

Products & Technologies



Dynamic power factor correction

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New thyristor module for 690 V

EPCOS has expanded its range of TSM series of thyristor modules to include the TSM-HV50 type. It was developed especially for industrial networks rated 690 V and is designed for capacitive loads of up to 50 kvar. The switching times of the module are in the region of only 5 ms. The thyristor switches enable the power factor correction (PFC) capacitors to be switched silently and completely without wear, ensuring a longer life. In addition there is no feedback to the grid in the form of transients.

The microprocessor control provides automatic matching to PFC capacitor branches with or without detuned harmonic filters with a detuning factor of up to 14 percent. The module has an automatic function for monitoring voltage, phase and temperature. Status indication is by LEDs.

With this addition to the product range, EPCOS now offers numerous products without which dynamic PFC is not possible. These include five series of PFC capacitors (PhaseCap®, PhaseCap HD, WindCap®, PhiCap, MKV capacitors), the power factor controller BR6000T, and the proven thyristor modules TSM-LC25, TSM-LC50 and TSM-LC200 covering a power range from 25 kvar through 200 kvar.

According to a recent calculation by the German Electrical and Electronics Manufacturers' Association (ZVEI), full-scale implementation of power factor correction in the EU would enable a further 48 TWh of electrical energy to be saved each year in addition to existing savings. This is equivalent to the annual output of four nuclear power stations or the annual electricity consumption of 13 million households.