



Film Capacitors – AC Capacitors

Motor run capacitors

Series/Type: CBB65A-1
Ordering code: B33331I6*
Date: Feb-2023
Version: 01

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 Tx | ± 5%, other tolerance on request |
| Rated voltage V_{rms} | 450 V AC, others on request |
| Rated frequency f_R | 50/60 Hz |

Preliminary data

| Test data | |
|---|--|
| 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/ μ s |
| Climatic data | |
| 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 |
| Mechanical and thermal properties of terminal insulator material | |
| Terminal insulation plastic material <ul style="list-style-type: none"> ■ UL 94 (Ed6, 2013) compatible ■ Compliance to Glow wire test as per IEC60335-1 (Ed6, 2020) | |
| Compatibility to RoHS | |
| Compliance to directive 2011/65/EU |  |
| Approvals: See table for approved ratings | |
| UL File : E238746  | Approved component 10,000 AFC |
| Certificate no: 40052996  | Approved from 1 μ F to 20 μ F, 450 V AC, 85 °C: 10000 h (Class B) |
|  | Compliance to LV directive 2014/35/EU |

Preliminary data

Dimensional drawings

Figure 1

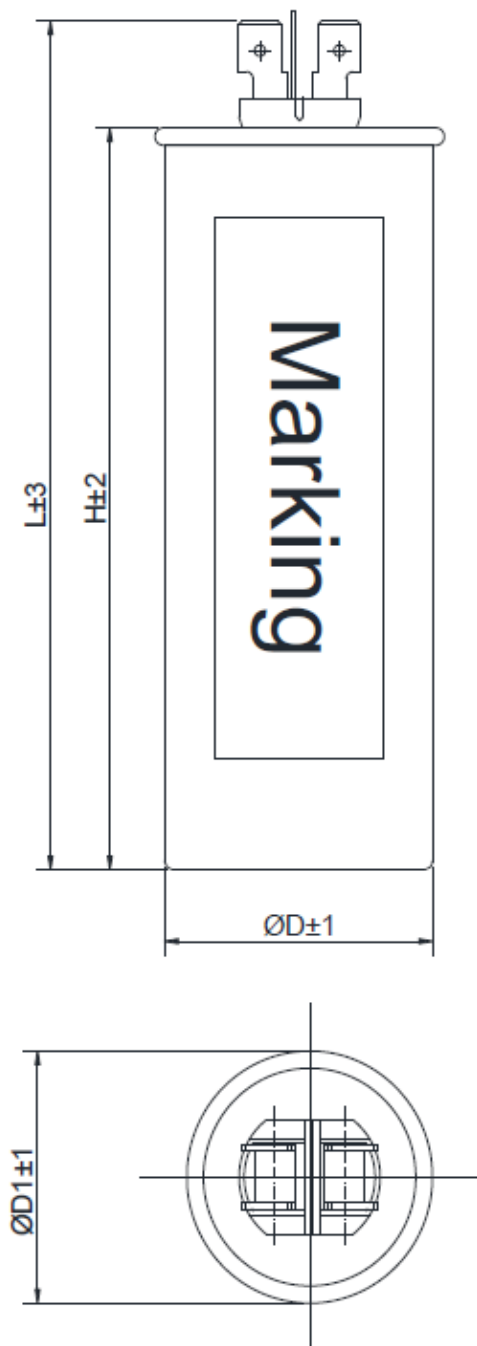
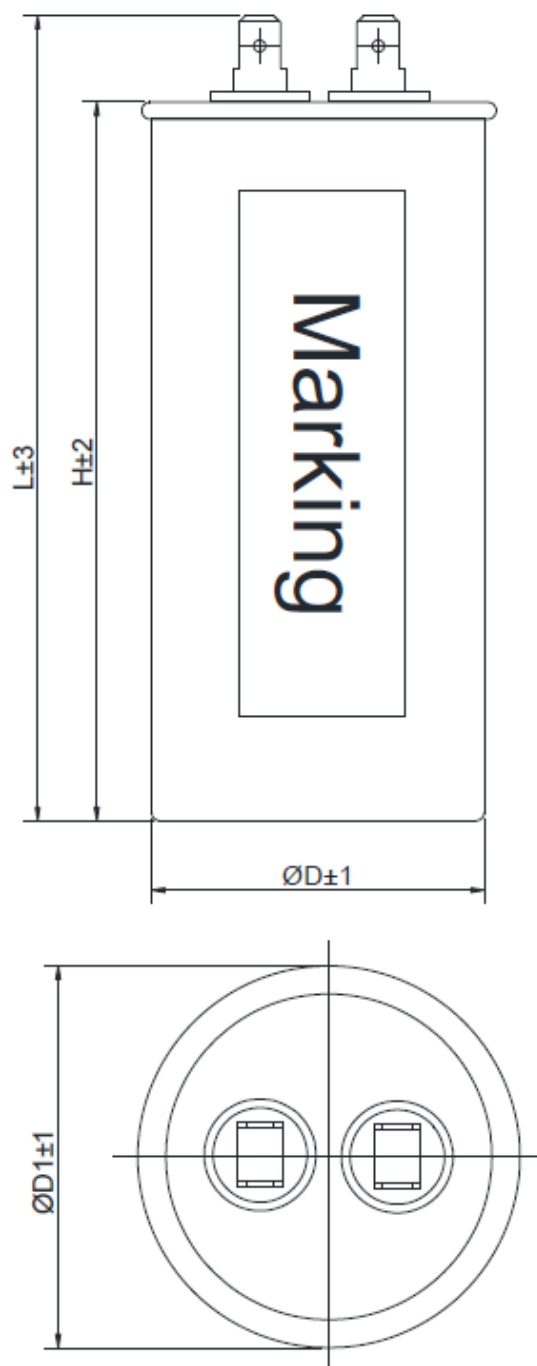
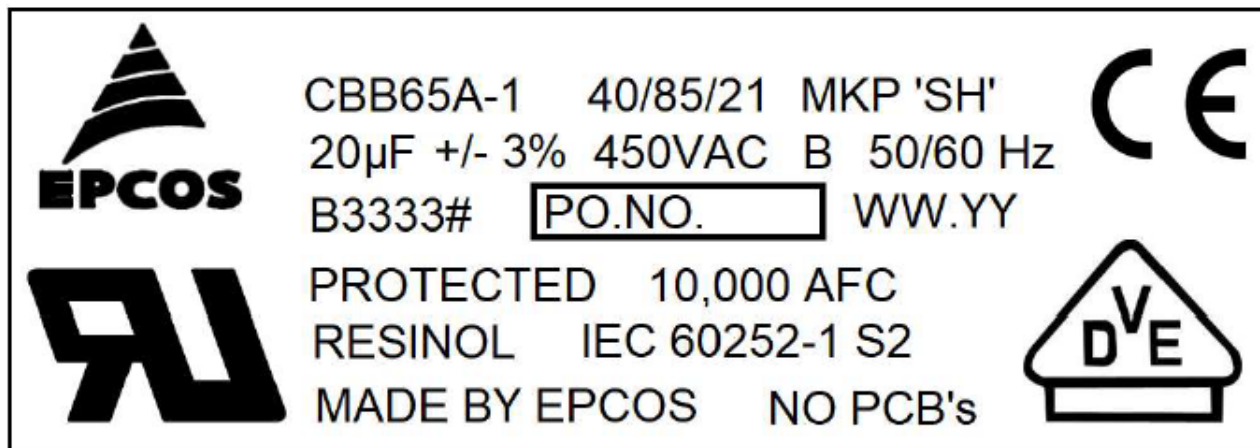


Figure 2



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 _R | 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 | 90 | 108 | 1 | B33331I6156J0*X | 100 | VDE/UL |
| | 20 | 35 | 75 | 88 | 2 | B3333wl6206J0*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

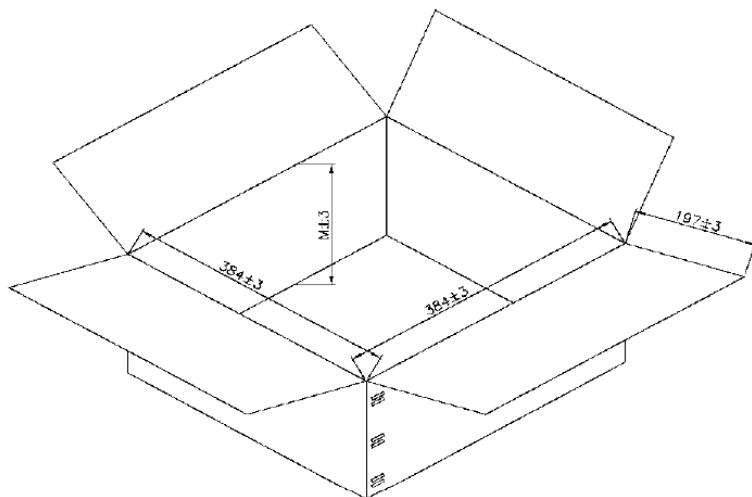
X:

0 as per this dimension and properties

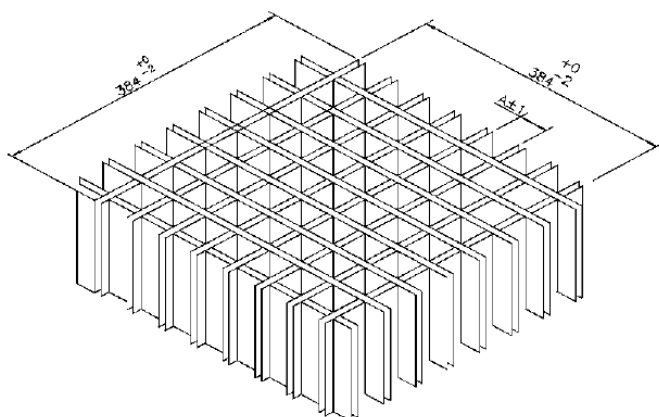
1-9 special dimension and properties

Preliminary data

Packing box



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



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