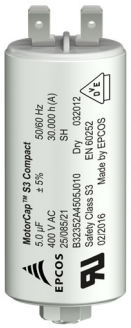
Film Capacitors – AC Capacitors

Motor run capacitors

Series/Type:	**MotorCap S3 Compact**
Ordering code:	**B32350/B32352**
Date:	November 2023
Version:	10

Rated capacitane: 2 µF…20 µF
Rated AC Voltage: 400/450 V AC



Construction

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

Features

- Self-healing properties
- Low dissipation factor
- Highest safety level S3 to IEC 60252-1+A1:2013
- High insulation resistance
- file E 106388, component approval mark, on request
- EN 60335-1 compatible

Applications

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

Terminals

- B32350 – Single Fast-on: 6.3 x 0.8 mm
- B32352 – Double Fast-on: 6.3 x 0.8 mm

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 possibile

Delivery mode and packing unit

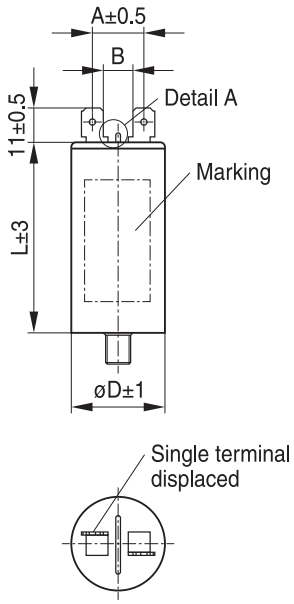
- Cardboard tape on pallet
- Packing unit, see dimension table
- EU pallet as standard

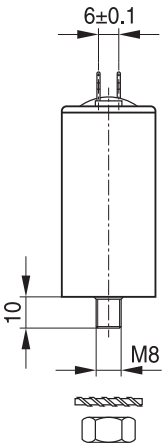
Technical data and specifications	
Reference standards	IEC 60252-1+A1 :2013 EN60252-1 : 2014-07
Life expectancy to IEC 60252-1+A1 :2013	400 V AC: 30000 h (class A) 450 V AC: 10000 h (class B)
Safety class according to IEC 60252-1+A1 :2013	S3
UL 810 file E 106388	Approved component,10000 AFC protected up to 450 V AC (Approval mark upon request)
Rated capacitance C_R	See table ordering codes, page 5, 6
Tolerance	± 5%
Permitted capacitance $\Delta C/C$	≤ 3%
Rated voltage V_R	450 V AC
Rated frequency f_R	50/60 Hz
Maximum ratings	
Maximum permissible voltage V_{max}	1.1 ·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} AC test voltage terminals to can V_{TC}	2 V_R, 2 s (routine test) 2 V_R, 60 s (type test) 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 ≤ 65%	3000 s
Dissipation factor tan δ at 20 °C	≤ 1.0 ·10^{-3} (120 Hz)
Maximum rate of voltage rise dV/dt_{max}	10 V/µs
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 at +40°C and 93% RH

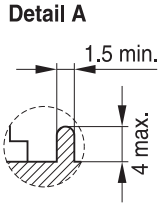
Mechanical and thermal properties	
Ball pressure test to IEC 60309-1 sec. 27.3	20 N at +125 °C
Tracking test to IEC 60112 solution A	>250 V
Plastic can and top disk material	UL 94 V2 min / Compliant to EN60252-1/ EN60335-1
Glow wire test to IEC 60695 – 2 – 1 / 1 Test temp 550 ° C for $I_R \leq 0.5$ A 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
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 ºC and within 60 s with GWFI 850 ºC of withdrawing the glow wire and without igniting the wrapping tissue
Compatibility to RoHS	
Compliance to directive 2011/65/EU, Annex II, amended by Directive (EU) 2015/863	RoHS compatible
Approvals	
VDE – 400 V AC / 85 °C: 30000 h (class A) **VDE** – 450 V AC / 85 °C: 10000 h (class B)	Approved Approved
UL 810 E106388	Approved component 10000 AFC, protected up to 450 V AC
CE	Compliance to LV directive 2014/35/EU

Dimensional drawings

B32350-series







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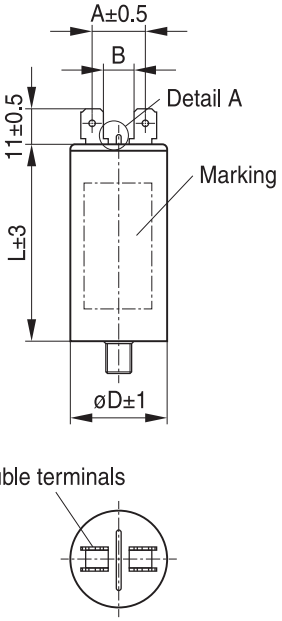
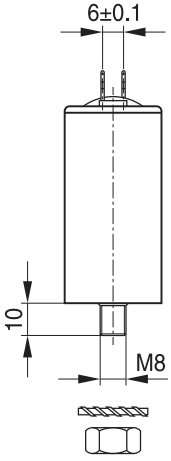
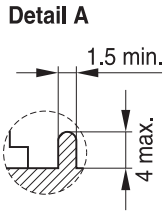
B32352-series







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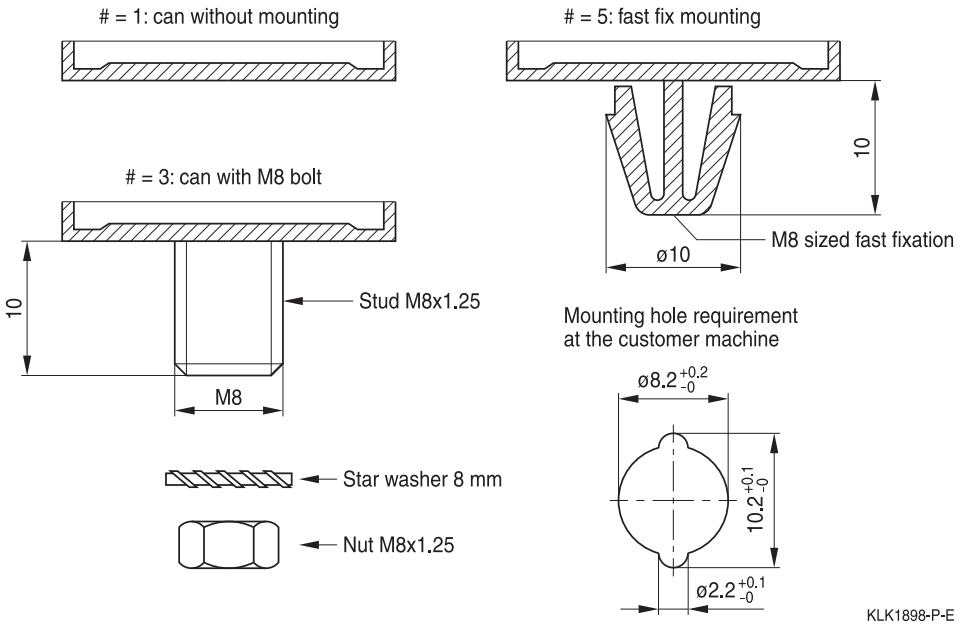
Dimension table

Dia. ØD (mm)	A (mm)	Min. B (mm)
25	12.65	6
30	16.5	9,5
35~54	16,5	9.5



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Ordering codes and packing units

B32350-series (Singe Fast-on connector)

V_R V AC	C_R µF	Dimensions D × L mm	Ordering code	Packing units pcs
400/450	2	25 × 58	B32350A4205J0#0	112
	2.5	25 × 58	B32350A4255J0#0	112
	3	30 × 62	B32350A4305J0#0	112
	3.15	30 × 62	B32350A4315J5#0	112
	4	30 × 62	B32350A4405J0#0	112
	5	35 × 62	B32350A4505J0#0	84
	6	35 × 62	B32350A4605J0#0	84
	6.3	35 × 62	B32350A4635J0#0	84
	7	35 × 62	B32350A4705J0#0	84
	7.5	35 x 71	B32350A4755J0#0	84
	8	35 × 71	B32350A4805J0#0	84
	9	35 × 71	B32350A4905J0#0	84
	10	35 × 71	B32350A4106J0#0	84
	11	40 × 71	B32350A4116J0#0	60
	12	40 × 71	B32350A4126J0#0	60
	12.5	40 × 71	B32350A4126J5#0	60
	14	45 × 71	B32350A4146J0#0	45
	15	45 × 71	B32350A4156J0#0	45
	16	45 × 96	B32350A4166J0#0	45
	17.5	45 × 96	B32350A4176J5#0	45
	18	50 × 100	B32350A4186J0#0	32
	20	50 × 100	B32350A4206J0#0	32

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 and 35 mm, others on request

Last digit in Ordering code: 0 for standard parts as per datasheet, can be revised from (1-9) on deviating dimensions or marking specifications on customer request.

Ordering codes and packing units

B32352-series (Double Fast-on connector)

V_R V AC	C_R µF	Dimensions D × L mm	Ordering code	Packing units pcs
400/450	2	30 × 62	B32352A4205J0#0	112
	2.5	30 × 62	B32352A4255J0#0	112
	3	30 × 62	B32352A4305J0#0	112
	3.15	30 × 62	B32352A4315J5#0	112
	4	30 × 62	B32352A4405J0#0	112
	5	35 × 62	B32352A4505J0#0	112
	6	35 × 62	B32352A4605J0#0	84
	6.3	35 × 62	B32352A4635J0#0	84
	7	35 × 62	B32352A4705J0#0	84
	7.5	35 x71	B32352A4755J0#0	84
	8	35 × 71	B32352A4805J0#0	84
	9	35 × 71	B32352A4905J0#0	84
	10	35 × 71	B32352A4106J0#0	84
	11	40 × 71	B32352A4116J0#0	60
	12	40 × 71	B32352A4126J0#0	60
	12.5	40 × 71	B32352A4126J5#0	60
	14	45 × 71	B32352A4146J0#0	45
	15	45 × 71	B32352A4156J0#0	45
	16	45 × 96	B32352A4166J0#0	45
	17.5	45 × 96	B32352A4176J5#0	45
	18	50 × 100	B32352A4186J0#0	32
	20	50 × 100	B32352A4206J0#0	32

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 and 35 mm, others on request

Last digit in Ordering code: 0 for standard parts as per datasheet, can be revised from (1-9) on deviating dimensions or marking specifications on customer 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.tdk-electronics.tdk.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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Release 2023-08