



## Film Capacitors – AC Capacitors

### Motor run capacitors


|                       |                            |
|-----------------------|----------------------------|
| <b>Series/Type:</b>   | <b>MotorCap S3 Compact</b> |
| <b>Ordering code:</b> | <b>B32350/B32352</b>       |
| Date:                 | November 2023              |
| Version:              | 10                         |

Rated capacitance: 2  $\mu$ F...20  $\mu$ F  
 Rated AC Voltage: 400/450 V AC

### Construction

- Metallized polypropylene film
- Plastic can with plastic top
- Dry type resin

### Features

- Self-healing properties
- Low dissipation factor
- Highest safety level S3 to IEC 60252-1+A1:2013
- High insulation resistance
-  file E 106388, component approval mark, on request
- EN 60335-1 compatible

### Applications

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

### Terminals

- B32350 – Single Fast-on: 6.3 x 0.8 mm
- B32352 – Double Fast-on: 6.3 x 0.8 mm

### Mounting parts (optional)




- Threaded stud at bottom of can (M8, max. torque = 5 Nm)
- Fast fixation for mounting into a hole of  $\varnothing$  8 mm
- Mounting in any position possible

### Delivery mode and packing unit

- Cardboard tape on pallet
- Packing unit, see dimension table
- EU pallet as standard

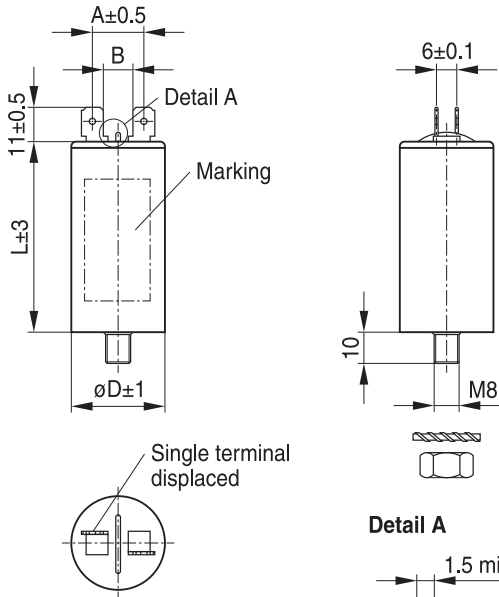


| Technical data and specifications  |   |
|--|---|
| Reference standards  | IEC 60252-1+A1 :2013<br>EN60252-1 : 2014-07   |
| Life expectancy to IEC 60252-1+A1 :2013  | 400 V AC: 30000 h (class A)<br>450 V AC: 10000 h (class B)                          |
| Safety class according to IEC 60252-1+A1 :2013   | S3  |
| UL 810 file E 106388   | Approved component, 10000 AFC protected up to 450 V AC (Approval mark upon request) |
| Rated capacitance $C_R$  | See table ordering codes, page 5, 6   |
| Tolerance  | $\pm 5\%$   |
| Permitted capacitance $\Delta C/C$   | $\leq 3\%$  |
| Rated voltage $V_R$  | 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)<br>2 $V_R$ , 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 $R_{ins}$ or time constant $\tau$ at 20 °C, Rel. humidity max. value 85%, annual means $\leq 65\%$ | 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/ $\mu$ s   |
| 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 at +40°C and 93% RH   |

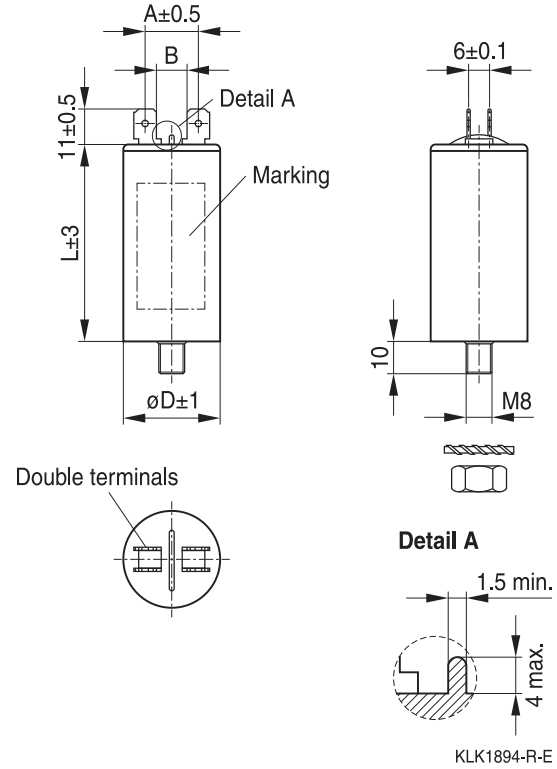
| Mechanical and thermal properties   |   |
|---|---|
| Ball pressure test to IEC 60309-1 sec. 27.3   | 20 N at +125 °C   |
| Tracking test to IEC 60112 solution A   | >250 V  |
| Plastic can and top disk material   | UL 94 V2 min / Compliant to EN60252-1/<br>EN60335-1   |
| Glow wire test to IEC 60695 – 2 – 1 / 1<br>Test temp 550 ° C for $I_R \leq 0.5$ A<br>Test temp 750 ° C for $I_R \geq 0.5$ A | Self-extinguish within 2 s of withdrawing glow wire without igniting wrapping tissue to GWIT  |
| Part compliant to EN 60335-1<br>Glow wire test acc. to EN60335-1:2002 +A11+A1<br>+A12+Corr.+A2:2006, IEC60335-1 ed 4+A1+A2  | Self extinguish within 2 s with GWT 750 °C and within 60 s with GWFI 850 °C of withdrawing the glow wire and without igniting the wrapping tissue |
| Compatibility to RoHS   |   |
| Compliance to directive 2011/65/EU, Annex II, amended by Directive (EU) 2015/863  |   |
| Approvals   |   |
| VDE – 400 V AC / 85 °C: 30000 h (class A)<br>VDE – 450 V AC / 85 °C: 10000 h (class B)                                      | Approved<br>Approved  |
|  UL 810 E106388                          | Approved component 10000 AFC,<br>protected up to 450 V AC   |
|    | Compliance to LV directive 2014/35/EU   |

Dimensional drawings

B32350-series



B32352-series



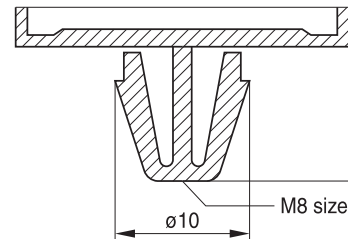
Dimension table

| Dia. ØD (mm) | A (mm) | Min. B (mm) |
|--------------|--------|-------------|
| 25           | 12.65  | 6           |
| 30           | 16.5   | 9,5         |
| 35-54        | 16.5   | 9.5         |

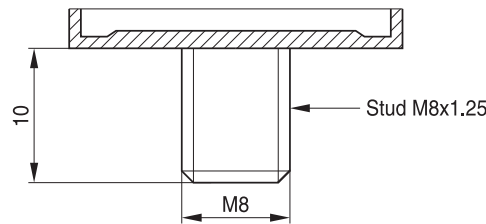
# = 1: can without mounting



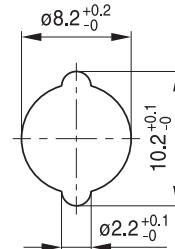
# = 5: fast fix mounting



# = 3: can with M8 bolt



Mounting hole requirement at the customer machine



Star washer 8 mm

Nut M8x1.25

KLK1898-P-E

**Ordering codes and packing units**
**B32350-series (Single Fast-on connector)**

| V <sub>R</sub><br>V AC | C <sub>R</sub><br>μF | Dimensions<br>D × L<br>mm       | Ordering code                   | Packing units<br>pcs |
|------------------------|----------------------|---------------------------------|---------------------------------|----------------------|
| 400/450                | 2                    | 25 × 58                         | <a href="#">B32350A4205J0#0</a> | 112                  |
|                        | 2.5                  | 25 × 58                         | <a href="#">B32350A4255J0#0</a> | 112                  |
|                        | 3                    | 30 × 62                         | <a href="#">B32350A4305J0#0</a> | 112                  |
|                        | 3.15                 | 30 × 62                         | <a href="#">B32350A4315J5#0</a> | 112                  |
|                        | 4                    | 30 × 62                         | <a href="#">B32350A4405J0#0</a> | 112                  |
|                        | 5                    | 35 × 62                         | <a href="#">B32350A4505J0#0</a> | 84                   |
|                        | 6                    | 35 × 62                         | <a href="#">B32350A4605J0#0</a> | 84                   |
|                        | 6.3                  | 35 × 62                         | <a href="#">B32350A4635J0#0</a> | 84                   |
|                        | 7                    | 35 × 62                         | <a href="#">B32350A4705J0#0</a> | 84                   |
|                        | 7.5                  | 35 × 71                         | <a href="#">B32350A4755J0#0</a> | 84                   |
|                        | 8                    | 35 × 71                         | <a href="#">B32350A4805J0#0</a> | 84                   |
|                        | 9                    | 35 × 71                         | <a href="#">B32350A4905J0#0</a> | 84                   |
|                        | 10                   | 35 × 71                         | <a href="#">B32350A4106J0#0</a> | 84                   |
|                        | 11                   | 40 × 71                         | <a href="#">B32350A4116J0#0</a> | 60                   |
|                        | 12                   | 40 × 71                         | <a href="#">B32350A4126J0#0</a> | 60                   |
|                        | 12.5                 | 40 × 71                         | <a href="#">B32350A4126J5#0</a> | 60                   |
|                        | 14                   | 45 × 71                         | <a href="#">B32350A4146J0#0</a> | 45                   |
|                        | 15                   | 45 × 71                         | <a href="#">B32350A4156J0#0</a> | 45                   |
|                        | 16                   | 45 × 96                         | <a href="#">B32350A4166J0#0</a> | 45                   |
|                        | 17.5                 | 45 × 96                         | <a href="#">B32350A4176J5#0</a> | 45                   |
| 18                     | 50 × 100             | <a href="#">B32350A4186J0#0</a> | 32                              |                      |
| 20                     | 50 × 100             | <a href="#">B32350A4206J0#0</a> | 32                              |                      |

**Composition of ordering code**

#: construction

- 1 plastic can
- 3 plastic can with M8 bolt
- 5 plastic can with fast fixation device, available for diameter 30 mm and 35 mm, others on request

Last digit in Ordering code: 0 for standard parts as per datasheet, can be revised from (1-9) on deviating dimensions or marking specifications on customer request.

**Ordering codes and packing units**
**B32352-series (Double Fast-on connector)**

| V <sub>R</sub><br>V AC | C <sub>R</sub><br>μF | Dimensions<br>D × L mm          | Ordering code                   | Packing units<br>pcs |
|------------------------|----------------------|---------------------------------|---------------------------------|----------------------|
| 400/450                | 2                    | 30 × 62                         | <a href="#">B32352A4205J0#0</a> | 112                  |
|                        | 2.5                  | 30 × 62                         | <a href="#">B32352A4255J0#0</a> | 112                  |
|                        | 3                    | 30 × 62                         | <a href="#">B32352A4305J0#0</a> | 112                  |
|                        | 3.15                 | 30 × 62                         | <a href="#">B32352A4315J5#0</a> | 112                  |
|                        | 4                    | 30 × 62                         | <a href="#">B32352A4405J0#0</a> | 112                  |
|                        | 5                    | 35 × 62                         | <a href="#">B32352A4505J0#0</a> | 112                  |
|                        | 6                    | 35 × 62                         | <a href="#">B32352A4605J0#0</a> | 84                   |
|                        | 6.3                  | 35 × 62                         | <a href="#">B32352A4635J0#0</a> | 84                   |
|                        | 7                    | 35 × 62                         | <a href="#">B32352A4705J0#0</a> | 84                   |
|                        | 7.5                  | 35 × 71                         | <a href="#">B32352A4755J0#0</a> | 84                   |
|                        | 8                    | 35 × 71                         | <a href="#">B32352A4805J0#0</a> | 84                   |
|                        | 9                    | 35 × 71                         | <a href="#">B32352A4905J0#0</a> | 84                   |
|                        | 10                   | 35 × 71                         | <a href="#">B32352A4106J0#0</a> | 84                   |
|                        | 11                   | 40 × 71                         | <a href="#">B32352A4116J0#0</a> | 60                   |
|                        | 12                   | 40 × 71                         | <a href="#">B32352A4126J0#0</a> | 60                   |
|                        | 12.5                 | 40 × 71                         | <a href="#">B32352A4126J5#0</a> | 60                   |
|                        | 14                   | 45 × 71                         | <a href="#">B32352A4146J0#0</a> | 45                   |
|                        | 15                   | 45 × 71                         | <a href="#">B32352A4156J0#0</a> | 45                   |
|                        | 16                   | 45 × 96                         | <a href="#">B32352A4166J0#0</a> | 45                   |
|                        | 17.5                 | 45 × 96                         | <a href="#">B32352A4176J5#0</a> | 45                   |
| 18                     | 50 × 100             | <a href="#">B32352A4186J0#0</a> | 32                              |                      |
| 20                     | 50 × 100             | <a href="#">B32352A4206J0#0</a> | 32                              |                      |

**Composition of ordering code**

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### Cautions and warnings

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## Important notes

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