



## Film Capacitors – AC Capacitors

### Motor run capacitors

<b>Series/Type:</b>	<b>CBB65A-1</b>
<b>Ordering code:</b>	<b>B33331I6*</b>
Date:	Sept. 2021
Version:	Preliminary

**Preliminary data**
**Constructions**

- Metallized polypropylene film
- Aluminum can and top
- Filling material: Resinol

**Features**

- Self-healing properties
- Low dissipation factor
- Overpressure disconnection safety device
- S2 safety class as per IEC 60252-1:2010/AMD1:2013
- High insulation resistance
- EN 60335-1 (Ed 6, 2020) compliance

**Application**

- For general sine wave application, mainly as motor run

**Terminals**

- 2+2 fast-on terminals 6.3 x 0.8mm # 250 style, other on request





**Mounting parts (optional)**

- Threaded stud at bottom of can (M8) as option


**Technical data and specifications**

Reference standards	DIN EN 60252-1:2014-07; EN 60252-1:2011 + A1:2013; IEC 60252-1:2010/AMD1:2013 UL 810 (Ed6, 2019)
Safety class to IEC 60252-1:2010/AMD1:2013	S2
Life expectancy to IEC 60252-1:2010/AMD1:2013	450 V : 10000 h (Class B)
UL 810 (Ed6, 2019)	Approved component
Rated capacitance $C_R$	See table ordering code, page 5
Tolerance $T_x$	± 5%, other tolerance on request
Rated voltage $V_{rms}$	450 V AC, others on request
Rated frequency $f_R$	50/60 Hz

**Preliminary data**

<b>Test data</b>	
AC test voltage terminal to terminal $V_{TT}$	$2.0 \cdot V_R$ , 2 s (routine test)
AC test voltage terminal to can $V_{TC}$	3000 V AC, 2 s (routine test)
Insulation resistance $R_{ins}$ or time constant at 20 °C, rel. Humidity $\leq 65\%$ (minimum as-delivered values)	10000 s
Dissipation factor $\tan \delta$ at 20 °C	$\leq 7 \times 10^{-3}$ (1 kHz)
Maximum rate of voltage rise $dV/dt_{max}$	10 V/ $\mu$ s
<b>Climatic data</b>	
Climatic category	40/85/21 to IEC 60068-1 (2013)
Lower category $T_{min}$	-40° C
Upper category $T_{max}$	+85° C
Damp heat test $t_{test}$	21 days
<b>Mechanical and thermal properties of terminal insulator material</b>	
Terminal insulation plastic material <ul style="list-style-type: none"> <li>■ UL 94 (Ed6, 2013) compatible</li> <li>■ Compliance to Glow wire test as per IEC60335-1 (Ed6, 2020)</li> </ul>	
<b>Compatibility to RoHS</b>	
Compliance to directive 2011/65/EU	
<b>Approvals: See table for approved ratings</b>	
<b>UL File : E238746</b> 	Approved component 10,000 AFC
<b>Certificate no: 40052996</b> 	Approved from 1 $\mu$ F to 20 $\mu$ F, 450 V AC, 85 °C: 10000 h (Class B)
	Compliance to LV directive 2014/35/EU

Preliminary data

Dimensional drawings

Figure 1

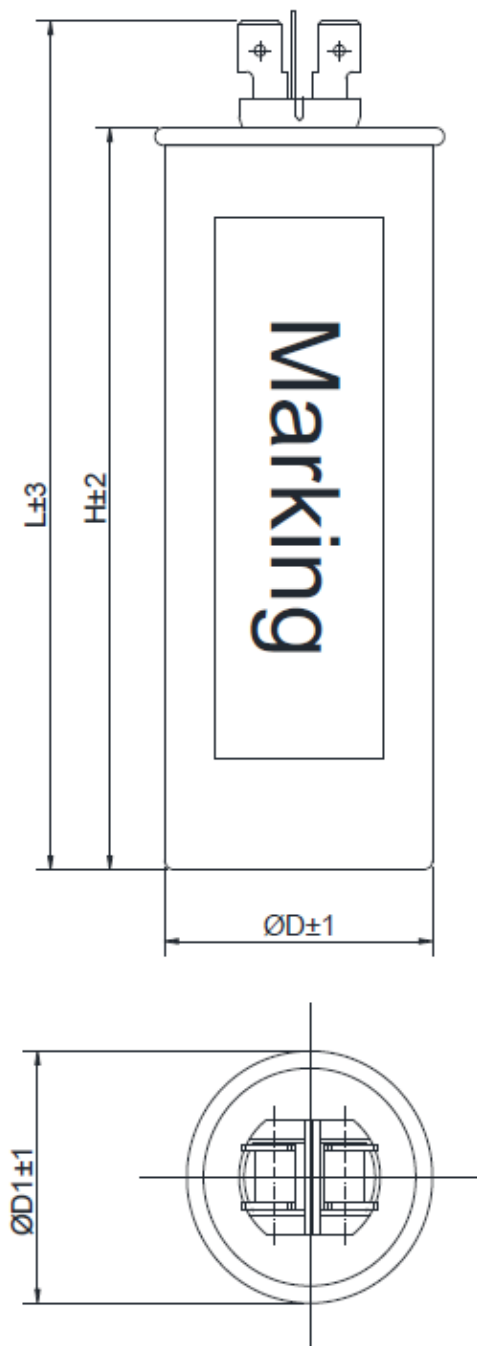
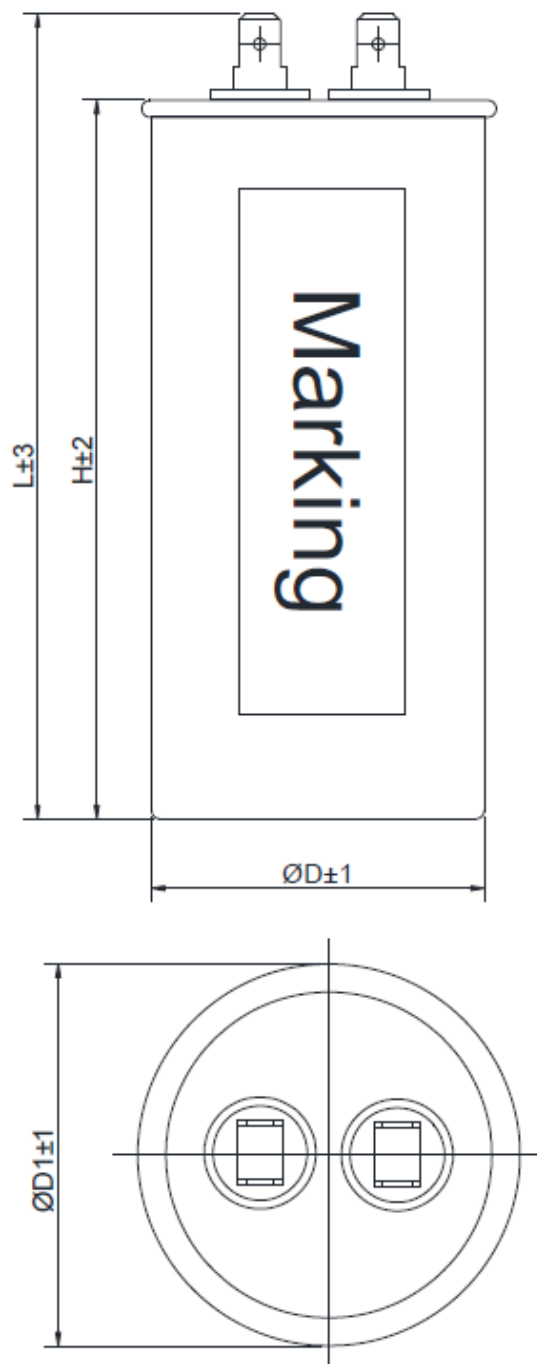
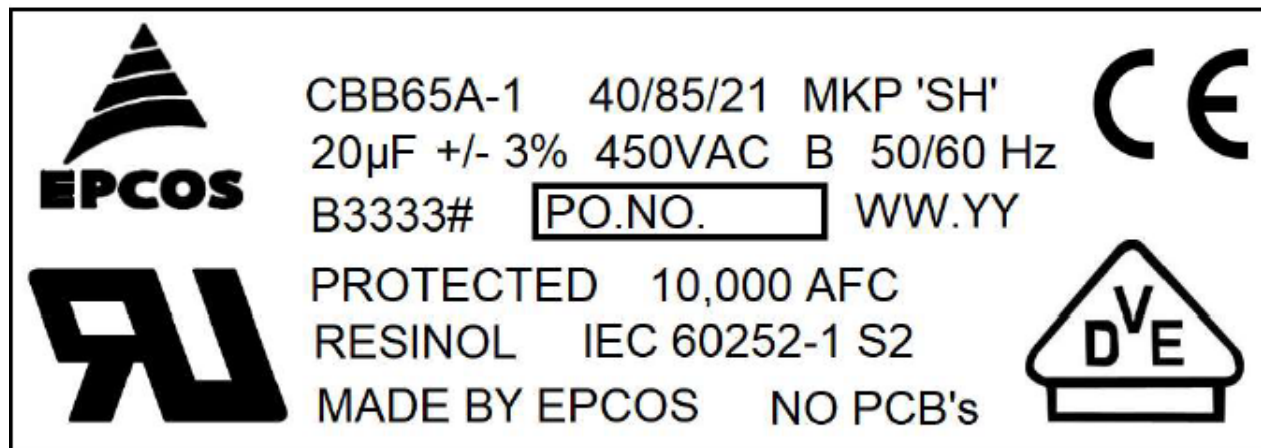


Figure 2



Preliminary data

**Marking information**

Nomenclature in the above marking information:

CBB65A-1 : Product family  
 PO Number : Production order number  
 B3333# : Series  
 40/85/21 : 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 : Week code  
 YY : Year code

**Preliminary data**
**Ordering code**

V <sub>R</sub>	Capacitance	Can Ø D mm	Can Height H mm	Can Lenght L mm	Drawing no.	Ordering code	Packing unit	Approvals
V AC	µF							
450	1	30	55	73	1	B33331I6105J0*X	100	VDE/UL
	2	30	55	73	1	B33331I6205J0*X	100	VDE/UL
	2.5	30	55	73	1	B33331I6255J0*X	100	VDE/UL
	3	30	55	73	1	B33331I6305J0*X	100	VDE/UL
	3.5	30	55	73	1	B33331I6355J0*X	100	VDE/UL
	4	30	55	73	1	B33331I6405J0*X	100	VDE/UL
	5	30	55	73	1	B33331I6505J0*X	100	VDE/UL
	7	30	55	73	1	B33331I6705J0*X	100	VDE/UL
	8.5	30	65	83	1	B33331I6855J0*X	100	VDE/UL
	10	30	65	83	1	B33331I6106J0*X	100	VDE/UL
	12	30	75	93	1	B33331I6126J0*X	100	VDE/UL
	15	30	85	103	1	B33331I6156J0*X	100	VDE/UL
	20	35	75	88	2	B33331I6206J0*X	64	VDE/UL

$$D1 = \text{Ø}D + 3\text{mm}$$

**Composition of ordering code**

B33331: 2+2 fast-on terminals

B3333x: Other terminal configuration on request.

\* construction:

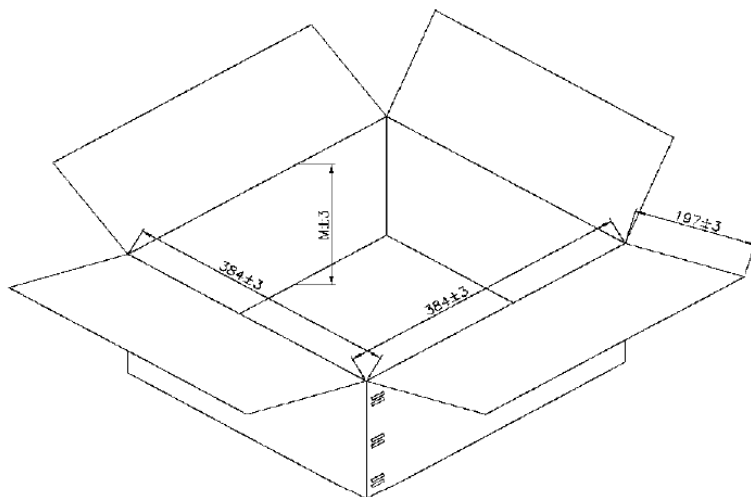
6 Aluminium Can Flat type

8 Aluminium Can with M8 bolt

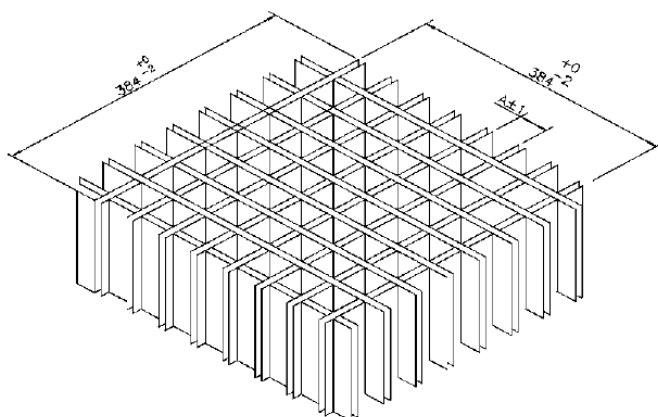
X:

0 as per this dimension and properties

1-9 special dimension and properties

**Preliminary data**
**Packing box**


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


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