



Motor run capacitors

Series/Type: B32328 – MotorCap

Ordering code: B32328

Date: September 2016

Version: 2

© EPCOS AG 2016. Reproduction, publication and dissemination of this publication, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

EPCOS AG is a TDK Group Company.

Tel: 027-87886630 Fax: 027-87886620 www.maserac.com





B32328

## Motor run capacitors

B32328 - MotorCap

#### Construction

- Metallized polypropylene film
- Plastic can and top UL 94 V2 material minimum
- Dry type

#### **Features**

- Self-healing properties
- Low dissipation factor
- S0 safety class to IEC60252-1 (ed.2) am1:
- High insulation resistance
- Case IP 53 protected

### **Typical applications**

 For general sine wave applications, Mainly as motor run capacitor

#### **Terminals**

Twin core cable, double insulated,(H05V2V2F),0.5mm<sup>2</sup>,600V, 90°C

#### **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

	EN100050 4 0044 07		
Reference standards	EN60252-1: 2014-07		
	IEC60252-1: Ed 2,2013-8,amendment 1		
Safety class to IEC 60252-1/ 2013	S0		
Life expectancy to IEC 60252-1 /2013	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 <sub>R</sub>	See table ordering code		
Tolerance Tx	±5%		
Rated voltage V <sub>rms</sub>	250 V AC, 400 V AC, 480 V AC		
Rated frequency f <sub>R</sub>	50/60 Hz		
Maximum ratings			
Maximum permissible voltage V <sub>max</sub>	1.1 • V <sub>R</sub> (V <sub>R</sub> = Rated voltage)		
Maximum permissible current I <sub>max</sub>	1.3 • I <sub>R</sub> (I <sub>R</sub> = Rated current)		

CAP RD FILM PD AC September 2016





Film Capacitors – AC Capacitors	B32328
Motor run capacitors	B32328 - MotorCap

Test data			
AC test voltage terminal to terminal $V_{TT}$	2 • V <sub>R</sub> , 2 s (routine test) 2 • V <sub>R</sub> , 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 δ at 20 °C	≤ 7.0 • 10 <sup>-3</sup> (1 kHz )		
Maximum rate of voltage rise dV/dt <sub>max</sub>	10 V/μs		
Climatic data			
Climatic category	25/085/21 to IEC 60068-1		
Lower category T <sub>min</sub>	–25° C		
Upper category T <sub>max</sub>	+85° C		
Damp heat test t <sub>test</sub>	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  Compliant to IEC 60252-1			
Plastic can and top disk material	Compliant to IEC 60252-1		
Option A:  ■ UL 94 V2 compatible  ■ Glow wire test to IEC 60695-2-1/0 and -2-1/1 Test temp 550 °C for I <sub>R</sub> ≤ 0.5 A Test temp 850 °C for I <sub>R</sub> > 0.5 A	Self-extinguishing within 30 seconds of withdrawing the glow wire and without igniting wrapping tissue.		
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	RoHS		
Approvals			
VDE IEC 60252-1	Approved		
DVE	400 V/85 °C: 10000 h (class B) for 1.5 μF to 50 μF 480 V/85 °C: 3000h (class C)for 3 μF to 35 μF		
CE	Compliance to LV directive 2014/35/EU		

#### Display of ordering codes for EPCOS products

The ordering code for one and the same EPCOS product can be represented differently in data sheets, data books, other publications, on the EPCOS website, or in order-related documents such as shipping notes, order confirmations and product labels. The varying representations of the ordering codes are due to different processes employed and do not affect the specifications of the respective products. Detailed information can be found on the Internet under www.epcos.com/orderingcodes

CAP RD FILM PD AC September 2016



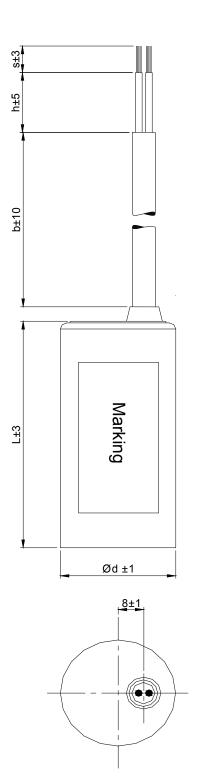


B32328

## Motor run capacitors

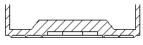
B32328 - MotorCap

#### **Dimensional drawings**

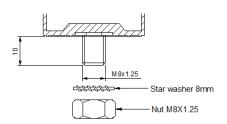


#### Mounting options

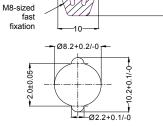
# = 1: Can without mounting



# =3: Can with M8 bolt



# = 5: Locking clip







B32328

## Motor run capacitors

B32328 – MotorCap

## Ordering codes and packing units

Rated voltage	Rated capacitance	Dimensions D × L	Ordering code	Approvals	Packing unit
$V_{R}$	C <sub>R</sub>				
V AC	μF	mm			pcs.
	1.5	25 × 58	B32328A1155J0#*		112
	2	25 × 58	B32328A1205J0#*		112
	3	25 × 58	B32328A1305J0#*		112
	4	25 × 58	B32328A1405J0#*		112
	5	25 × 58	B32328A1505J0#*		112
	6	25 × 58	B32328A1605J0#*		112
	7	25 × 58	B32328A1705J0#*		112
	7.5	25 × 58	B32328A1755J0#*		112
	8	25 × 58	B32328A1805J0#*		112
	9	30 × 62	B32328A1905J0#*		112
	10	30 × 62	B32328A1106J0#*		112
250	12	30 × 62	B32328A1126J0#*		112
	14	30 × 62	B32328A1146J0#*		112
	15	30 × 62	B32328A1156J0#*		112
	16	35 × 62	B32328A1166J0#*		84
	18	35 × 62	B32328A1186J0#*		84
	20	35 × 62	B32328A1206J0#*		84
	22	35 × 62	B32328A1226J0#*		84
	25	35 × 71	B32328A1256J0#*		84
	30	35 × 71	B32328A1306J0#*		84
	35	40 × 71	B32328A1356J0#*		60
	40	40 × 71	B32328A1406J0#*		60
	45	40 × 71	B32328A1456J0#*		60
	50	40 × 96	B32328A1506J0#*		60
	55	40 × 96	B32328A1556J0#*		60
	60	40 × 96	B32328A1606J0#*		60





B32328

## Motor run capacitors

B32328 - MotorCap

Rated voltage	Rated capacitance	Dimensions D × L	Ordering code	Approvals	Packing unit
$V_R$	C <sub>R</sub>				
V AC	μF	mm			pcs.
	1.5	25 × 58	B32328A4155J0#*	VDE	112
	2	25 × 58	B32328A4205J0#*	VDE	112
	3	25 × 58	B32328A4305J0#*	VDE	112
	4	25 × 58	B32328A4405J0#*	VDE	112
	5	30 × 62	B32328A4505J0#*	VDE	112
	6	30 × 62	B32328A4605J0#*	VDE	112
	7	35 × 62	B32328A4705J0#*	VDE	84
	8	35 × 62	B32328A4805J0#*	VDE	84
	9	35 × 62	B32328A4905J0#*	VDE	84
	10	35 × 62	B32328A4106J0#*	VDE	84
	12	35 × 71	B32328A4126J0#*	VDE	84
400	14	35 × 71	B32328A4146J0#*	VDE	84
	15	40 × 71	B32328A4156J0#*	VDE	60
	16	40 × 71	B32328A4166J0#*	VDE	60
	18	40 × 71	B32328A4186J0#*	VDE	60
	20	40 × 71	B32328A4206J0#*	VDE	60
	22	40 × 96	B32328A4226J0#*	VDE	60
	25	40 × 96	B32328A4256J0#*	VDE	60
	30	40 × 96	B32328A4306J0#*	VDE	60
	35	45 × 96	B32328A4356J0#*	VDE	45
	40	45 × 96	B32328A4406J0#*	VDE	45
	45	50 × 96	B32328A4456J0#*	VDE	32
	50	50 × 96	B32328A4506J0#*	VDE	32
	55	50 × 96	B32328A4556J0#*		32
	60	50 × 96	B32328A4606J0#*	_	32





B32328

## **Motor run capacitors**

**B32328 – MotorCap** 

Rated voltage	Rated capacitance	Dimensions D × L	Ordering code	Approvals	Packing unit
$V_R$	C <sub>R</sub>				
V AC	μF	mm			pcs.
	3	30 × 62	B32328A7305J0#*	VDE	112
	4	30 × 62	B32328A7405J0#*	VDE	112
	5	30 × 62	B32328A7505J0#*	VDE	112
480	6	35 × 62	B32328A7605J0#*	VDE	84
	7.5	35 × 71	B32328A7755J0#*	VDE	84
	8	35 × 71	B32328A7805J0#*	VDE	84
	10	40 × 71	B32328A7106J0#*	VDE	60
	12	40 × 71	B32328A7126J0#*	VDE	60
	15	45 × 71	B32328A7156J0#*	VDE	45
	16	45 × 71	B32328A7166J0#*	VDE	45
	20	45 × 71	B32328A7206J0#*	VDE	45
	22	45 × 71	B32328A7226J0#*	VDE	45
	25	45 × 96	B32328A7256J0#*	VDE	45
	30	45 × 96	B32328A7306J0#*	VDE	45
	35	50 × 96	B32328A7356J0#*	VDE	32

#### Composition of ordering code:

#: construction

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

Note: Dimension "b" "h" and "s" will vary as per requirement.

### **Cautions and warnings**



A Please read "Applications warning, installation and maintenance instructions" and the "ZVEI -General safety recommendations for power capacitors", 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.

CAP RD FILM PD AC September 2016

<sup>\*:</sup> Wire length (dimension 'b', h, s in drawing)





#### Important notes

The following applies to all products named in this publication:

- 1. Some parts of this publication contain statements about the suitability of our products for certain areas of application. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
- 2. We also point out that in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
- 3. The warnings, cautions and product-specific notes must be observed.
- 4. In order to satisfy certain technical requirements, some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous). Useful information on this will be found in our Material Data Sheets on the Internet (www.epcos.com/material). Should you have any more detailed questions, please contact our sales offices.
- 5. We constantly strive to improve our products. Consequently, the products described in this publication may change from time to time. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order. We also reserve the right to discontinue production and delivery of products. Consequently, we cannot guarantee that all products named in this publication will always be available. The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.
- 6. Unless otherwise agreed in individual contracts, all orders are subject to the current version of the "General Terms of Delivery for Products and Services in the Electrical Industry" published by the German Electrical and Electronics Industry Association (ZVEI).
- 7. The trade names EPCOS, CeraDiode, CeraLink, CeraPlas, CSMP, CSSP, CTVS, DeltaCap, DigiSiMic, DSSP, FilterCap, FormFit, LeaXield, MiniBlue, MiniCell, MKD, MKK, MLSC, MotorCap, PCC, PhaseCap, PhaseCube, PhaseMod, PhiCap, PQSine, SIFERRIT, SIFI, SIKOREL, SilverCap, SIMDAD, SiMic, SIMID, SineFormer, SIOV, SIP5D, SIP5K, TFAP, ThermoFuse, WindCap are trademarks registered or pending in Europe and in other countries. Further information will be found on the Internet at www.epcos.com/trademarks.

CAP RD FILM PD AC September 2016