Power factor correction: TDK's thyristor module for single-phase PFC

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The TDK Corporation has extended its range of EPCOS thyristor modules for dynamic PFC. The new TSM-LC-I module now also allows single-phase PFC of networks with rated voltages from 230 to 525 V AC. Depending on the voltage, the new module is designed for reactive powers of between 10 and 22 kvar. 110 V AC versions are available upon request.

The EPCOS TSM-LC-I is characterized by very fast switching times of only 5 ms. As switching takes place in the zero transition of the current, the switching operations do not affect the grid. This also extends the service life of the capacitors. The new thyristor module (ordering code B44066T0022E520) continuously monitors the power line voltage and capacitor temperature. Possible capacitor failures are also recorded. Thanks to the thyristors, the module creates no switching noise and requires no maintenance.

The EPCOS TSM-LC-I allows capacitive loads to be switched between (L-L) or (L-N). Capacitors can be switched in three-phase networks by means of cascading. The thyristor module can be used in installations tuned and detuned applications and is characterized by its compact dimensions and low weight.

With the new TSM-LC-I, the portfolio of EPCOS PFC products now extends over a broad range: from 230 to 690 V AC for reactive powers of 10 to 200 kvar. All types from the TSM-LC and TSM-HV series are compatible with the BR6000T and BR6000T6/R6 dynamic PFC controllers as well as other PFC products from EPCOS.

Provided by TDK Corporation