



Film capacitors – AC capacitors

Motor run capacitors

250 V; class B; 85 °C


Series/Type: B32335 – Dual 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
- **C_R**  UL file E 106388

Typical applications

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



Terminals

- Double fast-on terminals: 6.3 × 0.8 mm and quadruple fast-on terminals: 6.3 × 0.8 mm

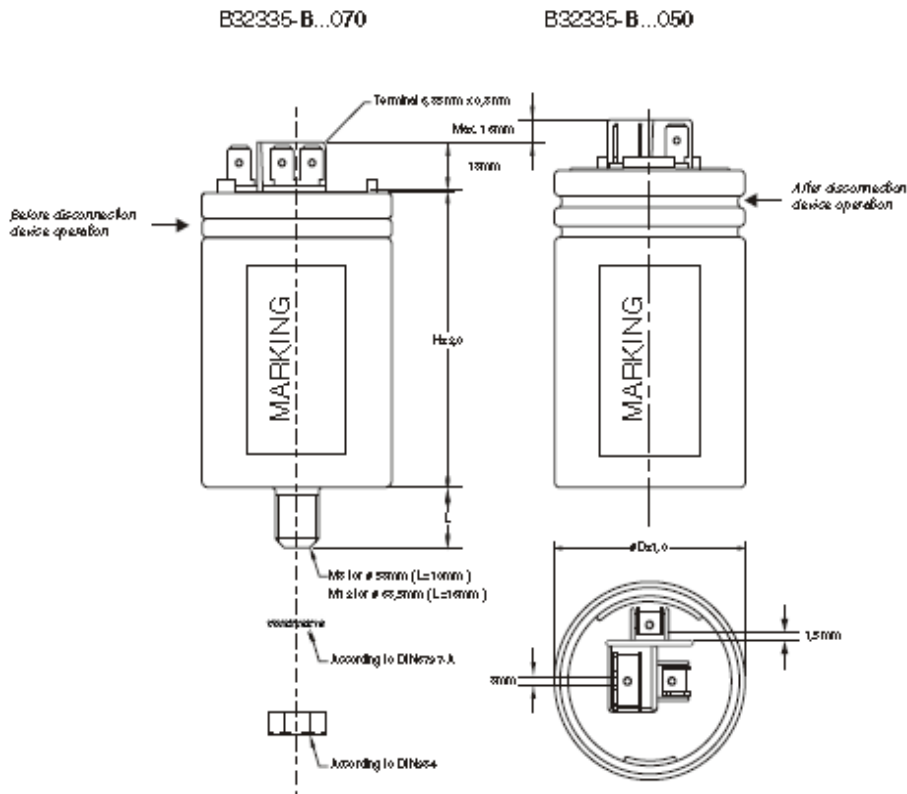
Mounting parts (optional)

- 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	250 V: 10000 h (class B)
UL 810 file E 106388 for Nashik and Gravatai plant	Approved component 10000 AFC protected
Rated capacitance C_R	15+2 ... 30+8 μ F
Tolerance	\pm 5%
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}	$2 \cdot V_R$, 60 s (type test) $2 \cdot V_R$, 2 s (routine test)
Insulation voltage terminals to case	2000 V AC, 60 s (type test) 2000 V AC, 2 s (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 thermal properties of terminal top disk material	
Ball pressure test to IEC 60309-1 sec. 27.3	20 N at 125 °C
Top disk material	
<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
Tracking Test to IEC 60112 solution A	> 250 V
Compatibility to RoHS	
Compliance to directive 2002/95/EC	

Dimensional drawings



Ordering codes and packing units

V_R V AC	C_R μF	Max. dimensions d × l mm	Ordering code	Packing units pcs.
250	15+2	53 × 70	B32335B1020J0*0	32
	15+2.5	53 × 70	B32335B1076J0*0	32
	15+3	53 × 70	B32335B1021J0*0	32
	15+4	53 × 70	B32335B1022J0*0	32
	15+5	53 × 70	B32335B1023J0*0	32
	17.5+2.5	53 × 70	B32335B1077J0*0	32
	17.5+4	53 × 70	B32335B1024J0*0	32
	17.5+5	53 × 70	B32335B1025J0*0	32
	20+2	53 × 70	B32335B1027J0*0	32
	20+2.5	53 × 70	B32335B1057J0*0	32
	20+3	53 × 70	B32335B1028J0*0	32
	20+4	53 × 70	B32335B1050J0*0	32
	20+5	53 × 70	B32335B1029J0*0	32
	22+5	53 × 82	B32335B1030J0*0	32
	25+2	63.5 × 70	B32335B1031J0*0	32
	25+2.5	53 × 82	B32335B1054J0*0	32
	25+3	53 × 82	B32335B1032J0*0	32
	25+4	53 × 82	B32335B1033J0*0	32
	25+5	53 × 82	B32335B1034J0*0	32
	25+7.5	53 × 82	B32335B1019J0*0	28
	25+8	53 × 82	B32335B1051J0*0	32
	25+9.5	53 × 82	B32335B1053J0*0	32
	25+10	53 × 82	B32335B1056J0*0	32
	25+15	53 × 107	B32335B1098J0*0	28
	30+2	53 × 82	B32335B1035J0*0	30
	30+3	53 × 82	B32335B1073J0*0	30
	30+4	53 × 82	B32335B1036J0*0	30
	30+5	53 × 82	B32335B1037J0*0	30
	30+7.5	53 × 82	B32335B1066J0*0	30
	30+10	53 × 107	B32335B1038J0*0	30

V_R V AC	C_R μF	Max. dimensions $d \times l$ mm	Ordering code	Packing units pcs.
250	30+12	53 × 107	B32335B1072J0*0	30
	30+15	53 × 107	B32335B1067J0*0	30
	35+2	63.5 × 70	B32335B1081J0*0	28
	35+3	53 × 82	B32335B1059J0*0	30
	35+5	53 × 107	B32335B1040J0*0	30
	35+6	53 × 107	B32335B1085J0*0	30
	35+8	53 × 107	B32335B1058J0*0	30
	35+9.5	53 × 107	B32335B1052J0*0	30
	35+10	53 × 107	B32335B1041J0*0	30
	35+12	53 × 107	B32335B1079J0*0	30
	35+15	53 × 107	B32335B1074J0*0	30
	40+4	53 × 107	B32335B1090J0*0	30
	40+5	53 × 107	B32335B1042J0*0	30
	40+7.5	53 × 107	B32335B1086J0*0	30
	40+8	53 × 107	B32335B1047J0*0	30
	40+10	53 × 107	B32335B1043J0*0	30
	40+12	53 × 107	B32335B1075J0*0	30
	40+15	53 × 107	B32335B1078J0*0	30
	45+4	53 × 107	B32335B1106J0*0	30
	45+5	53 × 107	B32335B1044J0*0	30
	45+8	53 × 107	B32335B1071J0*0	30
	45+10	53 × 107	B32335B1045J0*0	30
	50+4	63.5 × 82	B32335B1046J0*0	28
50+5	53 × 107	B32335B1048J0*0	30	
50+8	53 × 107	B32335B1049J0*0	30	

Composition of ordering code:

*: Construction of can and plastic top

5 – Aluminum can, UL 94 V2 top

7 – Aluminum can with M8 / M12 bolt:

 M8 fixing threaded bolt for diameter ≤ 53 mm,

 M12 fixing threaded bolt for diameter ≤ 63.5 mm

⚠ 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.

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 passive 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 a passive electronic component could endanger human life or health (e.g. in accident prevention or lifesaving 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 a passive 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, CSSP, MiniBlue, MKK, MLSC, MotorCap, PCC, PhaseCap, PhaseMod, SIFERRIT, SIFI, SIKOREL, SilverCap, SIMDAD, 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.