



## **Film capacitors – AC capacitors**

### **EPCOS Feida Motor Run Capacitors**

**Series/Type:** CBB66 - Single Capacitor P2 Aluminum Can Oval  
**Ordering code:** B33360 / 61/ 62 / 64  
**Date:** November 2009  
**Version:** 1

### Construction

- Dielectric: polypropylene film
- Electrode: Metallized film
- Aluminum can, metal top
- Filling material: Vegetable oil, PCB free
- Insulator material as per IEC 60335-1

### Features

- Self-healing properties
- Low dissipation factor
- Overpressure disconnection device
- Highest safety level P2 to IEC 60252-1 2001-02
- High insulation resistance
- IEC/EN 60335 compatible




### Typical applications

- For general sine wave applications, mainly as motor run capacitor

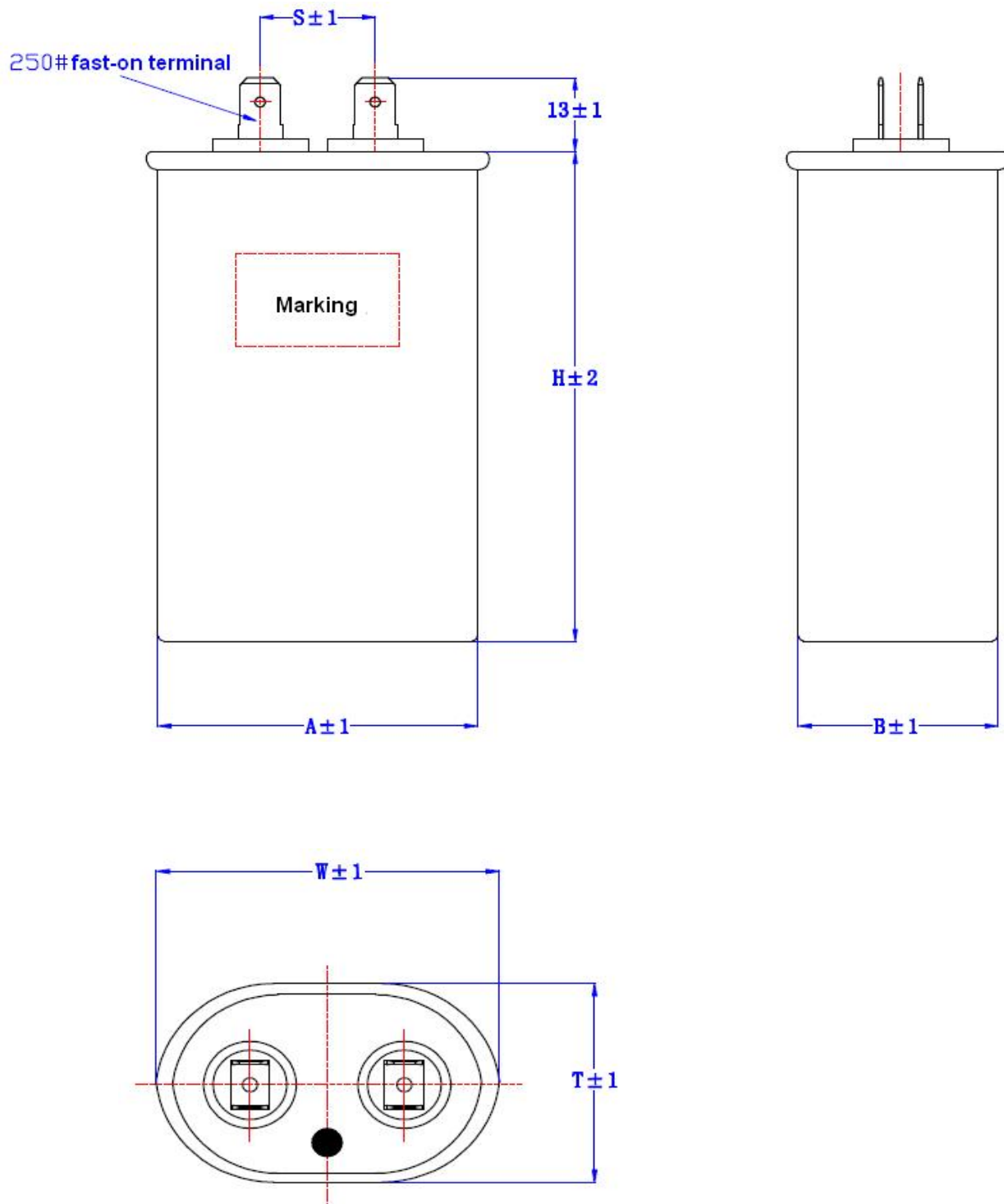
### Terminals

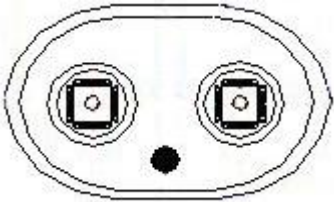
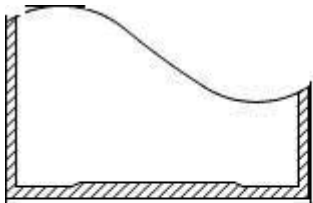
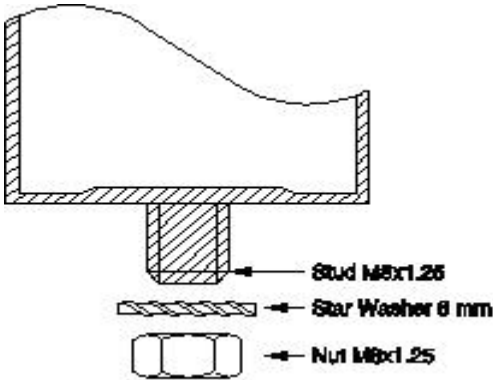

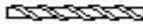

- 1+1, 2+2, 2+4, 4+4 fast-on terminal #250 style

Technical data and specifications	
Reference standards	UL 810 / IEC 60252-1 / EIA 456 A Jan.89
Safety class to IEC 60252-1 2001-02	P2
Life expectancy to IEC 60252 2001	250 ... 450V: 10 000h (Class B)
Life expectancy to EIA 456 A Jan. 89	60 000 hours at 95% survival rate
Rated capacitance $C_R$	3.....50µF
Tolerance	±5% other tolerances on request
Rated voltage $V_R$	250 / 370 / 400 / 450VAC
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)

<b>Test data</b>	
AC test voltage terminal to terminal $V_{TT}$	$2.0 \cdot V_R, 10 \text{ s}$
Insulation voltage terminals to case	3000 V AC, 2 s
Insulation resistance $R_{ins}$ or time constant $\tau$ at 20 °C, rel. Humidity $\leq 65\%$ (minimum as-delivered values)	$10000 \text{ M}\Omega \cdot \mu\text{F}$
Dissipation factor $\tan \delta$ at 20 °C	$\leq 2.0 \cdot 10^{-3}$ (100 Hz)
Maximum rate of voltage rise $dV/dt_{max}$	10 V/ $\mu\text{s}$
<b>Climatic data</b>	
Climatic category	40/070/21
Lower category $T_{min}$	-40 °C
Upper category $T_{max}$	+70 °C
Damp heat test $t_{test}$	21 days
<b>Mechanical and thermal properties of insulation terminal material</b>	
Ball pressure test to IEC 60309-1 sec. 27.3	20 N at 125°C
UL 94 specification	V0 compatible
Glow wire test to IEC60335-1 / IEC 60695-2-1/1 Test temperature 550 °C for $I_R \leq 0.5\text{A}$ and 750 °C for $I_R > 0.5\text{A}$	Self-extinguishing within 2 seconds of withdrawing glow wire
<b>Compatibility to RoHS</b>	
Compliance to directive 2002/95/EC	
<b>Approvals: See table for approved ratings</b>	
<b>CE</b> <b>UL 810 files E241095</b> <b>250/300/370/400450Vac</b>	Protected up to 5000 AFC -10,000 AFC under approval

Dimensional drawings CBB 66 (B3336\*) series



Terminal option	
<p>0 1+1 fast-on terminals            1 2+4 fast-on terminals            2 2+2 fast-on terminals            4 4+4 fast-on terminals</p> 	
<p>50 – Flat Oval Aluminum Can</p> 	<p>70 – M8 bolt: Oval Aluminum Can</p>  <p>  Stud M8x1.25   Star Washer 6 mm   Nut M8x1.25         </p>

**Ordering codes and packing units**

VR V AC	C <sub>R</sub> μF	W mm	T mm	S mm	Dimensions B×A×H mm	Ordering code	Pack- ing units pcs	UL
250	3	54.5	34.5	20	31.5×51.5×55	B3336*-A1305-J0##	120	
	4	54.5	34.5	20	31.5×51.5×55	B3336*-A1405-J0##	120	
	5	54.5	34.5	20	31.5×51.5×55	B3336*-A1505-J0##	120	
	6	54.5	34.5	20	31.5×51.5×55	B3336*-A1605-J0##	120	
	7	54.5	34.5	20	31.5×51.5×55	B3336*-A1705-J0##	120	
	8	54.5	34.5	20	31.5×51.5×55	B3336*-A1805-J0##	120	
	10	54.5	34.5	20	31.5×51.5×65	B3336*-A1106-J0##	120	
	12	54.5	34.5	20	31.5×51.5×65	B3336*-A1126-J0##	120	
	15	54.5	34.5	20	31.5×51.5×65	B3336*-A1156-J0##	120	
	20	54.5	34.5	20	31.5×51.5×75	B3336*-A1206-J0##	120	
	25	54.5	34.5	20	31.5×51.5×75	B3336*-A1256-J0##	120	
	30	54.5	34.5	20	31.5×51.5×75	B3336*-A1306-J0##	120	
	35	73	48	20	45×70×65	B3336*-A1356-J0##	60	
	40	73	48	20	45×70×75	B3336*-A1406-J0##	60	
45	73	48	20	45×70×75	B3336*-A1456-J0##	60		
50	73	48	20	45×70×75	B3336*-A1506-J0##	60		
370	3	54.5	34.5	20	31.5×51.5×55	B3336*-A3305-J0##	120	
	4	54.5	34.5	20	31.5×51.5×55	B3336*-A3405-J0##	120	
	5	54.5	34.5	20	31.5×51.5×55	B3336*-A3505-J0##	120	
	6	54.5	34.5	20	31.5×51.5×55	B3336*-A3605-J0##	120	
	7	54.5	34.5	20	31.5×51.5×55	B3336*-A3705-J0##	120	
	8	54.5	34.5	20	31.5×51.5×55	B3336*-A3805-J0##	120	
	10	54.5	34.5	20	31.5×51.5×65	B3336*-A3106-J0##	120	
	12	54.5	34.5	20	31.5×51.5×65	B3336*-A3126-J0##	120	
	15	54.5	34.5	20	31.5×51.5×75	B3336*-A3156-J0##	120	
	20	73	48	20	45×70×65	B3336*-A3206-J0##	60	
	25	73	48	20	45×70×65	B3336*-A3256-J0##	60	
	30	73	48	20	45×70×75	B3336*-A3306-J0##	60	
	35	73	48	20	45×70×75	B3336*-A3356-J0##	60	
	40	73	48	20	45×70×85	B3336*-A3406-J0##	60	
45	73	48	20	45×70×100	B3336*-A3456-J0##	60		
50	73	48	20	45×70×100	B3336*-A3506-J0##	60		



**EPCOS Feida Motor Run Capacitors CBB66 - Single Capacitor P2 Aluminum Can Oval**

VR V AC	CR μF	W mm	T mm	S mm	Dimensions B×A×H mm	Ordering code	Pack- ing units pcs	UL
400	3	54.5	34.5	20	31.5×51.5×55	B3336*-A4305-J0##	120	
	4	54.5	34.5	20	31.5×51.5×55	B3336*-A4405-J0##	120	
	5	54.5	34.5	20	31.5×51.5×55	B3336*-A4505-J0##	120	
	6	54.5	34.5	20	31.5×51.5×55	B3336*-A4605-J0##	120	
	7	54.5	34.5	20	31.5×51.5×55	B3336*-A4705-J0##	120	
	8	54.5	34.5	20	31.5×51.5×55	B3336*-A4805-J0##	120	
	10	54.5	34.5	20	31.5×51.5×65	B3336*-A4106-J0##	120	
	12	54.5	34.5	20	31.5×51.5×65	B3336*-A4126-J0##	120	
	15	54.5	34.5	20	31.5×51.5×75	B3336*-A4156-J0##	120	
	20	73	48	20	45×70×65	B3336*-A4206-J0##	60	
	25	73	48	20	45×70×65	B3336*-A4256-J0##	60	
	30	73	48	20	45×70×75	B3336*-A4306-J0##	60	
	35	73	48	20	45×70×75	B3336*-A4356-J0##	60	
	40	73	48	20	45×70×85	B3336*-A4406-J0##	60	
	45	73	48	20	45×70×100	B3336*-A4456-J0##	60	
50	73	48	20	45×70×100	B3336*-A4506-J0##	60		
450	3	54.5	34.5	20	31.5×51.5×55	B3336*-A6305-J0##	120	
	4	54.5	34.5	20	31.5×51.5×55	B3336*-A6405-J0##	120	
	5	54.5	34.5	20	31.5×51.5×55	B3336*-A6505-J0##	120	
	6	54.5	34.5	20	31.5×51.5×55	B3336*-A6605-J0##	120	
	7	54.5	34.5	20	31.5×51.5×65	B3336*-A6705-J0##	120	
	8	54.5	34.5	20	31.5×51.5×65	B3336*-A6805-J0##	120	
	10	54.5	34.5	20	31.5×51.5×75	B3336*-A6106-J0##	120	
	12	54.5	34.5	20	31.5×51.5×75	B3336*-A6126-J0##	120	
	15	73	48	20	45×70×65	B3336*-A6156-J0##	60	
	20	73	48	20	45×70×65	B3336*-A6206-J0##	60	
	25	73	48	20	45×70×75	B3336*-A6256-J0##	60	
	30	73	48	20	45×70×85	B3336*-A6306-J0##	60	
	35	73	48	20	45×70×100	B3336*-A6356-J0##	60	
	40	73	48	20	45×70×100	B3336*-A6406-J0##	60	
	45	93	51	20	48×90×75	B3336*-A6456-J0##	45	
50	93	51	20	48×90×85	B3336*-A6506-J0##	45		

1. For terminals replace (\*) by:
  - 0 1+1 fast-on terminals
  - 1 2+4 fast-on terminals
  - 2 2+2 fast-on terminals
  - 4 4+4 fast-on terminals
  
2. For construction of mounting device replace (##) by:
  - 50 – Flat Oval Aluminum Can
  - 70 – M8 bolt: Oval Aluminum Can

⚠ 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](http://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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