

Metallized Polyester Film Capacitors

Related Document: CECC 30 400

MAIN APPLICATIONS:

Blocking, bypassing, filtering and timing, high frequency coupling and decoupling. Interference suppression in low voltage applications.

MARKING:

Manufacturer's logo/type/C-value/rated voltage/tolerance/date of manufacture

DIELECTRIC:

Polyester film

ELECTRODES:

Vacuum deposited aluminum

COATING:

Flame retardant plastic case (UL-class 94 V-0), green, epoxy resin sealed

CONSTRUCTION:

Extended metallized film (refer to general information)

LEADS:

Tinned wire

IEC TEST CLASSIFICATION:

55/100/56, according to IEC 60068

OPERATING TEMPERATURE RANGE:

- 55°C to + 100°C

CAPACITANCE RANGE:

1000pF to 1.0μF

CAPACITANCE TOLERANCES:

± 20% (M), ± 10% (K), ± 5% (J)

RATED VOLTAGES (U_R):

63 VDC, 100 VDC, 250 VDC, 400 VDC, 630 VDC

PERMISSIBLE AC VOLTAGES (RMS) UP TO 60Hz:

40 VAC, 63 VAC, 160 VAC, 200 VAC, 220 VAC

TEST VOLTAGE (ELECTRODE/ELECTRODE):

1.6 x U_R for 2 s

MAXIMUM PULSE RISE TIME

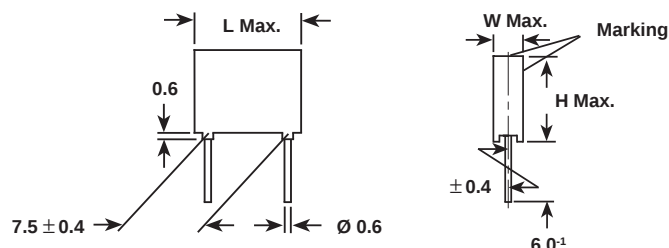
PCM (mm)	Maximum Pulse Rise Time d_v/d_t [V/μs]				
	63 VDC	100 VDC	250 VDC	400 VDC	630 VDC
7.5	12	20	32	41	70

If the maximum pulse voltage is less than the rated voltage higher d_v/d_t values can be permitted.

DISSIPATION FACTOR $\tan \delta$

MEASURED AT	$C \leq 0.1\mu F$	$0.1\mu F < C \leq 1.0\mu F$
1kHz	8×10^{-3}	8×10^{-3}
10kHz	15×10^{-3}	15×10^{-3}
100kHz	25×10^{-3}	—
Maximum values		

Dimensions in millimeters



INSULATION RESISTANCE:

Measured with 100 VDC (63 VDC series at 50 VDC) after one minute

For $C \leq 0.33\mu F$ and $U_R > 100$ VDC:

30,000 MΩ minimum value (100,000 MΩ typical value)

For $C \leq 0.33\mu F$ and $U_R \leq 100$ VDC:

15,000 MΩ minimum value (50,000 MΩ typical value)

TIME CONSTANT:

Measured at 100 VDC (63 VDC series measured at 50 VDC) after one minute

For $C > 0.33\mu F$ and $U_R \leq 100$ VDC:

5000 s minimum value (15,000 s typical value)

CAPACITANCE DRIFT:

Up to + 40°C, ± 1.5% for a period of two years

DERATING FOR DC AND AC

CATEGORY VOLTAGE U_C :

At + 85°C: $U_C = 1.0 U_R$

At + 100°C: $U_C = 0.8 U_R$

SELF INDUCTANCE:

~ 6nH measured with 2mm long leads

PULL TEST ON LEADS:

≥ 30 N in direction of leads according to IEC 60068-2-21

RELIABILITY:

Operational life > 300,000h

Failure rate < 2 FIT (40°C and $0.5 \times U_R$)

For further details, please refer to the general information provided in this catalog.



CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 06 63 VDC/ 40 VAC			VOLTAGE CODE 01 100 VDC/ 63 VAC			VOLTAGE CODE 25 250 VDC/ 160 VAC			VOLTAGE CODE 40 400 VDC/ 200 VAC			VOLTAGE CODE 63* 630 VDC/ 220 VAC		
		W	H	L	W	H	L	W	H	L	W	H	L	W	H	L
1000pF	- 210	—	—	—	—	—	—	—	—	—	—	—	—	2.5	7.5	10.0
1500pF	- 215	—	—	—	—	—	—	—	—	—	—	—	—	2.5	7.5	10.0
2200pF	- 222	—	—	—	—	—	—	—	—	—	—	—	—	2.5	7.5	10.0
3300pF	- 233	—	—	—	—	—	—	—	—	—	2.5	7.5	10.0	3.0	8.5	10.0
4700pF	- 247	—	—	—	—	—	—	—	—	—	2.5	7.5	10.0	—	—	—
6800pF	- 268	—	—	—	—	—	—	—	—	—	2.5	7.5	10.0	—	—	—
0.01μF	- 310	—	—	—	—	—	—	2.5	7.5	10.0	3.0	8.5	10.0	—	—	—
0.015μF	- 315	—	—	—	—	—	—	2.5	7.5	10.0	—	—	—	—	—	—
0.022μF	- 322	—	—	—	2.5	7.5	10.0	3.0	8.5	10.0	—	—	—	—	—	—
0.033μF	- 333	—	—	—	2.5	7.5	10.0	3.0	8.5	10.0	—	—	—	—	—	—
0.047μF	- 347	—	—	—	2.5	7.5	10.0	4.0	9.0	10.0	—	—	—	—	—	—
0.068μF	- 368	—	—	—	2.5	7.5	10.0	4.5	9.5	10.0	—	—	—	—	—	—
0.1μF	- 410	2.5	7.5	10.0	3.0	8.5	10.0	5.0	10.5	10.3	—	—	—	—	—	—
0.15μF	- 415	2.5	7.5	10.0	3.0	8.5	10.0	—	—	—	—	—	—	—	—	—
0.22μF	- 422	3.0	8.5	10.0	4.0	9.0	10.0	—	—	—	—	—	—	—	—	—
0.33μF	- 433	4.0	9.0	10.0	5.0	10.5	10.3	—	—	—	—	—	—	—	—	—
0.47μF	- 447	4.5	9.5	10.0	5.7	11.5	10.3	—	—	—	—	—	—	—	—	—
0.68μF	- 468	5.0	10.5	10.3	—	—	—	—	—	—	—	—	—	—	—	—
1.0μF	- 510	5.7	11.5	10.3	—	—	—	—	—	—	—	—	—	—	—	—

Further values upon request.

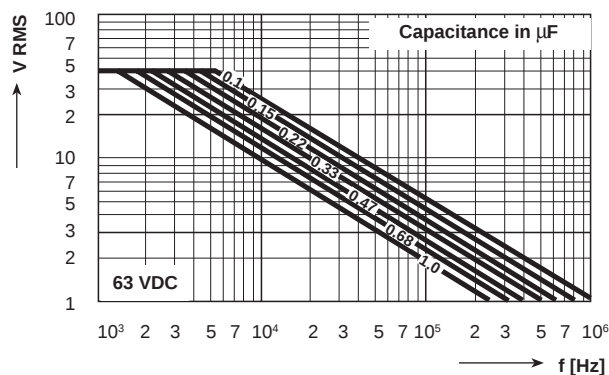
*Not suitable for mains applications.

Please refer to X-capacitors in our catalog "RFI Suppression Components".

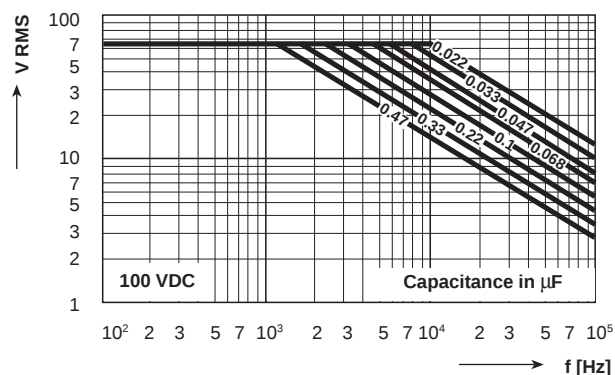
RECOMMENDED PACKAGING

LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLE	PCM 7.5
D	AMMO	16.5	S*	MKT 1818-310-255-D	X
G	AMMO	18.5	S*	MKT 1818-310-255-G	X
F	REEL	16.5	350	MKT 1818-310-255-F	X
W	REEL	18.5	350	MKT 1818-310-255-W	X
—	BULK	—	—	MKT 1818-310-255	X

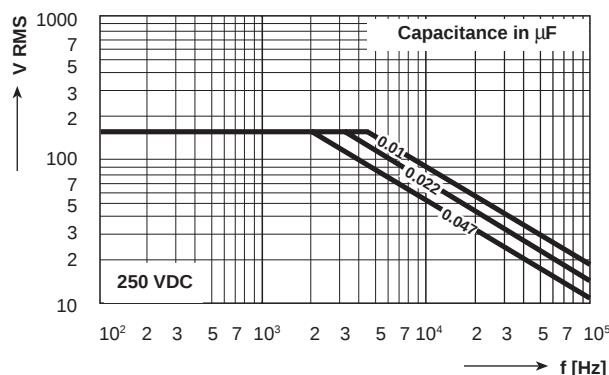
*S = box size 55 x 210 x 340mm (W x H x L)



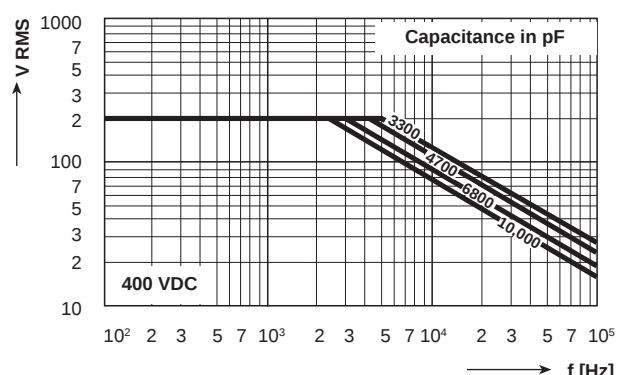
Permissible AC Voltage versus Frequency



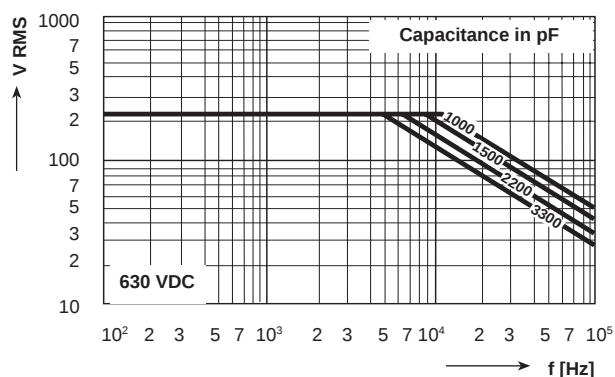
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