

## Film capacitors: LCap combines capacitor and choke

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TDK Corporation presents the LCap, a new film capacitor from EPCOS for motor applications. LCap combines an AC capacitor with a choke coil in a single case, cutting costs and halving assembly times. Savings also result from the fact that only two leads are now required instead of four as before. The choke coil is molded into the capacitor case, leading to further benefits such as reduced sensitivity to external influences as well as higher long-term stability compared to discrete solutions. LCap is available with capacitances from 3  $\mu$ F to 50  $\mu$ F and inductances from 5



 $\mu$ H to 100  $\mu$ H and is designed for rated voltages from 250 V AC to 450 V AC. Other values can be implemented on a customer-specific basis.

Typical applications of the combined components of the B32350 series are TRIAC drives for AC induction motors of the kind used in washing machines and tumble dryers. These circuits have two TRIACs, one of which is driven at a time so that the motor rotates in a specific direction. The capacitor of the LCap is used to generate a second phase. Its inductor protects the TRIACs in the event that they are incorrectly driven simultaneously and thus cause a short circuit.

## Main applications

• Generation of a second phase and protection of TRIACs in the control circuit of induction motors, e.g. in <u>household appliances</u>

## Main features and benefits

- <u>Capacitance</u> values from 3 to  $50 \,\mu\text{F}$
- Induction values from 5 to  $100 \,\mu\text{H}$
- Compact construction and thus reduced space requirement
- Reduced costs thanks to halving of assembly time and the number of
- connection leads from four to two
- High long-term stability
- Maintenance-free
- Customer-specific types available

Source: TDK Corporation



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