



## Film Capacitors – AC Capacitors

### Motor run capacitors

**Series/Type:** B32330/B32332 – Super MotorCap™, 450 V  
**Ordering code:** B32330/B32332  
**Date:** January 2010  
**Version:** 4

### Construction

- Metallized polypropylene film
- Aluminum can with plastic top
- Soft polyurethane resin

### Applications

- For general sine wave applications, mainly as motor run capacitor

### 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 compliance on request

### Terminals

- B32330 – Single Fast on: 6.3 × 0.8 mm
- B32332 – Double Fast on: 6.3 × 0.8 mm


### Mounting parts (optional)




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




### Technical data and specifications

Reference standards	IEC 60252-1 2001-02 EN 60252 2001 UL 810
Life expectancy to IEC 60252 2001	450 V: 10,000 h (class B)
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 $C_R$	1 ... 60 µF
Tolerance	±5%
Permitted capacitance $\Delta C/C$	≤3 %
Rated voltage $V_R$	420 V AC, 450 V AC
Rated frequency $f_R$	50 / 60 Hz

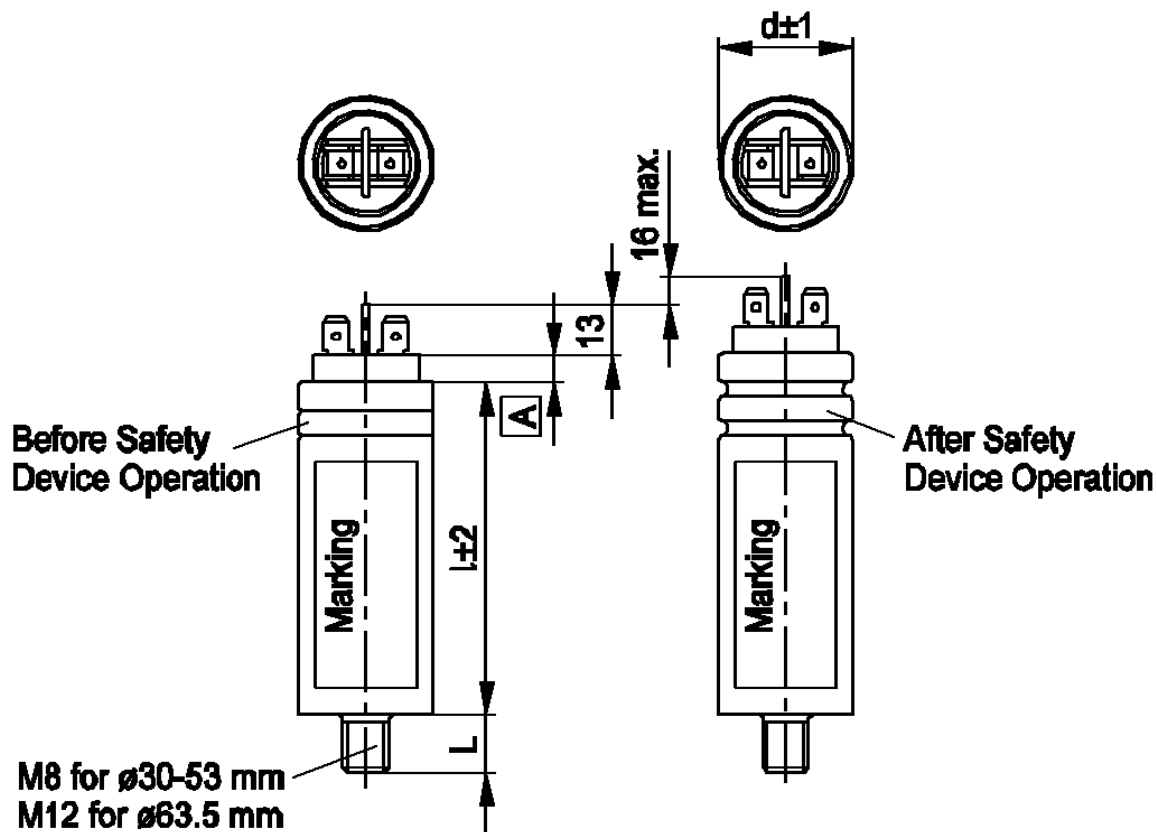
<b>Maximum ratings</b>	
Maximum permissible voltage $V_{\max}$	$1.1 \cdot V_R$ ( $V_R$ = Rated voltage)
Maximum permissible current $I_{\max}$	$1.3 \cdot I_R$ ( $I_R$ = Rated current)
<b>Test data</b>	
AC test voltage terminal to terminal $V_{TT}$	$2 \cdot V_R$ , 2 s (routine test) $2 \cdot V_R$ , 60 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 $\leq 65\%$	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/ $\mu$ 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	UL 94 V2 minimum
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
<b>Compatibility to RoHS</b>	
Compliance to directive 2002/95/EC	

<b>Approvals</b>	
<b>VDE EN 60252</b>	
450 V / 85 °C: 10,000 h (class B)	Approved
<b>TÜV</b>	
450 V / 85 °C: 10,000 h (class B)	Approved
<b>UL 810 E106388</b>	Approved Component 10000 AFC, protected up to 450 V
 C  US	
	Approved on request
<b>Logistics</b>	
Delivery mode	<ul style="list-style-type: none"> <li>■ EU palett as standard</li> <li>■ Cardboard tape on palett</li> <li>■ Pack unit, see dimension table</li> </ul>

## 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



 According to DIN 6797-A

 According to DIN 934

KMK1156-A-E

For M 8 - L = 12 mm  
For M 12 - L = 16 mm

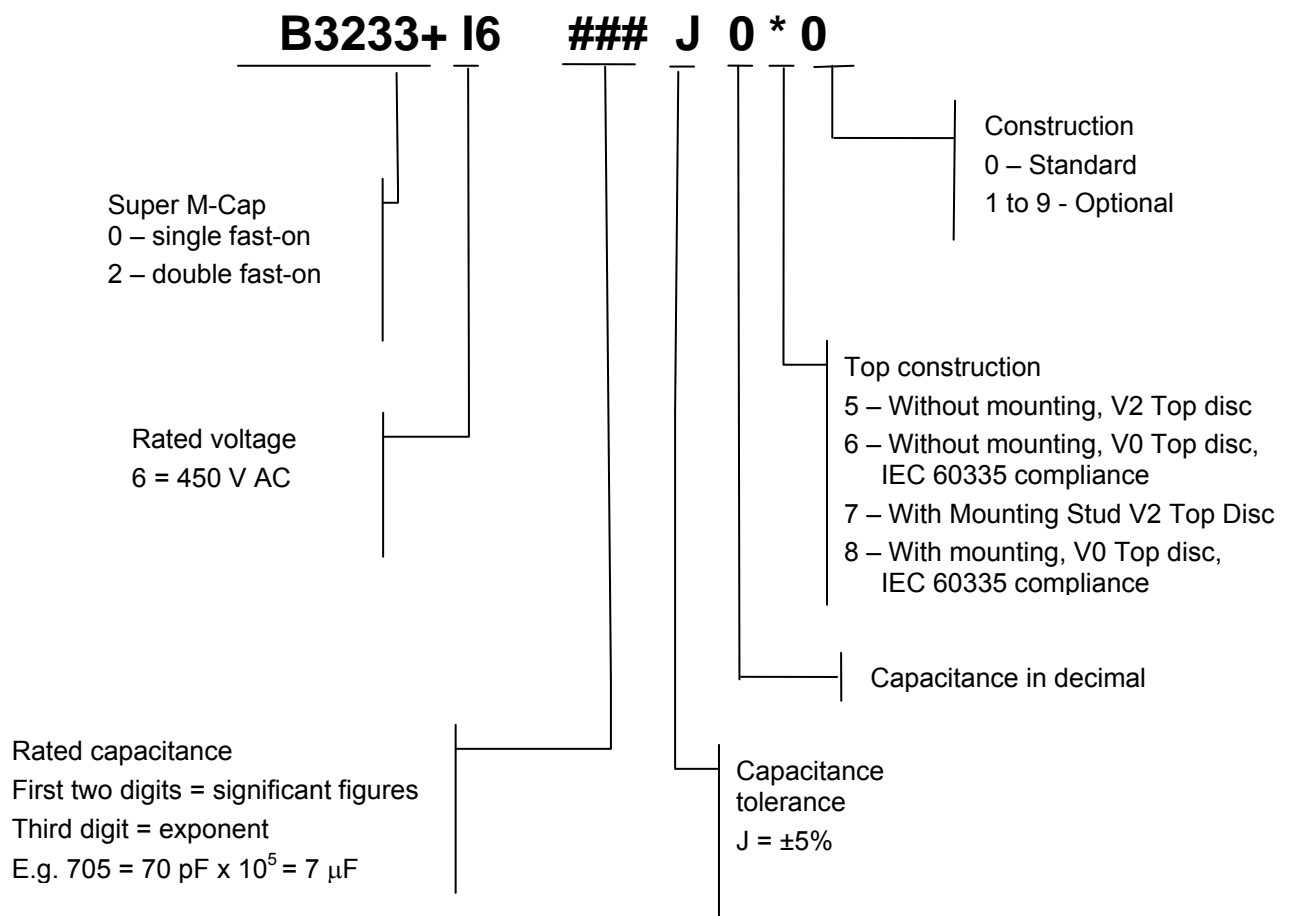
A = 5 mm for dia. 30, 35, 40 & 45  
A = 0 mm for dia. 50, 53 & 63.5

**Ordering codes**

V <sub>R</sub> V AC	C <sub>R</sub> μF	Dimensions D x H mm	Ordering code	Approvals			Packing unit
				VDE	UL	CQC	
450	1	30 x 52	B3233+I6105J0*2	x		x	49
	1.5	30 x 52	B3233+I6155J0*2	x		x	49
	2	30 x 52	B3233+I6205J0*2	x		x	49
	2.5	30 x 52	B3233+I6255J0*2	x		x	49
	3	30 x 52	B3233+I6305J0*2	x		x	49
	3	30 x 68	B3233+I6305J0*1	x	x	x	49
	3.5	30 x 52	B3233+I6355J0*2	x		x	49
	3.5	30 x 68	B3233+I6355J0*1	x	x	x	49
	4	30 x 52	B3233+I6405J0*2	x		x	49
	4	30 x 68	B3233+I6405J0*1	x	x	x	49
	5	30 x 52	B3233+I6505J0*2	x		x	49
	5	30 x 68	B3233+I6505J0*1	x	x	x	49
	6	30 x 52	B3233+I6605J0*2	x		x	49
	6	30 x 68	B3233+I6605J0*1	x	x	x	49
	7	30 x 52	B3233+I6705J0*2	x		x	49
	7	30 x 68	B3233+I6705J0*1	x	x	x	49
	7.5	30 x 68	B3233+I6755J0*0	x	x	x	49
	8	30 x 68	B3233+I6805J0*0	x	x	x	49
	9	30 x 68	B3233+I6905J0*0	x	x	x	49
	10	30 x 68	B3233+I6106J0*0	x	x	x	49
	12	30 x 78	B3233+I6126J0*0	x	x	x	49
	15	30 x 78	B3233+I6156J0*0	x	x	x	49
	17	30 x 78	B3233+I6176J0*0	x	x	x	49
	20	35 x 78	B3233+I6206J0*0	x	x	x	36
	25	40 x 78	B3233+I6256J0*0	x	x	x	36
	30	40 x 78	B3233+I6306J0*0	x	x	x	36
	35	40 x 103	B3233+I6356J0*0	x	x	x	36
	36	40 x 103	B3233+I6366J0*0	x	x	x	36
	40	40 x 103	B3233+I6406J0*0	x	x	x	36
	45	40 x 103	B3233+I6456J0*0	x	x	x	36
	50	45 x 103	B3233+I6506J0*0	x	x	x	25
	55	45 x 103	B3233+I6556J0*0	x	x	x	25
	60	45 x 103	B3233+I6606J0*0	x	x	x	25

**Composition of ordering code**

+: terminals	+: construction of can and plastic top
0 single fast-on terminals	5 aluminum can, Option A: UL 94 V2 top
2 double fast-on terminals	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

**Ordering code structure**


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