



Film capacitors – AC capacitors

Motor run capacitors

450 V; class B; 85 °C

Series/Type: B32330/B32332 – MotorCap™


Date: January 2008

Version: 2.0

Construction

- Dielectric: polypropylene film
- Aluminum can
- Soft polyurethane resin

Features

- Self-healing properties
- Low dissipation factor
- Overpressure disconnection device
- Highest safety level P2 to IEC 60252-1 2001-02
- High insulation resistance
- EN 60335 compliant
- Capacitor **CRAUS** UL files E106388
- VDE approval 

Typical applications

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

Terminals

- B32330 series: Single fast on 6.3 × 0.8 mm
- B32332 series: Double fast on 6.3 × 0.8 mm


Mounting parts (optional)

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

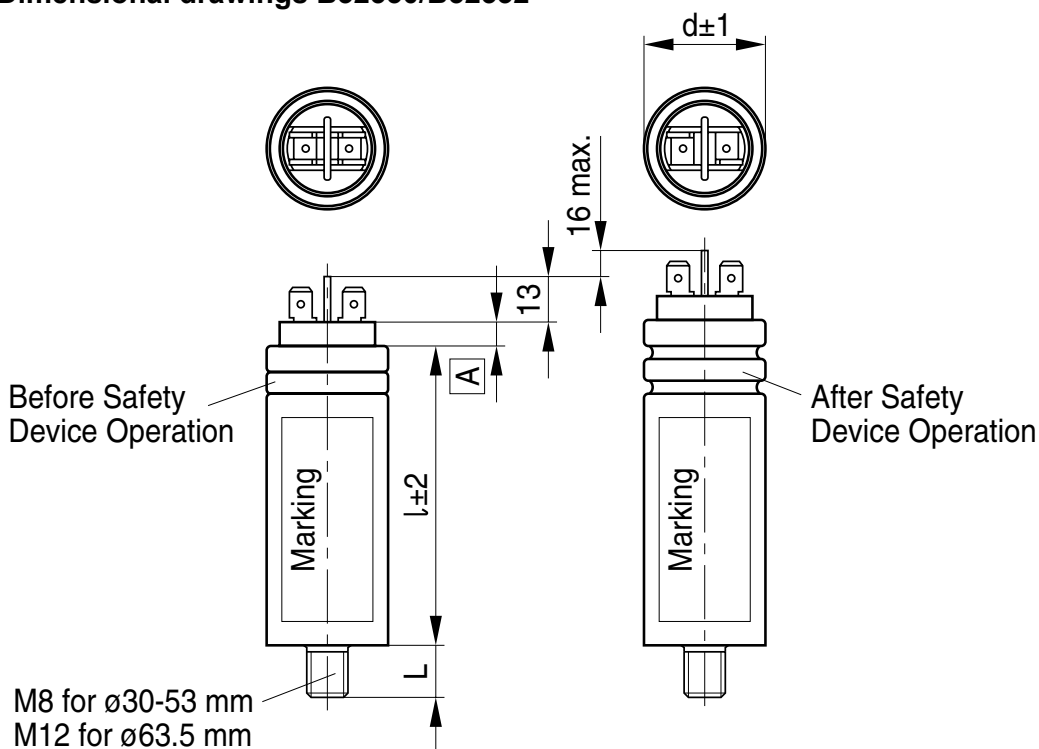


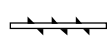
Technical data and specifications	
Reference standards	IEC 60252-1 2001-02, EN 60252 2001, UL 810
Safety class to IEC 60252-1 2001-02	P2
Life expectancy to IEC 60252 2001	450 V: 10000 h (class B)
UL 810 file E106388 for Nashik and Gravatai plant	Approved component 10000 AFC protected
Rated capacitance C_R	3.0 ... 60.0 μ F
Tolerance	\pm 5%
Rated voltage V_R	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}	$2 \cdot V_R$, 60 s (type test) $2 \cdot V_R$, 2 s (routine test)	
Insulation voltage terminals to case	2000 V AC, 60s. (type test) 2000 V AC, 2s (routine test)	
Insulation resistance R_{ins} or time constant τ at 20 °C; rel. humidity $\leq 65\%$ (minimum as-delivered values)	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/ μs	
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 electrical properties of terminal top disk material		
Ball pressure test to IEC 60309-1 sec. 27.3	20 N at 125 °C	
Top disk material		
OPTION A: <ul style="list-style-type: none"> ■ UL 94 V2 compatible ■ Glow wire test to IEC 60695-2-11 Test temp 550 °C for $I_R \leq 0.5$ A Test temp 850 °C for $I_R > 0.5$ A 	Self-extinguishing within 30 seconds of withdrawing glow wire	
Option B: <ul style="list-style-type: none"> ■ UL 94 V2/V0 compatible ■ Glow wire test to IEC60335-1 / IEC 60695-2-11 Test temp 550 °C / 750 °C ■ Part is compatible to EN 60335-1 		
Tracking test to IEC 60112 solution A	> 250 V	

Compatibility to RoHS	
Compliance to directive 2002/95/EC	
Approvals	
VDE 450 V/85 °C: 10000 h (class B) See table for approved ratings	Approved
CRA US UL 810 files E106388	See table for approved ratings
Approved Component 10000 AFC up to 450 V	Protected

Dimensional drawings B32330/B32332



 According to DIN 6797-A

 According to DIN 934

KMK1156-A-E

M 8 bolt: L = 12 mm
M 12 bolt: L = 16 mm

A = 5 mm for diameters $d = 30, 35, 40, 45$ mm
A = 0 mm for diameters $d = 50, 53, 63.5$ mm

Ordering codes and packing units

V _R V AC	C _R μF	Max. dimensions d × l mm	Ordering code	Packing units pcs.	Approvals	
					VDE	UL
450 V	3.0	30 × 52	B3233*B6305J0#1	150	Yes	Yes
	4.0	30 × 52	B3233*B6405J0#1	150	Yes	Yes
	5.0	30 × 68	B3233*B6505J0#0	150	Yes	Yes
	6.0	30 × 68	B3233*B6605J0#0	150	Yes	Yes
	7.0	30 × 78	B3233*B6705J0#0	150	Yes	Yes
	7.5	30 × 78	B3233*B6755J0#0	150	Yes	Yes
	8.0	35 × 78	B3233*B6805J0#0	50	Yes	Yes
	10.0	40 × 78	B3233*B6106J0#0	50	Yes	Yes
	12.0	40 × 78	B3233*B6126J0#0	50	Yes	Yes
	12.5	40 × 78	B3233*B6126J5#0	50	Yes	Yes
	15.0	40 × 103	B3233*B6156J0#0	50	Yes	Yes
	16.0	40 × 103	B3233*B6166J0#0	50	Yes	Yes
	18.0	40 × 103	B3233*B6186J0#0	50	Yes	Yes
	20.0	40 × 103	B3233*B6206J0#0	50	Yes	Yes
	25.0	45 × 105	B3233*B6256J0#0	50	Yes	Yes
	30.0	53 × 105	B3233*B6306J0#0	50	Yes	Yes
	35.0	53 × 105	B3233*B6356J0#0	50	Yes	Yes
	40.0	53 × 105	B3233*B6406J0#0	50	Yes	Yes
45.0	53 × 142	B3233*B6456J0#0	50	Yes	Yes	
50.0	53 × 142	B3233*B6506J0#0	50	Yes	Yes	
55.0	63.5 × 142	B3233*B6556J0#0	28	Yes	Yes	
60.0	63.5 × 142	B3233*B6606J0#0	28	Yes	Yes	

Composition of ordering code:

*: terminals

0 – single fast on terminals

2 – double fast on terminals

#: construction of can and plastic top

5 – aluminum can, Option A: UL 94 V2 top

6 – Aluminum can, Option B: UL 94 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 V0 top/IEC 60335-1

⚠ 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.

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