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Special Transformers Division

SPECIAL TRANSFORMERS

Our rigorous quality control policy covers every manufacturing stage, from inspection of incoming materials and checking of individual components, to final performance testing and commissioning.



Off load step regulator

We are producing many types of transformers:

- Distribution transformers
- Power transformers up to 40 MVA and 132 KV
- Dry type transformers (H class)
- Rectifier transformers
- Glass furnace transformers (with on load regulation, on volt regulation and mixed regulation)
- Arc and induction furnace transformers
- Oil and dry type reactors
- Voltage regulating transformers (with no flexible connections, windings in slots, sliding or roller contacts)

- Earthing transformers
- High voltage test transformers up to 750 KV (in metallic or insulating tank)
- High voltage test systems
- High current transformers
- Autotransformers
- Starting up transformers
- Special transformers on demand and customer's specifications

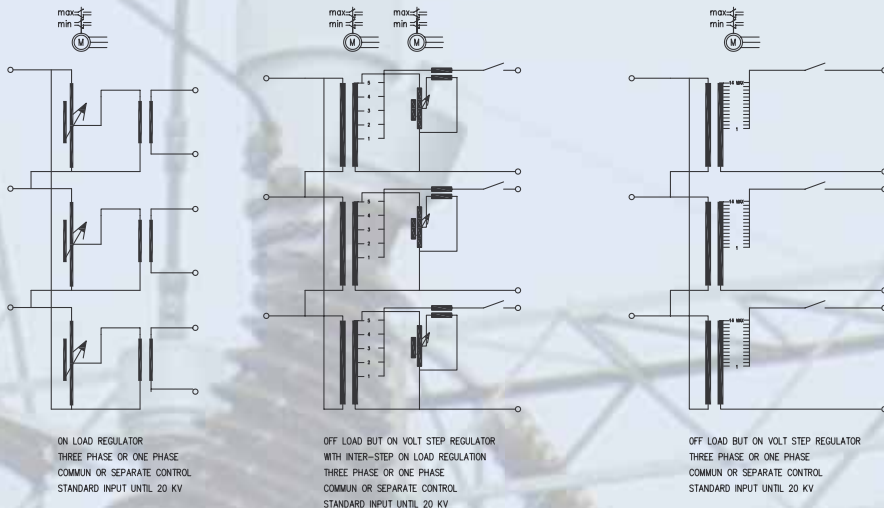


Voltage shield regulator - active part



Voltage shield regulator

Glass Furnaces Transformers Different Tipologies



• **ON LOAD REGULATOR:**

With this regulator is possible to operate *with voltage and with current* for all the range of the regulation (the regulator can operate at primary circuit closed and secondary closed). It is possible to make a separate or common control of the phases.

• **OFF LOAD STEP REGULATOR WITH ON LOAD INTER-STEP REGULATION**

There are some steps for all the range of the regulation. There is a tapping switch on secondary side operating step by step *with voltage and without current* (the tapping switch can operate with primary circuit closed and secondary opened). Between the steps is possible to make an on load regulation (separate or common control of the phases) *with voltage and with current*.

• **OFF LOAD STEP REGULATOR**

There are many steps (max 14) for all the range of the regulation. There is a tapping switch on secondary side operating step by step *with voltage and without current* (the tapping switch can operate with primary circuit closed and secondary opened). It is possible to make a separate or common control of the phases.

• **VOLTAGE SHIELD REGULATOR (VSR)**

The voltage shield regulator is not a standard regulator, but it is similar to a static transformer because the only moving part is a shield. The active part of the system is static.

The moving of a shield is made by a simple mechanism, completely reliable.

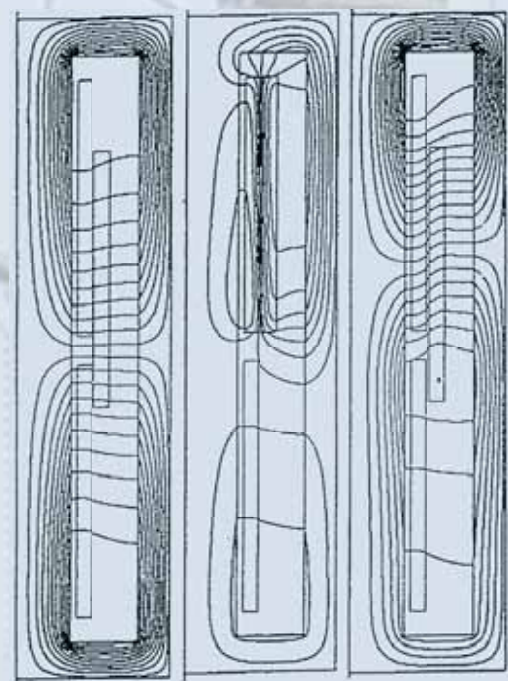
The life of VSR is the same of a standard transformer.

The overload is possible because inside the VSR there are not local over heatings due to rollers or other materials with low thermal constant.

In the VSR there are not contact sparkles, so, it is the best regulator against dangerous fire conditions.

Differently to the standard regulators is possible to arrange the complete IEC test same as for standard transformers.

Our voltage shield regulator (VSR) is produced under international registered licence.



a) b1) b2)

the leakage flux - diagram

a) no load operation - b) on load operation