



## Film Capacitors – AC Capacitors

Motor run capacitors

**Series/Type:** B32332 – Super MotorCap™, 450 V  
**Ordering code:** B32332  
Date: Nov 2012  
Version: 9

### Construction

- Metallized polypropylene film
- Aluminum can with plastic top
- Soft polyurethane resin

### Applications

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

### 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


- B32332 – Double Fast on: 6.3 × 0.8 mm



### Mounting part

- 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<br>UL 810          |
| Life expectancy to IEC 60252 2001             | 450 V: 30,000 h (class A)                             |
| Safety class according to IEC 60252-1 2001-02 | P2  |
| UL 810 file E 106388                          | Approved Component<br>10000 AFC protected up to 450 V |
| Rated capacitance $C_R$                       | See table ordering codes, page 6, 7                   |
| Tolerance                                     | ±5%   |
| Permitted capacitance $\Delta C/C$            | ≤3 %  |
| Rated voltage $V_R$                           | 450 V AC  |
| Rated frequency $f_R$                         | 50 / 60 Hz  |

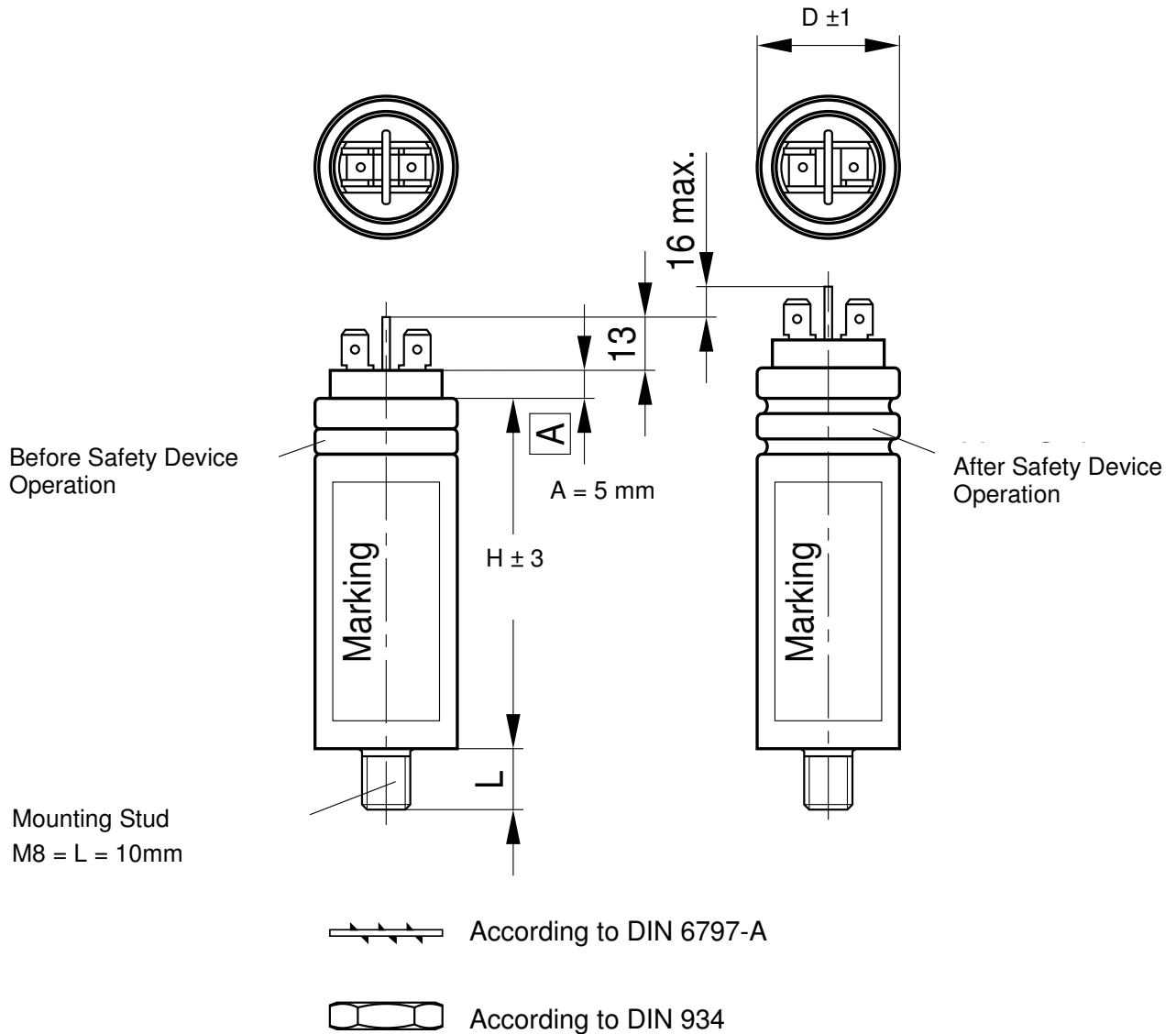
| <b>Maximum ratings</b>   |  |
|--|--|
| Maximum permissible voltage $V_{\max}$   | $1.1 \cdot V_R$ ( $V_R$ = Rated voltage)   |
| Maximum permissible current $I_{\max}$   | $1.3 \cdot I_R$ ( $I_R$ = Rated current)   |
| <b>Test data</b>   |  |
| AC test voltage terminal to terminal $V_{TT}$  | $2 \cdot V_R$ , 2 s (routine test)<br>$2 \cdot V_R$ , 60 s (type test)               |
| AC test voltage terminals to can $V_{TC}$  | 2 kV AC, 2 s (routine test)<br>2 kV 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   |
| <ul style="list-style-type: none"> <li>■ UL 94 V2/V0 compatible</li> <li>■ Glow wire test to IEC 60335-1 / IEC 60695-2-1/1<br/>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   |  |

| <b>Approvals</b>  |                    |   |
|---|--------------------|---|
| <b>VDE EN 60252-1</b>   |                    |   |
| 450 V / 85 °C:  | 30,000 h (class A) | Approved Up to 20µF   |
| <b>TÜV EN 60252-1</b>   |                    |   |
| 450 V / 85 °C:  | 30,000 h (class A) | Approved up to 50µF   |
| <b>UL 810 E106388</b>   |                    | Approved Component 10000 AFC, protected up to 450 V   |
|  |                    |   |
|  |                    | Approved on request   |
| <b>Logistics</b>  |                    |   |
| Delivery mode   |                    | <ul style="list-style-type: none"> <li>■ EU palett as standard</li> <li>■ Cardboard tape on palett</li> <li>■ Pack unit, see dimension table</li> </ul> |

### Cautions and warnings

 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](http://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.

Dimensional drawing



**Important notes**
**Ordering codes**

| V <sub>R</sub><br>V AC | C <sub>R</sub><br>μF | Dimensions<br>D x H<br>mm | Ordering code   | Approvals / Life Class |     |    |     | Packaging<br>Unit |
|------------------------|----------------------|---------------------------|-----------------|------------------------|-----|----|-----|-------------------|
|                        |                      |                           |                 | VDE                    | TUV | UL | CQC |                   |
| 450                    | 2.5                  | 30 x 52                   | B32332I6255J081 | A                      | A   | ●  | ●   | 49                |
|                        | 5                    | 30 x 52                   | B32332I6505J082 | A                      | A   | ●  | ●   | 49                |
|                        | 7.5                  | 30 x 68                   | B32332I6755J080 | A                      | A   | ●  | ●   | 49                |
|                        | 10                   | 30 x 68                   | B32332I6106J080 | A                      | A   | ●  | ●   | 49                |
|                        | 15                   | 30 x 78                   | B32332I6156J080 | A                      | A   | ●  | ●   | 49                |
|                        | 20                   | 30 x 93                   | B32332I6206J081 | A                      | A   | ●  | ●   | 49                |
|                        | 25                   | 35 x 93                   | B32332I6256J080 | --                     | A   | ●  | ●   | 36                |
|                        | 30                   | 35 x 93                   | B32332I6306J080 | --                     | A   | ●  | ●   | 36                |
|                        | 35                   | 35 x 103                  | B32332I6356J082 | --                     | A   | ●  | ●   | 36                |
|                        | 40                   | 40 x 103                  | B32332I6406J081 | --                     | A   | ●  | ●   | 36                |
|                        | 50                   | 45 x 103                  | B32332I6506J082 | --                     | A   | ●  | ●   | 25                |
|                        | 60                   | 45 x 103                  | B32332I6606J082 | --                     | --  | ●  | ●   | 25                |

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