



## Film capacitors – AC capacitors

### Motor run capacitors

250 V; class B; 85 °C / 400 V; class B; 85 °C / 480 V; class C; 85 °C

**Series/Type:** B32320/B32322 – MotorCap™

Date: January 2008  
Version: 2.0

**Construction**

- Dielectric: polypropylene film
- Plastic can and top UL 94 V2 material
- Dry type

**Features**

- Self-healing properties
- Low dissipation factor
- P0 safety class to IEC 60252-1 2001-02
- High insulation resistance
- IEC/EN 60335-1 compatible on request

**Typical applications**

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



**Terminals**

- B32320 – single fast-on: 6.3 × 0.8 mm
- B32322 – double fast-on: 6.3 × 0.8 mm

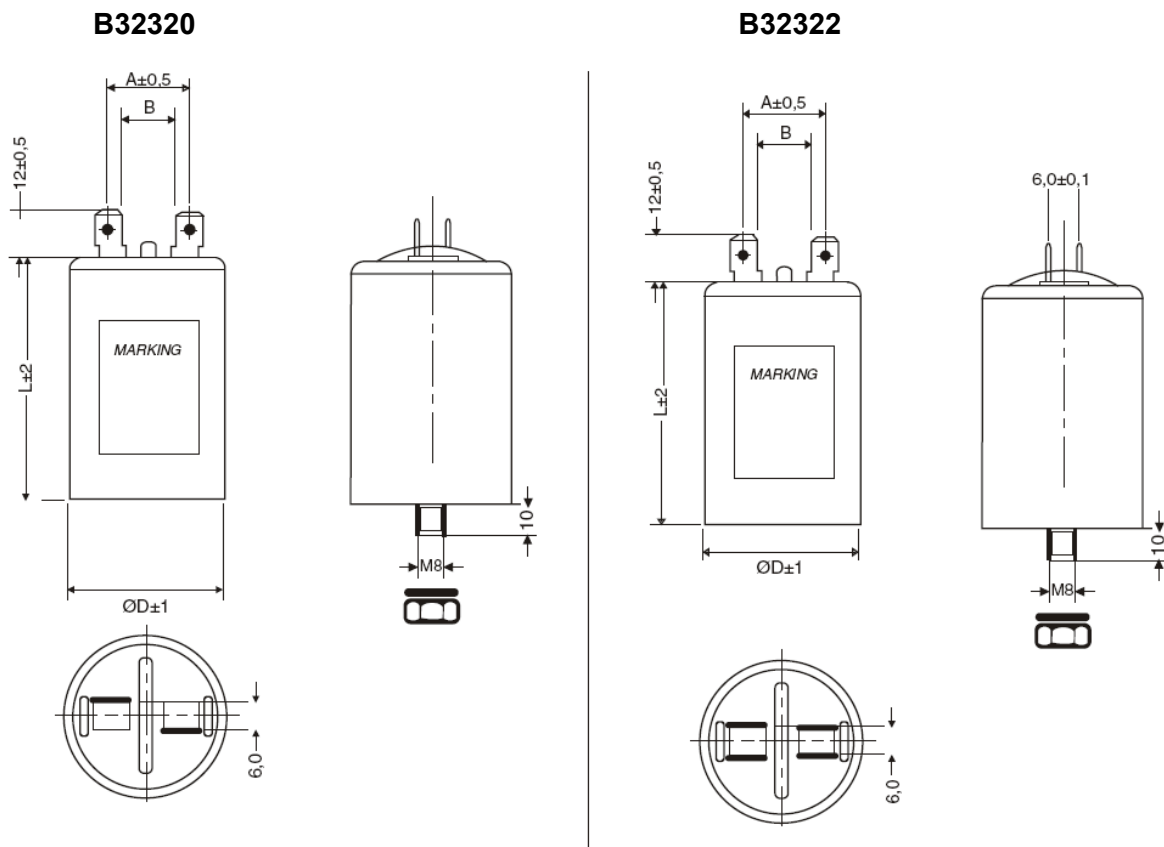
**Mounting parts (optional)**

- Threaded stud at bottom of can (M8, max. torque = 5 Nm)
- Locking clip for mounting into a hole of Ø 8 mm

Technical data and specifications	
Reference standards	IEC 60252-1 2001-02 / EN 60252 2001
Safety class to IEC 60252-1 2001-02	P0
Life expectancy to IEC 60252 2001	250 V/85 °C: 10000 h (class B) 400 V/85 °C: 10000 h (class B) 480 V/85 °C: 3000 h (class C)
Rated capacitance $C_R$	1.5 ... 60 µF (250 V AC, 400 V AC) 3 ... 40 µF (480 V AC)
Tolerance	±5%
Rated voltage $V_R$	250 V AC, 400 V AC, 480 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)

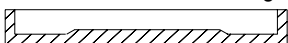
<b>Test data</b>	
AC test voltage terminal to terminal $V_{TT}$	$2 \cdot V_R$ , 2 s (routine test) $2 \cdot V_R$ , 60 s (type test)
Insulation resistance $R_{ins}$ or time constant $\tau$ at 20 °C, rel. humidity $\leq 65\%$ (minimum as-delivered values)	3000 s
Dissipation factor $\tan \delta$ at 20 °C	$\leq 1.0 \cdot 10^{-3}$ (120 Hz)
Maximum rate of voltage rise $dV/dt_{max}$	10 V/ $\mu$ s
<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 $t_{test}$	21 days
<b>Mechanical and thermal properties</b>	
Ball pressure test to IEC 60309-1 sec. 27.3	20 N at 125 °C
Plastic can and top disk material	Compliant to EN 60252
<ul style="list-style-type: none"> <li>■ UL 94 V2 compatible</li> <li>■ Glow wire test to IEC 60695-2-1/0 and -2-1/1            Test temp 550 °C for <math>I_R \leq 0.5</math> A            Test temp 750 °C for <math>I_R &gt; 0.5</math> A</li> </ul>	Self-extinguishing within 30 seconds of withdrawing the glow wire and without igniting wrapping tissue.
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</b>	
400 V/85 °C: 10000 h (class B) for 1.5 $\mu$ F ... 50 $\mu$ F	Approved
480 V/85 °C: 3000 h (class C) for 3 $\mu$ F ... 35 $\mu$ F	Approved

Dimensional drawings

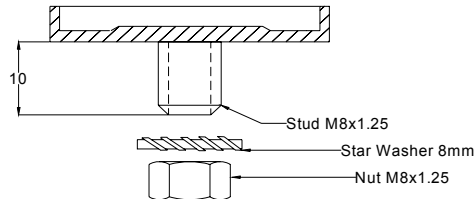


Mounting options

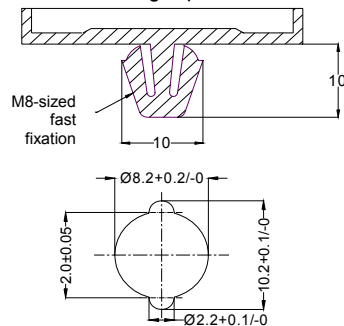
# = 1: Can without mounting



# = 3: Can with M8 bolt



# = 5: Locking clip





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Ordering codes and packing units

V <sub>R</sub> V AC	C <sub>R</sub> μF	Max. dimensions d × l (mm) B32320	Max. dimensions d × l (mm) B32322	Ordering code	Packing units pcs.
250	1.5	25 × 58	30 × 62	B3232*C1155J0#0	112
	2	25 × 58	30 × 62	B3232*C1205J0#0	112
	3	25 × 58	30 × 62	B3232*C1305J0#0	112
	4	25 × 58	30 × 62	B3232*C1405J0#0	112
	5	25 × 58	30 × 62	B3232*C1505J0#0	112
	6	25 × 58	30 × 62	B3232*C1605J0#0	112
	7	25 × 58	30 × 62	B3232*C1705J0#0	112
	7.5	25 × 58	30 × 62	B3232*C1755J0#0	112
	8	25 × 58	30 × 62	B3232*C1805J0#0	112
	9	30 × 62	30 × 62	B3232*C1905J0#0	112
	10	30 × 62	30 × 62	B3232*C1106J0#0	112
	12	30 × 62	30 × 62	B3232*C1126J0#0	112
	14	30 × 62	30 × 62	B3232*C1146J0#0	112
	15	30 × 62	30 × 62	B3232*C1156J0#0	112
	16	35 × 62	35 × 62	B3232*C1166J0#0	84
	18	35 × 62	35 × 62	B3232*C1186J0#0	84
	20	35 × 62	35 × 62	B3232*C1206J0#0	84
	22	35 × 62	35 × 62	B3232*C1226J0#0	84
	25	35 × 71	35 × 71	B3232*C1256J0#0	84
	30	35 × 71	35 × 71	B3232*C1306J0#0	84
	35	40 × 71	40 × 71	B3232*C1356J0#0	60
	40	40 × 71	40 × 71	B3232*C1406J0#0	45
45	40 × 71	40 × 71	B3232*C1456J0#0	45	
50	40 × 95	40 × 95	B3232*C1506J0#0	45	
55	40 × 95	40 × 95	B3232*C1556J0#0	45	
60	40 × 95	40 × 95	B3232*C1606J0#0	45	



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V <sub>R</sub> V AC	C <sub>R</sub> μF	Max. dimensions d × l (mm)		Ordering code	Packing units pcs.
		B32320	B32322		
400	1.5	25 × 58	30 × 62	B3232*B4155J0#0	112
	2	25 × 58	30 × 62	B3232*B4205J0#0	112
	3	25 × 58	30 × 62	B3232*B4305J0#0	112
	4	25 × 58	30 × 62	B3232*B4405J0#0	112
	5	30 × 62	30 × 62	B3232*B4505J0#0	112
	6	30 × 62	30 × 62	B3232*B4605J0#0	112
	7	35 × 62	35 × 62	B3232*B4705J0#0	84
	8	35 × 62	35 × 62	B3232*B4805J0#0	84
	9	35 × 62	35 × 62	B3232*B4905J0#0	84
	10	35 × 62	35 × 62	B3232*B4106J0#0	84
	12	35 × 71	35 × 71	B3232*B4126J0#0	84
	14	35 × 71	35 × 71	B3232*B4146J0#0	84
	15	40 × 71	40 × 71	B3232*B4156J0#0	60
	16	40 × 71	40 × 71	B3232*B4166J0#0	60
	18	40 × 71	40 × 71	B3232*B4186J0#0	60
	20	40 × 71	40 × 71	B3232*B4206J0#0	60
	22	40 × 95	40 × 95	B3232*B4226J0#0	60
	25	40 × 95	40 × 95	B3232*B4256J0#0	60
	30	40 × 95	40 × 95	B3232*B4306J0#0	60
	35	45 × 95	45 × 95	B3232*B4356J0#0	45
40	45 × 95	45 × 95	B3232*B4406J0#0	45	
45	50 × 95	50 × 95	B3232*B4456J0#0	32	
50	50 × 95	50 × 95	B3232*B4506J0#0	32	
55	50 × 95	50 × 95	B3232*B4556J0#0	32	
60	50 × 95	50 × 95	B3232*B4606J0#0	32	

V <sub>R</sub> V AC	C <sub>R</sub> μF	Max. dimensions d × l (mm) B32320	Max. dimensions d × l (mm) B32322	Ordering code	Packing units pcs.
480	3	30 × 62	30 × 62	B3232*B7305J0#0	112
	4	30 × 62	30 × 62	B3232*B7405J0#0	112
	5	30 × 62	30 × 62	B3232*B7505J0#0	112
	6	35 × 62	35 × 62	B3232*B7605J0#0	84
	7.5	35 × 71	35 × 71	B3232*B7755J0#0	84
	8	35 × 71	35 × 71	B3232*B7805J0#0	84
	10	40 × 71	40 × 71	B3232*B7106J0#0	60
	12	40 × 71	40 × 71	B3232*B7126J0#0	60
	15	45 × 71	45 × 71	B3232*B7156J0#0	45
	16	45 × 71	45 × 71	B3232*B7166J0#0	45
	20	45 × 71	45 × 71	B3232*B7206J0#0	45
	22	45 × 71	45 × 71	B3232*B7226J0#0	45
	25	45 × 95	45 × 95	B3232*B7256J0#0	45
	30	45 × 95	45 × 95	B3232*B7306J0#0	45
	35	50 × 95	50 × 95	B3232*B7356J0#0	32
	40	45 × 120	45 × 120	B3232*B7406J0#0	45

**Composition of ordering code:**

\*: Terminals

- 0 single fast-on terminals
- 2 double fast-on terminals

#: Construction

- 1 plastic can
- 3 plastic can with M8 bolt
- 5 plastic can with locking clip, available for diameters 30 mm, 32 mm and 35 mm, others on request

**⚠** 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.

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