



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) |

| 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 style="list-style-type: none"> ■ 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 style="list-style-type: none"> ■ UL 94 V2/V0 compatible ■ Glow wire test to IEC60335-1 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 |  |

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 |

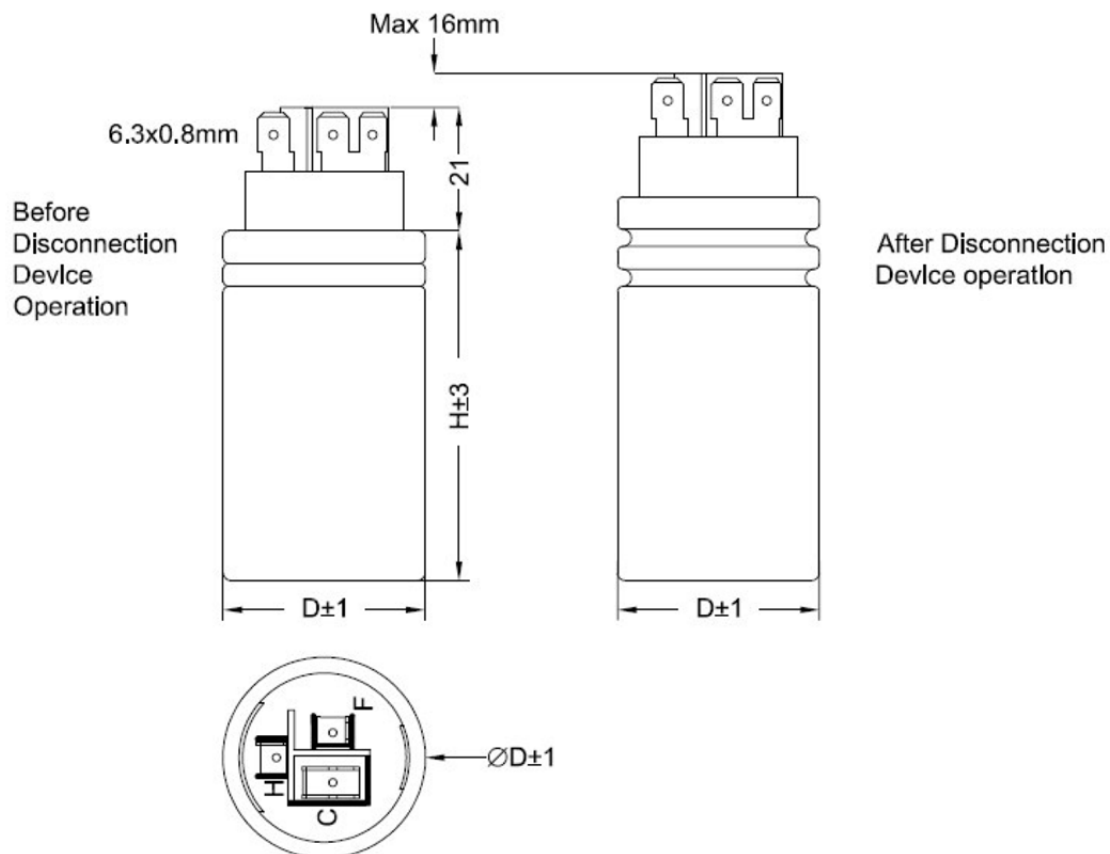
Logistics

| | |
|---------------|---|
| 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



Ordering codes

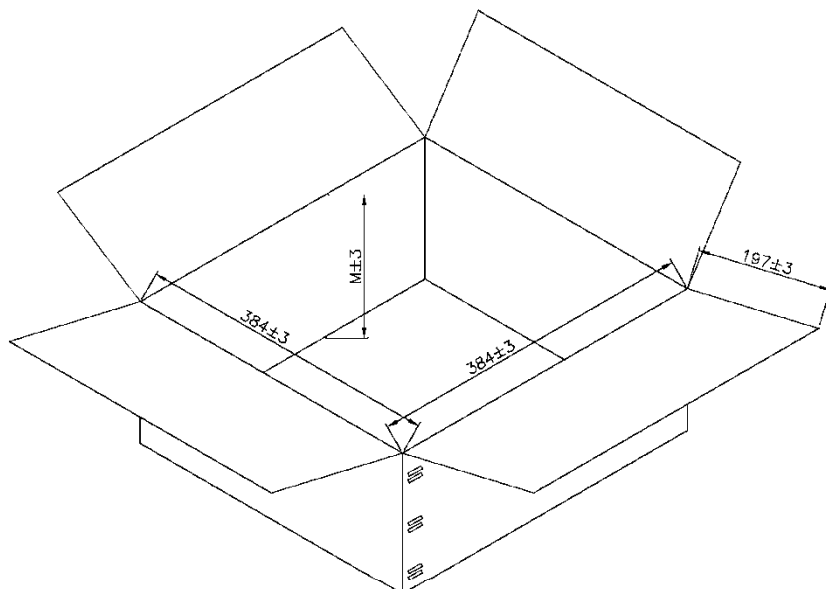
| Rated voltage V_R V AC | Rated capacitance C_R μF | Dimensions D x H mm | Ordering code | Packing unit |
|--------------------------------|---------------------------------------|---------------------------|-----------------|--------------|
| 450 | 10+1 | 40 x 70 | B32335I6116J0#0 | 36 |
| | 10+1.5 | 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 |

| 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 |

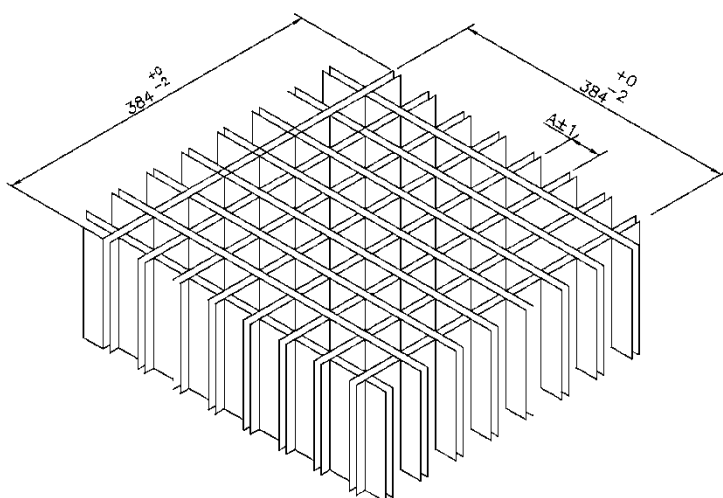
Composition of ordering code

#: 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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