuits, with a mechanical locking system which, for safety reasons, prevents opening of the medium-voltage compartments until the same has been done with the low-voltage one.
- Single-phase TANKS have a single cabinet with hinges at the top, enabling easy access to the terminals and the transformer's protection system.

Radiators: Attached to the tank, made from Cold Rolled steel.

Accessories and protection devices:

Medium voltage accessories used in pad mounted transformers are of the premolded elastomeric type, for operation under load (with the exception of 600A) and dead-front, ensuring safe operation. They are fed through an internal on-load operating switch with bayonet or canister fuse systems enabling a complete protection system.



DESCRIPTION	
1	5-position tap changer
2	Insert-type bushings
3	Well-type bushings
4	Loadbreak elbows
5	Bayonet current sensing fuse assemblies
7	On-Off switch
8	Isolation link or LCP fuses
9	Low-voltage terminals
10	Pressure relief valve
11	Globe valve for filtering, draining and oil sampling
12	Nipple and fill stopper
13	Sight glass oil level indicator
14	Lifting lugs
15	Neutral terminal grounding
16	Tank grounding
17	Thermometer