



Film Capacitors – AC Capacitors

Motor run capacitors

Series/Type: B32333 – Super MotorCap™, 250 V
Ordering code: B32333
Date: Jan 2012
Version: 5

Construction

- Metallized polypropylene film
- Aluminum can with protective aluminum cover
- Soft polyurethane resin

Applications

- For general sine wave applications, mainly as motor run capacitor, e.g. compressor motor application

Features

- Self-healing properties
- Low dissipation factor
- Highest safety level P2 to IEC 60252-1 2001-02
- Overpressure disconnection device
- High insulation resistance
- EN 60335-1 compliance as option



Terminals

- Twin core cable, double insulated, (H05V2V2F)
- Twin core cable UL style on request
- Receptacles on request
- Compliance to IEC60112

Mounting parts (optional)



- Threaded stud at bottom of can (M8, max. torque = 5 Nm)

Technical data and specifications


Reference standards	IEC 60252-1 2001-02, EN 60252 2001 UL 810
Life expectancy to IEC 60252 2001	250 V: 30,000 h (class A)
Safety class according to IEC 60252-1 2001-02	P2
UL 810 file E 106388	Approved Component 10000 AFC
Rated capacitance C_R	See table ordering codes, page 6
Tolerance	±5%
Permitted capacitance $\Delta C/C$	≤3 %
Rated voltage V_R	250 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}	$2 \cdot V_R$, 2 s (routine test) $2 \cdot V_R$, 60 s (type test)
AC test voltage terminals to can V_{TC}	2 kV AC, 2 s (routine test) 2 kV AC, 60 s (type test)
Insulation resistance R_{ins} or time constant τ at 20 °C, Rel. humidity max. value 85%, annual means $\leq 65\%$	3,000 s
Dissipation factor $\tan \delta$ at 20 °C	$\leq 1.0 \cdot 10^{-3}$ (120 Hz)
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	
Ball pressure test to IEC 60309-1 sec. 27.3	At 125 °C
Plastic can and top disk material	See option A or option B
Option A: <ul style="list-style-type: none"> ■ UL 94 V2 compatible ■ Glow wire test to IEC 60695-2-1/1 Test temperature 550 °C for $I_R \leq 0.5$ A Test temperature 850 °C for $I_R > 0.5$ A 	Self extinguish within 30 seconds of withdrawing the glow
Option B: <ul style="list-style-type: none"> ■ UL 94 V2/V0 compatible ■ Glow wire test to IEC 60335-1 / IEC 60695-2-1/1 Test temperature 550 °C / 750 °C ■ Part is compatible to EN 60335-1 	Self-extinguish within 2 seconds of withdrawing glow wire
Tracking test to IEC 60112 solution A	>250 V
Protection class acc. IEC 60529 2001	IP 55
Compatibility to RoHS	
Compliance to directive 2002/95/EC	

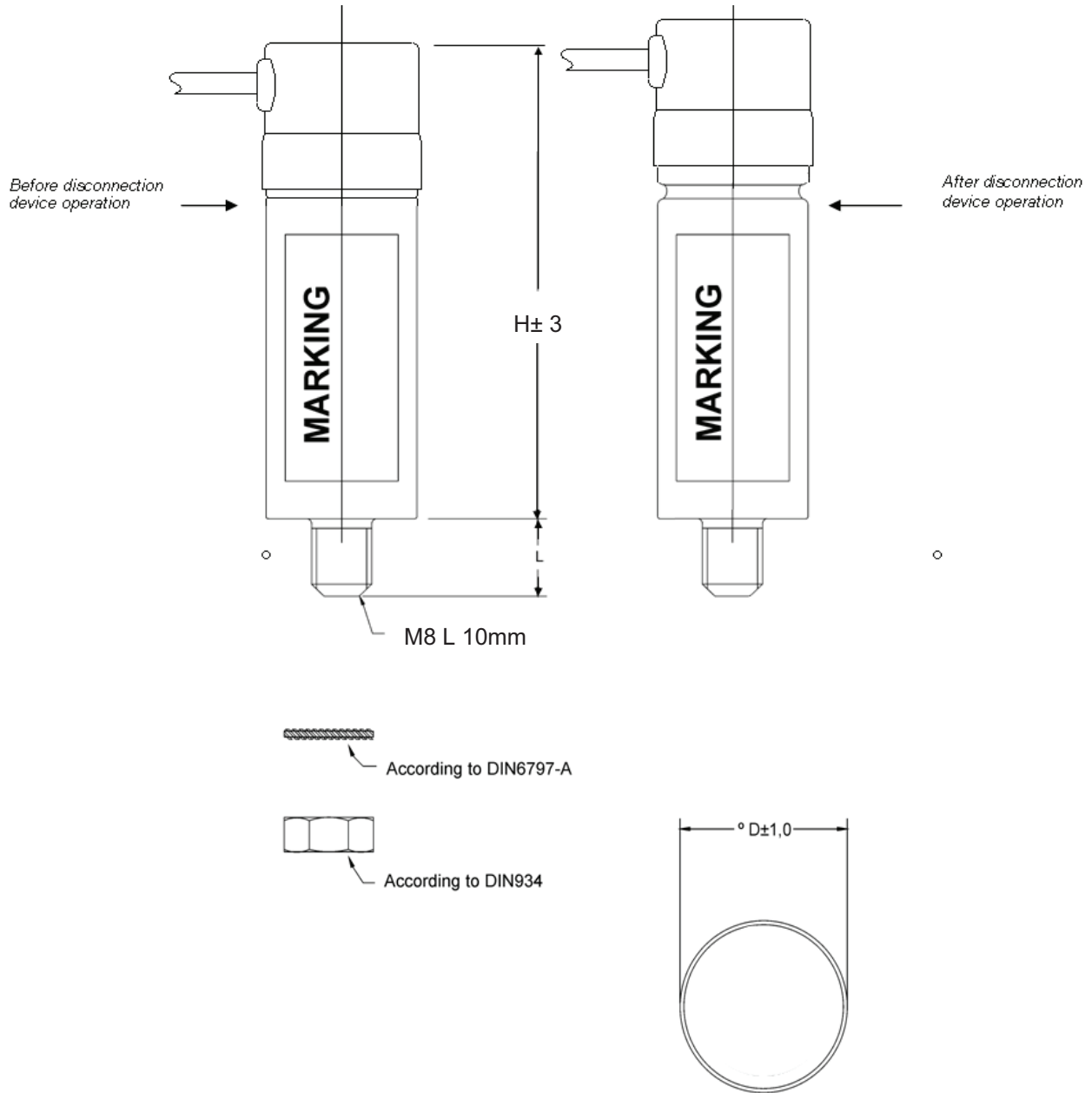


Approvals		
VDE EN 60252-1 250 V / 85 °C:	30,000 h (class A)	Approved up to 20µF
TÜV 250 V / 85 °C:	30,000 h (class A)	Approved up to 50µF
UL 810 E106388 		Approved Component 10000 AFC
		Approved on request
Logistics		
Delivery mode		<ul style="list-style-type: none"> ■ EU palette as standard ■ Cardboard tape on palette ■ Pack unit, see dimension table

Cautions and warnings

 Please read “Applications warning, installation and maintenance instructions” and the “General Safety Data Sheet for Power Capacitors” issued by ZVEI, 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. You are kindly requested to approve our product specifications or request our approval for your specification before ordering.

Dimensional drawing



Ordering codes:

Rated Voltage V_R VAC	C_R μF	Max. dimensions D x H mm	Ordering code	VDE	TUV	UL	CQC	Packing units
250	1	25 x 72	B32333I1105J0#x	A	A	●	●	108
	1,5	25 x 72	B32333I1155J0#x	A	A	●	●	108
	2	25 x 72	B32333I1205J0#x	A	A	●	●	108
	2,5	25 x 72	B32333I1255J0#x	A	A	●	●	108
	3	25 x 72	B32333I1305J0#x	A	A	●	●	108
	3,5	25 x 72	B32333I1355J0#x	A	A	●	●	108
	4	25 x 72	B32333I1405J0#x	A	A	●	●	108
	5	25 x 88	B32333I1505J0#x	A	A	●	●	108
	6	30 x 74	B32333I1605J0#x	A	A	●	●	80
	7	30 x 74	B32333I1705J0#x	A	A	●	●	80
	7,5	30 x 90	B32333I1755J0#x	A	A	●	●	80
	8	30 x 90	B32333I1805J0#x	A	A	●	●	80
	9	30 x 90	B32333I1905J0#x	A	A	●	●	80
	10	30 x 90	B32333I1106J0#x	A	A	●	●	80
	12	30 x 100	B32333I1126J0#x	A	A	●	●	80
	15	30 x 115	B32333I1156J0#x	A	A	●	●	80
	17	30 x 115	B32333I1176J0#x	A	A	●	●	80
	20	30 x 115	B32333I1206J0#x	A	A	●	●	80
	25	35 x 115	B32333I1256J0#x	--	A	●	●	63
	30	35 x 115	B32333I1306J0#x	--	A	●	●	63
	35	35 x 125	B32333I1356J0#x	--	A	●	●	63
36	40 x 125	B32333I1366J0#x	--	A	●	●	48	
40	40 x 125	B32333I1406J0#x	--	A	●	●	48	
45	40 x 125	B32333I1456J0#x	--	A	●	●	48	
50	45 x 125	B32333I1506J0#x	--	A	●	●	36	
55	45 x 125	B32333I1556J0#x	--	--	●	●	36	
60	45 x 125	B32333I1606J0#x	--	--	●	●	36	

Composition of ordering code:

#: construction

- 5 aluminum can, Option A: UL 94 V2 top
- 6 aluminum can, Option B: UL 94 V2/V0 top/IEC 60335-1
- 7 aluminum can with M 8 bolt, Option A: UL 94 V2 top
- 8 aluminum can with M 8 bolt, Option B: UL 94 V2/V0 top/IEC 60335-1

x :- Ordering code will be created based on cable length and receptacles on request

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, EPCOS is 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 an EPCOS 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.epcos.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 the current version of the "General Terms of Delivery for Products and Services in the Electrical Industry" published by the German Electrical and Electronics Industry Association (ZVEI)**.
7. The trade names EPCOS, BAOKE, Alu-X, CeraDiode, CSMP, CSSP, CTVS, DeltaCap, DigiSiMic, DSSP, MiniBlue, MiniCell, MKK, MLSC, MotorCap, PCC, PhaseCap, PhaseCube, PhaseMod, PhiCap, SIFERRIT, SIFI, SIKOREL, SilverCap, SIMDAD, SiMic, SIMID, SineFormer, SIOV, SIP5D, SIP5K, ThermoFuse, WindCap are **trademarks registered or pending** in Europe and in other countries. Further information will be found on the Internet at www.epcos.com/trademarks.