



Type CBB60

1. Scope

The capacitors are made of metallized polypropylene film and filled with flame retardant epoxy resin in a round plastic case and leaded with cable or quick connecting terminals. It is suitable for starting and running of AC single-phase motors.

2. Service conditions

The capacitor should be prevented from exposing in sunlight directly and rain or snow will cause fall of insulation between terminals and terminals to case of the capacitor. Followings are detailed service conditions.

2.1 Altitude:

Not exceeding 2000 meter.

2.2 Residual voltage while loading:

Not exceeding 10% rated voltage.

2.3 Pollution:

The capacitors are suitable to operating in lightly polluted atmospheres.

3.Overloads

3.1 Maximum permissible voltage

Not exceeding 1.1 times the rated voltage.

3.2 Maximum permissible current

Not exceeding 1.3 times the current that occurs at rated sinusoidal voltage and rated frequency.

3.3 Maximum permissible reactive output

The overloads resulting from operation at voltage and current exceeding the rated values (even though within the limits indicated in 3.1 and 3.2) should be less than 1.35 times the rated output.

4.Capacitor certificates

This capacitor has certificates of CQC、TUV、UL/CUL、VDE.

5. Properties

| | |
|--|--|
| Rated voltage | 200VAC;220VAC; 250VAC; 270VAC; 300VAC; 330VAC; 370VAC; 400VAC; 420VAC; 440VAC; 450VAC; 470VAC; 480VAC; 500VAC |
| Rated frequency | 50/60Hz |
| Capacitance Tolerance | ±5% |
| Test voltage between Terminals, (Ut-t) | 1.5Un, 2s 1.5Un, 60s |



| | |
|--|---|
| Test voltage between Terminal to case (Ut-c) | 3000Vac, 2s 3000 Vac, 60s |
| Dissipation factor (tgδ) | ≤0.0020 (100Hz) |
| Insulation resistance | $R \cdot C \geq 3000 M\Omega \cdot \mu F(s)$ |
| Operating temperature range | -40°C ~ +70/+85°C |
| Hot and humid harsh degrees | 21 days |
| Class of operation | A: 30000h: 1.25Un、70/85±2°C、6000h B: 10000h: 1.25Un、70/85±2°C、2000h C: 3000h: 1.25Un、70/85±2°C、600h |
| Class of safety protection | P0/S0: No special protection. P2/S3: The capacitor is designed and manufactured with segment or T-pattern metalized film as function of anti-explosion protection. |
| Cooling | Naturally air |

6. Packing and storing

The capacitor is packed in double corrugated paperboard box, which is able to guarantee the capacitor in conveyance and deposited at forty degrees below zero. The capacitors should be damp-proofed, discharged gently, stacked in less than eight floors and upwards when they are conveyance and storing. Please open the box as the direction indicating on the box.

The Capacitor must be stored under the temperature between 10~38°C and relative humidity less than 70% for less than six months.

7. Capacitor materials`

| No | Component name | Materials and Specifications | Note |
|----|-------------------------------|---|------------------|
| 1 | Terminal | Multi strand copper wire/ Terminals are Tinned Copper and quick-connect terminals/ cable | UL certification |
| 2 | Shell | ABS/PBT | UL 94V—0 |
| 3 | Metallized polypropylene film | Safety metallized polypropylene Film/ metallized polypropylene film | SH |



| | | | |
|---|------------------|-----------------------------------|----------|
| 4 | Filling material | Black flame-retardant epoxy resin | UL 94V—0 |
| 5 | Spraying layer | zinc | RoHS |

8. Others

Please refer to IEC60252 and UL810 for matters not covered above or contact with our sales office or representatives in your location for special requests.

9. Capacitor dimensions

| Rated Voltage | Capacitance (μF) | φD | | H | |
|---------------|------------------|------|----|------|----|
| | | in | mm | in | mm |
| 250 | 1.5 | 0.98 | 25 | 1.50 | 38 |
| 250 | 2 | 0.98 | 25 | 1.50 | 38 |
| 250 | 2.5 | 0.98 | 25 | 1.50 | 38 |
| 250 | 3 | 0.98 | 25 | 1.50 | 38 |
| 250 | 3.5 | 0.98 | 25 | 1.50 | 38 |
| 250 | 4 | 1.18 | 30 | 1.97 | 50 |
| 250 | 4.5 | 1.18 | 30 | 1.97 | 50 |
| 250 | 5 | 1.18 | 30 | 1.97 | 50 |
| 250 | 8 | 1.22 | 31 | 2.40 | 61 |
| 250 | 10 | 1.30 | 33 | 2.40 | 61 |
| 250 | 12 | 1.38 | 35 | 2.40 | 61 |
| 450 | 2.0 | 1.18 | 30 | 1.85 | 47 |
| 450 | 2.5 | 1.18 | 30 | 1.85 | 47 |
| 450 | 3 | 1.18 | 30 | 1.85 | 47 |
| 450 | 3.5 | 1.18 | 30 | 1.85 | 47 |
| 450 | 4 | 1.18 | 30 | 1.97 | 50 |
| 450 | 5 | 1.18 | 30 | 2.36 | 60 |
| 450 | 6 | 1.18 | 30 | 2.36 | 60 |
| 450 | 7.5 | 1.38 | 35 | 2.28 | 58 |
| 450 | 8 | 1.38 | 35 | 2.28 | 58 |
| 450 | 10 | 1.38 | 35 | 2.28 | 58 |
| 450 | 12 | 1.38 | 35 | 2.56 | 65 |
| 450 | 14 | 1.38 | 35 | 2.95 | 75 |
| 450 | 15 | 1.38 | 35 | 2.95 | 75 |
| 450 | 18 | 1.57 | 40 | 2.76 | 70 |



| | | | | | |
|-----|----|------|----|------|----|
| 450 | 20 | 1.57 | 40 | 2.76 | 70 |
| 450 | 1 | 1.02 | 26 | 1.77 | 45 |
| 450 | 2 | 1.02 | 26 | 1.77 | 45 |
| 450 | 3 | 1.02 | 26 | 2.05 | 52 |
| 450 | 4 | 1.10 | 28 | 2.32 | 59 |
| 450 | 5 | 1.18 | 30 | 2.32 | 59 |
| 450 | 6 | 1.30 | 33 | 2.32 | 59 |
| 450 | 7 | 1.38 | 35 | 2.32 | 59 |
| 450 | 8 | 1.38 | 35 | 2.32 | 59 |
| 450 | 9 | 1.49 | 38 | 2.32 | 59 |
| 450 | 10 | 1.49 | 38 | 2.32 | 59 |
| 450 | 11 | 1.57 | 40 | 2.56 | 65 |
| 450 | 12 | 1.57 | 40 | 2.56 | 65 |
| 450 | 13 | 1.57 | 40 | 2.56 | 65 |
| 450 | 14 | 1.57 | 40 | 2.56 | 65 |
| 450 | 15 | 1.38 | 35 | 3.74 | 95 |
| 450 | 16 | 1.38 | 35 | 3.74 | 95 |
| 450 | 17 | 1.38 | 35 | 3.74 | 95 |
| 450 | 18 | 1.38 | 35 | 3.74 | 95 |
| 450 | 19 | 1.38 | 35 | 3.74 | 95 |
| 450 | 20 | 1.77 | 45 | 3.66 | 93 |
| 450 | 21 | 1.77 | 45 | 3.66 | 93 |
| 450 | 22 | 1.77 | 45 | 3.66 | 93 |
| 450 | 23 | 1.77 | 45 | 3.66 | 93 |
| 450 | 24 | 1.77 | 45 | 3.66 | 93 |
| 450 | 25 | 1.77 | 45 | 3.66 | 93 |
| 450 | 26 | 1.77 | 45 | 3.66 | 93 |
| 450 | 27 | 1.77 | 45 | 3.66 | 93 |
| 450 | 28 | 1.77 | 45 | 3.66 | 93 |
| 450 | 29 | 1.77 | 45 | 3.66 | 93 |
| 450 | 30 | 1.77 | 45 | 3.66 | 93 |
| 500 | 1 | 1.02 | 26 | 1.77 | 45 |
| 500 | 2 | 1.02 | 26 | 1.77 | 45 |
| 500 | 3 | 1.10 | 28 | 2.32 | 59 |



| | | | | | |
|-----|----|------|----|------|----|
| 500 | 4 | 1.18 | 30 | 2.32 | 59 |
| 500 | 5 | 1.30 | 33 | 2.32 | 59 |
| 500 | 6 | 1.38 | 35 | 2.32 | 59 |
| 500 | 7 | 1.49 | 38 | 2.32 | 59 |
| 500 | 8 | 1.49 | 38 | 2.32 | 59 |
| 500 | 9 | 1.57 | 40 | 2.56 | 65 |
| 500 | 10 | 1.57 | 40 | 2.56 | 65 |
| 500 | 11 | 1.57 | 40 | 2.56 | 65 |
| 500 | 12 | 1.38 | 35 | 3.74 | 95 |
| 500 | 13 | 1.38 | 35 | 3.74 | 95 |
| 500 | 14 | 1.38 | 35 | 3.74 | 95 |
| 500 | 15 | 1.38 | 35 | 3.74 | 95 |
| 500 | 16 | 1.38 | 35 | 3.74 | 95 |
| 500 | 17 | 1.77 | 45 | 3.66 | 93 |
| 500 | 18 | 1.77 | 45 | 3.66 | 93 |
| 500 | 19 | 1.77 | 45 | 3.66 | 93 |
| 500 | 20 | 1.77 | 45 | 3.66 | 93 |
| 500 | 21 | 1.77 | 45 | 3.66 | 93 |
| 500 | 22 | 1.77 | 45 | 3.66 | 93 |
| 500 | 23 | 1.77 | 45 | 3.66 | 93 |
| 500 | 24 | 1.77 | 45 | 3.66 | 93 |
| 500 | 25 | 1.77 | 45 | 3.66 | 93 |