



Film Capacitors – AC Capacitors

Motor run capacitors

Series/Type: CBB65A-1
Ordering code: B3333*

Date: DEC 2019
Version: 2

Construction

- Metallized polypropylene film
- Aluminum can and top
- Filling material: soft polyurethane resin

Features

- Self-healing properties
- Low dissipation factor
- Overpressure disconnection safety device
- S2 safety class as per IEC-60252-1(ed-2) am1
- High insulation resistance
- EN 60335-1 compliance

Typical applications

- For general sine wave application, mainly as motor run

Terminals

- 2+2 fast-on terminal 6.3 x 0.8mm #250 style, others on request

Mounting Parts (optional)

- Threaded stud at bottom of can (M8, Max torque= 5 Nm for 50 mm diameter)

**Technical data and specifications**

Reference standards	DIN EN 60252-1:2014-07, IEC 60252-1 (ed 2) am1 UL 810, GB/T3667.1
Safety class to IEC 60252-1 2013	S2
Life expectancy to IEC 60252-1 2013	450 V : 30000 h (Class A)
Rated capacitance C_R	See Table ordering code, page 5
Tolerance T_x	+/- 5%
Rated voltage V_{RMS}	450 V, others on request
Rated frequency f_R	50/60 Hz
Maximum ratings	
Maximum permissible voltage V_{max}	$1.1 \bullet V_R$ (V_R = Rated voltage)
Maximum permissible current I_{max}	$1.3 \bullet I_R$ (I_R = Rated current)

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Test data

AC test voltage terminal to terminal V_{TT}	$2.0 \bullet V_R, 2 \text{ s}$
Insulation voltage terminals to case	3000 V AC, 2 s
Insulation resistance R_{ins} or time constant at +20 °C, rel. Humidity≤65% (minimum as-delivered values)	10000 s
Dissipation factor $\tan \delta$ at +20 °C	$\leq 7 \bullet 10^{-3}$ (1 kHz)
Maximum rate of voltage rise dv/dt_{max}	10 V/μs

Climatic data

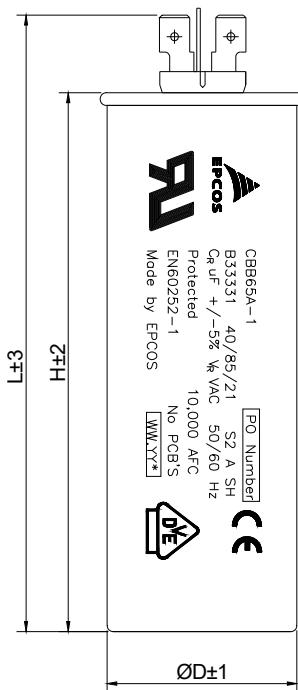
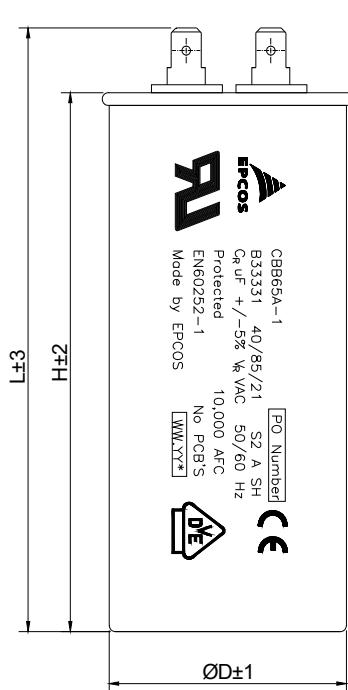
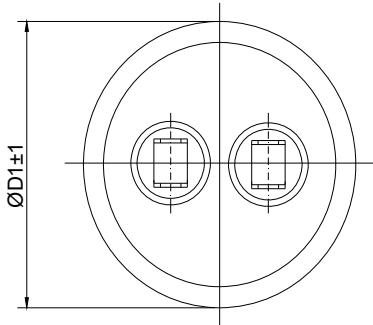
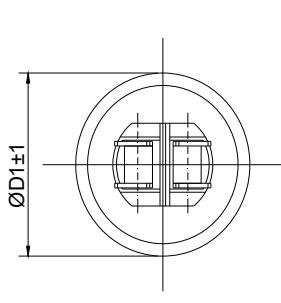
Climatic category	40/085/21 to IEC 60068-1
Lower category T_{min}	-40 °C
Upper category T_{max}	+85 °C
Damp heat test t_{test}	21 days

Mechanical and thermal properties of terminal insulator material

Terminal material	Self-extinguishing within 2 seconds of withdrawing glow wire without igniting wrapping tissue of GWT
■ UL 94 V0 compatible ■ Glow wire test to IEC60335-1 Test temperature +750 °C ■ Part is compatible to EN 60335-1	

Compatibility to RoHS	
Compliance to directive 2011/65/EU	

 US UL File E 238746	Approved component 10000 AFC
 VDE EN 60252-1	Approved up to 65 μF, 450 V / 85 °C : 30000 h (Class A)
 CQC	Approval on request
 CE	Compliance to LV directive 2014/35/EU

Dimensional drawing and marking
Drawing 1

Drawing 2

C_r – Capacitance
V_R – Rated Voltage
CBB65A-1 – Product family
PO Number : Production Order Number
B33331 – Series
40/085/21 – Lower temperature limit : -40°C
– Upper temperature limit : 85°C
– Damp heat test : 21 days
S2: Safety class as per IEC60252-1
A: Life expectancy as per IEC60252-1
SH – Self Healing type MPP Capacitor
WW.YY* – WEEK CODE
WW-WEEK YY-YEAR (e.g. 48.14B)
*** – Manufacturing Plant Location**
'N' FOR NASHIK


Ordering codes and packing unit

V _R V AC	C _R μF	Case dimensions (D × H) mm	D1 mm	L mm	Drawing No.	Ordering code	Packing unit	Approval
450	2	30 x 55	33	73	1	B3333*B6205J0#X	100	VDE/UL
	4	35 x 55	38	68	2	B3333*B6405J0#X	64	VDE/UL
	6	30 x 65	33	83	1	B3333*B6605J0#X	100	VDE/UL
	8	35 x 65	38	78	2	B3333*B6805J0#X	64	VDE/UL
	10	30 x 75	33	93	1	B3333*B6106J0#X	100	VDE/UL
	12	40.5 x 65	43.5	78	2	B3333*B6126J0#X	49	VDE/UL
	14	45 x 55	48	68	2	B3333*B6146J0#X	49	VDE/UL
	16	40.5 x 75	43.5	88	2	B3333*B6166J0#X	49	VDE/UL
	20	40.5 x 85	43.5	98	2	B3333*B6206J0#X	49	VDE/UL
	25	40.5 x 100	43.5	113	2	B3333*B6256J0#X	49	VDE/UL
	25	45 x 85	48	98	2	B3333*B6256J0#X	49	VDE/UL
	30	50 x 85	53	98	2	B3333*B6306J0#X	36	VDE/UL
	40	50 x 100	53	113	2	B3333*B6406J0#X	36	VDE/UL
	50	50 x 100	53	113	2	B3333*B6506J0#X	36	VDE/UL

Composition of ordering code

*: Terminals:

B33331: 2+2 fast-on terminals

B3333x: Other terminal configuration on request

#:construction

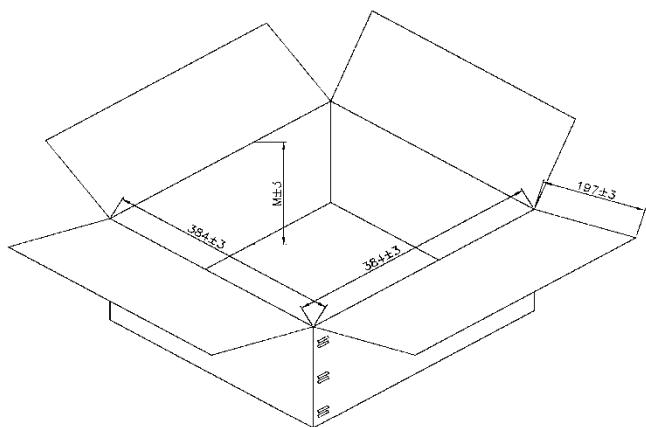
6 Aluminium Can Flat type
8 Aluminium Can with M8 bolt

X: 0 as per this dimension and properties

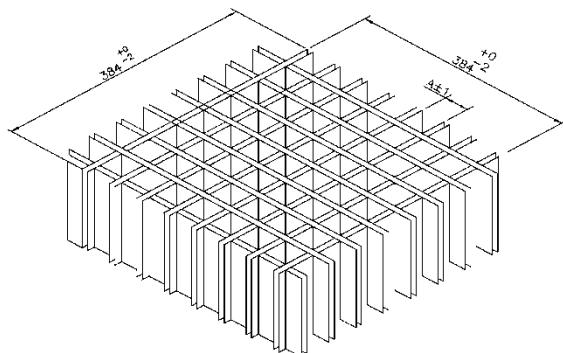
1-9 special dimension and properties

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Packing box


$M = \frac{1}{2}(\text{Capacitor height}) + \text{Terminal height} + 10\text{mm min.}$


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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