Film Capacitors – AC Capacitors

Motor run capacitors

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

Date: July 2016
Version: 1

EPCOS AG is a TDK Group Company.

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)

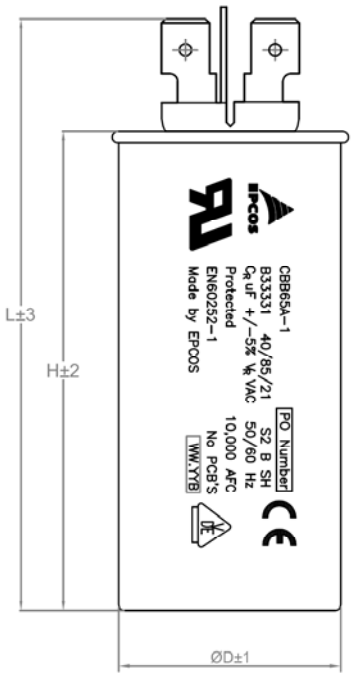
- Threaded stud at bottom of can (M8, Max torque= 5 Nm for 50 mm diameter)

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 Tx	+/- 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 • V_R (V_R = Rated voltage)
Maximum permissible current I_{max}	1.3 • I_R (I_R = Rated current)

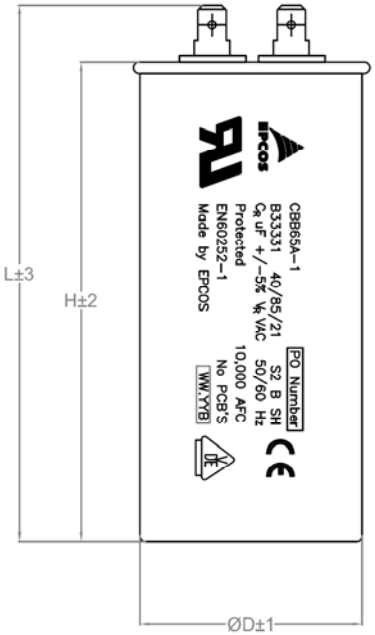
Test data	
AC test voltage terminal to terminal V_{TT}	2.0 • V_R, 2 s
Insulation voltage terminals to case	3000 V AC, 2 s
Insulation resistance R_{ins} or time constant at +20 ℃, rel. Humidity≤65% (minimum as-delivered values)	10000 s
Dissipation factor tan δ at +20 ℃	≤ 7 • 10^{-3} (1 kHz)
Maximum rate 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 94 V0 compatible ■ Glow wire test to IEC60335-1 Test temperature +750 °C ■ Part is compatible to EN 60335-1	Self-extinguishing within 2 seconds of withdrawing glow wire without igniting wrapping tissue of GWT
Compatibility to RoHS	
Compliance to directive 2011/65/EU	RoHS compatible
Approvals: See table for approved ratings	
US UL File E 238746	Approved component 10000 AFC
VDE EN 60252-1	Approved up to 65 uF , 450 V / 85°C : 30000 h (Class A)
CQC	Approval on request
CE	Compliance to LV directive 2014/35/EU

Dimensional drawing and marking

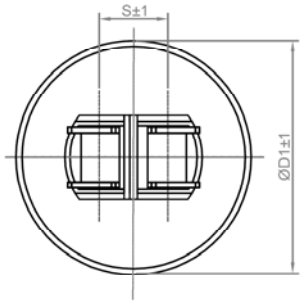
Drawing 1

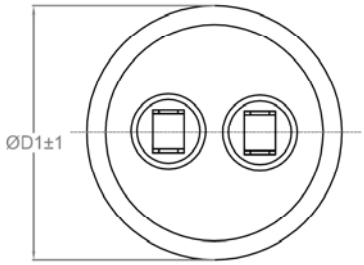


Drawing 2



CR – Capacitance
VR – 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
B: Life expectancy as per IEC60252–1
SH – Self Healing type MPP Capacitor
WW.YYB – WEEK CODE
WW–WEEK YY–YEAR (e.g. 48.14)
B– FOR BAWAL





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*B6205-J0#X	100	VDE/UL
	4	35 x 55	38	68	2	B3333*B6405-J0#X	64	VDE/UL
	6	30 x 65	33	83	1	B3333*B6605-J0#X	100	VDE/UL
	8	35 x 65	38	78	2	B3333*B6805-J0#X	64	VDE/UL
	10	30 x 75	33	93	1	B3333*B6106-J0#X	100	VDE/UL
	12	40.5 x 65	43.5	78	2	B3333*B6126-J0#X	49	VDE/UL
	14	45 x 55	48	68	2	B3333*B6146-J0#X	49	VDE/UL
	16	40.5 x 75	43.5	88	2	B3333*B6166-J0#X	49	VDE/UL
	20	40.5 x 85	43.5	98	2	B3333*B6206-J0#X	49	VDE/UL
	25	40.5 x 100	43.5	113	2	B3333*B6256-J0#X	49	VDE/UL
	25	45 x 85	48	98	2	B3333*B6256-J0#X	49	VDE/UL
	30	50 x 85	53	98	2	B3333*B6306-J0#X	36	VDE/UL
	40	50 x 100	53	113	2	B3333*B6406-J0#X	36	VDE/UL
	50	50 x 100	53	113	2	B3333*B6506-J0#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 EPCOS products

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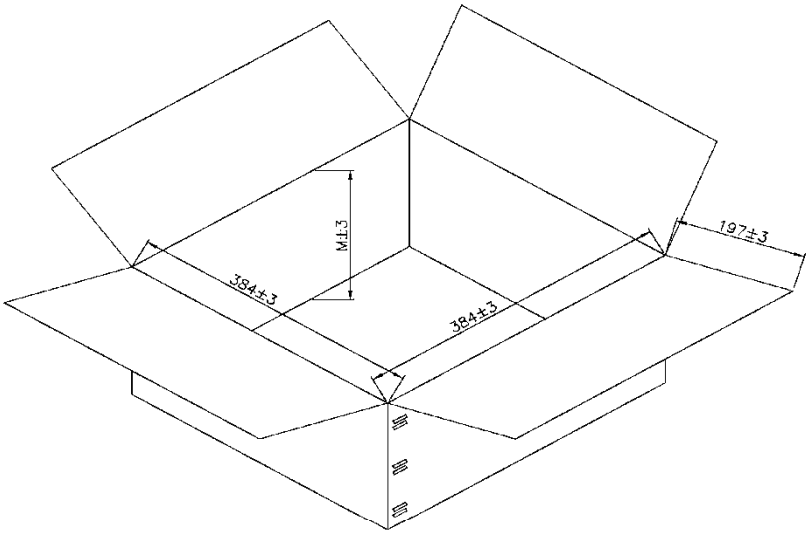
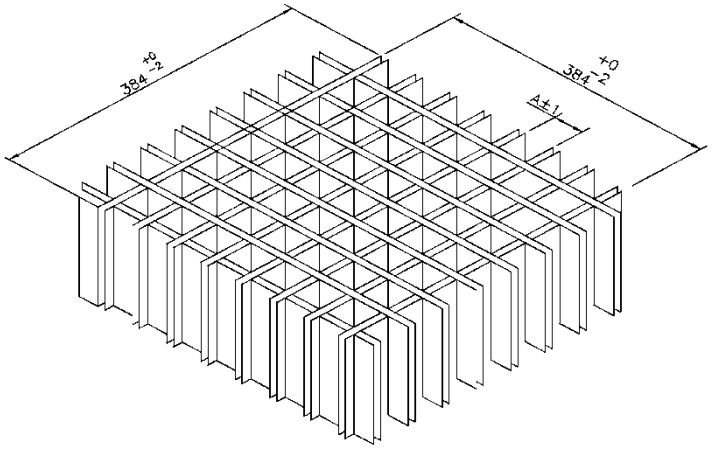
Packing box



M = H(Capacitor height) + Terminal height + 10mm min.



⚠ 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.

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