



Film Capacitors – AC Capacitors

Motor run capacitors

Series/Type: B32356 – MotorCap S3 Compact
Ordering code: B32356
Date: September 2016
Version: 8

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Construction

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

Features

- Self-healing properties
- Low dissipation factor
- Highest safety level S3 safety class to IEC60252-1 (ed.2) am1
- Case IP53 protected
- file E 106388, component approval mark, on request
- EN 60335-1 compatible

Applications

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


Terminals


- Twin core cable, double insulated, 2 x 0.5 mm² minimum, 90 °C, H05-V2-V2-F as standard.
- Twin core cable UL style on request
- Receptacles on request

Mounting parts (optional)

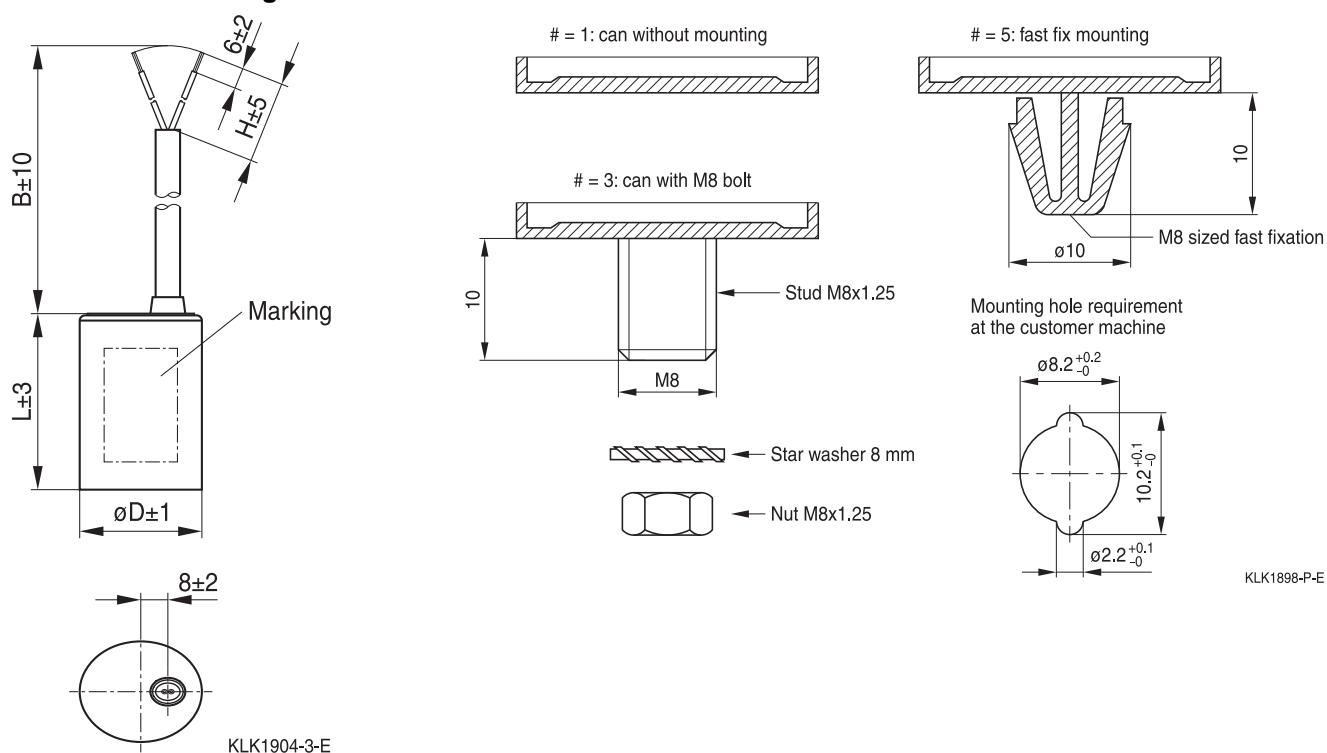
- Threaded stud at bottom of can (M8, max. torque = 5 Nm)
- Fast fixation for mounting into a hole of Ø 8 mm
- Mounting in any position possible

Technical data and specifications

Reference standards	EN60252-1: 2014-07 IEC60252-1: Ed 2,2013-8,amendment 1
Life expectancy to IEC 60252-1 /2013	400 V: 30000 h (class A) 450 V: 10000 h (class B)
Safety class to IEC 60252-1/ 2013	S3
UL 810 file E 106388	Approved component,10000 AFC protected up to 450 V (Approval mark upon request)
Rated capacitance C _R	See table ordering codes, page 5
Tolerance	±5%
Permitted capacitance ΔC/C	≤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}	$1.3 I_R$ ($I_R =$ rated current)
Test data	
AC test voltage terminal to terminal U_{TT}	2 V_R , 2 s (routine test) 2 V_R , 60 s (type test)
AC test voltage terminals to can U_{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 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/ 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 can and top disk material	UL 94 V2 min/ Compliant to EN60252-1/ EN60335-1
<ul style="list-style-type: none"> ■ Glow wire test to IEC 60695 – 2 – 1 / 1 Test temp 550 °C for $I_R \leq 0.5$ A 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
<ul style="list-style-type: none"> ■ Part compliant to EN 60335-1 Glow wire test acc. to EN60335-1:2002 +A11+A1 +A12+Corr.+A2:2006, IEC60335-1 ed 4+A1+A2 	Self extinguish within 2 s with GWT 750 °C and within 60 s with GWF1 850 °C of withdrawing the glow wire and without igniting the wrapping tissue
Tracking test to IEC 60112 solution A	>250 V
Compatibility to RoHS	
Compliance to directive 2002/95/EC	

Approvals	
VDE – 400 V/85 °C: 30000 h (class A)	Approved
VDE – 450 V/85 °C: 10000 h (class B)	Approved
UL 810 E106388	Approved component 10000 AFC, protected up to 450 V
	Compliance to LV directive 2014/35/EU
Logistics	
Delivery mode	<ul style="list-style-type: none"> ■ EU pallet as standard ■ Cardboard tape on pallet Pack unit, see dimension table

Dimensional drawings


Ordering codes & Packaging units

V _R	C _R	Dimensions D × L	Ordering code	Packing units
V AC	μF	mm		pcs.
400/450	2	25 × 58	B32356B4205J0#x	112
	2.5	25 × 58	B32356B4255J0#x	112
	3	30 × 62	B32356B4305J0#x	112
	3.15	30 × 62	B32356B4315J5#x	112
	4	30 × 62	B32356B4405J0#x	112
	5	35 × 62 ¹	B32356B4505J0#x	84
	6	35 × 62	B32356B4605J0#x	84
	6.3	35 × 62	B32356B4635J0#x	84
	7	35 × 62	B32356B4705J0#x	84
	7.5	35 × 71	B32356B4755J0#x	84
	8	35 × 71	B32356B4805J0#x	84
	9	35 × 71	B32356B4905J0#x	84
	10	35 × 71	B32356B4106J0#x	84
	11	40 × 71	B32356B4116J0#x	60
	12	40 × 71	B32356B4126J0#x	60
	12.5	40 × 71	B32356B4126J5#x	60
	14	45 × 71	B32356B4146J0#x	45
	15	45 × 71	B32356B4156J0#x	45
	16	45 × 96	B32356B4166J0#x	45
	17.5	45 × 96	B32356B4176J5#x	45
18	50 × 96	B32356B4186J0#x	32	
20	50 × 96	B32356B4206J0#x	32	

¹ In construction type, with Fast fixation device, the dimension will change to 32 x 62. For Plain can construction and Plastic can with M8 construction the dimension will remain as 35 x 62

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, 32 mm and 35 mm, others on request

x: cable length (dimension 'B', 'H' in drawing) up on request.

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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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