



## Film Capacitors – AC Capacitors

Motor run capacitors

**Series/Type:** B32333 – Super MotorCap™, 450 V  
**Ordering code:** B32333  
**Date:** Nov 2013  
**Version:** 8

### 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 on request



### 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	450 V: 30000 h (class A)
Safety class according to IEC 60252-1 2001-02	P2
UL 810 file E 106388	Approved Component 10000 AFC protected up to 450 V
Rated capacitance $C_R$	See table ordering codes, page 6
Tolerance	±5%
Permitted capacitance $\Delta C/C$	≤3%
Rated voltage $V_R$	450 V AC
Rated frequency $f_R$	50/60 Hz


<b>Maximum ratings</b>	
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)
<b>Test data</b>	
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 $R_{\text{ins}}$ or time constant $\tau$ at 20 °C, Rel. humidity max. value 85%, annual means $\leq 65\%$	3000 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/ $\mu$ s
<b>Climatic data</b>	
Climatic category	25/085/21 to IEC 60068-1
Lower category $T_{\min}$	-25 °C
Upper category $T_{\max}$	+85 °C
Damp heat test $t_{\text{test}}$	21 days
<b>Mechanical and thermal properties</b>	
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"> <li>■ UL 94 V2 compatible</li> <li>■ Glow wire test to IEC 60695-2-1/1 Test temperature 550 °C for <math>I_R \leq 0.5</math> A Test temperature 850 °C for <math>I_R &gt; 0.5</math> A</li> </ul>	Self extinguish within 30 seconds of withdrawing the glow
Option B: <ul style="list-style-type: none"> <li>■ UL 94 V2/V0 compatible</li> <li>■ Glow wire test to IEC 60335-1 / IEC 60695-2-1/1 Test temperature 550 °C / 750 °C</li> <li>■ Part is compatible to EN 60335-1</li> </ul>	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

<b>Compatibility to RoHS</b>	
Compliance to directive 2002/95/EC	
<b>Approvals</b>	
<b>VDE EN 60252-1</b> 450 V / 85 °C: 30000 h (class A)	Approved up to 20 µF
<b>TÜV</b> 450 V / 85 °C: 30000 h (class A)	Approved up to 50 µF
<b>UL 810 E106388</b> 	Approved component 10000 AFC, protected up to 450 V
	Approved on request
<b>Logistics</b>	
Delivery mode	<ul style="list-style-type: none"> <li>■ EU palette as standard</li> <li>■ Cardboard tape on palette</li> <li>■ Pack unit, see dimension table</li> </ul>

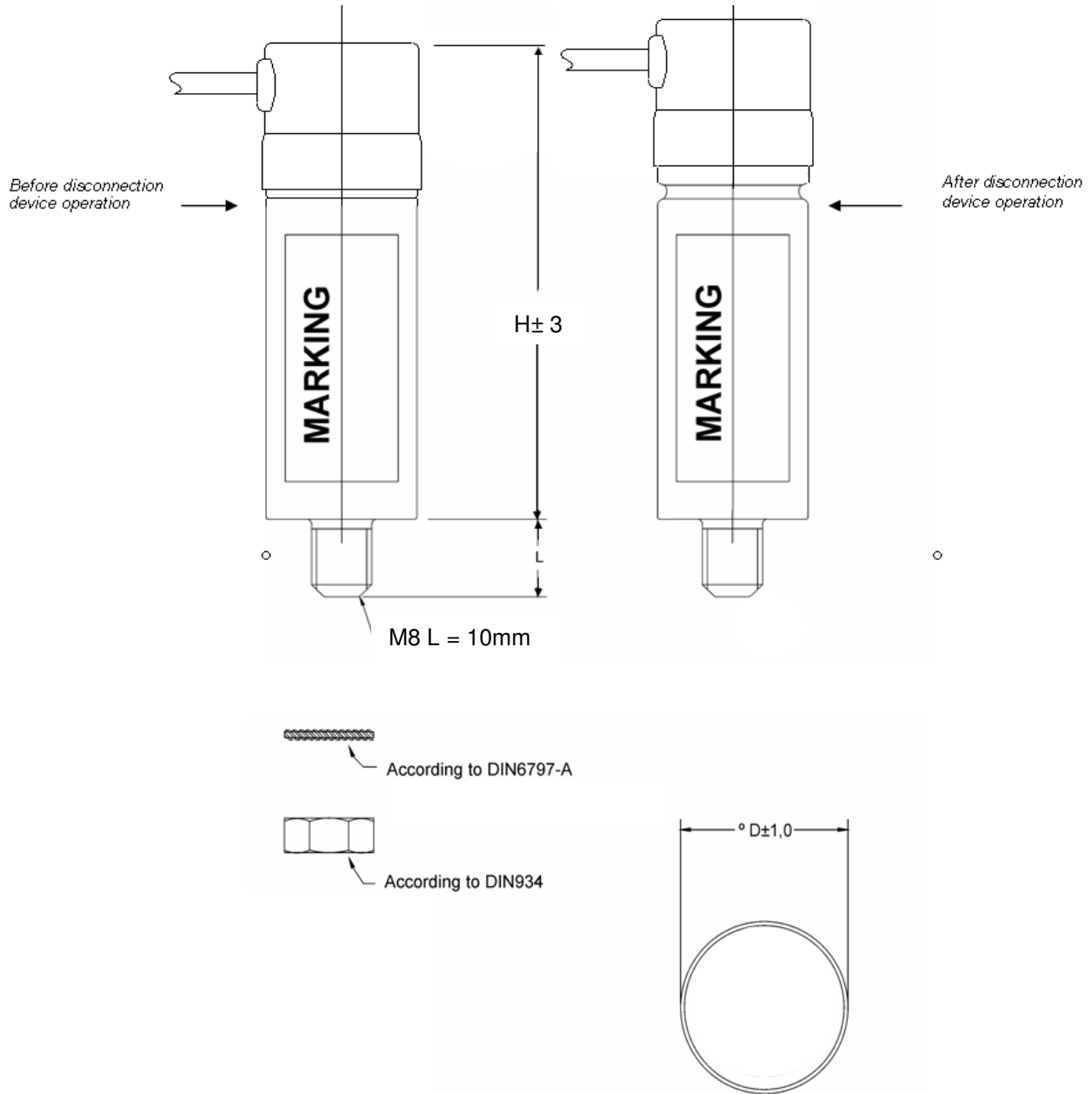
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### Cautions and warnings

 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](http://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 <sub>R</sub> ) VAC	C <sub>R</sub> [μF]	Max. dimensions D x H mm	Ordering code B3233316	VDE	TUV	UL	CQC	Packing units
450	1	30 x 74	B3233316105J0#X	A	A	●	●	80
	1.5	30 x 74	B3233316155J0#X	A	A	●	●	80
	2	30 x 74	B3233316205J0#X	A	A	●	●	80
	2.5	30 x 74	B3233316255J0#X	A	A	●	●	80
	3	30 x 74	B3233316305J0#X	A	A	●	●	80
	3.5	30 x 74	B3233316355J0#X	A	A	●	●	80
	4	30 x 74	B3233316405J0#X	A	A	●	●	80
	5	30 x 74	B3233316505J0#X	A	A	●	●	80
	6	30 x 74	B3233316605J0#X	A	A	●	●	80
	7	30 x 74	B3233316705J0#X	A	A	●	●	80
	7.5	30 x 90	B3233316755J0#X	A	A	●	●	80
	8	30 x 90	B3233316805J0#X	A	A	●	●	80
	9	30 x 90	B3233316905J0#X	A	A	●	●	80
	10	30 x 90	B3233316106J0#X	A	A	●	●	80
	12	30 x 100	B3233316126J0#X	A	A	●	●	80
	15	30 x 100	B3233316156J0#X	A	A	●	●	80
	17	30 x 115	B3233316176J0#X	A	A	●	●	80
	20	30 x 115	B3233316206J0#X	A	A	●	●	80
	25	35 x 115	B3233316256J0#X	--	A	●	●	63
	30	35 x 115	B3233316306J0#X	--	A	●	●	63
35	35 x 125	B3233316356J0#X	--	A	●	●	63	
36	40 x 125	B3233316366J0#X	--	A	●	●	48	
40	40 x 125	B3233316406J0#X	--	A	●	●	48	
45	40 x 125	B3233316456J0#X	--	A	●	●	48	
50	45 x 125	B3233316506J0#X	--	A	●	●	36	
55	45 x 125	B3233316556J0#X	--	--	●	●	36	
60	45 x 125	B3233316606J0#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 codes will be created based on cable length and receptacles on request

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