



## Film Capacitors – AC Capacitors

### Motor run capacitors

<b>Series/Type:</b>	<b>CBB65A-1</b>
<b>Ordering code:</b>	<b>B3333*</b>
<b>Date:</b>	<b>DEC 2019</b>
<b>Version:</b>	<b>2</b>

**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 $V_{max}$	$1.1 \cdot V_R$ ( $V_R$ = Rated voltage)
Maximum permissible current $I_{max}$	$1.3 \cdot I_R$ ( $I_R$ = Rated current)

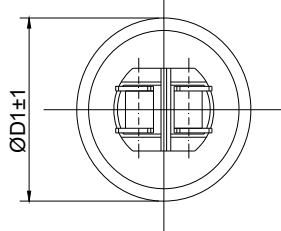
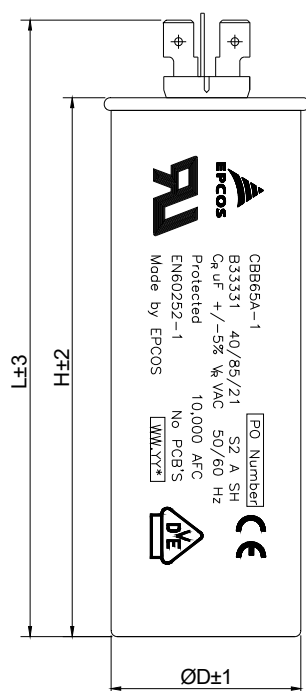
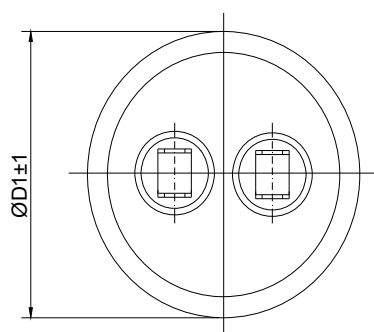
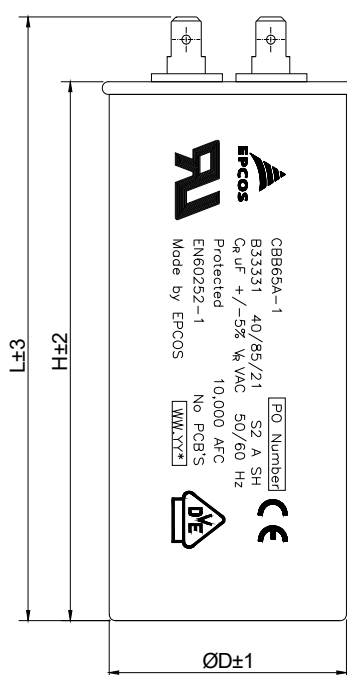
# Film Capacitors – AC Capacitors

B3333\*

## Motor run capacitors

CBB65A-1

Test data	
AC test voltage terminal to terminal $V_{TT}$	$2.0 \cdot V_R$ , 2 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	$\leq 7 \cdot 10^{-3}$ (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 <ul style="list-style-type: none"> <li>■ UL 94 V0 compatible</li> <li>■ Glow wire test to IEC60335-1 Test temperature +750 °C</li> <li>■ Part is compatible to EN 60335-1</li> </ul>	Self-extinguishing within 2 seconds of withdrawing glow wire without igniting wrapping tissue of GWT
Compatibility to RoHS	
Compliance to directive 2011/65/EU	
Approvals: See table for approved ratings	
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
	Compliance to LV directive 2014/35/EU

**Dimensional drawing and marking**
**Drawing 1**

**Drawing 2**


C<sub>R</sub> – Capacitance

V<sub>R</sub> – 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 <sub>R</sub>	C <sub>R</sub>	Case dimensions (D × H) mm	D1 mm	L mm	Drawing No.	Ordering code	Packing unit	Approval
V AC	μF							
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

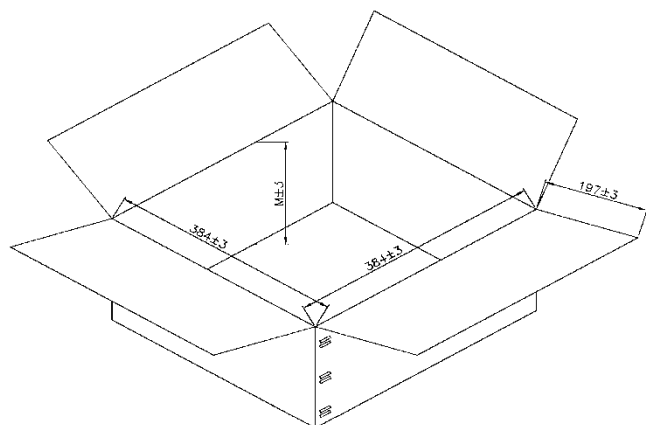
1-9 special dimension and properties

**Display of ordering codes for TDK Electronics products**

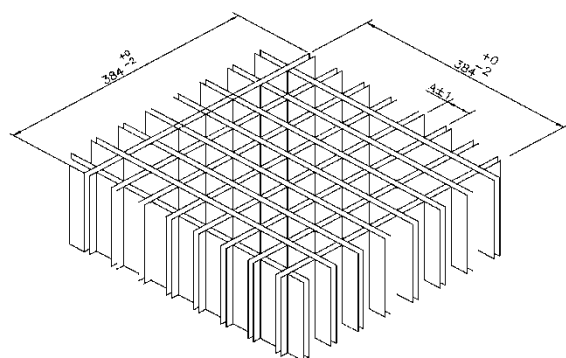
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Detailed information can be found on the Internet under [www.tdk-electronics.tdk.com/orderingcodes](http://www.tdk-electronics.tdk.com/orderingcodes).

## Packing box



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



## 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](http://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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## Important notes

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