



Film Capacitors – AC Capacitors

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.

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	
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

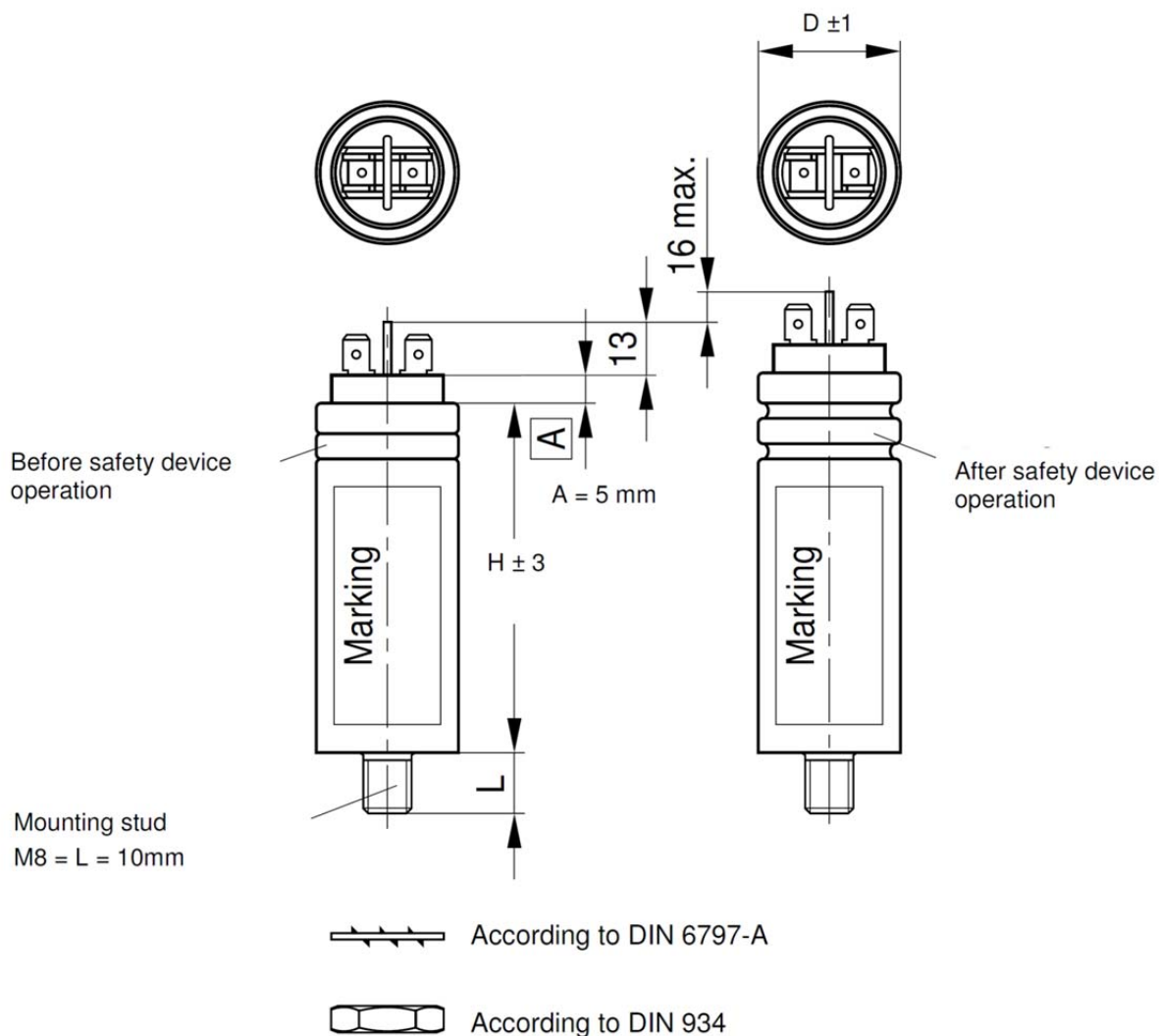
Maximum ratings	
Maximum permissible voltage V_{max}	$1.1 \cdot V_R$ (V_R = Rated voltage)
Maximum permissible current I_{max}	$1.3 \cdot I_R$ (I_R = Rated current)
Test data	
AC test voltage terminal to terminal V_{TT}	$2.0 \cdot V_R$, 2 s (routine test) $2.0 \cdot V_R$, 60 s (type test)
AC test voltage 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 °C, rel. humidity $\leq 65\%$ (minimum as-delivered values)	3000 s
Dissipation factor $\tan \delta$ at +20 °C	$\leq 7 \cdot 10^{-3}$ (1 kHz)
Maximum rate of voltage rise dV/dt_{max}	10 V/ μ s
Climatic data	
Climatic category	25/085/21 to IEC 60068-1
Lower category T_{min}	-25 °C
Upper category T_{max}	+85 °C
Damp heat test t_{test}	21 days
Mechanical and thermal properties of terminal insulator material	
Ball pressure test to IEC 60309-1 sec. 27.3	At +125 °C
Plastic can and top disk material	UL 94 V2 minimum
<ul style="list-style-type: none"> ■ 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
<ul style="list-style-type: none"> ■ Tracking test to IEC 60112 solution A 	> 250 V
Compatibility to RoHS	
Compliance to directive 2011/65/EU	
Approvals: see table for approved ratings	
UL 810 E106388 	Approved component 10000 AFC, protected up to 450 V
VDE EN 60252-1 	Approved up to 20 μ F, 450 V / +85 °C : 30000 h (Class A)

TÜV EN 60252-1 	Approved up to 50 uF, 450 V / +85 °C : 30000 h (Class A)
CQC 	Approval on request
	Compliance to LV directive 2014/35/EU
Logistics	
Delivery mode	<ul style="list-style-type: none"> ■ EU palette as standard ■ Cardboard tape on palette ■ Pack 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

Dimensional drawing



Ordering codes

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

Composition of ordering code

*: Terminals

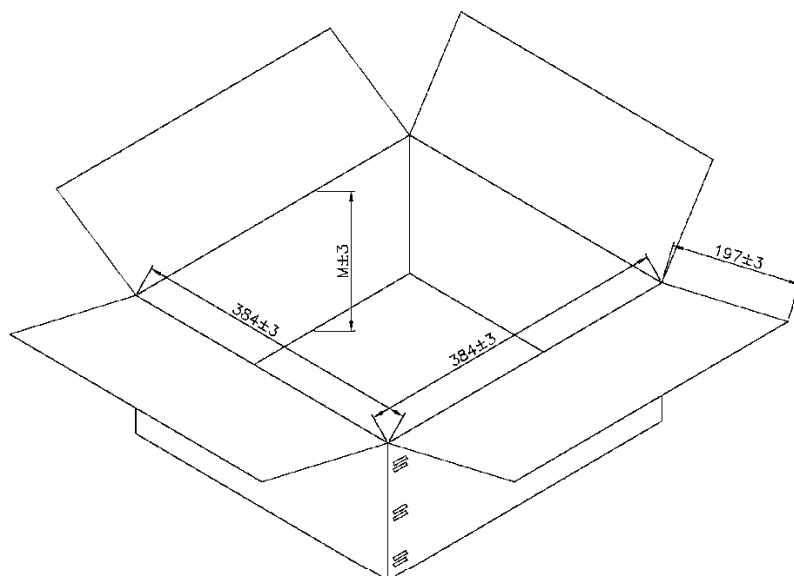
0 Single fast-on terminals

2 Double fast-on terminals

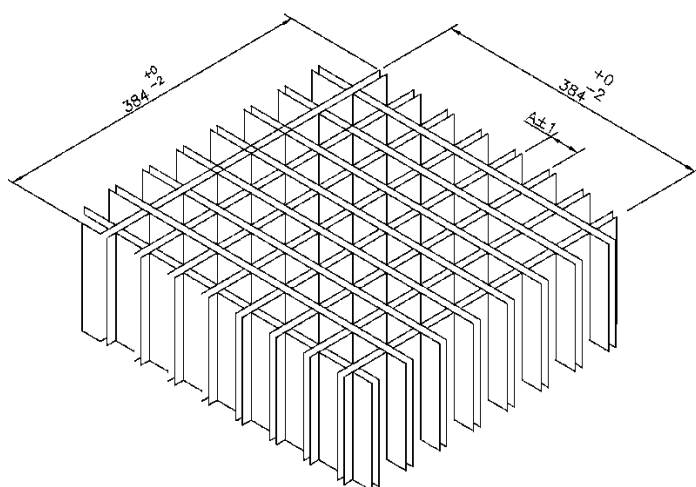
#: Construction of can and plastic top

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

Packing box


$M = H(\text{Capacitor height}) - \text{Terminal height} + 10\text{mm min.}$



⚠ 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.

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