

ABSTRACT

ELECTROMAGNETIC ENERGY-FLUX REACTOR

The ELECTROMAGNETIC ENERGY-FLUX REACTOR (EER) comprises microprocessor-based power modules (MPM), a microprocessor-base control module (MCM), Hall Effect current sensors (HECS) and a reactor system (RS). Upon switching the exciter power supply source the power module activates the EER to a bypass mode due to zero current pick up by the HECS. The exciter power supply source is supplied either by a utility company, standby generator, battery banks with inverter, or by wind and solar renewable energy coupled to an inverter or by any means of excitation sources of alternating current waveform. Upon switching on the load the HECS senses the current at the output terminal either directly from the terminal lead wire or via the secondary output of the current transformer installed in the output terminal lead wire. Once the minimum preset output current signal is sensed by the HECS, it will activate and power up the reactor system.

Fig. 1