

Phase II Overview

In this stage the following equipment and materials were brought:

- Siemens vacuum contactor 3RT1265-6AP36;
- Siemens voltage suppressor, 3RT1966-1PV3;
- Data Translation data acquisition board, DT9804;
- Agilent VEE Pro 8.5 software;
- Agilent data acquisition system (data acquisition board U2353A, USB Hub 5813A, terminal board with SCSI II cable 68 pin U2901A)

In order to achieve the electronic circuit necessary to study the switching overvoltages, the following materials were brought too: resistances, Zenner diodes, plastic – faced hardboards, connectors, on/off buttons, LED's and automatic fuses. As charge impedance, an electric three-phase motor was used.

With the brought equipment and materials the experimental model was made and by which, through laboratory experiments were revealed the switching overvoltages, which in certain conditions can affect the consumers insulation, leading at the end to its destruction.

Graphical show-down of switching overvoltages has proved once again the protection limits of the ready-made used voltage suppressor.

For this reason, two types of voltage suppressors were made in laboratory, and with those were made new tests, using as charge impedance, the same electric three-phase motor. So, it could be proved that the both voltage suppressors are much more performance, and the nominated technology can result in a patent, being an absolute novelty.