

Motor run capacitors

Series/Type: 450 V

Ordering code: B32330 / B32332

Date: July 2016

Version: 6

© EPCOS AG 2016. Reproduction, publication and dissemination of this publication, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

EPCOS AG is a TDK Group Company.



B32330 / B32332

Motor run capacitors

450 V

Construction

- Metallized polypropylene film
- Aluminum can with plastic top
- Filling material soft polyurethane resin

Features

- Self-healing properties
- Low dissipation factor
- Overpressure disconnection safety device
- S2 safety class as per IEC-60252-1(ed-2) am1
- High insulation resistance
- EN 60335-1 compliance on request

Applications

For general sine wave application, mainly as motor run

Terminals

- B32330 Single fast-on 6.3 x 0.8 mm / Single fast-on 4.8 x 0.5 mm on request
- B32332 Double fast-on 6.3 x 0.8 mm

Mounting parts (optional)

Threaded stud at bottom of can (M8, Max torque= 5 Nm)



| Technical data and specifications | cal data and specifications | | | | |
|-------------------------------------|--|--|--|--|--|
| Reference standards | DIN EN 60252-1:2014-07, IEC 60252-1 (ed 2) am1 UL 810 | | | | |
| Safety class to IEC 60252-1 2013 | S2 | | | | |
| Life expectancy to IEC 60252-1 2013 | 450 V : 30000 h (Class A) | | | | |
| UL 810 file E106388 | Approved component | | | | |
| Rated capacitance C _R | See table ordering code, page 6 | | | | |
| Tolerance Tx | +/- 5% | | | | |
| Rated voltage V _{rms} | 450 V AC | | | | |
| Rated frequency f _R | 50/60 Hz | | | | |

CAP FILM T RD PD AC July 2016



Film Capacitors – AC Capacitors B32330 / B32332 Motor run capacitors 450 V

| Maximum ratings | | | | | | |
|---|---|--|--|--|--|--|
| Maximum permissible voltage V _{max} | 1.1 • V _R (V _R = Rated voltage) | | | | | |
| Maximum permissible current I _{max} | 1.3 • I _R (I _R = Rated current) | | | | | |
| Test data | | | | | | |
| AC test voltage terminal to terminal V_{TT} | 2.0 • V _R , 2 s (routine test) 2.0 • V _R , 60 s (type test) | | | | | |
| AC test voltage terminal to can V_{TC} | 2 kVAC, 2 s (routine test) 2 kVAC, 60 s (type test) | | | | | |
| Insulation resistance R _{ins} or time constant at +20 ℃, rel. humidity≤65% (minimum as-delivered values) | 3000 s | | | | | |
| Dissipation factor tan δ at +20 ℃ | ≤7 • 10 ⁻³ (1 kHz) | | | | | |
| Maximum rate of voltage rise dV/dt _{max} | 10 V/μs | | | | | |
| Climatic data | | | | | | |
| Climatic category | 25/085/21 to IEC 60068-1 | | | | | |
| Lower category T _{min} | -25 °C | | | | | |
| Upper category T _{max} | +85 °C | | | | | |
| amp heat test t _{test} 21 days | | | | | | |
| Mechanical and thermal properties of terminal insulator ma | terial | | | | | |
| Ball pressure test to IEC 60309-1 sec. 27.3 | At +125 °C | | | | | |
| Plastic can and top disk material | UL 94 V2 minimum | | | | | |
| UL 94 V2/V0 compatible Glow wire test to IEC60335-1 / IEC 60695-2-1/1 Test temperature +750 °C Part is compatible to EN 60335-1 | Self-extinguish within 2 seconds of withdrawing glow wire without igniting wrapping tissue of GWT | | | | | |
| ■ Tracking test to IEC 60112 solution A | > 250 V | | | | | |
| Compatibility to RoHS | | | | | | |
| Compliance to directive 2011/65/EU | RoHS | | | | | |
| Approvals: see table for approved ratings | | | | | | |
| UL 810 E106388 | | | | | | |
| c Al us | Approved component 10000 AFC, protected up to 450 V | | | | | |
| VDE EN 60252-1 | | | | | | |
| DVE | Approved up to 20 uF, 450 V / +85 °C : 30000 h (Class A) | | | | | |

CAP FILM T RD PD AC July 2016



| Film Capacitors – AC Capacitors | B32330 / B32332 |
|---------------------------------|-----------------|
| Motor run capacitors | 450 V |

| TÜV EN 60252-1 | Approved up to 50 uF, 450 V / +85 °C : 30000 h (Class A) | | | |
|----------------|---|--|--|--|
| cac | Approval on request | | | |
| C€ | Compliance to LV directive 2014/35/EU | | | |
| Logistics | | | | |
| Delivery mode | EU palette as standardCardboard tape on palettePack unit, see dimension table | | | |

Display of ordering codes for EPCOS products

The ordering code for one and the same EPCOS product can be represented differently in data sheets, data books, other publications, on the EPCOS website, or in order-related documents such as shipping notes, order confirmations and product labels. The varying representations of the ordering codes are due to different processes employed and do not affect the specifications of the respective products. Detailed information can be found on the Internet under www.epcos.com/orderingcodes

CAP FILM T RD PD AC July 2016

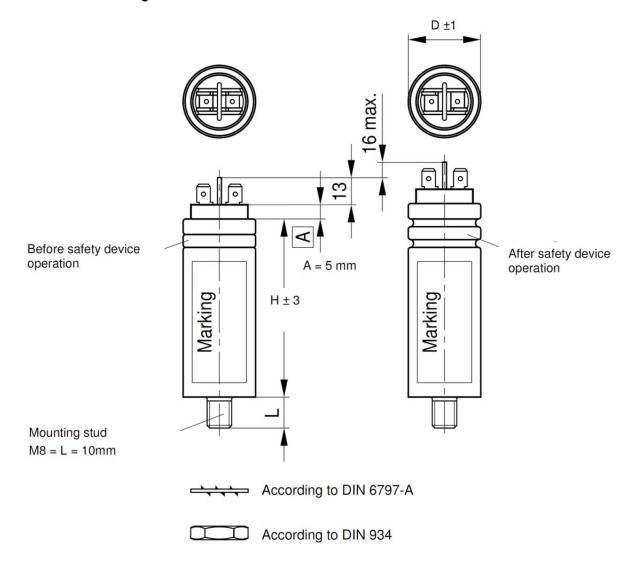


B32330 / B32332

Motor run capacitors

450 V

Dimensional drawing





B32330 / B32332

Motor run capacitors

450 V

Ordering codes

| Rated voltage V _R | Rated capacitance C _R | Dimensions D x H | Ordering code | Approvals / Life class | | | | Packing unit |
|------------------------------------|----------------------------------|---------------------|------------------|------------------------|-----|----|-----|--------------|
| | | | | VDE | ΤÜV | UL | cqc | pcs |
| | 1 | 30 x 52 | B3233*I6105J0#0 | А | Α | • | • | 49 |
| | 1.5 | 30 x 52 | B3233*I6155J0#0 | А | Α | • | • | 49 |
| | 2 | 30 x 52 | B3233*I6205J0#0 | А | Α | • | • | 49 |
| | 2.5 | 30 x 52 | B3233*I6255J0#1 | А | Α | • | • | 49 |
| | 3 | 30 x 52 | B3233*I6305J0#0 | А | Α | • | • | 49 |
| | 3.5 | 30 x 52 | B3233*I6355J0#0 | А | Α | • | • | 49 |
| | 4 | 30 x 52 | B3233*I6405J0#0 | А | Α | • | • | 49 |
| | 5 | 30 x 52 | B3233*I6505J0#1 | А | Α | • | • | 49 |
| | 6 | 30 x 52 | B3233*I6605J0#0 | А | Α | • | • | 49 |
| | 7 | 30 x 52 | B3233*I6705J0#0 | А | Α | • | • | 49 |
| | 7.5 | 30 x 68 | B3233*I6755J0#0 | А | Α | • | • | 49 |
| | 8 | 30 x 68 | B3233*I6805J0#0 | А | А | • | • | 49 |
| | 9 | 30 x 68 | B3233*I6905J0#0 | А | А | • | • | 49 |
| - | 10 | 30 x 68 | B3233*I6106J0#0 | А | Α | • | • | 49 |
| 450 | 11 | 30 x 78 | B3233*I6116J0#0 | А | Α | • | • | 49 |
| 450 | 12 | 30 x 78 | B3233*I6126J0#0 | А | Α | • | • | 49 |
| | 15 | 30 x 78 | B3233*I6156J0#0 | А | Α | • | • | 49 |
| | 17 | 30 x 93 | B3233*I6176J0#0 | А | Α | • | • | 49 |
| | 18 | 30 x 93 | B3233*I6186J0#0 | А | Α | • | • | 49 |
| | 20 | 30 x 93 | B3233*I6206J0#1 | А | Α | • | • | 49 |
| | 22 | 35 x 93 | B3233*I6226J0#2 | | А | • | • | 36 |
| | 25 | 35 x 93 | B3233*I6256J0#0 | | А | • | • | 36 |
| | 30 | 35 x 93 | B3233*I6306J0#0 | | Α | • | • | 36 |
| | 35 | 35 x 103 | B3233*I6356J0#1 | | А | • | • | 36 |
| } | 36 | 40 x 103 | B3233*I6366J0#1 | | А | • | • | 36 |
| | 40 | 40 x 103 | B3233*I6406J0#1 | | Α | • | • | 36 |
| | | B3233*I6456J0#1 | | Α | • | • | 36 | |
| | 50 | 45 x 103 | B3233*I6506J0#1 | | Α | • | • | 25 |
| | 55 | 45 x 103 | B3233*I6556J0#2 | | | • | • | 25 |
| | 60 | 45 x 103 | B3233*I6606J0#2 | | | • | • | 25 |

Composition of ordering code

- *: Terminals
- 0 Single fast-on terminals
- 2 Double fast-on terminals
- #: Construction of can and plastic top
- 6 Aluminum can: UL 94 V2/V0 top/IEC 60335- 1
- 8 Aluminum can with M 8 bolt: UL 94 V2/V0 top/IEC 60335-1

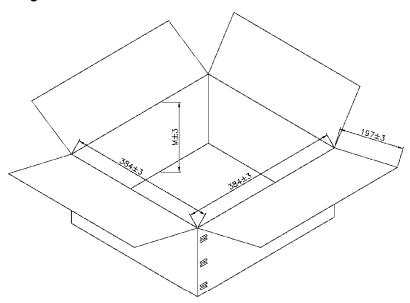


B32330 / B32332

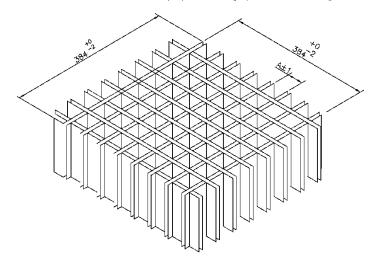
Motor run capacitors

450 V

Packing box



M = H(Capacitor height) + Terminal height + 10mm min.





A Please read "Applications warning, installation and maintenance instructions" and the "ZVEI -General safety recommendations for power capacitors", which are available on the Internet at www.epcos.com/ac_capacitors, to ensure optimum performance and to prevent products from failing, and in worst case, bursting and fire. Information given in the data sheet reflects typical specifications.

CAP FILM T RD PD AC July 2016



Important notes

The following applies to all products named in this publication:

- 1. Some parts of this publication contain statements about the suitability of our products for certain areas of application. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application. As a rule we are either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether a product with the properties described in the product specification is suitable for use in a particular customer application.
- 2. We also point out that in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
- 3. The warnings, cautions and product-specific notes must be observed.
- 4. In order to satisfy certain technical requirements, some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous). Useful information on this will be found in our Material Data Sheets on the Internet (www.tdk-electronics.tdk.com/material). Should you have any more detailed questions, please contact our sales offices.
- 5. We constantly strive to improve our products. Consequently, the products described in this publication may change from time to time. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order.
 - We also **reserve the right to discontinue production and delivery of products**. Consequently, we cannot guarantee that all products named in this publication will always be available. The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.
- 6. Unless otherwise agreed in individual contracts, all orders are subject to our General Terms and Conditions of Supply.
- 7. Our manufacturing sites serving the automotive business apply the IATF 16949 standard. The IATF certifications confirm our compliance with requirements regarding the quality management system in the automotive industry. Referring to customer requirements and customer specific requirements ("CSR") TDK always has and will continue to have the policy of respecting individual agreements. Even if IATF 16949 may appear to support the acceptance of unilateral requirements, we hereby like to emphasize that only requirements mutually agreed upon can and will be implemented in our Quality Management System. For clarification purposes we like to point out that obligations from IATF 16949 shall only become legally binding if individually agreed upon.
- 8. The trade names EPCOS, CeraCharge, CeraDiode, CeraLink, CeraPad, CeraPlas, CSMP, CTVS, DeltaCap, DigiSiMic, ExoCore, FilterCap, FormFit, LeaXield, MiniBlue, MiniCell, MKD, MKK, MotorCap, PCC, PhaseCap, PhaseCube, PhaseMod, PhiCap, PowerHap, PQSine, PQvar, SIFERRIT, SIFI, SIKOREL, SilverCap, SIMDAD, SiMic, SIMID, SineFormer, SIOV, ThermoFuse, WindCap are trademarks registered or pending in Europe and in other countries. Further information will be found on the Internet at www.tdk-electronics.tdk.com/trademarks.

Release 2018-10