



Film Capacitors – AC Capacitors

Motor run capacitors


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

Rated capacitance: 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 \varnothing 8 mm
- Mounting in any position possible

Delivery mode and packing unit

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

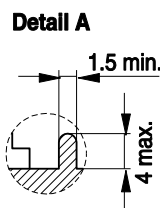
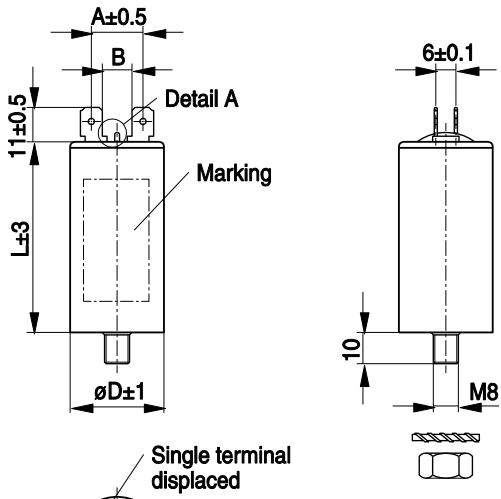


Technical data and specifications	
Reference standards	IEC 60252-1+A1 :2013 EN60252-1 : 2014-07
Life expectancy to IEC 60252-1+A1 :2013	400 V AC: 30000 h (class A) 450 V AC: 10000 h (class B)
Safety class according to IEC 60252-1+A1 :2013	S3
UL 810 file E 106388	Approved component, 10000 AFC protected up to 450 V AC (Approval mark upon request)
Rated capacitance C_R	See table ordering codes, page 5, 6
Tolerance	$\pm 5\%$
Permitted capacitance $\Delta C/C$	$\leq 3\%$
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}	$1.3 \cdot I_R$ ($I_R =$ 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 can 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 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 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 °C and within 60 s with GWFI 850 °C 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	
Approvals	
VDE – 400 V AC / 85 °C: 30000 h (class A)	Approved
VDE – 450 V AC / 85 °C: 10000 h (class B)	Approved
 UL 810 E106388	Approved component 10000 AFC, protected up to 450 V AC
	Compliance to LV directive 2014/35/EU

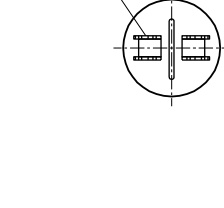
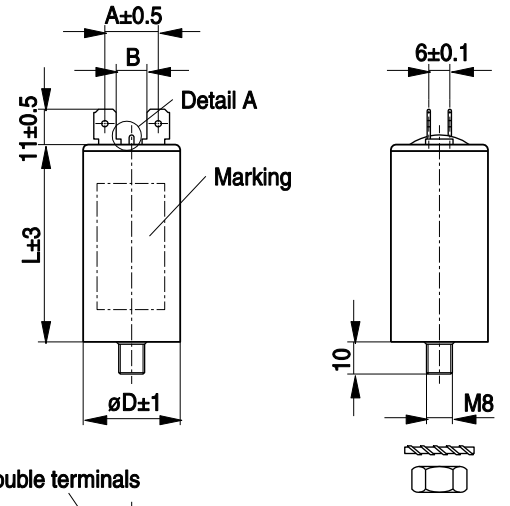
Dimensional drawings

B32350-series



KLK1903-U-E

B32352-series

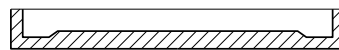


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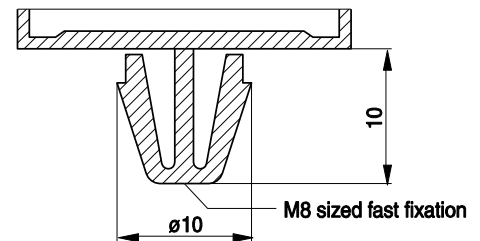
Dimension table

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

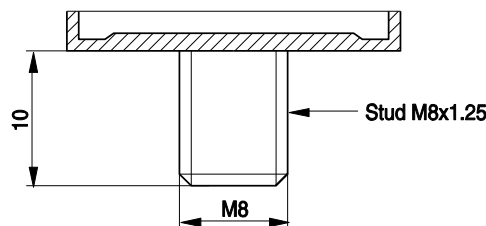
= 1: can without mounting



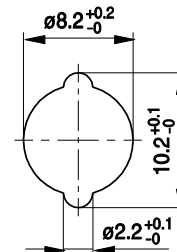
= 5: fast fix mounting



= 3: can with M8 bolt



Mounting hole requirement at the customer machine



KLK1898-P-E

Star washer 8 mm

Nut M8x1.25

Ordering codes and packing units

B32350-series (Single 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 × 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 × 71	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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