



Film Capacitors – AC Capacitors

Motor run capacitors

Series/Type: FHP Motor Capacitors
Ordering code: B32320R*/B32322R*/B32327R*/B32328R
Date: 2018-08-16
Version: 5

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Construction

- Dielectric: polypropylene film
- Plastic case with plastic top
- Polyurethane resin
- Dry type

Features

- Self-healing properties
- Low dissipation factor
- S0/P0 safety class
- High insulation resistance

Typical applications

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

Terminals

- Fast on terminals (single fast-on - B32320, double fast-on - B32322)
- Flexible lead wire - B32327
- Insulated cable or wire with sleeve - B32328

Mounting parts (optional)

- Threaded stud at bottom of can (M8, max. torque = 5 Nm)
- Plain can

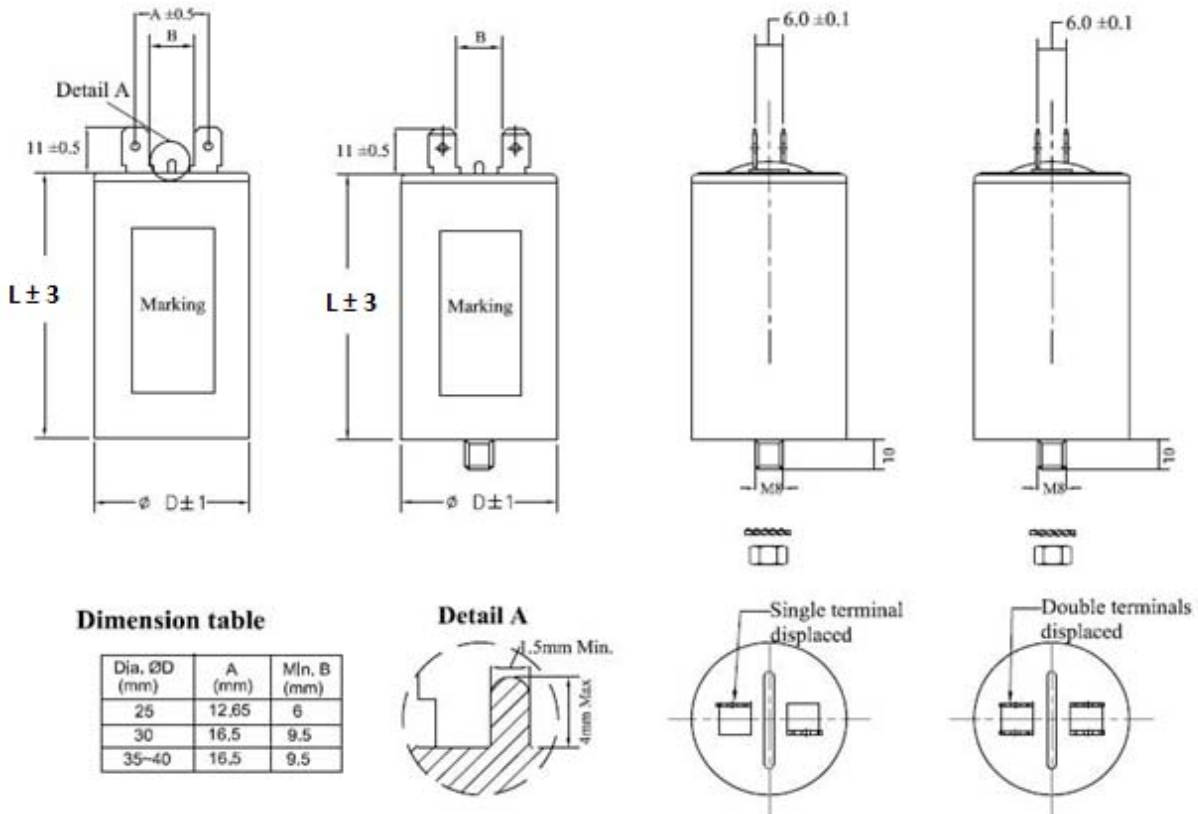

Technical data and specifications

Reference standards	IEC60252-1 IS 2993
Life expectancy to IEC 60252-1	440V, +85°C:10000 h (Class B)
Safety class to IEC 60252-1/ IS 2993	S0 / P0
Rated capacitance C_R	See table ordering codes, page 6
Tolerance	± 5%, other tolerances upon request
Permitted capacitance $\Delta C/C$	≤ 3%
Rated voltage V_R	440 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)																								
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	$\leq 7.0 \times 10^{-3}$ (1KHz)																								
Maximum rate of voltage rise dv/dt_{max}	10 V/ μ s																								
Climatic data																									
Climatic category	25/085/21																								
Lower category T_{min}	-25 °C																								
Upper category T_{max}	+85 °C																								
Damp heat test t_{test}	21 days																								
Mechanical and thermal properties																									
Plastic can and top disk material	Plastic as per IEC60252-1																								
Compatibility to RoHS																									
Compliance to directive 2011/65/EU																									
Marking	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <table style="display: inline-table; border-collapse: collapse; margin-left: 10px;"> <tr> <td style="padding: 2px;">Cx μF</td> <td style="padding: 2px;">V_{RMS}</td> <td style="padding: 2px;">B</td> </tr> <tr> <td style="padding: 2px;">Tx%</td> <td style="padding: 2px;">VAC</td> <td style="padding: 2px;">50</td> </tr> <tr> <td style="padding: 2px;">25/085/21</td> <td colspan="2" style="padding: 2px;">Series</td> </tr> <tr> <td style="padding: 2px;">MKP 'SH'</td> <td style="padding: 2px;">No PCB's</td> <td style="padding: 2px;">EN60252-1</td> </tr> <tr> <td style="padding: 2px;">Made by EPCOS</td> <td style="padding: 2px;">PO Number</td> <td style="padding: 2px;">WW. YYYY</td> </tr> </table> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">IS 2993:1998</td> <td style="padding: 2px;">450V</td> <td style="padding: 2px;">B</td> </tr> <tr> <td style="text-align: center;"></td> <td colspan="2" style="padding: 2px;">50Hz</td> </tr> <tr> <td style="padding: 2px;">CML-7800031911</td> <td colspan="2" style="padding: 2px;">PO</td> </tr> </table> </div> <p>Where, Cx – Capacitance Value V_{RMS} – rated AC voltage Tx% – Tolerance on capacitance Series -B32320R/B32322R/B32327R/B32328R WW.YYYY – Week code PO Number. – Internal traceability number</p>	Cx μ F	V_{RMS}	B	Tx%	VAC	50	25/085/21	Series		MKP 'SH'	No PCB's	EN60252-1	Made by EPCOS	PO Number	WW. YYYY	IS 2993:1998	450V	B		50Hz		CML-7800031911	PO	
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Dimensional drawings

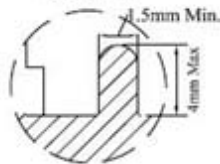
Series single fast-on, B32320 and Series double fast-on, B32322



Dimension table

Dia. ϕD (mm)	A (mm)	M/n. B (mm)
25	12.65	6
30	16.5	9.5
35-40	16.5	9.5

Detail A

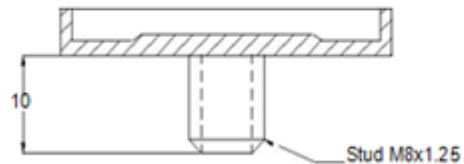


Mounting options

$S = 2$: Can without mounting

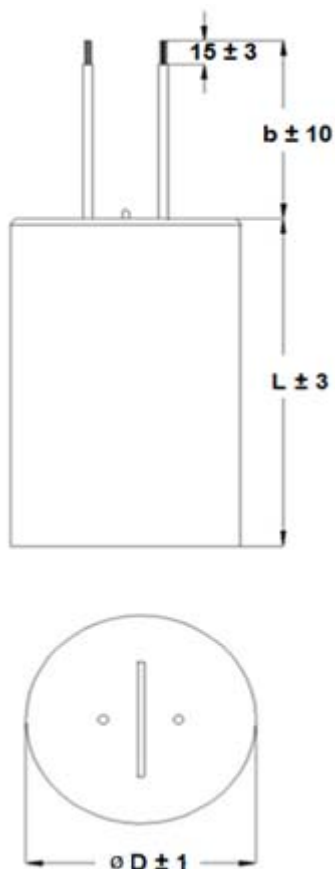


$S = 4$: Can with M8 bolt

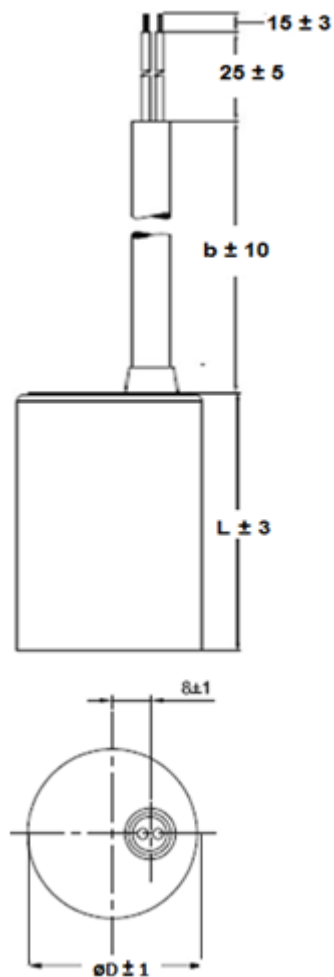


Dimensional drawings

Series lead wire terminals



Series, B32328 wire with sleeve



Ordering codes and packing unit

V_R	C_R	Dimensions $\varnothing D \times L$ (mm) B32320	Dimensions $\varnothing D \times L$ (mm) B32322, B32327, B32328	Ordering code	Packing unit (pcs.) B32320	Packing unit (pcs.) B32322, B32327, B32328
VAC	μF					
440	2	25 x 62	30 x 62	B3232#-R5205-+0\$*	100	50
	3	25 x 62	30 x 62	B3232#-R5305-+0\$*	100	50
	4	25 x 62	30 x 62	B3232#-R5405-+0\$*	100	50
	5	30 x 62	30 x 62	B3232#-R5505-+0\$*	50	50
	6	30 x 62	30 x 62	B3232#-R5605-+0\$*	50	50
	7	30 x 62	30 x 62	B3232#-R5705-+0\$*	50	50
	8	35 x 62	35 x 62	B3232#-R5805-+0\$*	50	50
	10	35 x 62	35 x 62	B3232#-R5106-+0\$*	50	50
	12	35 x 73	35 x 73	B3232#-R5126-+0\$*	50	50
	15	40 x 73	40 x 73	B3232#-R5156-+0\$*	50	50
	16	40 x 73	40 x 73	B3232#-R5166-+0\$*	50	50
	18	40 x 73	40 x 73	B3232#-R5186-+0\$*	50	50
	20	40 x 73	40 x 73	B3232#-R5206-+0\$*	50	50
	25	45 x 73	45 x 73	B3232#-R5256-+0\$*	25	25
	30	40 x 98	40 x 98	B3232#-R5306-+0\$*	50	50
	36	45 x 98	45 x 98	B3232#-R5366-+0\$*	25	25
	40	45 x 98	45 x 98	B3232#-R5406-+0\$*	25	25
	45	50 x 98	50 x 98	B3232#-R5456-+0\$*	25	25
	50	50 x 98	50 x 98	B3232#-R5506-+0\$*	25	25
60	50 x 98	50 x 98	B3232#-R5606-+0\$*	25	25	

Notes for ordering code:#: Series of capacitor:

- 0 - Single fast-on 6.35 x 0.8 mm
- 2 - Double fast-on 6.35 x 0.8 mm
- 7 - Flexible wire terminals
- 8 - Wire with sleeve

+: Tolerance on capacitance

J - $\pm 5\%$

\$: Construction

- 2 - Plastic can without mounting
- 4 - Plastic can with M8 stud

*: Wire length (dimension 'b' in drawing) up 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 our specification before ordering.

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