



## Film Capacitors – AC capacitors

Motor run capacitors

**Series/Type:** B32335 – Dual MotorCap™, 450 V  
**Ordering code:** B32335  
**Date:** Jan 2012  
**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 for air condition 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

- Single fast on 6.3 x 0.8 mm for FAN (F)
- Double fast on 6.3 x 0.8 mm for HERM (H)
- Quadruple fast on 6.3 x 0.8 Common (C)
- Other terminations on request


### Mounting parts


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



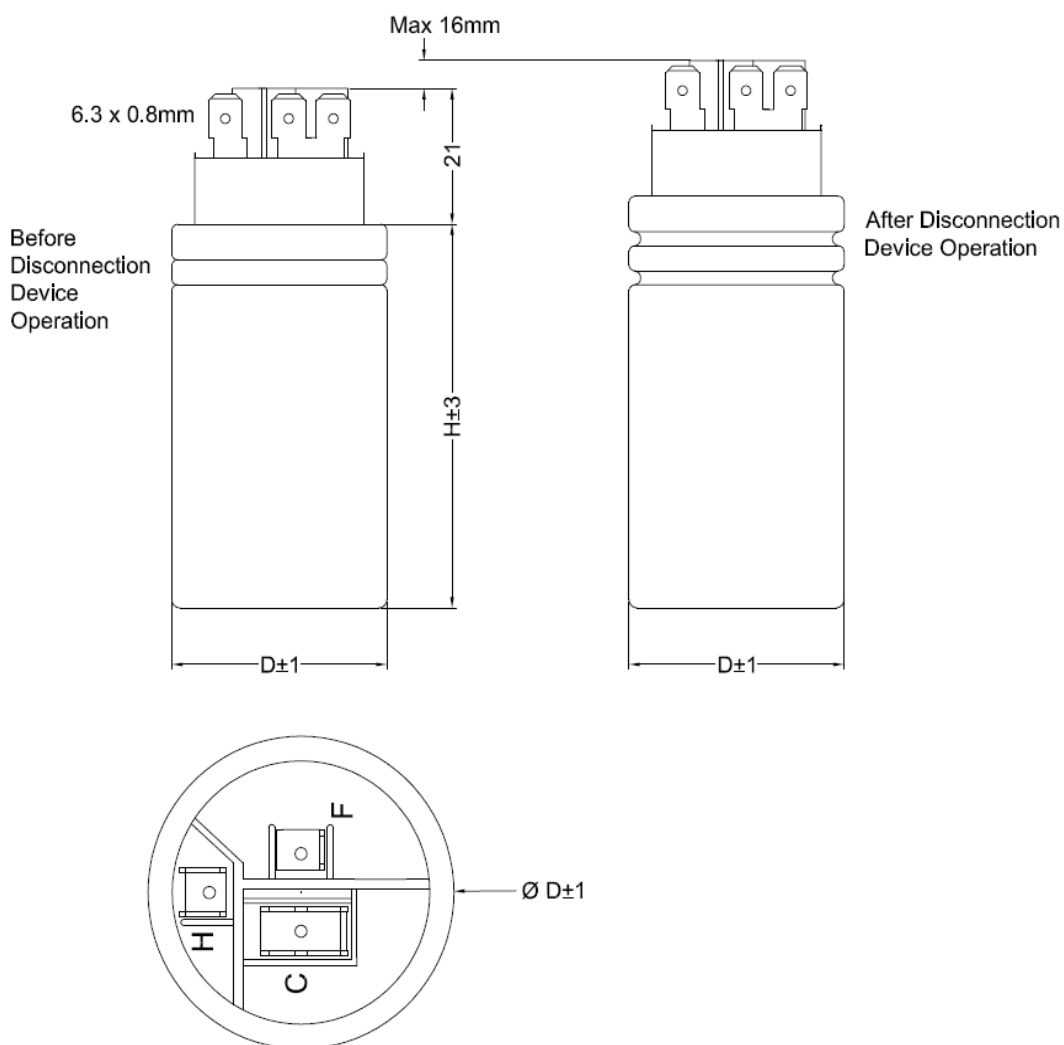
### Technical data and specifications

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 $C_R$	10+1 to 60+10µF
Tolerance	±5%
Permitted capacitance $\Delta C/C$	≤ 3 %
Rated voltage $V_R$	450 V AC
Rated frequency $f_N$	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 $V_{TC}$	2kV AC, 2 s (routine test) 2kV 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 IEC60335-1 / 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	
	

Approvals		
<b>TÜV</b> 450 V / 85 °C:	10,000 h (class B)	Approved
<b>UL 810 E106388</b> C  US		Approved Component 10000 AFC, protected up to 450 V
Logistics		
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>

**Dimensional drawing:**



**Ordering codes:**

$V_R$ V AC	$C_R$ $\mu F$	Dimensions D x H mm	Ordering Code	Packing unit
450	10+1	40x70	B32335I6116J0#0	36
	10+1.5	40x70	B32335I6116J5#0	36
	10+2	40x70	B32335I6126J0#0	36
	12+1.5	40x70	B32335I6136J5#0	36
	12+2	40x70	B32335I6146J0#0	36
	12+5	40x70	B32335I6176J0#0	36
	13+1.5	40x70	B32335I6146J5#0	36
	13+1.8	40x70	B32335I6146J8#0	36
	13+2	40x70	B32335I6156J0#0	36
	13+5	40x70	B32335I6186J0#0	36
	15+1.5	40x70	B32335I6166J5#0	36
	15+2	40x70	B32335I6176J0#1	36
	15+2.5	40x70	B32335I6176J5#0	36
	15+3	40x70	B32335I6186J0#1	36
	15+4	40x70	B32335I6196J0#0	36
	15+5	40x70	B32335I6206J0#0	36
	17+1.8	40x80	B32335I6186J8#0	36
	20+1.5	40x80	B32335I6216J5#0	36
	20+2	40x80	B32335I6226J0#0	36
	20+4	40x80	B32335I6246J0#0	36
	20+5	40x80	B32335I6256J0#0	36
	25+1.5	40x80	B32335I6266J5#0	36
	25+2	40x80	B32335I6276J0#0	36
	25+2.5	40x80	B32335I6276J5#0	36
	25+3	40x80	B32335I6286J0#0	36
	25+4	40x80	B32335I6296J0#0	36
	25+5	40x80	B32335I6306J0#0	36
	25+7.5	40x94	B32335I6326J5#0	36
	25+8	40x94	B32335I6336J0#0	36
	25+10	40x94	B32335I6356J0#0	36
	30+1.5	40x103	B32335I6316J5#0	36
	30+1.8	40x103	B32335I6316J8#0	36
	30+2	40x103	B32335I6326J0#1	36
35+1.5	40x103	B32335I6366J5#0	36	
35+2	40x103	B32335I6376J0#1	36	

<b>V<sub>R</sub></b> <b>V AC</b>	<b>C<sub>R</sub></b> <b>μF</b>	<b>Dimensions</b> <b>D x H</b> <b>mm</b>	<b>Ordering Code</b>	<b>Packing unit</b>
450	35+3	40x103	B32335I6386J0#0	36
	35+5	40x103	B32335I6406J0#0	36
	35+6	40x103	B32335I6416J0#0	36
	35+8	40x103	B32335I6436J0#0	36
	35+10	40x103	B32335I6456J0#0	36
	40+5	40x103	B32335I6456J0#1	36
	45+4	45x103	B32335I6496J0#0	25
	45+5	45x103	B32335I6506J0#0	25
	46+6	45x103	B32335I6526J0#0	25
	45+10	45x103	B32335I6556J0#0	25
	50+4	45x103	B32335I6546J0#0	25
	50+5	45x103	B32335I6556J0#1	25
	55+5	53x105	B32335I6606J0#0	25
	60+10	53x105	B32335I6706J0#0	25

**Composition of ordering code:**

“#”: construction of can and plastic top

- 5 Aluminium can, Option A: UL94V2 Top disc
- 6 Aluminium can, Option B: UL94V2/V0 Top disc / IEC60335-1
- 7 Aluminium can, with M 8 bolt, Option A: UL 94 V2 top disc
- 8 Aluminium can, with M 8 bolt, Option B: UL 94 V2/V0 top disc / IEC 60335-1

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