



Oil immersed voltage transformers are designed and manufactured with conservator tank or hermetically sealed. Transformers are designed according to the international standards such as TSE, IEC and NEMA.

Applicable standards for the parts and oil such as:

IEC 60076

TSE 267

ANSI C57

ASTM D3487

Smart solutions engineered for continuous industrial operations.

Key Features

- Mineral Oil Cooling Type
- Oil Level Indicator
- Reliable Electrical Isolation
- Tap Selection Options
- Protective Coating
- Low Idle Losses
- Low Heat Losses
- 2 Years Warranty

GENERAL SPECIFICATIONS

- ◆ Oil Cooled
- ◆ Voltage: LV, MV or HV
- ◆ Tank: Conservator Tank or Hermetically Sealed
- ◆ IP Rating
- ◆ IP55
- ◆ Tap Changer: Off Load





Core & Magnetic Circuit

"Advanced algorithms driving precision design."

Custom Procurement: Silicon sheets are custom-purchased based on proprietary designs from core-loss-guaranteed global suppliers.

Premium Standards: Engineered strictly to customer demands and international standards, utilizing high-grade grain-oriented silicon sheets (0.23, 0.27, 0.30 mm / M3, M4, M5).

Flexible Architecture: Standard production features core-type configurations, with shell-type designs available for specialized applications.



Winding Technology & Thermal Optimization

- **Low Voltage Windings:** Manufactured using flat-section electrolytic copper, utilizing CTC copper for transformers rated up to 1000 kVA. Insulation is crafted from premium crepe or Nomex paper.
- **Optimized Cooling:** Wire cross-sections are engineered via specialized design software to achieve maximum cooling efficiency and minimum on-load losses.
- **High Voltage Windings:** Formed from enameled circular cross-section copper wire, insulated with high-grade crepe and technical papers in compliance with DIN 6740 standards.
- **Extended Lifespan:** Leveraging top-tier insulation materials globally to maximize transformer operational life. Every individual coil undergoes rigorous testing immediately following the winding process.



Automated Quality Assurance & Verification

Standardized Testing: Every transformer undergoes rigorous verification in strict compliance with IEC 60076 international standards. Type and special tests are executed seamlessly upon customer request.

Data Integrity: Test results are automatically logged in real-time to a secure database and integrated directly into the ERP system, ensuring zero human intervention or data alteration.

Instant Diagnosis: Proprietary software evaluates testing metrics instantly, tracking and isolating potential anomalies far faster and more precisely than manual quality controls.

Transparent Reporting: Comprehensive digital test certificates and verification reports are fully accessible to clients upon request.



Routine Tests (According to IEC 60076)

Winding Resistance: Precision evaluation of electrical resistance across all windings.

Insulation Resistance: Comprehensive insulation integrity and dielectric testing.

Turn Ratio & Phase Displacement: Verification of exact voltage transformation ratios.

Short-Circuit Impedance: Measurement of load losses and voltage drop metrics.

No-Load & Load Losses: Accurate quantification of core and winding core efficiencies.

Induced Voltage Verification: High-frequency overvoltage testing for internal insulation.

Applied Voltage Verification: Power-frequency dielectric testing for ground insulation.

Type Tests

Temperature Rise: Thermal performance and cooling efficiency evaluation under full-load conditions.

Lightning Impulse Voltage: Simulation of atmospheric overvoltages to verify dielectric strength.

Short-Circuit Withstand: Structural and mechanical integrity validation under maximum fault currents.

Special Tests

Acoustic Noise Level: Verification of operational sound emissions against environmental standards.

Zero-Sequence Impedance: Measurement of asymmetrical fault current characteristics for grid stability.



Buchholz Relay:

Positioned securely between the transformer tank and the conservator. It detects internal faults by accumulating released gases, seamlessly activating the internal buoys to trigger alarms or trip commands via twin 5A, 250 VAC switches.



Alcohol Thermometer:

Engineered specifically for both hermetically sealed and conservator-type transformers. Provided as a contact-free solution, it mounts directly into a dedicated, precision-welded thermometer pocket on the transformer cover.



Dehydrating Breather

(Silica Gel): Exclusively utilized for conservator-type configurations. It safeguards the system by extracting moisture from incoming air as oil volume fluctuates, with the unit size scaled precisely to the transformer's rated power.



Magnetic Oil Level Indicator:

Engineered to display real-time oil levels within the conservator tank. Can be optionally configured with integrated electrical contacts for automated remote monitoring and alarms.



Hermetic Protection Relay:

Designed for hermetically sealed transformers to monitor critical parameters including gas discharge, tank pressure, and oil temperature. Equipped with two dedicated electrical contacts for each monitored value.



Pressure Relief Valve:

An essential safety mechanism for hermetically sealed designs. It opens instantaneously during overpressure events to match the preset valve threshold, effectively protecting the tank against catastrophic structural damage.



Thermometer with Contacts:

A high-precision monitoring system featuring a 4-dial interface (2 display plates for real-time reading, 2 for threshold settings). It tracks oil temperature, maximum measured temperature, alarm limits, and cut-off levels, integrated with dual 5A, 250 VAC contacts.

Contact our engineering team for oil-cooled transformer. Customized heavy-duty power solutions.

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Where We Power