

PROJECT INFORMATION

By developing and manufacturing special technical solutions we are creating innovations for solving our customers' problems. Corresponding to their requirements we develop and manufacture different kinds of transformers, voltage stabilizers, chokes, power supply units and power resistors.

Thanks to higher quality, longer service life and lower operational costs RUHSTRAT technology brings you ahead with all kinds of application.

Three-Phase Voltage Stabilizer, Transformer Type, with Neutral Earthing Transformer

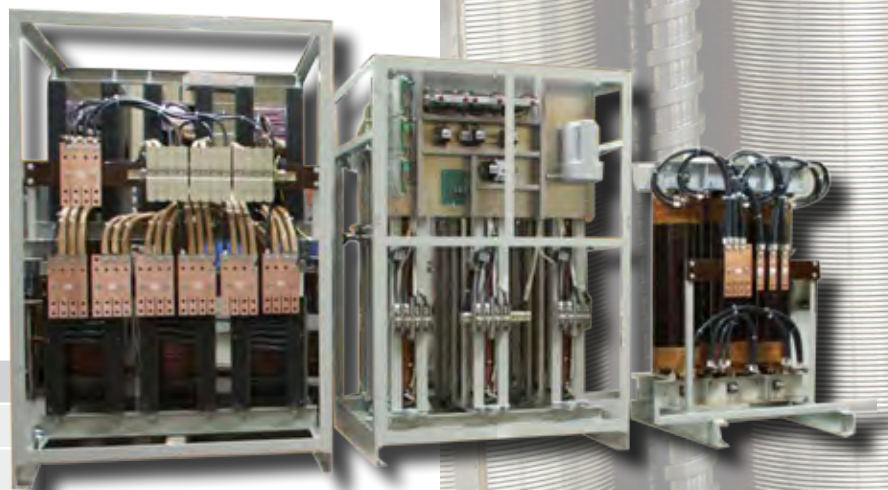
The voltage stabilizer consists of a variable transformer with servo motor, an additional transformer (toroidal core transformer) and of an electronic regulation unit. A neutral earthing transformer is also part of the project. As there is no neutral conductor in the existing mains, a neutral earthing transformer is necessary, separately connected in series, which forms the neutral conductor.

If the rated voltage deviates from the desired value, the electronic regulator effectuates a voltage adjustment of the variable transformer which adjusts a voltage corresponding to the deviation via the toroidal core transformer. In consideration of the adjustment time of 1.5 to 2.5 seconds the output voltage is kept constant with an accuracy of $\pm 1\%$ of the desired value.

The voltage stabilizer is equipped with a separate adjustment for each phase. The separate adjustment of all 3 phases is necessary when single consumer loads shall be distributed differently to the 3 phases

and be kept constant. In addition, the incoming mains voltage can be regulated individually for each phase. For this asymmetrical load the voltage deviation is acquired and corrected individually for each conductor.

This voltage stabilizer is used as series connection unit in a machine building factory in Turkey. The power supply system available in this factory has a deviating voltage. Thanks to the voltage stabilizer a constant voltage is available in the entire factory, which guarantees a constant performance of all machines, independent from mains voltage deviations.



voltage stabilizer	
transit circuit power	1.000 kVA
rated input voltage	380V, 50/60 Hz
deviation	$\pm 20\%$, from 304V to 456V
max. input current	1.948 A
rated output voltage	380V, 50/60 Hz
max. load current	1.519 A
regulation accuracy	$\pm 1\%$
regulation speed	approx. 28V/s
vector group	separate adjustment of each phase
cooling	natural air cooling

neutral earthing transformer	
transit circuit power	289,4 kVA
input voltage	3 x 380V $\pm 20\%$
frequency	50 Hz
rated input current	3 x 633 A
rated output voltage	1 x 1.899 A
cooling	natural air cooling