

Transformers for oil and mining industry



These applications are as follows:

- Transformers for increasing or reducing variable frequencies, with pulses of 6, 12, 18 and 24.
- Multitap step up transformers of 14 to 50 taps, designed for electric submersible pumps.
- Fixed Frequency transformer either for direct start up or variable frequencies of 10 to 90 Hz
- Distribution transformers for the electrical system for ranges of 40 kVA to 3000 kVA

Multitap VSD Elevator Transformer Frequency output (50-60 Hz) or variable (20-90 Hz)	
Output (Kva)	125 to 3000 Kva
Connection Group	Yd1 - Dd0
Primary Voltage (V)	380, 400, 415, 460 or 480
Secondary Voltage (V)	100 - 3811
Number of Points	7, 14, 25, 28 or 50

Electric distribution transformers for mining and oil industry	
Output (Kva)	40 to 3000 Kva
Connection Group	Dy 11
Primary Voltage (Kv)	10, 13.2, 22, 33
Secondary Voltage (V)	281, 380, 400, 480

Three phase reduction Transformer to apply frequency variable of 6, 12, 18 and 24 pulses with frequencies of 50 or 60 Hz	
Output (Kva)	100 to 3000 Kva
Connection Group	Dyn 11 - Dy 11 - Dd0
Primary Voltage (Kv)	2.3, 6.6, 11, 13.8, 20 or 33
Secondary Voltage (V)	380, 400, 415, 460 or 480
Number of Points	2 x 2,5% / 2 x 5%

Reduction-elevator Transformer - to apply a frequency variator or directly to an electric submergible pump. Frequencies of 50 or 60 Hz	
Output (Kva)	100 to 3000 Kva
Connection Group	Dy11 - Dd0
Primary Voltage (Kv)	2.3, 6.6, 11, 13.8, 20 or 33
Secondary Voltage (V)	380, 400, 415, 460 or 480
Tensions	480 V/ 33 or 13,8 Kv 480 V/ 1.1 - 3,8Kv Frec. Variable 13.8 or 33 Kv/ 1.1 - 3.8 Kv 13.8 or 33Kv/480 V

General Construction

Coils

They are the layered type, built with pure electrolytic copper, enameled wire, and copper sheets which are insulated with either standard type or quality Nomex paper. The winding is suitable for Variable Speed Drives of 6, 12, 18 and 24 pulses.

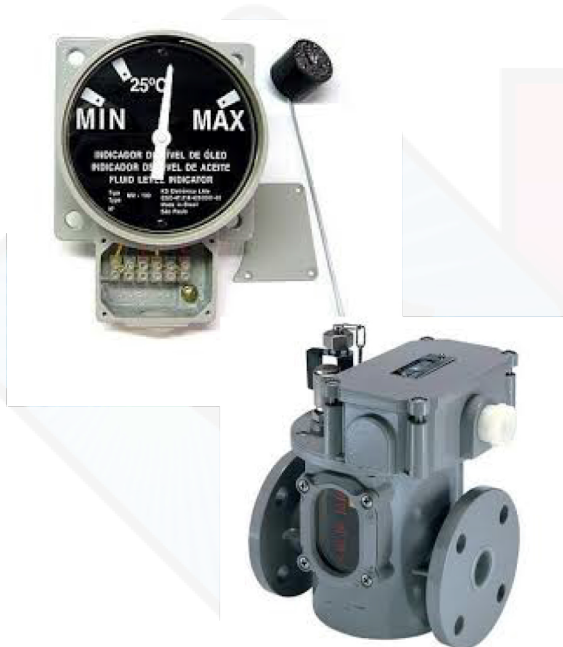
Magnetic core

The core is manufactured using M4 grade silicon-iron sheets which only allow low losses. They are the triple-stacked, column type, with the implementation STEP LAP type sheet cutting-strapping machines and automated state-of-the-art cutting.



Tanks

The tanks are fabricated using welded steel plates with semi automatic machines. Those manufactured for the domestic market are manufactured with an expansion tank, AT and BT insulators, no-load tap changer, placed over the lid, whereas those specifically manufactured for the foreign market are built with a cabinet which includes the AT and BT insulators, measurement equipment, no-load tap changer. They are finished with an internal layer of white epoxy coating. In which the active part be introduced afterwards, and finally the outside is coated with a layer of red-oxide corrosion resistance coatingt and double layer of white or pearl gray polyurethane (depending on the customer's requirements) .



Insulating liquid

Transformers are filled with mineral oil, silicone or special oils, depending on the customer requirements.

Accessories

Transformers include the following accessories:

- Digital thermometer 0 ° to 120 ° C.
- Mechanical thermometer 0 ° to 150 ° C
- Magnetic level with alarm and release.
- Mano-vacuometer.
- Pressure relief valve.
- Electronic temperature controller with 100 PT for each phase.

Testing

The laboratory is ISO 9001 quality standard-certified; equipped with instruments for routine testing and reception set by the standards.

