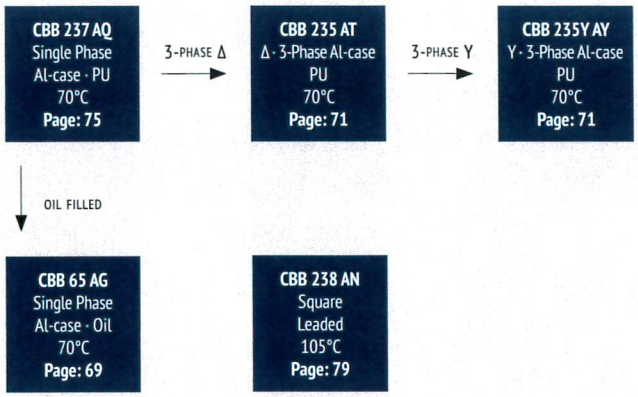
AC FILTER

APPLICATIONS:

AC Filtering



SAFETY

APPLICATIONS:

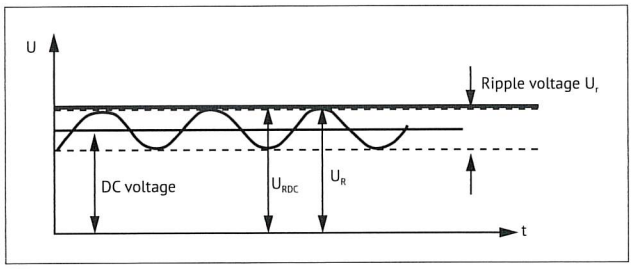
Safety

WARRANTY The information contained in this datasheet does neither form part of any quotation nor of a contract, it is believed to be accurate, reliable and up to date. Quality data are based on the statistical evaluations of a large quantity of parts and do not constitute a guarantee in a legal sense. However, agreement on these specifications does mean that the customer may claim for replacement of individual defective capacitors within the terms of delivery. We cannot assume any liability beyond the replacement of defective components. This applies in particular to any further consequences of component failure. Furthermore it must be taken into consideration that the figures stated for lifetime and failure rates refer to the average production status and are therefore to be understood as mean values (statistical expectations) for a large number of delivery lots of identical capacitors. These figures are based on application experience and data obtained from preceding tests under normal conditions, or – for purpose of accelerated aging – more severe conditions. JIANGHAI reserves the right to change these specifications without prior notice. Any application information given is advisory and does not form part of any specification. The products are not primarily designed for use in life supporting applications, devices or systems where malfunction of these products can reasonably be expected to result in personal injury. JIANGHAI customers using or selling these products for use in such applications without prior written consent of JIANGHAI do so at their own risk and agree fully to indemnify JIANGHAI for any damage resulting from such improper use or sale. This version of the datasheet supersedes all previous versions.

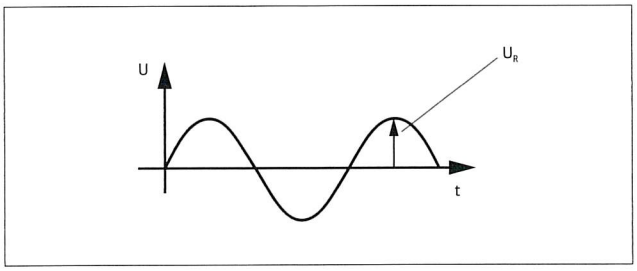
NOMINAL CAPACITANCE C_R Nominal Capacitance is defined at 20°C and 50Hz (120Hz).

RATED VOLTAGE U_R

DC Capacitors: U_{RDC} Maximum operating peak voltage of either polarity but of a non-reversing type waveform, for which the capacitor has been designed, for continuous operation. The maximum DC voltage is the sum of the DC voltage and peak AC voltage.



AC Capacitors: U_{RAC} Maximum operating peak recurrent voltage of either polarity of a reversing type waveform for which the capacitor has been designed.



OPERATING VOLTAGE The plastic film capacitor varies in the maximum applicable voltage depending on the applied voltage waveform, current waveform, frequency, ambient temperature (capacitor surface temperature), capacitance value, etc. Be sure to use capacitors within the specified values by checking the voltage waveform, current waveform, and frequency applied to them (In the application of high frequency, the permissible voltage varies with the type of the capacitor. Refer to the specification for details. See also Voltage Derating tables.).

NON-RECURRENT SURGE VOLTAGE U_S Peak voltage induced by a switching or any other disturbance of the system which is allowed for a limited number of times and for durations shorter than the basic period.
- Maximum duration: 50 ms / pulse
- Maximum number of occurrences: 1000 (during load)

MAXIMUM RATE OF VOLTAGE RISE dV/dt Maximum permissible repetitive rate of voltage rise of the operational voltage.

OPERATING CURRENT Due to the fact that the dissipation factor of the capacitor is greater than zero, heat will be generated in any application where alternating currents or pulses occur. The resulting internal temperature rise may cause a severe deterioration of the capacitor's withstanding voltage, or may lead to a breakdown (even smoke or fire may result). Therefore, the safe use of capacitor must be within the rated voltage (or category voltage) and the permissible current ranges. The rated current must be considered by dividing into pulse current (peak current) and continuous current (rms current) depending on the break down mode, and when using, should make sure the both currents are within the permissible range.

MAXIMUM CURRENT I_{MAX} Maximum Rms Current for continuous operation, see Current Derating tables.

MAXIMUM PEAK CURRENT $\hat{I}$ Maximum permissible repetitive peak current which can occur during continuous operation. $\hat{I} = C_R * (dV/dt)$

MAXIMUM SURGE CURRENT $\hat{I}_S$
- Maximum duration: 50 ms / pulse
- Maximum number of occurrences: 1000 (during load)

SERIES RESISTANCE R_S Effective ohmic resistance of the conducting elements of the capacitor.

EQUIVALENT SERIES RESISTANCE ESR The ESR represents all ohmic resistances: $ESR = \tan\delta/(\omega C) = R_s + \tan\delta_o/(\omega C)$

DIELECTRIC DISSIPATION FACTOR $\tan\delta_0$ Constant dissipation factor of the dielectric material.

LOSS FACTOR $\tan\delta$ The dissipation factor is the ratio between the reactive and effective power.

HOTSPOT TEMPERATURE $\Theta_{HOTSPOT}$ Temperature at the hottest position inside the capacitor. $\Theta_{hotspot} = \Theta_{ambient} + P_{loss} * R_{th}$
R_{th}: thermal resistance, P_{loss}: Powerloss $P_{loss} = ESR * I_{rms}^2$, $\Theta_{ambient}$ = ambient temperature

CHARGING AND DISCHARGING Because the charging and discharging current of capacitor is obtained by the product of voltage rise rate (dV/dt) and capacitance, low voltage charging and discharging may also cause deterioration of capacitor such as shorting and open due to sudden charging and discharging current. When charging and discharging, pass through a resistance of 20Ω/V to1000Ω/V or more to limit the current. When connecting multiple film capacitors in parallel in withstand voltage test or life test, connect a resistance of 20Ω/V to1000Ω/V or more in series to each capacitor. In addition, **capacitors must be discharged via a resistor before handling**. Because the capacitors do not have any discharge resistors built-in, there is a risk of residual voltages and electric energy contents that might be dangerous.

TEMPERATURE RANGE AND ALTITUDE Use film capacitors only within the specified operating temperature range. The altitude and barometic pressure have an impact on the functionality of the capacitor. Max. Altitude: 2000m above sea level.

ALTITUDE/m	VOLTAGE DERATING COEFFICIENT
≤ 2 000	1,00
2 500	0,95
3 000	0,90
3 500	0,85
4 000	0,80
4 500	0,75
5 000	0,70

EXPECTED LIFETIME The expected lifetime of the capacitor depends on the applied voltage and the hot spot temperature during operation. For capacitors applied in different situations, the obtainable average service lives are different. Please refer to the life time diagrams of each series.

FAILURE RATE λ (FAILURE IN TIME FIT) 1 FIT = $1/10^{-9}$h (1 failure per 10^9 components test hours), $\lambda = r/(nt)$
r= number of failure, n= test number, t= test time

INSULATION VOLTAGE U_i Rms value of AC voltage designed for the insulation between terminals of the capacitor to case or earth. The insulation voltage is equal to the rated voltage of the capacitor, divided by , unless otherwise specified.

INSULATION RESISTANCE R_i Ration between applied DC Voltage and resulting leakage current after 1 minute of charge. It is defined in MΩ. Typically it is given as time constant $R_i * C$ [μF] in seconds.

VOLTAGE BETWEEN TERMINALS U_{TT} Voltage between terminals.

VOLTAGE BETWEEN TERMINALS AND CASE U_{TC} Voltage between terminals and case.

BUZZING NOISE Any buzzing noise produced by a capacitor is caused by the vibration of the film due to the Coulomb force that is generated between the electrodes with opposite poles. It is of no harm to the capacitor.

SURFACE OVER TEMPERATURE $\Delta\theta_{case}$ When current continuously flow through the capacitor, the temperature inside the capacitor will rise induced by dissipated heat. If the temperature exceeds the maximum allowed hot-spot temperature, it might cause a short circuit or fire. The limits described in the catalogue must not be exceeded and it's necessary to check the temperature on the capacitor's surface in operation.

FLAME RETARDATION Although flame retarding PU resin or plastic case material is used in the coating or encapsulation of plastic film capacitors, continuous exposure to high temperature ambient or fire will break the coating layer or plastic case of the capacitor, and may lead to melting and ignition of the capacitor element.

HUMID AMBIENT If used for a long time in a humid ambient, the capacitor might absorb humidity and oxidize the electrodes causing damage to the capacitor. In case of AC application, high humidity would increase the corona effect. This phenomenon causes a drop in capacitance and an increase of capacitor losses. Humidity needs to be avoided. If needed please inform Jianghai separately for technical adopted components.

STORAGE CONDITIONS 1) Capacitors must not be stored in corrosive atmospheres, particularly not when chlorides, sulfides, alkali, acids, lye, salts, organic solvents or similar substances are present. 2) It must not be stored in high temperature and/or high humidity environments. The following storage conditions must be kept (applicable only for storage in the original package): Temperature: ≤ 35 °C; Humidity: ≤ 80% RH, no dew allowed on the capacitor; Storage time: ≤ 24 months

MOUNTING Other devices, which are mounted near the capacitor, should not touch the capacitor. Additional heat coming from other components near the capacitor may reduce the lifetime of the capacitor. Do never attempt to bend or twist the capacitor after mounting and avoid any mechanical stress on the terminals. Never exceed the max. permissible torques when tightening the terminal screws or the mounting bolt's cap nuts.

CAUTION & WARNINGS Do not touch the terminals of capacitors. The energy stored in capacitors may be lethal. Ensure that the operating environment of the equipment into which the capacitor has been built, is within the specified conditions. Capacitors must not be used in corrosive atmospheres, particularly not when chlorides, sulfides, alkali, acid, lye, salts, organic solvents or similar substances are present. Electrical or mechanical misapplication may be hazardous. Personal injury or property damage may result from bursting of the capacitors or from expulsion of melted material.

Jianghai Europe GmbH, v4 0922

FEATURES

- Used in AC circuits as motor start capacitor
- Excellent Temperature behavior
- Self-healing
- Overpressure disconnector design 10k AFC
- Aluminum case, filled with castor oil

OVERVIEW

CBB **237** AQ
single phase
Al-case · PU
70°C
Page: 75

→ 3-PHASE Δ

CBB **235** AT
3-phase Δ
Al-case · PU
70°C
Page: 71

→ 3-PHASE Y

CBB **235Y** AY
3-phase Y
Al-case · PU
70°C
Page: 71

↓ OIL FILLED

CBB **65** AG
single phase
Al-case · Oil
70°C
Page: 69

PRODUCT

APPLICATIONS

- General AC application
- Air-conditioner
- Motor start

CHARACTERISTICS

ITEM	CHARACTERISTICS
Reference Standard	GB/T 3667(IEC 60252-1)
Climatic Category	40/70/21
Operating Temperature Range	-40 ~ +70 °C ($\Theta_{hotspot}$ ≤ 85°C)
Storage Temperature Range	-40 ~ +85 °C
Rated Voltage	450 V_{AC}
Capacitance Range	2 ~ 100µF
Capacitance Tolerance	±5% (J), ±10% (K)
U_{TT} Voltage between Terminals	2,15xU_{RAC}, 10s (20°C)
U_{TC} Voltage between Terminals & Case	≥2.000V_{AC}, 10s (20°C, 50 Hz)
Dielectric Dissipation Factor	≤ 2x10^{-4}
Insulation Resistance R_i*C	≥10.000MΩ·µF (20°C, 100V_{DC}, 1min)
Life Time Expectancy	Class A: 30.000 hours Class B: 10.000 hours Class C: 3.000 hours
Failure Rate	100 FIT

ENVIRONMENTAL

The products are RoHS, WEEE and REACh compliant.

The detailed version please see seperate "Environmental Certificates" document or www.jianghai-europe.com

APPROVALS

UL94-V0:

Plastic

UL810:

CYWT2.E483921

MARKING

BRAND

CBB 65 — SERIES DESIGNATION

60µF ±10% — CAPACITANCE AND TOLERANCE

U_R = 450V_{AC} SH — U_R RATED VOLTAGE

U_{TC} = 2000V 50/60 HZ — U_{TC} VOLTAGE BETWEEN TERMINALS AND CASE, FREQUENCY

-40~+70°C IEC60252-1 — TEMPERATURE RANGE, REFERENCE STANDARD

Discharge before handling — SAFETY WARNING

J67F26 — DATE CODE

MOUNTING POSITION

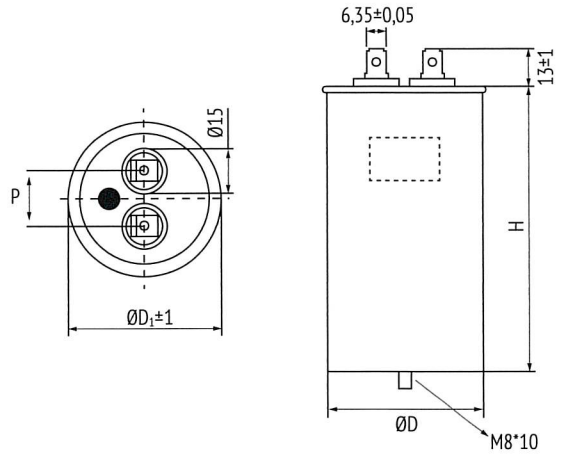
Oil filled capacitors need to be used in an upright position only.

AC

DIMENSIONS AND CAN STYLE

STYLE **A**

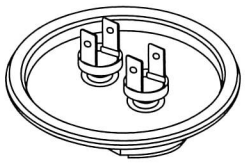
Other terminal style and combination of different capacitance in one housing on request.



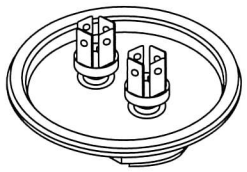
D_1=D+3mm

in mm

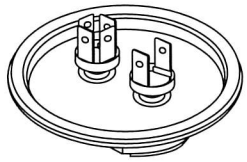
TERMINALS



2 PIN (CODE „2“)



4 PIN (CODE „4“)



COMBINED 2 AND 4 PIN (CODE „3“)

ORDER CODE

FC	S	4F	AG	706	K	D	125					E 3
Capacitor type	Product shape	AC rated voltage code (V)	Series code	Capacitance Code Examples (µF)	Capacitance tolerance	Diameter (mm)	Height (mm)	Terminals	Terminal Pitch (mm)	Bottom Bolt	Can Style	For internal use
Film Cap. = **FC**	cylindrical = **C**	450 **4F**	CBB 65 = **AG**	2 **205**	±5% **J**	40 **A**	55 **055**	4pin **4**	16 **B**	Without **0**	Style A **A**	
				3,2 **325**	±10% **K**	45 **B**	60 **060**	2pin **2**	18 **1**	With **1**		
				4,5 **455**	-15~0% **P**	50 **D**	65 **065**	2+4pin **3**	20 **2**			
				10 **106**	Special **S**	55 **C**	75 **075**					
				40 **406**		60 **F**	85 **085**					
				55 **556**		63,5 **E**	100 **100**					
				70 **706**			110 **110**					
				100 **107**			125 **125**					

RATINGS

U_R ≤70°C (V_{AC})	C_R (µF)	D ±1,0 (mm)	D_1 ±1,0 (mm)	H ±2,0 (mm)	P ±0,5 (mm)	ORDER CODE "#" to be defined, see ordering code table
450 4F	2	40	43	55	16	FCC4FAG205#A055#B#AE3
	2,2	40	43	55	16	FCC4FAG225#A055#B#AE3
	3	40	43	55	16	FCC4FAG305#A055#B#AE3
	3,2	40	43	55	16	FCC4FAG325#A055#B#AE3
	3,5	40	43	55	16	FCC4FAG355#A055#B#AE3
	4	40	43	55	16	FCC4FAG405#A055#B#AE3
	4,5	40	43	55	16	FCC4FAG455#A055#B#AE3
	5	40	43	55	16	FCC4FAG505#A055#B#AE3
	6	40	43	55	16	FCC4FAG605#A055#B#AE3
	7	40	43	55	16	FCC4FAG705#A055#B#AE3
	7	40	43	65	16	FCC4FAG705#A065#B#AE3
	7,5	40	43	65	16	FCC4FAG755#A065#B#AE3
	8	40	43	55	16	FCC4FAG805#A055#B#AE3
	8	40	43	60	16	FCC4FAG805#A060#B#AE3
	8	40	43	65	16	FCC4FAG805#A065#B#AE3
	9	40	43	75	16	FCC4FAG905#A075#B#AE3
	10	40	43	60	16	FCC4FAG106#A060#B#AE3
	10	40	43	75	16	FCC4FAG106#A075#B#AE3
	10	55	58	65	20	FCC4FAG106#C065#2#AE3
	12	40	43	65	16	FCC4FAG126#A065#B#AE3
	12	40	43	100	16	FCC4FAG126#A100#B#AE3
	13	40	43	100	16	FCC4FAG136#A100#B#AE3

U_R ≤70°C (V_{AC})	C_R (µF)	D ±1,0 (mm)	D_1 ±1,0 (mm)	H ±2,0 (mm)	P ±0,5 (mm)	ORDER CODE "#" to be defined, see ordering code table
450 4F	14	40	43	100	16	FCC4FAG146#A100#B#AE3
	15	40	43	85	16	FCC4FAG156#A085#B#AE3
	17	40	43	100	16	FCC4FAG176#A100#B#AE3
	25	50	53	75	18	FCC4FAG256#D075#1#AE3
	30	50	53	85	18	FCC4FAG306#D085#1#AE3
	40	50	53	100	18	FCC4FAG406#D100#1#AE3
	45	45	48	125	18	FCC4FAG456#B125#1#AE3
	45	50	53	100	18	FCC4FAG456#D100#1#AE3
	45	50	53	110	18	FCC4FAG456#D110#1#AE3
	45	60	63	85	20	FCC4FAG456#F085#2#AE3
	50	45	48	125	18	FCC4FAG506#B125#1#AE3
	50	50	53	110	18	FCC4FAG506#D110#1#AE3
	50	60	63	85	20	FCC4FAG506#F085#2#AE3
	55	50	53	125	18	FCC4FAG556#D125#1#AE3
	55	55	58	110	20	FCC4FAG556#C110#2#AE3
	60	50	53	125	18	FCC4FAG606#D125#1#AE3
	60	55	58	125	20	FCC4FAG606#C125#2#AE3
	70	55	58	125	20	FCC4FAG706#C125#2#AE3
	80	60	63	125	20	FCC4FAG806#F125#2#AE3
	100	60	63	125	20	FCC4FAG107#F125#2#AE3
	100	63,5	66,5	125	20	FCC4FAG107#E125#2#AE3

FEATURES

- Used in AC filtering and Power factor correction
- Excellent Temperature behavior
- Self-healing
- Overpressure disconnector design
- Aluminum case, filled with soft PU resin
- Δ or Y connection

OVERVIEW

CBB 237 AQ single phase Al-case · PU 70°C Page: 75

3-PHASE Δ

CBB 235 AT 3-phase Δ Al-case · PU 70°C Page: 71

3-PHASE Y

CBB 235Y AY 3-phase Y Al-case · PU 70°C Page: 71

OIL FILLED

CBB 65 AG single phase Al-case · Oil 70°C Page: 69

PRODUCT

APPLICATIONS

- Solar
- Wind energy
- Power factor correction

CHARACTERISTICS

ITEM	CHARACTERISTICS
Reference Standard	GB/T 17702 (IEC 61071) , IEC60831
Climatic Category	40/70/56
Operating Temperature Range	-40 ~ +70°C ($\Theta_{hotspot}$ ≤ 85°C)
Storage Temperature Range	-40 ~ +85°C
Rated Voltage U_R	230 ~ 690 V_{AC}
Capacitance Range	3*20,3 ~ 3*335µF
Capacitance Tolerance	±5% (J), ±10% (K)
U_{TT} Voltage between Terminals	2,15 x U_N (V_{AC}), 10s (20°C)
U_{TC} Voltage between Terminals & Case	≥ 4.000V_{AC}, 10s (20°C, 50 Hz)
Dielectric Dissipation Factor ∂_0	≤ 0,0002
Insulation Resistance R_i*C	≥ 10.000 MΩ · µF (20°C, 100 V_{DC}, 1min)
Max. Overvoltage	Please see IEC 61071
Max. Torque of terminals	M5: 2Nm | M6: 3Nm | M8: 4Nm | M10: 6Nm
Max. Torque Bolt	M12: 10Nm
Life Expectancy	100.000 hours (U_R, $\Theta_{hotspot}$ = 70°C)
Failure Rate	100 FIT

ENVIRONMENTAL

The products are RoHS, WEEE and REACh compliant.

The detailed version please see seperate "Environmental Certificates" document or www.jianghai-europe.com

APPROVALS

UL94-V0:

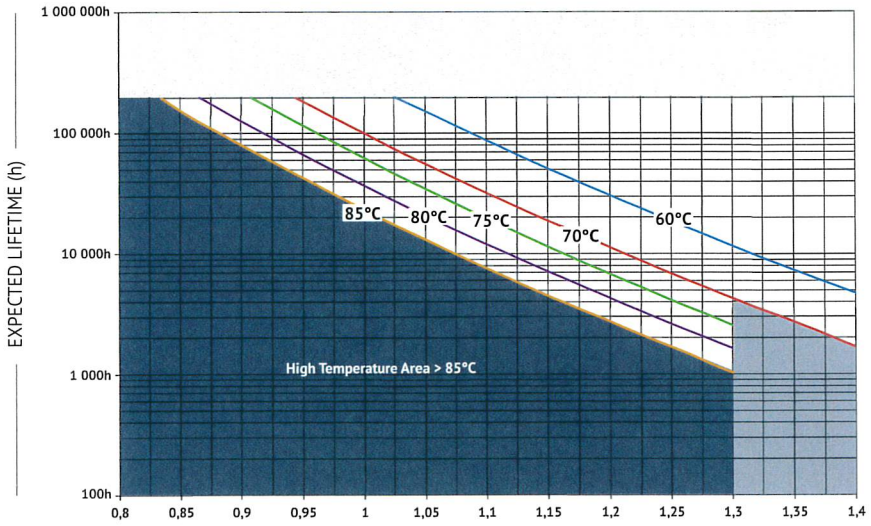
Plastic & Compound Mass

UL810:

CYWT2.E483921

LIFETIME

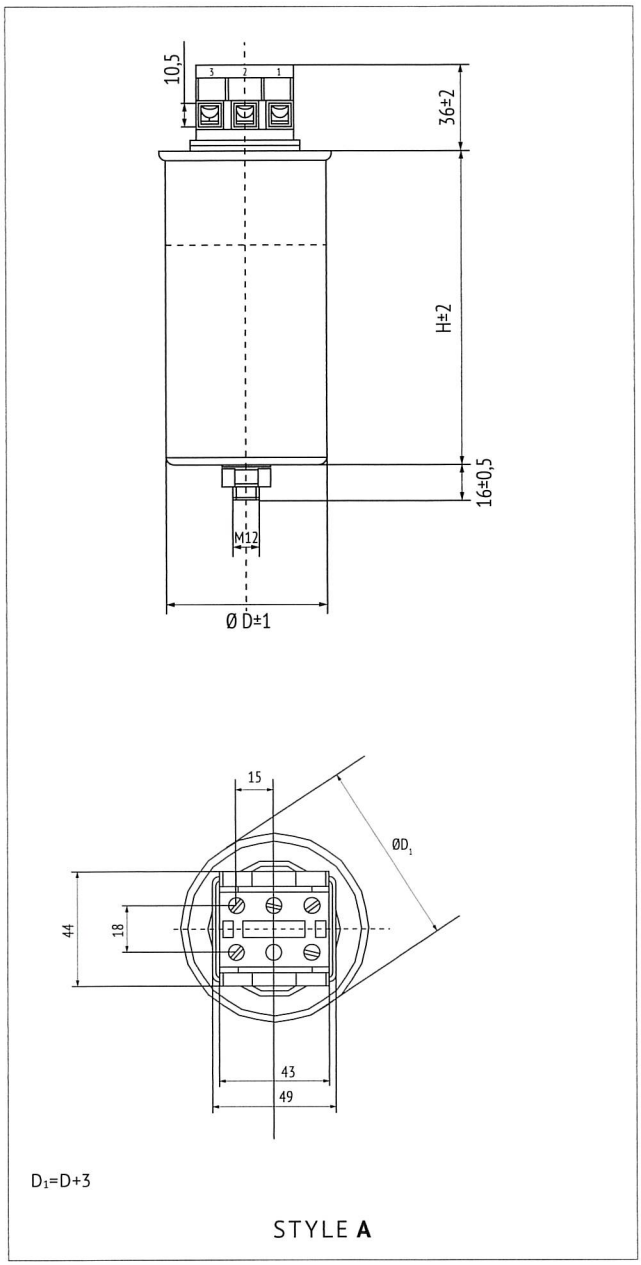
END OF LIFE: 3% REDUCTION OF CAPACITANCE



—WORKING/RATED VOLTAGE RATIO (U/U_N) FOR DIFFERENT HOTSPOT TEMPERATURES—

AC

DIMENSIONS AND CAN STYLE



in mm

MARKING

Jianghai	BRAND
CBB 235	SERIES DESIGNATION
3 x 110,7µF ±10% Δ	CAPACITANCE AND TOLERANCE
U_R = 400V_{AC} SH	U_R RATED VOLTAGE
U_{TC} = 4000V 50/60 HZ	U_{TC} VOLTAGE BETWEEN TERMINALS AND CASE, FREQUENCY
-40~+70°C IEC61071	TEMPERATURE RANGE, REFERENCE STANDARD
Discharge before handling	SAFETY WARNING
J32F36	DATE CODE

MOUNTING POSITION

Oil filled capacitors need to be used in an upright position only.

AC

ORDER CODE

FC	C	4A	AT	757	K	L	265	5	A	1	A	E 3
Capacitor type	Product shape	AC rated voltage code (V)	Series code	Capacitance Code Examples (µF)	Capacitance tolerance	Diameter (mm)	Height (mm)	Terminal Style (mm)	Terminal Pitch (mm)	Stud Bolt Mounting	Can Style	For internal use
Film Cap. = **FC**	Cylindrical = **C**	230 **2D**	CBB 235 = **AT**	60 **606**	±5% **J**	86 **L**	160 **160**	6 Pin: M5 **6**	15 **A**	bolt M12x16 **1**	Style A **A**	
		400 **4A**	CBB 235Y = **AY**	100 **107**	±10% **K**	96 **W**	200 **200**	6 Pin: M6 **5**	35 **B**	flat, without bracket **0**	Style B **B**	
		440 **4E**		330 **337**	-15/+0% **P**	116 **P**	230 **230**	3 Pin: M6 **1**				
		480 **4J**		750 **757**		136 **T**	265 **265**	3 Pin: M8 **2**				
		530 **5D**		900 **907**			350 **350**	3 Pin: M10 **4**				
		660 **6G**		1000 **108**								
		690 **6K**										

RATINGS

U_{RMS}/U_N ≤70°C	C_R	dV/dt	P 50Hz	$I_{RMS\ max}$ 50°C / 1kHz	$\hat{I}$ (1)	D ±1,0	H ±2,0	ORDER CODE CBB 235 AT Δ Connected	ORDER CODE CBB 235Y AY Y Connected
(V_{AC})	(µF)	(V/µs)	(kVar)	(A)	(A)	(mm)	(mm)	"#" to be defined, see ordering code table	"#" to be defined, see ordering code table
230/325 2D	3 x 200,6	25	10,0	25,1	5021	86	275	FCC2DAT207#L275####E3	FCC2DAY207#L275####E3
	3 x 200,6	25	10,0	25,1	5021	116	160	FCC2DAT207#P160####E3	FCC2DAY207#P160####E3
	3 x 250,7	25	12,5	31,4	6276	86	350	FCC2DAT257#L350####E3	FCC2DAY257#L350####E3
	3 x 250,7	25	12,5	31,4	6276	116	200	FCC2DAT257#P200####E3	FCC2DAY257#P200####E3
	3 x 300,9	25	15,0	37,7	7531	86	350	FCC2DAT307#L350####E3	FCC2DAY307#L350####E3
	3 x 300,9	25	15,0	37,7	7531	116	200	FCC2DAT307#P200####E3	FCC2DAY307#P200####E3
	3 x 335,0	25	16,7	41,9	8384	116	230	FCC2DAT337#P230####E3	FCC2DAY337#P230####E3
400/560 4A	3 x 66,3	44	10,0	14,4	2887	86	200	FCC4AAT666#L200####E3	FCC4AAY666#L200####E3
	3 x 82,9	44	12,5	18,0	3609	86	200	FCC4AAT836#L200####E3	FCC4AAY836#L200####E3
	3 x99,5	44	15,0	21,7	4330	86	275	FCC4AAT996#L275####E3	FCC4AAY996#L275####E3
	3 x 110,7	44	16,7	24,1	4821	86	275	FCC4AAT117#L275####E3	FCC4AAY117#L275####E3
	3 x 110,7	44	16,7	24,1	4821	116	160	FCC4AAT117#P160####E3	FCC4AAY117#P160####E3
	3 x 132,6	44	20,0	28,9	5774	86	275	FCC4AAT137#L275####E3	FCC4AAY137#L275####E3
	3 x 132,6	44	20,0	28,9	5774	116	200	FCC4AAT137#P200####E3	FCC4AAY137#P200####E3
	3 x 165,8	44	25,0	36,1	7217	86	275	FCC4AAT167#L275####E3	FCC4AAY167#L275####E3
	3 x 165,8	44	25,0	36,1	7217	116	200	FCC4AAT167#P200####E3	FCC4AAY167#P200####E3
	3 x 198,9	44	30,0	43,3	8661	136	200	FCC4AAT197#T200####E3	FCC4AAY197#T200####E3
440/625 4E	3 x 46	48	8,3	10,9	2178	86	160	FCC4EAT466#L160####E3	FCC4EAY466#L160####E3
	3 x 68,5	48	12,5	16,4	3280	86	200	FCC4EAT686#L200####E3	FCC4EAY686#L200####E3
	3 x 77,0	48	14,1	18,5	3700	86	200	FCC4EAT776#L200####E3	FCC4EAY776#L200####E3
	3 x 77,0	48	14,1	18,5	3700	116	160	FCC4EAT776#P160####E3	FCC4EAY776#P160####E3
	3 x 82,2	48	15,0	19,7	3937	86	200	FCC4EAT826#L200####E3	FCC4EAY826#L200####E3
	3 x 92,6	48	16,9	22,2	4435	116	200	FCC4EAT926#P200####E3	FCC4EAY926#P200####E3
	3 x 103,0	48	18,8	24,7	4934	86	275	FCC4EAT107#L275####E3	FCC4EAY107#L275####E3
	3 x 103,0	48	18,8	24,7	4934	116	160	FCC4EAT107#P160####E3	FCC4EAY107#P160####E3
	3 x 109,0	48	20,0	26,2	5249	86	275	FCC4EAT117#L275####E3	FCC4EAY117#L275####E3
	3 x 109,0	48	20,0	26,2	5249	116	160	FCC4EAT117#P160####E3	FCC4EAY117#P160####E3
	3 x 123,3	48	22,5	29,5	5905	86	275	FCC4EAT127#L275####E3	FCC4EAY127#L275####E3
	3 x 123,3	48	22,5	29,5	5905	116	200	FCC4EAT127#P200####E3	FCC4EAY127#P200####E3
	3 x 137,0	48	25,0	32,8	6561	86	275	FCC4EAT137#L275####E3	FCC4EAY137#L275####E3
	3 x 137,0	48	25,0	32,8	6561	116	200	FCC4EAT137#P200####E3	FCC4EAY137#P200####E3
	3 x 154,0	48	28,1	36,9	7375	86	275	FCC4EAT157#L275####E3	FCC4EAY157#L275####E3
	3 x 154,0	48	28,1	36,9	7375	116	200	FCC4EAT157#P200####E3	FCC4EAY157#P200####E3
	3 x 164,4	48	30,0	39,4	7873	86	350	FCC4EAT167#L350####E3	FCC4EAY167#L350####E3
	3 x 164,4	48	30,0	39,4	7873	116	200	FCC4EAT167#P200####E3	FCC4EAY167#P200####E3
	3 x 180,9	48	33,0	43,3	8661	136	200	FCC4EAT187#T200####E3	FCC4EAY187#T200####E3
480/680 4J	3 x 40	52	8,7	10,5	2093	86	200	FCC4JAT406#L200####E3	FCC4JAY406#L200####E3
	3 x 60	52	13,0	15,6	3127	86	275	FCC4JAT606#L275####E3	FCC4JAY606#L275####E3
	3 x 80	52	17,4	20,9	4186	116	200	FCC4JAT806#P200####E3	FCC4JAY806#P200####E3
	3 x 120	52	26,0	31,3	6255	116	275	FCC4JAT127#P275####E3	FCC4JAY127#P275####E3
530/750 5D	3 x 38,5	57	10,0	11,0	2199	86	200	FCC5DAT386#L200####E3	FCC5DAY386#L200####E3
	3 x 48,1	57	12,5	13,7	2749	86	200	FCC5DAT486#L200####E3	FCC5DAY486#L200####E3
	3 x 53,1	57	13,8	15,2	3035	86	200	FCC5DAT536#L200####E3	FCC5DAY536#L200####E3
	3 x 57,7	57	15,0	16,5	3299	86	230	FCC5DAT576#L230####E3	FCC5DAY576#L230####E3
	3 x 77,0	57	20,0	22,0	4399	86	275	FCC5DAT776#L275####E3	FCC5DAY776#L275####E3

(1) Maximum permissible peak current

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U_{RMS}/U_N ≤70°C	C_R	dV/dt	P 50Hz	$I_{RMS\ max}$ 50°C / 1kHz	$\hat{I}$ (1)	D ±1,0	H ±2,0	ORDER CODE CBB 235 AT Δ Connected	ORDER CODE CBB 235Y AY Y Connected
(V_{AC})	(µF)	(V/µs)	(kVar)	(A)	(A)	(mm)	(mm)	"#" to be defined, see ordering code table	"#" to be defined, see ordering code table
530/750 5D	3 x 77,0	57	20,0	22,0	4399	116	200	FCC5DAT776#P200####E3	FCC5DAY776#P200####E3
	3 x 96,2	57	25,0	27,5	5499	86	350	FCC5DAT966#L350####E3	FCC5DAY966#L350####E3
	3 x 96,2	57	25,0	27,5	5499	116	200	FCC5DAT966#P200####E3	FCC5DAY966#P200####E3
	3 x 115,4	57	30,0	33,0	6598	116	230	FCC5DAT117#P230####E3	FCC5DAY117#P230####E3
	3 x 115,4	57	30,0	33,0	6598	136	200	FCC5DAT117#T200####E3	FCC5DAY117#T200####E3
	3 x 138,2	57	35,9	39,5	7896	116	275	FCC5DAT137#P275####E3	FCC5DAY137#P275####E3
	3 x 138,2	57	35,9	39,5	7896	136	230	FCC5DAT137#T230####E3	FCC5DAY137#T230####E3
	3 x 142,8	57	37,1	40,8	8160	116	275	FCC5DAT147#P275####E3	FCC5DAY147#P275####E3
	3 x 142,8	57	37,1	40,8	8160	136	230	FCC5DAT147#T230####E3	FCC5DAY147#T230####E3
660/930 6G	3 x 20,3	72	8,3	7,3	1457	86	200	FCC6GAT206#L200####E3	FCC6GAY206#L200####E3
	3 x 24,4	72	10,0	8,7	1750	86	200	FCC6GAT246#L200####E3	FCC6GAY246#L200####E3
	3 x 30,4	72	12,5	10,9	2187	86	230	FCC6GAT306#L230####E3	FCC6GAY306#L230####E3
	3 x 36,5	72	15,0	13,1	2624	96	230	FCC6GAT366#W230####E3	FCC6GAY366#W230####E3
	3 x 40,7	72	16,7	14,6	2922	96	230	FCC6GAT406#W230####E3	FCC6GAY406#W230####E3
	3 x 48,7	72	20,0	17,5	3499	86	350	FCC6GAT486#L350####E3	FCC6GAY486#L350####E3
	3 x 55,8	72	22,9	20,0	4007	86	350	FCC6GAT556#L350####E3	FCC6GAY556#L350####E3
690/980 6K	3 x 27,9	75	12,5	10,5	2092	86	230	FCC6KAT276#L230####E3	FCC6KAY276#L230####E3
	3 x 33,4	75	15,0	12,6	2510	96	230	FCC6KAT336#W230####E3	FCC6KAY336#W230####E3
	3 x 44,6	75	20,0	16,7	3347	86	350	FCC6KAT446#L350####E3	FCC6KAY446#L350####E3
	3 x 55,7	75	25,0	20,9	4184	86	350	FCC6KAT556#L350####E3	FCC6KAY556#L350####E3

(1) Maximum permissible peak current

FEATURES

- Used in AC filtering
- Excellent Temperature behavior
- Self-healing
- Overpressure disconnector design
- Aluminum case, filled with soft PU resin

OVERVIEW

CBB **237** AQ
single phase
Al-case · PU
70°C
Page: 75

3-PHASE Δ →

CBB **235** AT
3-phase Δ
Al-case · PU
70°C
Page: 71

3-PHASE Y →

CBB **235** AY
3-phase Y
Al-case · PU
70°C
Page: 71

OIL FILLED ↓

CBB **65** AG
single phase
Al-case · Oil
70°C
Page: 69

PRODUCT

APPLICATIONS

- Solar
- Wind energy
- UPS

CHARACTERISTICS

ITEM	CHARACTERISTICS
Reference Standard	GB/T 17702 (IEC 61071) , IEC60831
Climatic Category	40/70/56
Operating Temperature Range	-40 ~ +70°C ($\Theta_{hotspot}$ ≤ 85°C)
Storage Temperature Range	-40 ~ +85°C
Rated Voltage U_R	250 ~ 690 V_{AC}
Capacitance Range	10 ~ 600µF
Capacitance Tolerance	±5% (J), ±10% (K)
U_{TT} Voltage between Terminals	2,15 x U_N, 10s (20°C)
U_{TC} Voltage between Terminals & Case	≥3.000V_{AC}, 10s (20°C, 50 Hz)
Dielectric Dissipation Factor tan δ_0	≤2 x 10^{-4}
Insulation Resistance R_i*C	≥10.000 MΩ · µF (20°C, 100 V_{DC}, 1min)
Max. Overvoltage	Please see IEC 61071
Max. Torque of terminals	M6: 4Nm | M8: 6Nm
Max. Torque of stud	M12: 10Nm
Life Expectancy	100.000 hours (UR, $\Theta_{hotspot}$ = 70°C)
Failure Rate	100 FIT

ENVIRONMENTAL

The products are RoHS, WEEE and REACh compliant.

The detailed version please see seperate "Environmental Certificates" document or www.jianghai-europe.com

APPROVALS

UL94-V0:

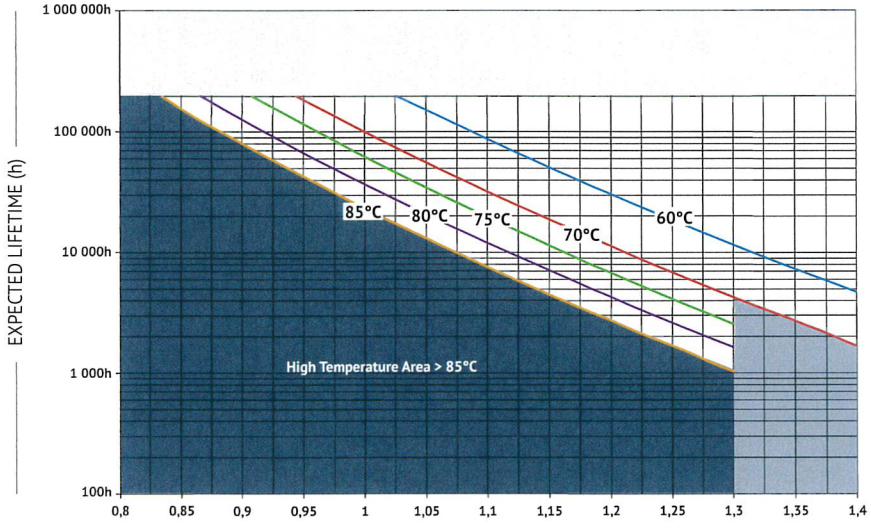
Plastic & Compound Mass

UL810:

CYWT2.E483921

LIFETIME

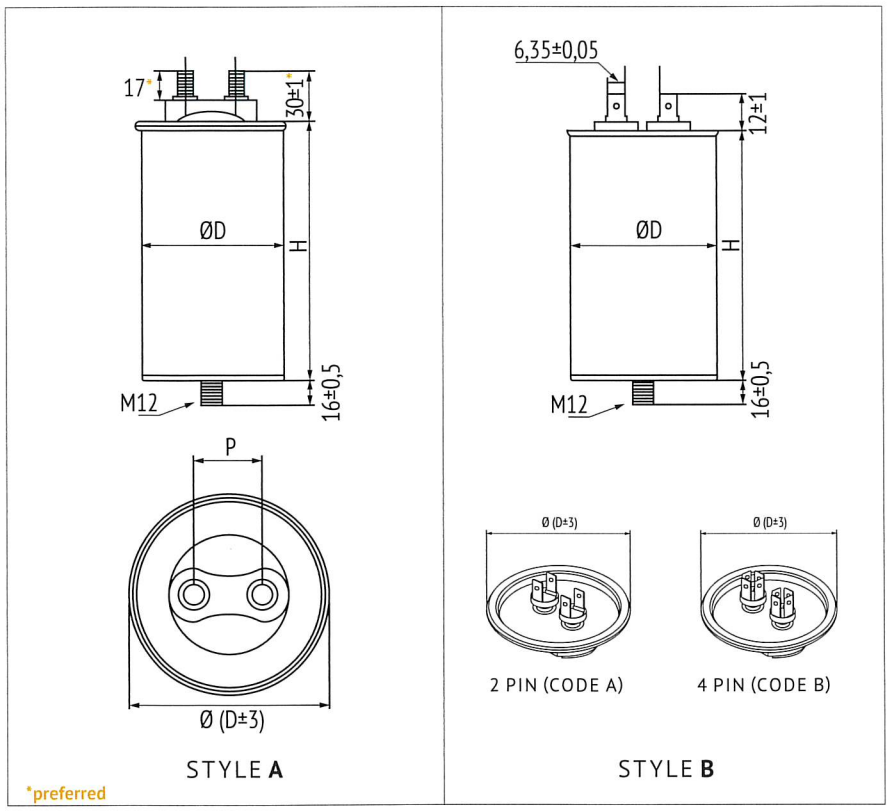
END OF LIFE: 3% REDUCTION OF CAPACITANCE



—WORKING/RATED VOLTAGE RATIO (U/U_N) FOR DIFFERENT HOTSPOT TEMPERATURES—

AC

DIMENSIONS AND CAN STYLE



in mm

CAUTION
The style has impact on the current.

MARKING

Jianghai	BRAND
CBB 237	SERIES DESIGNATION
200µF ±10%	CAPACITANCE AND TOLERANCE
U_R = 250V_{AC} SH	U_R RATED VOLTAGE
U_{TC} = 3000V 50/60 HZ	U_{TC} VOLTAGE BETWEEN TERMINALS AND CASE, FREQUENCY
-40~+70°C IEC61071	TEMPERATURE RANGE, REFERENCE STANDARD
Discharge before handling	SAFETY WARNING
J37F35	DATE CODE

MOUNTING POSITION

Oil filled capacitors need to be used in an upright position only.

ORDER CODE

FC	C	4F	AQ	107	K	L	055	3	X	1	A	E 3
Capacitor type	Product shape	AC rated voltage code (V)	Series code	Capacitance Code Examples (µF)	Capacitance tolerance	Diameter (mm)	Height (mm)	Terminal Style	Terminal Pitch (mm)	Stud Bolt Mounting	Can Style	For internal use
Film Cap. = **FC**	cylindrical = **C**	250 **2F**	CBB 237 = **AQ**	10 **106**	±5% **J**	50 **D**	75 **075**	Male M6*11 **0**	13,5 **X**	bolt M12x16 **1**	Style A **A**	
		330 **3D**		80 **806**	±10% **K**	55 **C**	100 **100**	Male M6*20 **1**	16 **Z**	flat, without bracket **0**	Style B **B**	
		450 **4F**		100 **107**		60 **F**	125 **125**	Male M8*17 **9**	18 **Y**			
		480 **4J**		150 **157**		63,5 **E**	200 **200**	Male M8*20 **3**	20 **W**			
		550 **5F**		350 **357**		65 **G**	247 **247**	Male M10*16 **7**	30 **6**			
		600 **6A**		450 **457**		76 **H**		Male M10*20 **5**	32 **3**			
		660 **6G**				86 **L**		Male M10*22 **Z**	35 **V**			
		690 **6K**				96 **W**		Male M10*24 **X**	50 **5**			
						106 **K**		2 Pin **A**				
								4 Pin **B**				

AC

RATINGS

U_{RMS}/U_N ≤70°C	C_R	dV/dt	$I_{RMS\ max}$ 50°C 1kHz	$\hat{I}$ (1)	ESR_{typ} 20°C 1kHz	R_{th} (2)	P ±0,5	D ±1,0	H ±2,0	ORDER CODE "#" to be defined, see ordering code table
(V_{AC})	(µF)	(V/µs)	(A)	(A)	(mΩ)	(K/W)	(mm)	(mm)	(mm)	(preferred)
250/350 2F	60	16,7	16	999	3,9	7,8	20	50	100	FCC2FAQ606#D100#W1BE3
	80	16,7	16	1332	4,4	7,8	20	50	100	FCC2FAQ806#D100#W1BE3
	100	12,6	16	1260	4,6	6,3	20	50	125	FCC2FAQ107#D125#W1BE3
	120	12,6	16	1512	4,8	6,0	20	55	125	FCC2FAQ127#C125#W1BE3
	150	12,6	16	1890	4,3	5,3	20	60	125	FCC2FAQ157#F125#W1BE3
	150	10,8	22	1620	3,3	4,7	30	76	125	FCC2FAQ157#H125#61AE3
	175	12,6	16	2205	4,0	5,5	20	63,5	125	FCC2FAQ177#E125#W1BE3
	200	11,7	30	2340	3,0	4,7	30	76	125	FCC2FAQ207#H125#61AE3
	230	8,6	30	1978	3,5	4,3	30	76	150	FCC2FAQ237#H150#61AE3
	250	8,6	30	2160	3,4	4,3	30	76	150	FCC2FAQ257#H150#61AE3
	300	8,6	36	2590	3,2	4,0	30	86	150	FCC2FAQ307#L150#61AE3
	330	10,4	40	3400	3,1	4,0	30	86	150	FCC2FAQ337#L150#61AE3
	350	10,4	35	3622	3,1	4,0	30	76	200	FCC2FAQ357#H200#61AE3
	400	10,4	40	4140	3,0	4,0	30	86	200	FCC2FAQ407#L200#61AE3
	500	10,8	50	5400	3,3	2,9	30	86	200	FCC2FAQ507#L200#61AE3
	600	8,0	50	4800	3,1	2,5	30	86	250	FCC2FAQ607#L250#61AE3
330/460 3D	50	16,7	16	832	5,1	7,8	20	50	100	FCC3DAQ506#D100#W1BE3
	60	12,6	16	756	5,4	6,3	20	50	125	FCC3DAQ606#D125#W1BE3
	100	12,6	16	1260	4,1	5,3	20	60	125	FCC3DAQ107#F125#W1BE3
	100	13,1	30	1305	3,8	5,2	30	76	125	FCC3DAQ107#H125#61AE3
	120	7,2	16	864	3,8	5,5	20	63,5	125	FCC3DAQ127#E125#W1BE3
	150	9,0	40	1350	4,2	4,3	30	76	150	FCC3DAQ157#H150#61AE3
	175	8,6	40	1496	4,2	4,2	30	76	150	FCC3DAQ177#H150#61AE3
	200	13,1	40	2610	3,7	3,6	30	76	200	FCC3DAQ207#H200#61AE3
	200	13,1	40	2610	3,1	4,0	30	86	150	FCC3DAQ207#L150#61AE3
	250	8,6	40	2140	3,9	4,0	30	76	200	FCC3DAQ257#H200#61AE3
	300	13,1	50	3915	3,6	2,9	30	86	200	FCC3DAQ307#L200#61AE3
	350	13,1	50	4570	3,4	2,9	30	86	200	FCC3DAQ357#L200#61AE3
	400	8,1	50	3240	3,6	2,5	30	86	250	FCC3DAQ407#L250#61AE3
	450	8,1	50	3645	3,5	2,5	30	86	250	FCC3DAQ457#L250#61AE3
450/630 4F	20	35,0	16	700	5,2	10,5	20	50	75	FCC4FAQ206#D075#W1BE3
	30	23,3	16	700	6,9	7,8	20	50	100	FCC4FAQ306#D100#W1BE3
	33	21,2	16	700	6,4	7,8	20	50	100	FCC4FAQ336#D100#W1BE3
	40	13,5	16	540	5,7	7,8	20	50	100	FCC4FAQ406#D100#W1BE3
	50	10,8	16	540	5,0	5,3	20	60	125	FCC4FAQ506#F125#W1BE3
	50	17,1	20	855	3,3	5,3	30	76	100	FCC4FAQ506#H100#61AE3
	70	13,0	16	907	4,8	5,5	20	60	125	FCC4FAQ706#F125#W1BE3
	80	11,3	16	904	4,4	5,5	20	60	125	FCC4FAQ806#F125#W1BE3
	90	11,3	16	1020	5,0	5,5	20	63,5	125	FCC4FAQ906#E125#W1BE3
	100	10,8	35	1080	4,7	4,3	30	76	150	FCC4FAQ107#H150#61AE3
	150	13,1	40	1957	3,9	4,3	30	86	150	FCC4FAQ157#L150#61AE3
	200	13,5	40	2700	3,7	2,9	30	86	200	FCC4FAQ207#L200#61AE3
	250	8,1	50	2025	3,8	2,9	30	86	200	FCC4FAQ257#L200#61AE3
	300	8,0	50	2400	4,1	2,5	30	86	250	FCC4FAQ307#L250#61AE3
480/675 4J	20	37,5	16	750	4,8	10,5	20	50	75	FCC4JAQ206#D075#W1BE3
	25	30,0	16	750	4,2	7,8	20	50	100	FCC4JAQ256#D100#W1BE3
	30	25,0	16	750	3,9	7,8	20	50	100	FCC4JAQ306#D100#W1BE3
	40	21,3	16	850	5,2	7,3	20	60	100	FCC4JAQ406#F100#W1BE3
	50	17,0	16	850	4,6	6,0	20	55	125	FCC4JAQ506#C125#W1BE3
	50	19,0	20	950	3,2	5,0	30	76	100	FCC4JAQ506#H100#61AE3
	60	17,6	25	1050	3,7	4,7	30	76	125	FCC4JAQ606#H125#61AE3
	70	22,5	30	1575	4,4	4,7	30	76	125	FCC4JAQ706#H125#61AE3
	80	15,3	30	1224	4,2	4,3	30	76	150	FCC4JAQ806#H150#61AE3
	100	17,1	40	1710	4,1	4,0	30	76	200	FCC4JAQ107#H200#61AE3
	150	17,1	40	2565	3,5	4,0	30	76	200	FCC4JAQ157#H200#61AE3
	200	13,1	40	2610	4,6	3,0	30	76	250	FCC4JAQ207#H250#61AE3
	250	11,7	50	2925	4,1	2,5	30	86	250	FCC4JAQ257#L250#61AE3
550/770 5F	20	30,0	16	600	6,9	7,9	20	50	100	FCC5FAQ206#D100#W1BE3
	30	25,0	16	750	6,6	6,3	20	50	125	FCC5FAQ306#D125#W1BE3
	40	18,8	16	750	7,1	5,5	20	60	125	FCC5FAQ406#F125#W1BE3
	50	17,0	16	850	6,1	5,3	20	63,5	125	FCC5FAQ506#E125#W1BE3

(1) Maximum permissible peak current, (2) Thermal resistance from hotspot to ambient (free convection)

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U_{RMS}/U_N ≤70°C (V_{AC})	C_R (µF)	dV/dt (V/µs)	$I_{RMS\ max}$ 50°C 1kHz (A)	Î (1) (A)	ESR_{typ} 20°C 1kHz (mΩ)	R_{th} (2) (K/W)	P ±0,5 (mm)	D ±1,0 (mm)	H ±2,0 (mm)	ORDER CODE "#" to be defined, see ordering code table (preferred)
550/770 5F	70	12,9	25	900	4,6	4,2	30	76	150	FCC5FAQ706#H150#61AE3
	80	22,5	25	1800	4,3	4,3	30	76	150	FCC5FAQ806#H150#61AE3
	100	28,2	30	2820	3,9	4,0	30	86	150	FCC5FAQ107#L150#61AE3
	125	22,6	30	2820	3,6	2,9	30	86	200	FCC5FAQ127#L200#61AE3
	150	21,4	40	3210	5,0	2,9	30	86	200	FCC5FAQ157#L200#61AE3
	200	16,1	50	3220	4,4	2,5	30	86	250	FCC5FAQ207#L250#61AE3
	250	14,0	50	3500	4,0	2,1	30	96	250	FCC5FAQ257#W250#61AE3
	300	11,7	50	3500	3,7	2,0	30	106	250	FCC5FAQ307#K250#61AE3
600/850 6A	10	35,0	16	350	6,4	10,5	20	50	75	FCC6AAQ106#D075#W1BE3
	20	25,0	16	500	11,1	6,3	20	50	125	FCC6AAQ206#D125#W1BE3
	25	20,0	16	500	9,3	6,3	20	50	125	FCC6AAQ256#D125#W1BE3
	30	20,0	16	600	5,4	5,3	20	60	125	FCC6AAQ306#F125#W1BE3
	35	20,0	16	700	7,3	5,3	20	60	125	FCC6AAQ356#F125#W1BE3
	40	17,5	16	700	6,6	5,3	20	63,5	125	FCC6AAQ406#E125#W1BE3
	45	15,6	16	700	6,1	5,3	20	65	125	FCC6AAQ456#G125#W1BE3
	50	17,0	20	850	5,7	4,3	30	76	150	FCC6AAQ506#H150#61AE3
660/930 6G	10	40,0	16	400	8,2	6,3	20	50	125	FCC6GAQ106#D125#W1BE3
	12	35,0	16	420	7,2	6,3	20	50	125	FCC6GAQ126#D125#W1BE3
	15	28,0	16	420	6,2	6,3	20	50	125	FCC6GAQ156#D125#W1BE3
	18	25,0	16	450	5,5	6,3	20	50	125	FCC6GAQ186#D125#W1BE3
	20	27,5	16	550	8,3	6,0	20	55	125	FCC6GAQ206#C125#W1BE3
	25	22,0	16	550	7,9	5,3	20	60	125	FCC6GAQ256#F125#W1BE3
	30	25,0	16	750	6,3	5,5	20	65	125	FCC6GAQ306#G125#W1BE3
	35	21,4	30	750	5,7	4,3	30	76	150	FCC6GAQ356#H150#61AE3
	40	22,5	30	900	5,2	4,3	30	76	150	FCC6GAQ406#H150#61AE3
	45	20,0	40	900	4,9	4,0	30	86	150	FCC6GAQ456#L150#61AE3
	50	20,0	40	1000	4,7	4,0	30	86	150	FCC6GAQ506#L150#61AE3
690/980 6K	10	75,0	16	750	7,2	6,3	20	50	125	FCC6KAQ106#D125#W1BE3
	15	50,0	16	750	9,0	6,3	20	50	125	FCC6KAQ156#D125#W1BE3
	20	45,0	16	900	7,3	6,0	20	55	125	FCC6KAQ206#C125#W1BE3
	30	30,0	16	900	5,6	5,5	20	63,5	125	FCC6KAQ306#E125#W1BE3
	40	28,8	25	1150	4,8	4,3	30	76	150	FCC6KAQ406#H150#61AE3
	50	23,0	30	1150	4,3	4,0	30	86	150	FCC6KAQ506#L150#61AE3
	70	18,0	30	1260	3,7	2,9	30	76	250	FCC6KAQ706#H250#61AE3
	85	18,0	40	1530	3,5	2,5	30	86	250	FCC6KAQ856#L250#61AE3
	100	18,0	40	1800	3,3	2,5	30	86	250	FCC6KAQ107#L250#61AE3
	125	12,5	50	1560	4,0	2,0	30	106	250	FCC6KAQ127#K250#61AE3
	150	12,5	50	1875	3,8	2,0	30	106	250	FCC6KAQ157#K250#61AE3
	170	12,5	50	2125	3,6	2,0	30	106	250	FCC6KAQ177#K250#61AE3

(1) Maximum permissible peak current, (2) Thermal resistance from hotspot to ambient (free convection)

AC

FEATURES

- Used in AC circuits as input or output filter
- Excellent Temperature behavior
- Self-healing
- Plastic box, filled with fire-retardant resin

OVERVIEW

CBB 238 AN
Square
Leaded
105°C
Page: 79

PRODUCT

APPLICATIONS

- Solar inverters
- UPS Power Supply
- Motor Drive systems

CHARACTERISTICS

ITEM	CHARACTERISTICS
Reference Standard	GB/T 17702 (IEC 61071)
Climatic Category	40/105/56
Operating Temperature Range	-40 ~ +105 °C ($\Theta_{hotspot}$ ≤ 105 °C) $\Theta_{hotspot}$ = 85~105°C: See Voltage Derating Diagram
Storage Temperature Range	-40 ~ +105°C
Rated Voltage U_R	160 ~ 450 V_{AC}
Capacitance Range	0,47 ~ 50µF
Capacitance Tolerance	±5% (J), ±10% (K)
U_{TT} Voltage between Terminals	2,15 x U_N (V_{DC}), 10s (20°C)
U_{TC} Voltage between Terminals & Case	⩾ 3.000V_{AC}, 10s (20°C, 50 Hz)
Dielectric Dissipation Factor ∂_0	⩽ 2 x 10^{-4}
Insulation Resistance R,*C	⩾ 10.000 MΩ · µF (20°C, 100 V_{DC}, 1min)
Max. Overvoltage	Please see IEC 61071
Life Expectancy	100.000 hours (U_R, $\Theta_{hotspot}$ = 70°C)
Failure Rate	100 FIT

ENVIRONMENTAL

The products are RoHS, WEEE and REACh compliant.

The detailed version please see seperate "Environmental Certificates" document or www.jianghai-europe.com

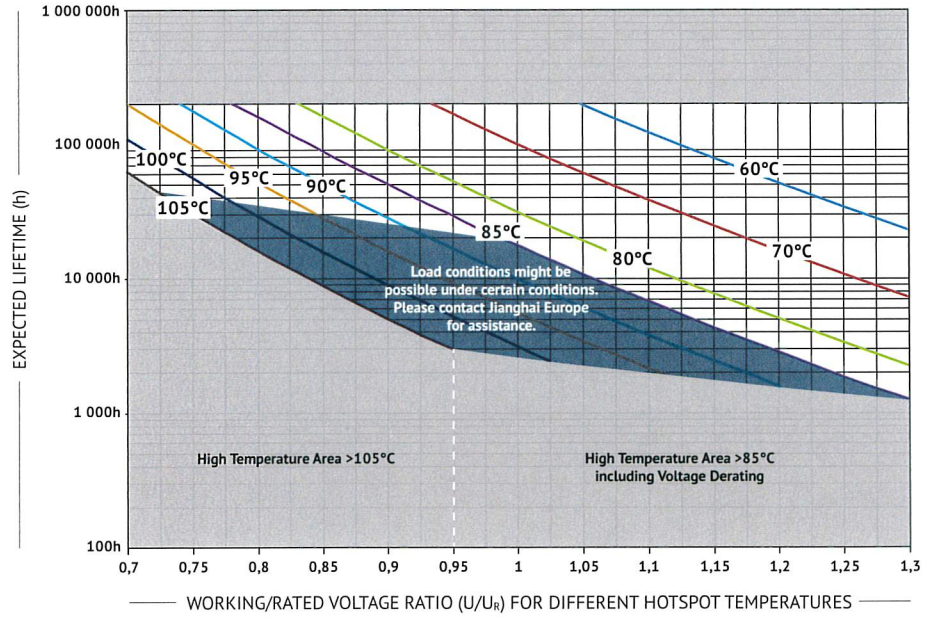
APPROVALS

UL94-V0:

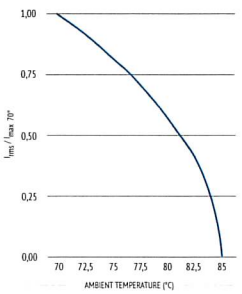
Plastic & Compound Mass

LIFETIME

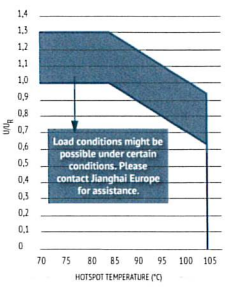
END OF LIFE 3% CAPACITANCE LOSS



CURRENT DERATING



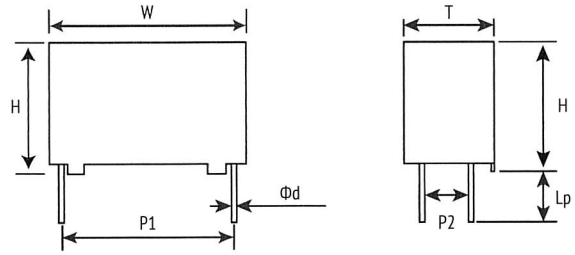
VOLTAGE DERATING



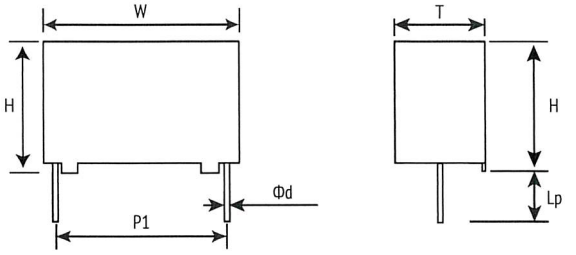
AC

DIMENSIONS AND CAN STYLE

4 PIN TYPE



2 PIN TYPE



MARKING

Jianghai	BRAND
CBB 238	PRODUCT SERIES
5µF J 250V	CAPACITANCE AND TOLERANCE
J02F12	DATE CODE

HUMIDITY IMPROVEMENT

Capacitors in THB design are available on request.

ORDER CODE

FC	S	2F	AN	105	K	A	F1	37	20	C	E 3
Capacitor type	Product shape	AC rated voltage code (V)	Series code	Capacitance Code (µF)	Capacitance tolerance	Pin Style (mm)	Dimension Code (mm) W x H x T	Pitch P_1 (mm)	Pitch P_2 (mm)	Leadwire Diameter Ød	For internal use
Film Cap. = **FC**	Square Box = **S**	160 **1G**	CBB 238 = **AN**	1,0 **105**	±5% **J**	4 Pin Lp = 8mm **K**	32 x 20 x 11 **I4**	27,5 **27**	10,2 **10**	0,6 **A**	
		250 **2F**		4,7 **475**	±10% **K**	4 Pin Lp = 5mm **A**	32 x 22 x 13 **I7**	37,5 **37**	20,3 **20**	0,8 **B**	
		275 **2H**		15,0 **156**		4 Pin Lp = 4,5mm **L**	32 x 28 x 14 **IC**	52,5 **52**	- **00**	1,0 **C**	
		350 **3F**		50,0 **506**		4 Pin Lp = 4mm **S**	32 x 33 x 18 **IF**			1,2 **D**	
		400 **4A**				4 Pin Lp = 3,5mm **J**	32 x 37 x 22 **II**			0,5 **E**	
		450 **4F**				2 Pin long leads (~ 20mm) **C**	42,5 x 37 x 28 **F1**				
						2 Pin Lp = 5mm **B**	42,5 x 40 x 20 **F2**				
						2 Pin Lp = 4,5mm **T**	42,5 x 45 x 30 **FF**				
						2 Pin Lp = 4,0mm **M**	57,5 x 45 x 30 **HH**				
						2 Pin Lp = 3,5mm **U**	57,5 x 50 x 35 **HL**				
						2 Pin Lp = 3,2mm **V**					

RATINGS

U_{RMS}/U_N ≤85°C (V$_{AC}$)	U_{NDC} (V$_{DC}$)	C_R (µF)	I_{max} 70°C, 1kHz	I_{max} 60°C, 1kHz (A)	I_{max} ≤50°C, 1kHz	$\hat{I}$ [1] (A)	ESR_{typ} 20°C 1kHz (mΩ)	R_{th}[2] (K/W)	dV/dt 20°C (V/µS)	L_S (nH)	W +1/-1,5 (mm)	H +1/-1,5 (mm)	T +1/-1,5 (mm)	P_1 ±0,5 (mm)	P_2 ±0,5 (mm)	Ød ±0,05 (mm)	ORDER CODE "#" to be defined, see ordering code table
160/225 1G	400	1	5	6	7	32	30,3	19,8	32	24	32	20	11	27,5	\	0,8	FCS1GAN105##I42700BE3
		2,2	7	9	10	70	15,3	20,0	32	24	32	20	11	27,5	\	0,8	FCS1GAN225##I42700BE3
		3,3	7	9	10	105	11,3	27,1	32	24	32	22	13	27,5	\	0,8	FCS1GAN335##I72700BE3
		5	7	9	10	160	8,8	34,8	32	26	32	28	14	27,5	\	0,8	FCS1GAN505##IC2700BE3
		10	7	9	10	320	6,8	45,0	32	26	32	33	18	27,5	\	0,8	FCS1GAN106##IF2700BE3
		10	12	15	18	220	7,2	14,5	22	30	42,5	37	28	37,5	10,2	1	FCS1GAN106##F13710CE3
		20	12	15	18	440	6,9	15,1	22	30	42,5	37	28	37,5	10,2	1	FCS1GAN206##F13710CE3
		30	12	15	18	660	7,4	14,1	22	30	42,5	45	30	37,5	20,3	1,2	FCS1GAN306##FF3720DE3
		40	12	15	18	640	7,6	13,7	16	35	57,5	45	30	52,5	20,3	1,2	FCS1GAN406##HH5220DE3
		50	12	15	18	800	7,5	13,9	16	35	57,5	50	35	52,5	20,3	1,2	FCS1GAN506##HL5220DE3
250/350 2F	475	1,5	8	10	12	60	10,0	23,4	40	24	32	20	11	27,5	\	0,8	FCS2FAN155##I42700BE3
		2	9	11	12	80	8,2	22,6	40	24	32	22	13	27,5	\	0,8	FCS2FAN205##I72700BE3
		3,3	9	11	12	132	6,2	29,9	40	26	32	28	14	27,5	\	0,8	FCS2FAN335##IC2700BE3
		5	9	11	12	200	5,2	35,6	40	26	32	33	18	27,5	\	0,8	FCS2FAN505##IF2700BE3
		6,8	14	18	21	272	4,9	15,6	40	28	32	37	22	27,5	10,2	1	FCS2FAN685##II2710CE3
		10	14	18	21	300	5,6	13,7	30	30	42,5	40	20	37,5	10,2	1	FCS2FAN106##F23710CE3
		15	14	18	21	450	5,2	14,7	30	30	42,5	37	28	37,5	10,2	1	FCS2FAN156##F13710CE3
		20	14	18	21	600	4,8	15,9	30	30	42,5	45	30	37,5	20,3	1,2	FCS2FAN206##FF3720DE3
		25	14	18	21	625	5,7	13,4	25	35	57,5	45	30	52,5	20,3	1,2	FCS2FAN256##HH5220DE3
		30	14	18	21	750	5,3	14,4	25	35	57,5	45	30	52,5	20,3	1,2	FCS2FAN306##HH5220DE3
		35	14	18	21	875	5,5	13,9	25	35	57,5	50	35	52,5	20,3	1,2	FCS2FAN356##HL5220DE3
		40	14	18	21	1000	5,2	14,7	25	35	57,5	50	35	52,5	20,3	1,2	FCS2FAN406##HL5220DE3
275/385 2H	520	3,3	9	11	12	132	6,2	29,9	40	26	32	33	18	27,5	\	0,8	FCS2HAN335##IF2700BE3
		6,8	9	11	12	272	4,7	39,4	40	28	32	37	22	27,5	\	0,8	FCS2HAN685##II2700BE3
		10	14	18	21	300	5,9	13,0	30	30	42,5	40	20	37,5	10,2	1	FCS2HAN106##F23710CE3
		15	14	18	21	450	5,1	15,0	30	30	42,5	45	30	37,5	20,3	1,2	FCS2HAN156##FF3720DE3
		20	14	18	21	500	6,0	12,8	25	35	57,5	45	30	52,5	20,3	1,2	FCS2HAN206##HH5220DE3
		30	14	18	21	750	5,3	14,4	25	35	57,5	50	35	52,5	20,3	1,2	FCS2HAN306##HL5220DE3
350/480 3F	600	1	9	11	12	45	10,9	17,0	45	24	32	22	13	27,5	\	0,8	FCS3FAN105##I72700BE3
		2	9	11	12	90	7,3	25,4	45	26	32	33	18	27,5	\	0,8	FCS3FAN205##IF2700BE3
		2,2	9	11	12	99	6,9	26,8	45	26	32	33	18	27,5	\	0,8	FCS3FAN225##IF2700BE3
		3,3	9	11	12	148	5,7	32,5	45	28	32	37	22	27,5	\	0,8	FCS3FAN335##II2700BE3
		4,7	14	18	21	159	6,9	11,1	34	30	42,5	40	20	37,5	10,2	1	FCS3FAN475##F23710CE3
		5	14	18	21	170	6,8	11,3	34	30	42,5	40	20	37,5	10,2	1	FCS3FAN505##F23710CE3
		6,8	14	18	21	231	6,2	12,3	34	30	42,5	37	28	37,5	10,2	1	FCS3FAN685##F13710CE3
		10	14	18	21	340	5,3	14,4	34	30	42,5	45	30	37,5	20,3	1,2	FCS3FAN106##FF3720DE3
		12	14	18	21	336	6,8	11,3	28	35	57,5	45	30	52,5	20,3	1,2	FCS3FAN126##HH5220DE3
		20	14	18	21	560	5,9	13,0	28	35	57,5	50	35	52,5	20,3	1,2	FCS3FAN206##HL5220DE3
400/560 4A	700	1	9	11	12	50	10,3	18,0	50	26	32	28	14	27,5	\	0,8	FCS4AAN105##IC2700BE3
		1,5	9	11	12	75	8,1	22,9	50	26	32	33	18	27,5	\	0,8	FCS4AAN155##IF2700BE3
		2,2	9	11	12	110	6,4	28,9	50	26	32	33	18	27,5	\	0,8	FCS4AAN225##IF2700BE3
		3	9	11	12	150	5,7	32,5	50	28	32	37	22	27,5	\	0,8	FCS4AAN305##II2700BE3
		5	14	18	21	200	6,2	12,3	40	30	42,5	37	28	37,5	10,2	1	FCS4AAN505##F13710CE3
		10	14	18	21	350	6,9	11,1	35	35	57,5	45	30	52,5	20,3	1,2	FCS4AAN106##HH5220DE3
		15	14	18	21	525	6,1	12,5	35	35	57,5	50	35	52,5	20,3	1,2	FCS4AAN156##HL5220DE3
450/630 4F	750	0,47	8	10	12	25	15,7	14,9	55	24	32	22	13	27,5	\	0,8	FCS4FAN474##I72700BE3
		1	8	10	12	55	9,2	25,5	55	26	32	33	18	27,5	\	0,8	FCS4FAN105##IF2700BE3
		1,5	8	10	12	82	7,3	32,1	55	28	32	37	22	27,5	\	0,8	FCS4FAN155##II2700BE3
		3,3	14	18	21	148	7,4	10,3	45	30	42,5	37	28	37,5	10,2	1	FCS4FAN335##F13710CE3
		4,7	14	18	21	211	6,2	12,3	45	30	42,5	45	30	37,5	20,3	1,2	FCS4FAN475##FF3720DE3
		6,8	14	18	21	258	7,5	10,2	38	35	57,5	45	30	52,5	20,3	1,2	FCS4FAN685##HH5220DE3
		10	14	18	21	380	6,6	11,6	38	35	57,5	50	35	52,5	20,3	1,2	FCS4FAN106##HL5220DE3

(1) Maximum permissible peak current, (2) Thermal resistance from hotspot to ambient (free convection)

AC

FEATURES

- X2
- Self-healing
- 110°C
- Standard

OVERVIEW

CBB 311 AU	CBB 312 AX	CBB 322 AF
X1	X2	Y2
Leaded	Leaded	Leaded
ON REQUEST	Page: 82	ON REQUEST

PRODUCT

APPLICATIONS

- X2
- Interference Suppression for Overvoltage Protection
- Connected to the mains between phase and neutral or phase conductors
- (250) (275) 305V_{AC}

CHARACTERISTICS

ITEM	CHARACTERISTICS
Reference Standard	GB/T 14472 (IEC 60384-14)
Climatic Category	40/105/56 (IEC 61071)
Operating Temperature	-40 ~ +110 °C
Storage Temperature	-40 ~ +105 °C
Rated Voltage U_{RDC}	(250, 275) 305 V_{AC} (50Hz/60Hz)
Capacitance Range	0,0047 ~ 46,0 µF
Capacitance Tolerance	±10 % (K), ±20 % (M)
Insulaton Resistance R_i	⩾ 15.000 MΩ for C ⩽ 0,33 µF ⩾ 5.000 MΩ * µF/C for C > 0,33 µF
Pulse Peak Voltage	⩽ 2,5kV
Voltage Strength Testing	1.312V_{DC} for 2 sec.

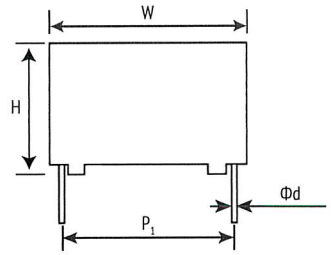
ENVIRONMENTAL

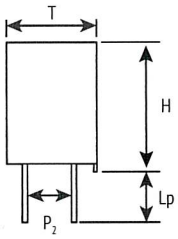
The products are RoHS, WEEE and REACh compliant.

The detailed version please see seperate "Environmental Certificates" document or www.jianghai-europe.com

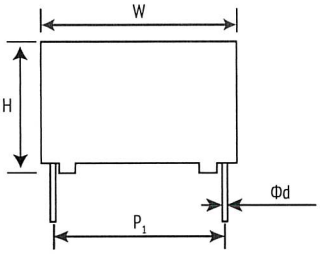
DIMENSIONS

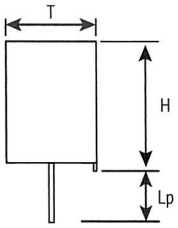
4 PIN TYPE





2 PIN TYPE





Lp = 5,0 ±1mm · other styles on request

ORDER CODE 2/4 PIN

Pitch P_1 ± 0,5 (mm)	2 Pin	4 Pin			
	P_2 = 0 (mm)	P_2 = 5,1±0,5 (mm)	P_2 = 10,2±0,5 (mm)	P_2 = 12,7±0,5 (mm)	P_2 = 20,3±0,5 (mm)
⩽ 22,5	00	●	●	●	●
27,5	00	05	10	12	●
37,5	●	●	10	12	20
52,5	●	●	●	●	20

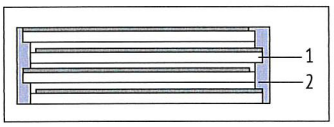
● = not available

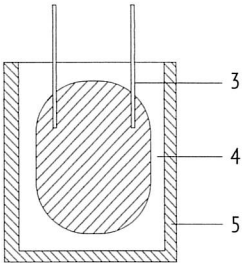
APPROVALS

MARK	STRUCTURE	FILE No.
cULus	UL / CUL	E483922
VDE	VDE	40044989
ENEC	ENEC	40044989
CQC	CQC	CQC17001178020

SAFETY

INTERNAL CONSTRUCTION





NO.	ITEM	MATERIAL
1	Single-sided Metallized Film	PP + Al, Zn
2	Metal Sprayed Contact	Zn + Sn/Zn
3	Terminals	Sn-coated Cu
4	Potting Compound	Epoxy
5	Case	Flame retardant PBT

MARKING

Jianghai 0,56µF K

CBB312 250V~ 40/110/56B 275V~ X2 305V~

MAXIMUM PERMISSIBLE VOLTAGE CHANGE PER TIME UNIT

RATED VOLTAGE: 305 (275,250) V_{AC}							
Pitch	P=7,5mm	P=10mm	P=15mm	P=22,5mm	P=27,5mm	P=37,5mm	P=52,5
dV/dt	500V/µs	400V/µs	300V/µs	200V/µs	150V/µs	100V/µs	50V/µs

ORDER CODE

FC	S	3B	AX	103	K	B		15	00	B	E 3
Capacitor type	Product shape	AC rated voltage code (V)	Series code	Capacitance Code Examples (µF)	Capacitance tolerance	Pin Style	Dimension code W x H x T (mm)	Pitch P_1	Pitch P_2	Lead diameter	For internal use
Film Cap. = **FC**	Square = **S**	305 **3B**	CBB 312 = **AX**	0,01 **103**	±5% **J**	4 Pin Lp=5mm **A**	Please see table below. Thank you!	7,5 **07**	0 **00**	0,6 **A**	
				0,033 **333**	±10% **K**	4 Pin Lp=4,5mm **L**		10 **10**	5,1 **05**	0,8 **B**	
				0,15 **154**	±20% **M**	4 Pin Lp=4mm **S**		12,5 **12**	10,2 **10**	1,0 **C**	
				0,56 **564**		4 Pin Lp=3,5mm **J**		15 **15**	12,7 **12**	1,2 **D**	
				1,0 **105**		2 Pin long leads (~ 20mm) **C**		22,5 **22**	20,3 **20**		
				4,7 **475**		2 Pin Lp=5mm **B**		27,5 **27**			
				15 **156**		2 Pin Lp=4,5mm **T**		37,5 **37**			
						2 Pin Lp=4,0mm **M**		52,5 **52**			
						2 Pin Lp=3,5mm **U**					
						2 Pin Lp=3,2mm **V**					

Dimension code W x H x T +1/-1,5 +1/-1,5 +1/-1,5 (mm)		Dimension code W x H x T +1/-1,5 +1/-1,5 +1/-1,5 (mm)		Dimension code W x H x T +1/-1,5 +1/-1,5 +1/-1,5 (mm)		Dimension code W x H x T +1/-1,5 +1/-1,5 +1/-1,5 (mm)		Dimension code W x H x T +1/-1,5 +1/-1,5 +1/-1,5 (mm)		Dimension code W x H x T +1/-1,5 +1/-1,5 +1/-1,5 (mm)	
10 x 8 x 4	**A1**	13 x 14 x 8	**C9**	18 x 13,5 x 7,5	**E7**	26,5 x 20 x 11	**B5**	32 x 28 x 19,5	**IB**	42,5 x 38 x 25	**FG**
10 x 9 x 4	**A2**	13 x 16 x 9	**CA**	18 x 14,5 x 8,5	**E8**	26,5 x 23 x 13	**B6**	32 x 28 x 14	**IC**	42,5 x 43 x 28	**FH**
10 x 10 x 5	**A3**	13 x 16 x 10	**CB**	18 x 13 x 7	**E9**	26,5 x 22 x 12	**B7**	32 x 28 x 18	**ID**	42,5 x 45 x 30	**FF**
10 x 12 x 6	**A4**	15 x 11,5 x 6	**D1**	18 x 12,5 x 9	**EA**	26,5 x 24 x 14	**B8**	32 x 31 x 21	**IE**	42,5 x 47 x 34	**FJ**
10 x 9 x 5	**A5**	15 x 11,5 x 7	**D2**	18 x 14 x 8	**EB**	26,5 x 25 x 15	**B9**	32 x 33 x 18	**IF**	42,5 37 28	**F1**
10 x 11 x 5	**A6**	15 x 12,5 x 7	**D3**	18 x 16 x 10	**EC**	26,5 x 29,5 x 14,5	**BA**	32 x 31 x 23	**IG**	42,5 x 50 x 35	**FK**
10 x 13 x 7	**A7**	15 x 13,5 x 7	**D4**	18 x 16 x 8	**ED**	32 x 18 x 9	**I1**	32 x 35 x 26	**IH**	57,5 x 45 x 30	**HH**
10 x 14 x 8	**A8**	15 x 14 x 8,5	**D5**	18 x 17,5 x 6	**EE**	32 x 20 x 9,5	**I2**	32 x 37 x 22	**II**	57,5 x 45 x 25	**H1**
13 x 8 x 4	**C1**	15 x 16 x 10	**D6**	18 x 18 x 9	**EF**	32 x 15,5 x 6,5	**I3**	42,5 x 32 x 16	**F3**	57,5 x 50 x 35	**HL**
13 x 9 x 4	**C2**	15 x 17 x 11	**D7**	18 x 19 x 11	**EG**	32 x 20 x 11	**I4**	42,5 x 28 x 19	**F4**	57,5 x 60 x 45	**H2**
13 x 10 x 5	**C3**	18 x 8 x 4	**E1**	18 x 18 x 10	**EH**	32 x 16 x 7,5	**I5**	42,5 x 32 x 19	**F5**	57,5 x 70 x 55	**H3**
13 x 11 x 5	**C4**	18 x 11 x 5	**E2**	18 x 22 x 12,5	**EI**	32 x 17 x 8	**I6**	42,5 x 36 x 19	**F6**	57,5 x 70 x 70	**H4**
13 x 12 x 6	**C5**	18 x 9 x 4	**E3**	26,5 x 13,5 x 6	**B1**	32 x 22 x 13	**I7**	42,5 x 40 x 20	**F2**		
13 x 12,5 x 6,5	**C6**	18 x 10 x 4	**E4**	26,5 x 16,5 x 7	**B2**	32 x 24,5 x 13	**I8**	42,5 x 38 x 21	**F7**		
13 x 16 x 8	**C7**	18 x 12 x 6	**E5**	26,5 x 17 x 8,5	**B3**	32 x 19 x 10	**I9**	42,5 x 42 x 28	**F8**		
13 x 13 x 7	**C8**	18 x 13,5 x 6	**E6**	26,5 x 19 x 10	**B4**	32 x 25 x 16	**IA**	42,5 x 44 x 24	**F9**		

RATINGS

U_R (V$_{AC}$)	C_R (µF)	tan δ 25°C, 1kHz	W +1/-1,5 (mm)	H +1/-1,5 (mm)	T +1/-1,5 (mm)	P_1 ±0,5 (mm)	P_2 ±0,5 (mm)	ød ±0,05 (mm)	ORDER CODE "#" to be defined, see ordering code table
(250) (275) 305 3B	0,0047	0,001	10	8	4	7,5	-	0,6	FCS3BAX472##A10700AE3
	0,0047	0,001	10	9	4	7,5	-	0,6	FCS3BAX472##A20700AE3
	0,0056	0,001	10	8	4	7,5	-	0,6	FCS3BAX562##A10700AE3
	0,0056	0,001	10	9	4	7,5	-	0,6	FCS3BAX562##A20700AE3
	0,0068	0,001	10	8	4	7,5	-	0,6	FCS3BAX682##A10700AE3
	0,0068	0,001	10	9	4	7,5	-	0,6	FCS3BAX682##A20700AE3
	0,0082	0,001	10	8	4	7,5	-	0,6	FCS3BAX822##A10700AE3
	0,0082	0,001	10	9	4	7,5	-	0,6	FCS3BAX822##A20700AE3
	0,010	0,001	10	8	4	7,5	-	0,6	FCS3BAX103##A10700AE3
	0,010	0,001	10	9	4	7,5	-	0,6	FCS3BAX103##A20700AE3
	0,012	0,001	10	8	4	7,5	-	0,6	FCS3BAX123##A10700AE3
	0,012	0,001	10	9	4	7,5	-	0,6	FCS3BAX123##A20700AE3
	0,015	0,001	10	8	4	7,5	-	0,6	FCS3BAX153##A10700AE3
	0,015	0,001	10	9	4	7,5	-	0,6	FCS3BAX153##A20700AE3
	0,018	0,001	10	8	4	7,5	-	0,6	FCS3BAX183##A10700AE3
	0,018	0,001	10	9	4	7,5	-	0,6	FCS3BAX183##A20700AE3
	0,022	0,001	10	8	4	7,5	-	0,6	FCS3BAX223##A10700AE3
	0,022	0,001	10	9	4	7,5	-	0,6	FCS3BAX223##A20700AE3
	0,027	0,001	10	9	4	7,5	-	0,6	FCS3BAX273##A20700AE3
	0,027	0,001	10	10	5	7,5	-	0,6	FCS3BAX273##A30700AE3
	0,027	0,001	10	12	6	7,5	-	0,6	FCS3BAX273##A40700AE3
	0,033	0,001	10	9	5	7,5	-	0,6	FCS3BAX333##A50700AE3
	0,033	0,001	10	10	5	7,5	-	0,6	FCS3BAX333##A30700AE3
	0,033	0,001	10	12	6	7,5	-	0,6	FCS3BAX333##A40700AE3
	0,039	0,001	10	10	5	7,5	-	0,6	FCS3BAX393##A30700AE3
	0,039	0,001	10	11	5	7,5	-	0,6	FCS3BAX393##A60700AE3
	0,047	0,001	10	10	5	7,5	-	0,6	FCS3BAX473##A30700AE3
	0,047	0,001	10	12	6	7,5	-	0,6	FCS3BAX473##A40700AE3
	0,056	0,001	10	11	5	7,5	-	0,6	FCS3BAX563##A60700AE3
	0,056	0,001	10	12	6	7,5	-	0,6	FCS3BAX563##A40700AE3
	0,068	0,001	10	12	6	7,5	-	0,6	FCS3BAX683##A40700AE3
	0,068	0,001	10	13	7	7,5	-	0,6	FCS3BAX683##A70700AE3
	0,082	0,001	10	12	6	7,5	-	0,6	FCS3BAX823##A40700AE3
	0,082	0,001	10	13	7	7,5	-	0,6	FCS3BAX823##A70700AE3
	0,100	0,001	10	13	7	7,5	-	0,6	FCS3BAX104##A70700AE3
	0,100	0,001	10	14	8	7,5	-	0,6	FCS3BAX104##A80700AE3
	0,0047	0,001	13	8	4	10	-	0,6	FCS3BAX472##C11000AE3
	0,0047	0,001	13	9	4	10	-	0,6	FCS3BAX472##C21000AE3
	0,0047	0,001	13	10	5	10	-	0,6	FCS3BAX472##C31000AE3
	0,0056	0,001	13	8	4	10	-	0,6	FCS3BAX562##C11000AE3
	0,0056	0,001	13	9	4	10	-	0,6	FCS3BAX562##C21000AE3
	0,0056	0,001	13	10	5	10	-	0,6	FCS3BAX562##C31000AE3
	0,0068	0,001	13	9	4	10	-	0,6	FCS3BAX682##C21000AE3
	0,0068	0,001	13	10	5	10	-	0,6	FCS3BAX682##C31000AE3
	0,0082	0,001	13	9	4	10	-	0,6	FCS3BAX822##C21000AE3
	0,0082	0,001	13	10	5	10	-	0,6	FCS3BAX822##C31000AE3
	0,010	0,001	13	9	4	10	-	0,6	FCS3BAX103##C21000AE3
	0,010	0,001	13	11	5	10	-	0,6	FCS3BAX103##C41000AE3
	0,012	0,001	13	9	4	10	-	0,6	FCS3BAX123##C21000AE3
	0,012	0,001	13	11	5	10	-	0,6	FCS3BAX123##C41000AE3
	0,015	0,001	13	9	4	10	-	0,6	FCS3BAX153##C21000AE3
	0,015	0,001	13	11	5	10	-	0,6	FCS3BAX153##C41000AE3
	0,018	0,001	13	9	4	10	-	0,6	FCS3BAX183##C21000AE3
	0,018	0,001	13	11	5	10	-	0,6	FCS3BAX183##C41000AE3
	0,022	0,001	13	9	4	10	-	0,6	FCS3BAX223##C21000AE3
	0,022	0,001	13	11	5	10	-	0,6	FCS3BAX223##C41000AE3
	0,027	0,001	13	9	4	10	-	0,6	FCS3BAX273##C21000AE3
	0,027	0,001	13	11	5	10	-	0,6	FCS3BAX273##C41000AE3
	0,033	0,001	13	9	4	10	-	0,6	FCS3BAX333##C21000AE3
	0,033	0,001	13	11	5	10	-	0,6	FCS3BAX333##C41000AE3
	0,039	0,001	13	9	4	10	-	0,6	FCS3BAX393##C21000AE3
	0,039	0,001	13	11	5	10	-	0,6	FCS3BAX393##C41000AE3
	0,047	0,001	13	9	4	10	-	0,6	FCS3BAX473##C21000AE3
	0,047	0,001	13	11	5	10	-	0,6	FCS3BAX473##C41000AE3
	0,047	0,001	13	12	6	10	-	0,6	FCS3BAX473##C51000AE3

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U_R (V$_{AC}$)	C_R (µF)	tan δ 25°C, 1kHz	W +1/-1,5 (mm)	H +1/-1,5 (mm)	T +1/-1,5 (mm)	P_1 ±0,5 (mm)	P_2 ±0,5 (mm)	ød ±0,05 (mm)	ORDER CODE "#" to be defined, see ordering code table
(250) (275) 305 3B	0,056	0,001	13	9	4	10	-	0,6	FCS3BAX563##C21000AE3
	0,056	0,001	13	11	5	10	-	0,6	FCS3BAX563##C41000AE3
	0,056	0,001	13	12	6	10	-	0,6	FCS3BAX563##C51000AE3
	0,068	0,001	13	9	4	10	-	0,6	FCS3BAX683##C21000AE3
	0,068	0,001	13	11	5	10	-	0,6	FCS3BAX683##C41000AE3
	0,068	0,001	13	12	6	10	-	0,6	FCS3BAX683##C51000AE3
	0,082	0,001	13	11	5	10	-	0,6	FCS3BAX823##C41000AE3
	0,082	0,001	13	12	6	10	-	0,6	FCS3BAX823##C51000AE3
	0,10	0,001	13	11	5	10	-	0,6	FCS3BAX104##C41000AE3
	0,10	0,001	13	12	6	10	-	0,6	FCS3BAX104##C51000AE3
	0,10	0,001	13	12,5	6,5	10	-	0,6	FCS3BAX104##C61000AE3
	0,10	0,001	13	16	8	10	-	0,6	FCS3BAX104##C71000AE3
	0,12	0,001	13	12	6	10	-	0,6	FCS3BAX124##C51000AE3
	0,12	0,001	13	13	7	10	-	0,6	FCS3BAX124##C81000AE3
	0,15	0,001	13	13	7	10	-	0,6	FCS3BAX154##C81000AE3
	0,15	0,001	13	14	8	10	-	0,6	FCS3BAX154##C91000AE3
	0,18	0,001	13	14	8	10	-	0,6	FCS3BAX184##C91000AE3
	0,18	0,001	13	16	8	10	-	0,6	FCS3BAX184##C71000AE3
	0,22	0,001	13	14	8	10	-	0,6	FCS3BAX224##C91000AE3
	0,22	0,001	13	16	8	10	-	0,6	FCS3BAX224##C71000AE3
	0,27	0,001	13	16	9	10	-	0,6	FCS3BAX274##CA1000AE3
	0,33	0,001	13	16	9	10	-	0,6	FCS3BAX334##CA1000AE3
	0,33	0,001	13	16	10	10	-	0,6	FCS3BAX334##CB1000AE3
	0,15	0,001	15	11,5	6	12,5	-	0,6	FCS3BAX154##D11200AE3
	0,15	0,001	15	11,5	7	12,5	-	0,6	FCS3BAX154##D21200AE3
	0,22	0,001	15	12,5	7	12,5	-	0,6	FCS3BAX224##D31200AE3
	0,22	0,001	15	13,5	7	12,5	-	0,6	FCS3BAX224##D41200AE3
	0,22	0,001	15	14	8,5	12,5	-	0,6	FCS3BAX224##D51200AE3
	0,27	0,001	15	14	8,5	12,5	-	0,6	FCS3BAX274##D51200AE3
	0,33	0,001	15	14	8,5	12,5	-	0,6	FCS3BAX334##D51200AE3
	0,33	0,001	15	16	10	12,5	-	0,6	FCS3BAX334##D61200AE3
	0,39	0,001	15	16	10	12,5	-	0,6	FCS3BAX394##D61200AE3
	0,47	0,001	15	16	10	12,5	-	0,6	FCS3BAX474##D61200AE3
	0,56	0,001	15	17	11	12,5	-	0,6	FCS3BAX564##D71200AE3
	0,010	0,001	18	8	4	15	-	0,6	FCS3BAX103##E11500AE3
	0,010	0,001	18	11	5	15	-	0,6	FCS3BAX103##E21500AE3
	0,012	0,001	18	8	4	15	-	0,6	FCS3BAX123##E11500AE3
	0,012	0,001	18	11	5	15	-	0,6	FCS3BAX123##E21500AE3
	0,015	0,001	18	8	4	15	-	0,6	FCS3BAX153##E11500AE3
	0,015	0,001	18	11	5	15	-	0,6	FCS3BAX153##E21500AE3
	0,018	0,001	18	9	4	15	-	0,6	FCS3BAX183##E31500AE3
	0,018	0,001	18	11	5	15	-	0,6	FCS3BAX183##E21500AE3
	0,022	0,001	18	9	4	15	-	0,6	FCS3BAX223##E31500AE3
	0,022	0,001	18	11	5	15	-	0,6	FCS3BAX223##E21500AE3
	0,027	0,001	18	9	4	15	-	0,6	FCS3BAX273##E31500AE3
	0,027	0,001	18	11	5	15	-	0,6	FCS3BAX273##E21500AE3
	0,033	0,001	18	9	4	15	-	0,6	FCS3BAX333##E31500AE3
	0,033	0,001	18	11	5	15	-	0,6	FCS3BAX333##E21500AE3
	0,039	0,001	18	9	4	15	-	0,6	FCS3BAX393##E31500AE3
	0,039	0,001	18	11	5	15	-	0,6	FCS3BAX393##E21500AE3
	0,047	0,001	18	9	4	15	-	0,6	FCS3BAX473##E31500AE3
	0,047	0,001	18	11	5	15	-	0,6	FCS3BAX473##E21500AE3
	0,056	0,001	18	9	4	15	-	0,6	FCS3BAX563##E31500AE3
	0,056	0,001	18	11	5	15	-	0,6	FCS3BAX563##E21500AE3
	0,068	0,001	18	10	4	15	-	0,6	FCS3BAX683##E41500AE3
	0,068	0,001	18	11	5	15	-	0,6	FCS3BAX683##E21500AE3
	0,068	0,001	18	12	6	15	-	0,6	FCS3BAX683##E51500AE3
	0,082	0,001	18	10	4	15	-	0,6	FCS3BAX823##E41500AE3
	0,082	0,001	18	11	5	15	-	0,6	FCS3BAX823##E21500AE3
	0,082	0,001	18	12	6	15	-	0,6	FCS3BAX823##E51500AE3
	0,10	0,001	18	10	4	15	-	0,6	FCS3BAX104##E41500AE3
	0,10	0,001	18	11	5	15	-	0,6	FCS3BAX104##E21500AE3
	0,10	0,001	18	12	6	15	-	0,6	FCS3BAX104##E51500AE3
	0,10	0,001	18	13,5	6	15	-	0,6	FCS3BAX104##E61500AE3
	0,12	0,001	18	11	5	15	-	0,6	FCS3BAX124##E21500AE3
	0,12	0,001	18	12	6	15	-	0,6	FCS3BAX124##E51500AE3

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U_R (V$_{AC}$)	C_R (µF)	tan δ 25°C, 1kHz	W +1/-1,5 (mm)	H +1/-1,5 (mm)	T +1/-1,5 (mm)	P_1 ±0,5 (mm)	P_2 ±0,5 (mm)	ød ±0,05 (mm)	ORDER CODE "#" to be defined, see ordering code table
(250) (275) 305 3B	0,15	0,001	18	11	5	15	-	0,6	FCS3BAX154##E21500AE3
	0,15	0,001	18	12	6	15	-	0,6	FCS3BAX154##E51500AE3
	0,15	0,001	18	13,5	7,5	15	-	0,8	FCS3BAX154##E71500BE3
	0,15	0,001	18	14,5	8,5	15	-	0,8	FCS3BAX154##E81500BE3
	0,18	0,001	18	12	6	15	-	0,6	FCS3BAX184##E51500AE3
	0,18	0,001	18	13,5	7,5	15	-	0,8	FCS3BAX184##E71500BE3
	0,18	0,001	18	14,5	8,5	15	-	0,8	FCS3BAX184##E81500BE3
	0,22	0,001	18	12	6	15	-	0,6	FCS3BAX224##E51500AE3
	0,22	0,001	18	12,5	9	15	-	0,8	FCS3BAX224##EA1500BE3
	0,22	0,001	18	13	7	15	-	0,8	FCS3BAX224##E91500BE3
	0,22	0,001	18	13,5	7,5	15	-	0,8	FCS3BAX224##E71500BE3
	0,22	0,001	18	14,5	8,5	15	-	0,8	FCS3BAX224##E81500BE3
	0,27	0,001	18	13,5	7,5	15	-	0,8	FCS3BAX274##E71500BE3
	0,27	0,001	18	14,5	8,5	15	-	0,8	FCS3BAX274##E81500BE3
	0,33	0,001	18	12,5	9	15	-	0,8	FCS3BAX334##EA1500BE3
	0,33	0,001	18	13	7	15	-	0,8	FCS3BAX334##E91500BE3
	0,33	0,001	18	14	8	15	-	0,8	FCS3BAX334##EB1500BE3
	0,33	0,001	18	14,5	8,5	15	-	0,8	FCS3BAX334##E81500BE3
	0,33	0,001	18	16	8	15	-	0,8	FCS3BAX334##ED1500BE3
	0,33	0,001	18	16	10	15	-	0,8	FCS3BAX334##EC1500BE3
	0,33	0,001	18	17,5	6	15	-	0,6	FCS3BAX334##EE1500AE3
	0,39	0,001	18	13,5	7,5	15	-	0,8	FCS3BAX394##E71500BE3
	0,39	0,001	18	14	8	15	-	0,8	FCS3BAX394##EB1500BE3
	0,39	0,001	18	16	10	15	-	0,8	FCS3BAX394##EC1500BE3
	0,39	0,001	18	18	9	15	-	0,8	FCS3BAX394##EF1500BE3
	0,47	0,001	18	12,5	9	15	-	0,8	FCS3BAX474##EA1500BE3
	0,47	0,001	18	16	8	15	-	0,8	FCS3BAX474##ED1500BE3
	0,47	0,001	18	16	10	15	-	0,8	FCS3BAX474##EC1500BE3
	0,47	0,001	18	17,5	6	15	-	0,6	FCS3BAX474##EE1500AE3
	0,47	0,001	18	18	9	15	-	0,8	FCS3BAX474##EF1500BE3
	0,47	0,001	18	19	11	15	-	0,8	FCS3BAX474##EG1500BE3
	0,56	0,001	18	12,5	9	15	-	0,8	FCS3BAX564##EA1500BE3
	0,56	0,001	18	16	10	15	-	0,8	FCS3BAX564##EC1500BE3
	0,56	0,001	18	18	10	15	-	0,8	FCS3BAX564##EH1500BE3
	0,56	0,001	18	19	11	15	-	0,8	FCS3BAX564##EG1500BE3
	0,68	0,001	18	16	10	15	-	0,8	FCS3BAX684##EC1500BE3
	0,68	0,001	18	18	9	15	-	0,8	FCS3BAX684##EF1500BE3
	0,68	0,001	18	19	11	15	-	0,8	FCS3BAX684##EG1500BE3
	0,68	0,001	18	22	12,5	15	-	0,8	FCS3BAX684##EI1500BE3
	0,82	0,001	18	18	10	15	-	0,8	FCS3BAX824##EH1500BE3
	0,82	0,001	18	19	11	15	-	0,8	FCS3BAX824##EG1500BE3
	1,00	0,002	18	19	11	15	-	0,8	FCS3BAX105##EG1500BE3
	0,15	0,001	26,5	13,5	6	22,5	-	0,6	FCS3BAX154##B12200AE3
	0,15	0,001	26,5	16,5	7	22,5	-	0,8	FCS3BAX154##B22200BE3
	0,18	0,001	26,5	13,5	6	22,5	-	0,6	FCS3BAX184##B12200AE3
	0,18	0,001	26,5	16,5	7	22,5	-	0,8	FCS3BAX184##B22200BE3
	0,22	0,001	26,5	13,5	6	22,5	-	0,6	FCS3BAX224##B12200AE3
	0,22	0,001	26,5	16,5	7	22,5	-	0,8	FCS3BAX224##B22200BE3
	0,27	0,001	26,5	13,5	6	22,5	-	0,6	FCS3BAX274##B12200AE3
	0,27	0,001	26,5	16,5	7	22,5	-	0,8	FCS3BAX274##B22200BE3
	0,33	0,001	26,5	13,5	6	22,5	-	0,6	FCS3BAX334##B12200AE3
	0,33	0,001	26,5	16,5	7	22,5	-	0,8	FCS3BAX334##B22200BE3
	0,33	0,001	26,5	17	8,5	22,5	-	0,8	FCS3BAX334##B32200BE3
	0,39	0,001	26,5	13,5	6	22,5	-	0,6	FCS3BAX394##B12200AE3
	0,39	0,001	26,5	16,5	7	22,5	-	0,8	FCS3BAX394##B22200BE3
	0,39	0,001	26,5	17	8,5	22,5	-	0,8	FCS3BAX394##B32200BE3
	0,47	0,001	26,5	16,5	7	22,5	-	0,8	FCS3BAX474##B22200BE3
	0,47	0,001	26,5	17	8,5	22,5	-	0,8	FCS3BAX474##B32200BE3
	0,47	0,001	26,5	19	10	22,5	-	0,8	FCS3BAX474##B42200BE3
	0,56	0,001	26,5	16,5	7	22,5	-	0,8	FCS3BAX564##B22200BE3
	0,56	0,001	26,5	17	8,5	22,5	-	0,8	FCS3BAX564##B32200BE3
	0,56	0,001	26,5	19	10	22,5	-	0,8	FCS3BAX564##B42200BE3
	0,68	0,001	26,5	16,5	7	22,5	-	0,8	FCS3BAX684##B22200BE3
	0,68	0,001	26,5	17	8,5	22,5	-	0,8	FCS3BAX684##B32200BE3
	0,68	0,001	26,5	19	10	22,5	-	0,8	FCS3BAX684##B42200BE3
	0,82	0,001	26,5	17	8,5	22,5	-	0,8	FCS3BAX824##B32200BE3
	0,82	0,001	26,5	19	10	22,5	-	0,8	FCS3BAX824##B42200BE3
	0,82	0,001	26,5	20	11	22,5	-	0,8	FCS3BAX824##B52200BE3

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U_R (V$_{AC}$)	C_R (µF)	tan δ 25°C, 1kHz	W +1/-1,5 (mm)	H +1/-1,5 (mm)	T +1/-1,5 (mm)	P_1 ±0,5 (mm)	P_2 ±0,5 (mm)	ød ±0,05 (mm)	ORDER CODE "#" to be defined, see ordering code table
(250) (275) 305 3B	1,0	0,002	26,5	19	10	22,5	-	0,8	FCS3BAX105##B42200BE3
	1,0	0,002	26,5	20	11	22,5	-	0,8	FCS3BAX105##B52200BE3
	1,0	0,002	26,5	23	13	22,5	-	0,8	FCS3BAX105##B62200BE3
	1,2	0,002	26,5	19	10	22,5	-	0,8	FCS3BAX125##B42200BE3
	1,2	0,002	26,5	20	11	22,5	-	0,8	FCS3BAX125##B52200BE3
	1,2	0,002	26,5	22	12	22,5	-	0,8	FCS3BAX125##B72200BE3
	1,2	0,002	26,5	23	13	22,5	-	0,8	FCS3BAX125##B62200BE3
	1,5	0,002	26,5	22	12	22,5	-	0,8	FCS3BAX155##B72200BE3
	1,5	0,002	26,5	23	13	22,5	-	0,8	FCS3BAX155##B62200BE3
	1,5	0,002	26,5	24	14	22,5	-	0,8	FCS3BAX155##B82200BE3
	1,8	0,002	26,5	24	14	22,5	-	0,8	FCS3BAX185##B82200BE3
	2,0	0,002	26,5	25	15	22,5	-	0,8	FCS3BAX205##B92200BE3
	2,0	0,002	26,5	29,5	14,5	22,5	-	0,8	FCS3BAX205##BA2200BE3
	2,2	0,002	26,5	22	12	22,5	-	0,8	FCS3BAX225##B72200BE3
	2,2	0,002	26,5	24	14	22,5	-	0,8	FCS3BAX225##B82200BE3
	2,2	0,002	26,5	25	15	22,5	-	0,8	FCS3BAX225##B92200BE3
	2,2	0,002	26,5	29,5	14,5	22,5	-	0,8	FCS3BAX225##BA2200BE3
	0,47	0,001	32	15,5	6,5	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX474##I327##BE3
	0,47	0,001	32	18	9	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX474##I127##BE3
	0,47	0,001	32	20	9,5	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX474##I227##BE3
	0,56	0,001	32	15,5	6,5	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX564##I327##BE3
	0,56	0,001	32	18	9	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX564##I127##BE3
	0,56	0,001	32	20	9,5	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX564##I227##BE3
	0,68	0,001	32	15,5	6,5	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX684##I327##BE3
	0,68	0,001	32	18	9	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX684##I127##BE3
	0,68	0,001	32	20	9,5	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX684##I227##BE3
	0,68	0,001	32	20	11	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX684##I427##BE3
	0,82	0,001	32	16	7,5	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX824##I527##BE3
	0,82	0,001	32	20	9,5	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX824##I227##BE3
	0,82	0,001	32	20	11	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX824##I427##BE3
	1,0	0,002	32	17	8	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX105##I627##BE3
	1,0	0,002	32	20	11	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX105##I427##BE3
	1,0	0,002	32	22	13	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX105##I727##BE3
	1,2	0,002	32	22	13	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX125##I727##BE3
	1,2	0,002	32	24,5	13	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX125##I827##BE3
	1,5	0,002	32	19	10	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX155##I927##BE3
	1,5	0,002	32	22	13	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX155##I727##BE3
	1,5	0,002	32	24,5	13	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX155##I827##BE3
	1,5	0,002	32	25	16	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX155##IA27##BE3
	1,8	0,002	32	28	19,5	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX185##IB27##BE3
	2,0	0,002	32	28	14	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX205##IC27##BE3
	2,0	0,002	32	28	18	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX205##ID27##BE3
	2,2	0,002	32	22	13	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX225##I727##BE3
	2,2	0,002	32	28	14	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX225##IC27##BE3
	2,2	0,002	32	28	18	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX225##ID27##BE3
	2,2	0,002	32	28	19,5	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX225##IB27##BE3
	2,7	0,002	32	28	18	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX275##ID27##BE3
	2,7	0,002	32	28	19,5	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX275##IB27##BE3
	2,7	0,002	32	31	21	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX275##IE27##BE3
	3,0	0,002	32	28	19,5	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX305##IB27##BE3
	3,0	0,002	32	31	21	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX305##IE27##BE3
	3,0	0,002	32	31	23	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX305##IG27##BE3
	3,0	0,002	32	33	18	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX305##IF27##BE3
	3,3	0,002	32	31	21	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX335##IE27##BE3
	3,3	0,002	32	31	23	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX335##IG27##BE3
	3,3	0,002	32	33	18	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX335##IF27##BE3
	3,3	0,002	32	35	26	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX335##IH27##BE3
	3,9	0,002	32	31	23	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX395##IG27##BE3
	3,9	0,002	32	35	26	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX395##IH27##BE3
	4,7	0,002	32	35	26	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX475##IH27##BE3
	4,7	0,002	32	37	22	27,5	-/5,1/10,2/12,7	0,8	FCS3BAX475##II27##BE3
	3,9	0,002	42,5	28	19	37,5	10,2/12,7/20,3	1,0	FCS3BAX395##F437##CE3
	3,9	0,002	42,5	32	16	37,5	10,2/12,7/20,3	1,0	FCS3BAX395##F337##CE3
	4,7	0,002	42,5	32	19	37,5	10,2/12,7/20,3	1,0	FCS3BAX475##F537##CE3
	4,7	0,002	42,5	36	19	37,5	10,2/12,7/20,3	1,0	FCS3BAX475##F637##CE3
	5,6	0,002	42,5	32	19	37,5	10,2/12,7/20,3	1,0	FCS3BAX565##F537##CE3
	5,6	0,002	42,5	38	21	37,5	10,2/12,7/20,3	1,0	FCS3BAX565##F737##CE3
	5,6	0,002	42,5	40	20	37,5	10,2/12,7/20,3	1,0	FCS3BAX565##F237##CE3

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U_R (V$_{AC}$)	C_R (µF)	tan δ 25°C, 1kHz	W +1/-1,5 (mm)	H +1/-1,5 (mm)	T +1/-1,5 (mm)	P_1 ±0,5 (mm)	P_2 ±0,5 (mm)	ød ±0,05 (mm)	ORDER CODE "#" to be defined, see ordering code table
(250) (275) 305 3B	6,8	0,002	42,5	40	20	37,5	10,2/12,7/20,3	1,0	FCS3BAX685##F237##CE3
	6,8	0,002	42,5	42	28	37,5	10,2/12,7/20,3	1,0	FCS3BAX685##F837##CE3
	6,8	0,002	42,5	44	24	37,5	10,2/12,7/20,3	1,0	FCS3BAX685##F937##CE3
	8,2	0,002	42,5	38	25	37,5	10,2/12,7/20,3	1,0	FCS3BAX825##FG37##CE3
	8,2	0,002	42,5	40	20	37,5	10,2/12,7/20,3	1,0	FCS3BAX825##F237##CE3
	8,2	0,002	42,5	43	28	37,5	10,2/12,7/20,3	1,0	FCS3BAX825##FH37##CE3
	10	0,003	42,5	43	28	37,5	10,2/12,7/20,3	1,0	FCS3BAX106##FH37##CE3
	10	0,003	42,5	45	30	37,5	10,2/12,7/20,3	1,0	FCS3BAX106##FF37##CE3
	11	0,003	42,5	47	34	37,5	10,2/12,7/20,3	1,0	FCS3BAX116##FJ37##CE3
	12	0,003	42,5	37	28	37,5	10,2/12,7/20,3	1,0	FCS3BAX126##F137##CE3
	12	0,003	42,5	38	21	37,5	10,2/12,7/20,3	1,0	FCS3BAX126##F737##CE3
	12	0,003	42,5	44	24	37,5	10,2/12,7/20,3	1,0	FCS3BAX126##F937##CE3
	15	0,003	42,5	37	28	37,5	10,2/12,7/20,3	1,0	FCS3BAX156##F137##CE3
	15	0,003	42,5	44	24	37,5	10,2/12,7/20,3	1,0	FCS3BAX156##F937##CE3
	15	0,003	42,5	45	30	37,5	10,2/12,7/20,3	1,0	FCS3BAX156##FF37##CE3
	18	0,003	42,5	43	28	37,5	10,2/12,7/20,3	1,0	FCS3BAX186##FH37##CE3
	18	0,003	42,5	45	30	37,5	10,2/12,7/20,3	1,0	FCS3BAX186##FF37##CE3
	20	0,003	42,5	43	28	37,5	10,2/12,7/20,3	1,0	FCS3BAX206##FH37##CE3
	20	0,003	42,5	45	30	37,5	10,2/12,7/20,3	1,0	FCS3BAX206##FF37##CE3
	22	0,003	42,5	50	35	37,5	10,2/12,7/20,3	1,0	FCS3BAX226##FK37##CE3
	11	0,003	57,5	45	30	52,5	20,3	1,2	FCS3BAX116##HH5220DE3
	12	0,003	57,5	45	30	52,5	20,3	1,2	FCS3BAX126##HH5220DE3
	15	0,003	57,5	45	30	52,5	20,3	1,2	FCS3BAX156##HH5220DE3
	18	0,003	57,5	45	30	52,5	20,3	1,2	FCS3BAX186##HH5220DE3
	20	0,003	57,5	45	25	52,5	20,3	1,2	FCS3BAX206##H15220DE3
	20	0,003	57,5	45	30	52,5	20,3	1,2	FCS3BAX206##HH5220DE3
	22	0,003	57,5	45	30	52,5	20,3	1,2	FCS3BAX226##HH5220DE3
	25	0,003	57,5	45	25	52,5	20,3	1,2	FCS3BAX256##H15220DE3
	25	0,003	57,5	45	30	52,5	20,3	1,2	FCS3BAX256##HH5220DE3
	27	0,003	57,5	45	30	52,5	20,3	1,2	FCS3BAX276##HH5220DE3
	30	0,003	57,5	45	30	52,5	20,3	1,2	FCS3BAX306##HH5220DE3
	30	0,003	57,5	50	35	52,5	20,3	1,2	FCS3BAX306##HL5220DE3
	33	0,003	57,5	45	30	52,5	20,3	1,2	FCS3BAX336##HH5220DE3
	33	0,003	57,5	50	35	52,5	20,3	1,2	FCS3BAX336##HL5220DE3
	39	0,003	57,5	45	30	52,5	20,3	1,2	FCS3BAX396##HH5220DE3
	39	0,003	57,5	50	35	52,5	20,3	1,2	FCS3BAX396##HL5220DE3
	40	0,003	57,5	50	35	52,5	20,3	1,2	FCS3BAX406##HL5220DE3
	45	0,003	57,5	60	45	52,5	20,3	1,2	FCS3BAX456##H25220DE3
	45	0,003	57,5	70	55	52,5	20,3	1,2	FCS3BAX456##H35220DE3
	46	0,003	57,5	70	70	52,5	20,3	1,2	FCS3BAX466##H45220DE3