



Film Capacitors – AC Capacitors

Motor run capacitors

Series/Type: B32356 – MotorCap™ P2 Compact
Ordering code: B32356
Date: May, 2011
Version: 6

Construction

- Dielectric: polypropylene film
- Electrode: segmented metallized film
- Dry type

Features

- Self-healing properties
- Low dissipation factor
- P2 safety class to IEC 60252-1 2001-02
- High insulation resistance
- Case IP 53 protected
- IEC/EN 60335-1 compatible

Typical applications

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

Terminals



- Twin core cable, double insulated, 2 × 0.5 mm² minimum, +90 °C, (H05-V2-V2-F)
- Twin core cable UL style on request
- Receptacles on request


Technical data and specifications

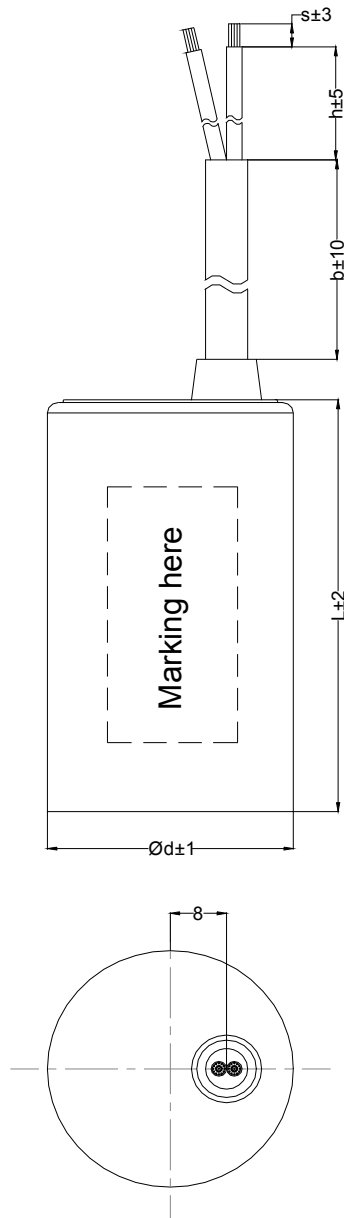
Reference standards	IEC 60252-1 2001-02 / EN 60252 2001
Safety class to IEC 60252-1 2001-02	P2
Life expectancy to IEC 60252 2001	400 V/85 °C: 30 000 h (class A) 450 V/85 °C: 10 000 h (class B)
Rated capacitance C _R	See dimensions table
Tolerance	±5%, other tolerances upon request
Rated voltage V _R	400, 450 V AC
Rated frequency f _R	50/60 Hz

Maximum ratings

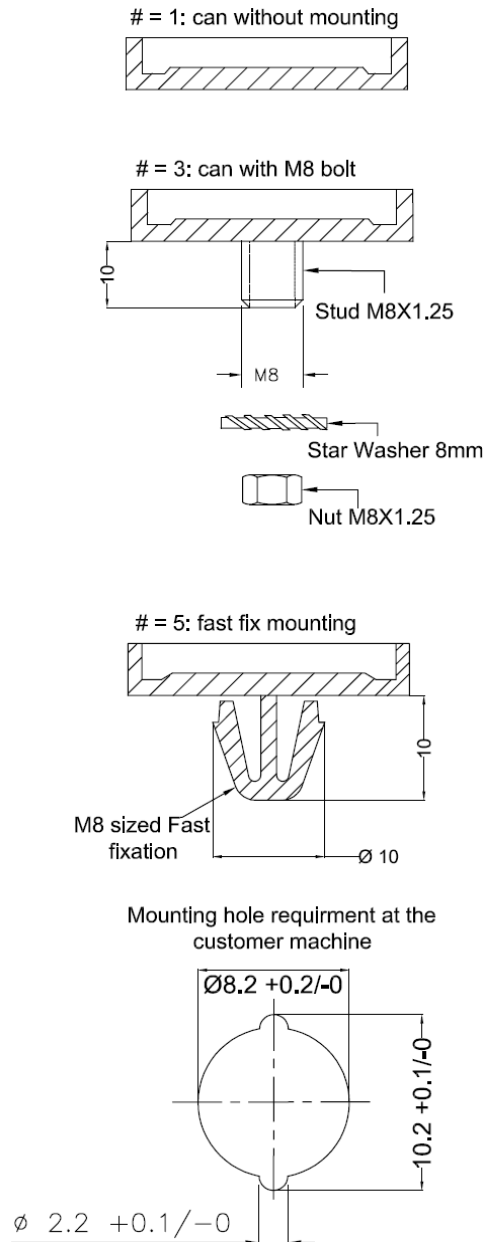
Maximum permissible voltage V _{max}	1.1 · V _R (V _R = rated voltage)
Maximum permissible current I _{max}	1.3 · I _R (I _R = rated current)

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 terminals to case V_{TC}	2 kV AC, 2 s (routine test) 2 kV AC, 60 s (type test)
Insulation resistance R_{ins} or time constant τ at 20 °C, rel. Humidity $\leq 65\%$ (minimum as-delivered values)	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/ μ 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
Mechanical and thermal properties	
Ball pressure test to IEC 60309-1 sec. 27.3	20 N at 125 °C
Plastic case and top disk material, filling material	Compliant to EN 60252/60335-1
<ul style="list-style-type: none"> ■ UL 94 V2 compatible ■ Glow wire test to IEC 60695-2-1/0 and -2-1/1 Test temperature 550 °C for $I_R \leq 0.5$ A Test temperature 750 °C for $I_R > 0.5$ A ■ Part is compatible to EN 60335-1 	Self-extinguish within 2 seconds of withdrawing glow wire without igniting wrapping tissue to GWIT
Tracking Test to IEC 60112 solution A	> 250 V
Protection class to IEC 60529 2001	IP 53
Compatibility to RoHS	
Compliance to directive 2002/95/EC	
Approvals	
VDE – 400 V/85 °C: 30 000 h (class A)	Approved
VDE – 450 V/85 °C: 10 000 h (class B)	Approved
 US UL 810 files E106388	Approved Component 10000 AFC up to 450 V

Dimensional drawing



Mounting options



Mounting options:

- 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

Ordering codes and packing units

V_R V AC	C_R μF	Dimensions d × L (mm)	Ordering code	Packing units pcs.
400 / 450	2	25 × 58	B32356B4205J0#&	112
	2.5	25 × 58	B32356B4255J0#&	112
	3	30 × 56*	B32356B4305J0#&	112
	3.15	30 × 56*	B32356B4315J5#0	112
	4	30 × 56*	B32356B4405J0#&	112
	5	30 × 56*	B32356B4505J0#&	112
	6	35 × 56*	B32356B4605J0#&	84
	6.3	35 × 56*	B32356B4635J0#&	84
	7	35 × 56*	B32356B4705J0#&	84
	7.5	35 × 56*	B32356B4755J0#&	84
	8	35 × 71	B32356B4805J0#&	84
	9	35 × 71	B32356B4905J0#&	84
	10	35 × 71	B32356B4106J0#&	84
	11	40 × 72	B32356B4116J0#&	60
	12	40 × 72	B32356B4126J0#&	60
	12.5	40 × 72	B32356B4126J5#0	60
	14	45 × 72	B32356B4146J0#&	45
	15	45 × 72	B32356B4156J0#&	45
	16	45 × 96	B32356B4166J0#&	45
	17.5	45 × 96	B32356B4176J5#0	45
18	50 × 96	B32356B4186J0#&	32	
20	50 × 96	B32356B4206J0#&	32	

* In case of construction with M8 bolt and locking clip height (dimension L) will be increased by 6 mm

Composition of ordering code:

#: 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


&: cable length (dimension 'b' in drawing)

2 200 mm

3 300 mm

other lengths on request

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, 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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