MineraMP
Oil Immersed
Medium Power
Transformers

Make the most of your energy™

As standards, specifications and design change from time to time it is your responsibility to confirm the information given in this publication.

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PM102712
Minera MP oil-immersed medium voltage power transformer

- Off-circuit tap changer (OCTC) or on load tap changer (OLTC)
- Standard or low noise levels
- ONAF, OFAF, OFWF or others upon request
- High capacity cooling options such as ONAN, ODN, ODF, OIT or others upon request
- A wide range of accessories
- Voltage insulation level up to 170 kV
- Three phase units (single phase available on request)
- Our broad range for Minera MP transformers includes: 80 MVA and is designed to meet your needs.

Our company follows a policy of continuous improvement taking into account the latest worldwide developments. This ensures that our transformers are state-of-the-art and fully compliant with the modern world's highest requirements: fast delivery time, improved quality and recycling capacities, reduced size and weight, very low noise and losses values.

Tap changer

The transformer's magnetic core is made from a high grade, cold-rolled, grain-oriented silicon steel. The construction stainless is step lap type. The magnetic core is generally a multi-layer circular cross section and the slotting and cutting of the magnetic core is made by automated machines. In order to reduce transformer sound level to a minimum, the magnetic core and its frame are carefully sized to minimize the vibrations and, in particular: magnetisation effects, which constitute the main sources of sound in medium power transformers. Moreover, in order to reduce noise and to the no-load transformer current, the quality of the magnetic steel and the induction, together with the design of the magnetic core, are carefully chosen to meet the requirements.

Task construction

The main task construction type is panel radiator type. The corrugated panel radiator is made by automated machines. In order to control the radiator surface in order to reduce radiator sound level to a minimum, the panel radiator and its frame are carefully sized to minimize the vibrations and, in particular: magnetostriction effects, which constitute the main sources of sound in medium power transformers. The measurement (A-weighted sound pressure LpA) and the dynamic effects resulting of a secondary short-circuit in accordance with IEC 60076-5.

High voltage winding

The low voltage winding material is copper or Aluminium according to the selected position. The shape of the conductor is rectangular or bolt type. To obtain a controlled temperature gradient, cooling ducts are added in the coil. A low voltage winding is built around the magnetic core. An insulating barrier is wound or installed around the low voltage coil in order to provide an electrical separation between LV and HV coils.

Surface protection

One of our major quality commitment is to provide high-quality surface protection. The coating (painting) type chosen in accordance with the environmental conditions considered the degree of pollution, humidity, etc. Zinc Spray / Hot dip galvanized Tank, HV / LV covers and conservator can also be provided.

High voltage winding

The high voltage winding material is copper or Aluminium according to the selected position. To obtain a controlled temperature gradient, the cooling ducts are added in the coil. High voltage coils are in long layers or disc type. Due to recent developments in the winding process, meilleur insulation and wire insulation have allowed the automation of the winding process.

Tap changing

The tap changers allow voltage adjustment for a variation of the supply network voltages on the primary side of the transformer or for increasing or decreasing the secondary voltage. Tap changers are divided into two main categories: Manual tap changer and Conductor tap changer, bidirectional rollers if applicable.

Temperature rise

The temperature rise of transformers are determined by the Internal and Dynamic effects resulting of a secondary short-circuit in accordance with IEC 60076-10. The temperature rise requirements are in accordance with national standards.

Customer benefits

- Extremely versatile
- Robust construction
- High quality and reliability
- Continuous improvement
- Tailor made
- Highly economical thanks to reduced operating and maintenance costs
- Strong after sales support

Minera MP oil-immersed medium voltage power transformer is dedicated to all applications up to 80 MVA and is designed to meet your needs. Our company follows a policy of continuous improvement taking into account the latest worldwide developments. This ensures that our transformers are state-of-the-art and fully compliant with the modern world's highest requirements: fast delivery time, improved quality and recycling capacities, reduced size and weight, very low noise and losses values.

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