

Film Capacitors – AC Capacitors

Motor run capacitors

Series/Type:	Dual MotorCap - 450 V
Ordering code:	B32335
Date:	July 2016
Version:	6

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Construction

- Metallized polypropylene film
- Aluminum can with plastic top
- Filling material: soft polyurethane resin

Features

- Self-healing properties
- Low dissipation factor
- Overpressure disconnection safety device
- S2 safety class as per IEC-60252-1(ed-2) am1
- High insulation resistance
- EN 60335-1 compliance on request

Applications

- For general sine wave application, mainly as motor run

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 mm for COMMON (C)
- Other terminations on request

Mounting parts (optional)

- Threaded stud at bottom of can (M8, Max torque= 5Nm)




Technical data and specifications	
Reference standards	EN60252-1: 2011/A1: 2013 , IEC 60252-1 (ed 2) am1 UL 810,
Safety class to IEC 60252-1 2013	S2
Life expectancy to IEC 60252-1 2013	450 V : 10000 h (Class B)
UL 810 file E106388	Approved Component, 10000 AFC protected up to 450 V
Rated capacitance C_R	10+1uF to 60+10uF
Tolerance Tx	+/- 5%
Rated voltage V_{rms}	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)

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Test data	
AC test voltage terminal to terminal V_{TT}	2 • V_R , 2 s (routine test) 2 • V_R , 60 s (type test)
AC test voltage terminal to can V_{TC}	2 kVAC, 2 s (routine test) 2 kVAC, 60 s (type test)
Insulation resistance R_{ins} or time constant at +20 °C, rel. Humidity ≤ 65% (minimum as-delivered values)	3000 s
Dissipation factor $\tan \delta$ at +20 °C	≤ 7 • 10 ⁻³ (1 kHz)
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 insulator material	
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 94 V2 compatible ■ Glow wire test to IEC 60695-2-10/11 Test temperature +550 °C for $I_R \leq 0.5A$ Test temperature +850 °C for $I_R > 0.5A$	Self-extinguish within 30 seconds of withdrawing glow wire without igniting wrapping tissue of GWT
Option B: ■ UL 94 V2/V0 compatible ■ Glow wire test to IEC 60335-1 Test temperature +750 °C ■ Part is compatible to EN 60335-1	Self-extinguish within 2 seconds of withdrawing glow wire without igniting wrapping tissue of GWT
Tracking test to IEC 60112 solution A	> 250 V
Compatibility to RoHS	
Compliance to directive 2011/65/EU	

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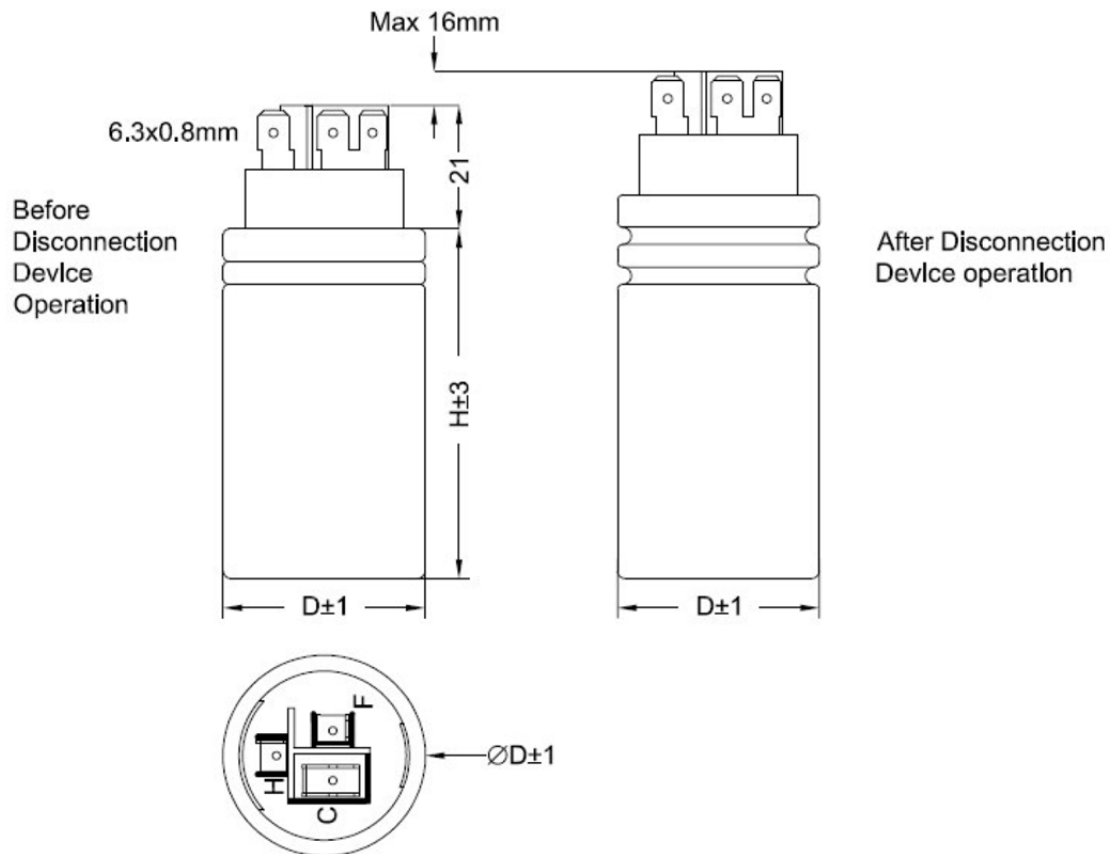
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Approvals see table for approved ratings	
UL 810 E106388 	Approved component 10000 AFC, protected up to 450V
TÜV 450 V / +85°C : 10000 h (Class B) 	Approved, 450 V / +85°C : 10000 h (Class B)
	Compliance to LV directive 2014/35/EU
Logistics	
Delivery mode	<ul style="list-style-type: none"> ■ EU palette as standard ■ Cardboard tape on palette ■ Pack unit, see dimension table

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Dimensional drawing



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Ordering codes

Rated voltage V_R V_{AC}	Rated capacitance C_R μF	Dimensions $D \times H$ mm	Ordering code	Packing unit
450	10+1	40 x 70	B32335I6116J0#0	36
	10+1.5	40 x 70	B32335I6116J5#0	36
	10+2	40 x 70	B32335I6126J0#0	36
	12+1.5	40 x 70	B32335I6136J5#0	36
	12+2	40 x 70	B32335I6146J0#0	36
	12+5	40 x 70	B32335I6176J0#0	36
	13+1.5	40 x 70	B32335I6146J5#0	36
	13+1.8	40 x 70	B32335I6146J8#0	36
	13+2	40 x 70	B32335I6156J0#0	36
	13+5	40 x 70	B32335I6186J0#0	36
	15+1.5	40 x 70	B32335I6166J5#0	36
	15+2	40 x 70	B32335I6176J0#1	36
	15+2.5	40 x 70	B32335I6176J5#0	36
	15+3	40 x 70	B32335I6186J0#1	36
	15+4	40 x 70	B32335I6196J0#0	36
	15+5	40 x 70	B32335I6206J0#0	36
	17+1.8	40 x 80	B32335I6186J8#0	36
	20+ 1.5	40 x 80	B32335I6216J5#0	36
	20+2	40 x 80	B32335I6226J0#0	36
	20+4	40 x 80	B32335I6246J0#0	36
	20+5	40 x 80	B32335I6256J0#0	36
	25+1.5	40 x 80	B32335I6266J5#0	36
	25+2	40 x 80	B32335I6276J0#0	36
	25+2.5	40 x 80	B32335I6276J5#0	36
	25+3	40 x 80	B32335I6286J0#0	36
	25+4	40 x 80	B32335I6296J0#0	36
	25+5	40 x 80	B32335I6306J0#0	36
	25+7.5	40 x 94	B32335I6326J5#0	36
	25+8	40 x 94	B32335I6336J0#0	36
	25+10	40 x 94	B32335I6356J0#0	36
	30+1.5	40 x 103	B32335I6316J5#0	36
	30+1.8	40 x 103	B32335I6316J8#0	36
	30+2	40 x 103	B32335I6326J0#1	36
	35+1.5	40 x 103	B32335I6366J5#0	36
	35+2	40 x 103	B32335I6376J0#1	36

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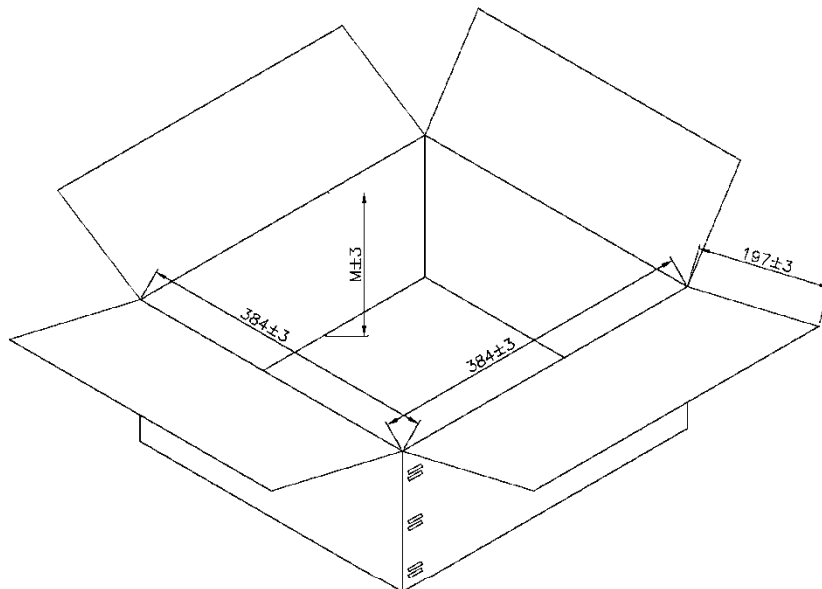
Rated voltage V_R V AC	Rated capacitance C_R μF	Dimensions D x H mm	Ordering code	Packing unit pcs
450	35+3	40 x 103	B32335I6386J0#0	36
	35+5	40 x 103	B32335I6406J0#0	36
	35+6	40 x 103	B32335I6416J0#0	36
	35+8	40 x 103	B32335I6436J0#0	36
	35+10	40 x 103	B32335I6456J0#0	36
	40+5	45 x 103	B32335I6456J0#1	36
	45+4	45 x 103	B32335I6496J0#0	25
	45+5	45 x 103	B32335I6506J0#0	25
	46+6	45 x 103	B32335I6526J0#0	25
	45+10	45 x 103	B32335I6556J0#0	25
	50+4	45 x 103	B32335I6546J0#0	25
	50+5	45 x 103	B32335I6556J0#1	25
	50+10	53 x 80	B32335I6606J0#0	25
	55+5	53 x 105	B32335I6606J0#1	25
	60+10	53 x 105	B32335I6706J0#0	25

Composition of ordering code

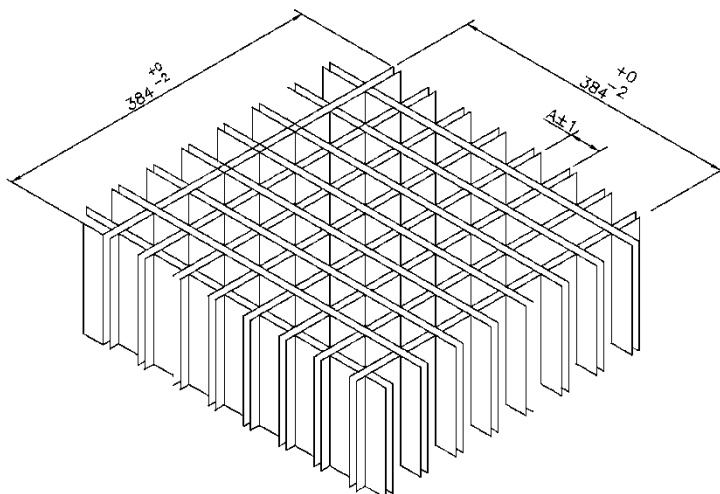
#: Construction of can and plastic top

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

Packing box



$$M = H(\text{Capacitor height}) + \text{Terminal height} + 10\text{mm min.}$$



Please read “Applications warning, installation and maintenance instructions” and the “ZVEI - General safety recommendations for power capacitors”, 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.

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