OIL TYPE TRANSFORMERS

Our oil transformers comply with international standards and, if necessary, the customer's technical requirements. They are hermetically sealed, as transformers with expansion tank, with or without distribution systems and as medium and high power transformers.

TRANSFORMER TYPES

- Distribution Transformers
- Solar Power Plant Transformers
- Wind Power Plant Transformers
- Grounding Transformers
- Auto Transformers
- Double Voltage Transformers
- Rectifier Transformers
- Shunt-Reactor-Transformers
- Traction Transformers

HERMETIC TRANSFORMERS

Hermetic oil transformers are manufactured with an output of 25 to 5000 kVA and a mains voltage of up to 36 kV are manufactured. Three-phase, oil-cooled standard transformers (ONAN) are available with internal (plug-in type) or externally mounted insulators (porcelain insulators). At the customer's request, special load-free tap changers and other cooling systems such as ONAF, OOAF, etc. can also be installed.

Hermetic transformers have no expansion tank and are completely filled with oil. The hermetic seal protects against atmospheric influences and is adjusted at the factory. The elastic tank with its corrugated walls controls the thermal expansion of the oil. These louvre walls are used for cooling on the one hand and also provide additional volume for the expansion of the oil.

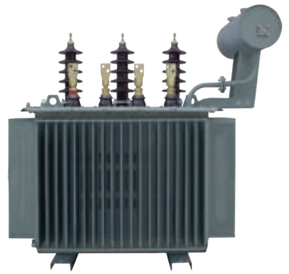
The oil in hermetic transformers does not come into contact with air, so there is no risk of air or moisture being. Hermetic transformers are particularly suitable for small spaces or placement in compact transformer stations. Hermetic transformers are basically maintenance-free. Hermetic transformers require no maintenance apart from cleaning and of the protective devices.

AREAS OF USAGE

- Distribution Centers
- MV/LV Transformer Centers
- Factories
- Construction Sites
- Urban Distribution Centers (above pole or transformer box)
- Irrigation Projects
- Industrial Zones
- Power Plants

HERMETIC TRANSFORMERS

TRANSFORMER WITH EXPANSION TANK



Oil transformers with expansion tank are supplied with an output of 25 kVA - 20 MVA and a mains voltage up to 36 kV. Three-phase oil-cooled standard transformers (ONAN) are available with internal (plug-in type) or external mounted insulators (porcelain insulators). At the customer's request, special load-free on-load tap-changers and other cooling systems such as ONAF, OOAF, etc. can also be installed. In oil transformers with an expansion tank, the oil is constantly in contact with the ambient air. Regular maintenance is therefore important.

AREAS OF USAGE

- Factories
- Construction Sites
- Municipal distribution systems (mast or box)
- Irrigation Projects
- Industrial Zones
- Power Plants

POWER TRANSFORMERS

Power oil transformers are manufactured according to international standards such as IEC, IEEE etc. according to customer requirements. They have a power range of up to 400 MVA and line voltages up to 330 kV.

Single-phase and three-phase transformers are customised to customer requirements with ONAN, ONAF or ODAF cooling and with or without load-free tap changer offered.

AREAS OF USAGE

- Electricity Transmission Lines
- Industrial Facilities
- Electricity Production Centers
- Internal Electricity Needs

Beta ENERJİ
BETA ELEKTROTECHNIK GMBH

EXPANSION TANK AND POWER TRANSFORMERS

OIL TYPE TRANSFORMERS

Visit our Website!

Beta Elektrotechnik GmbH

Am Logistik Park 3, 85416 Langenbach, GERMANY

www.beta-elektro.com +49 (0)8761 722 635 160 info@beta-elektro.com

BETA Elektrotechnik GmbH

TESTS

The following national and international quality tests are carried out in our accredited laboratory for oil transformers:

ROUTINE TESTS

- Measurement of the winding resistance
- Measurement of voltage conversion ratio and voltage vector
- Resistance measurement on the insulator
- Measurement of short-circuit impedance and charging loss
- Measurement of decoupling losses and voltage
- Application of voltage tests
- Induced voltage test

TYPE TESTS

- Testing the temperature rise
- Lightning impact test
- Measurement of the sound level

SPECIAL TESTS

- Determination of the capacitance between the coils and the earthing via the coils
- Measurement of the zero-sequence impedance for 3-phase transformers
- Short-circuit resistance measurement
- Harmony test with current switched off
- Measurement of the insulation resistance from coil to earth
- Power factor measurement (tangent-delta measurement)
- Service life test of the boiler

OUR QUALITY STANDARDS AND CERTIFICATES

Electromechanical oil transformers are manufactured according to the following standards:

- **IEC 60076-1: Power Transformers Part 1: General**
- **IEC 60076-2: Power Transformers Part 2: Temperature Control**
- **IEC 60076-3: Power Transformers Part 3: Insulation Levels and Dielectric Testing**
- **IEC 60076-5: Power Transformers Part 5: Short-Circuit Resistance Capability**
- **TS EN 50588-1: Medium Power transformers Part 1: General Characteristics**

OUR QUALITY STANDARDS AND CERTIFICATES

OIL TYPE TRANSFORMERS

Visit our Website!