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CONCEPT OF THE UNIVERSAL SWITCHING COMPLEX OF THE EMC TRT POWER SUPPLY SYSTEM ^{*)}

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The international experimental thermonuclear reactor ITER is a unique electrophysical installation capable of reproducing the conditions for a controlled thermonuclear reaction. At the same time, the ITER installation is a high-tech project, within the framework of which many different technological solutions are created and tested.

The TRT installation currently being developed has a configuration of the electromagnetic system very similar to the ITER tokamak design, and is determined by the required parameters of the generated magnetic field, and consists of: toroidal field windings (16 pcs.), inductor windings (4 pcs.), control windings (6 pcs.), correction coils (24 pcs.) and horizontal control field windings (4 pcs.).

To ensure current flow conditions in the superconducting winding of the magnetic system of the TRT installation in accordance with specified scenarios, it is proposed to develop a Universal switching complex based on a set of switching devices for the power supply system of the superconducting coil of the central solenoid of the ITER tokamak.

The universal switching complex consists of the following components: operational current switching system; rapid energy output system; protective contactor; disconnecter.

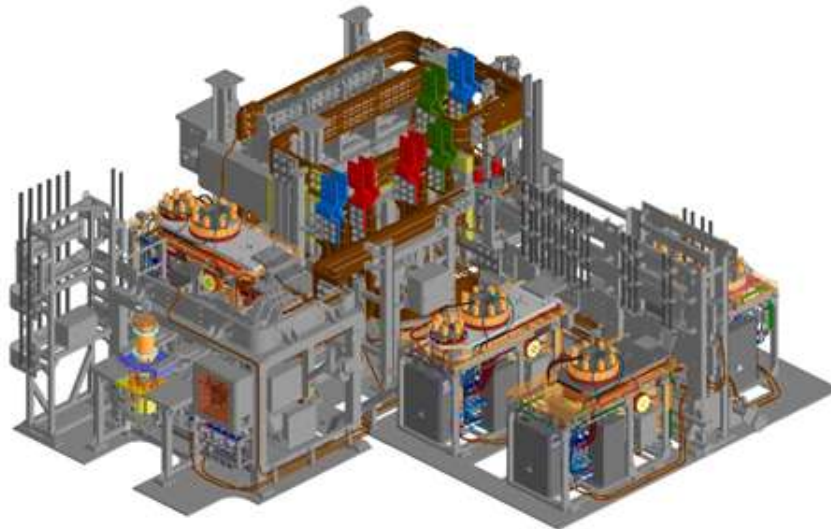


Figure 1

^{*)} [abstracts of this report in Russian](#)