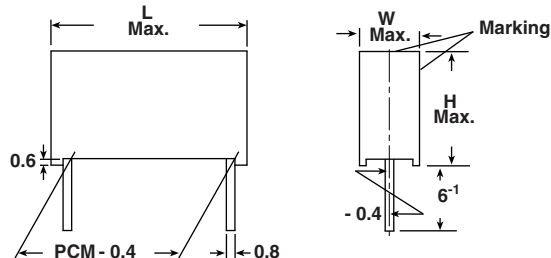


Metallized Polyester Film Capacitor Related Document: IEC 60384-2

Dimensions in millimeters



MAIN APPLICATIONS

Blocking, bypassing, filtering, timing, coupling and decoupling circuits, 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 (class UL 94 V-0)

CONSTRUCTION

Extended metallized film

LEADS

Tinned wire

IEC TEST CLASSIFICATION

55/100/56, according to IEC 60068

TEMPERATURE RANGE

- 55 °C to + 100 °C

CAPACITANCE RANGE

1000 pF to 15 µF

CAPACITANCE TOLERANCES

± 20 % (M), ± 10 % (K), ± 5 % (J)

MAXIMUM PULSE RISE TIME dV/dt

PCM (mm)	Maximum Pulse Rise Time dV/dt [V/µs]					
	63 V _{DC}	100 V _{DC}	250 V _{DC}	400 V _{DC}	630 V _{DC}	1000 V _{DC}
10	11	13	22	37	60	130
15	7	8	13	21	33	65
22.5	4	5	8	13	19	34
27.5	3	4	6	10	14	25

Note

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

FEATURES

- Compliant to RoHS directive 2002/95/EC

RATED VOLTAGES (U_R)

63 V_{DC}, 100 V_{DC}, 250 V_{DC}, 400 V_{DC}, 630 V_{DC}, 1000 V_{DC}

PERMISSIBLE AC VOLTAGES (RMS) UP TO 60 Hz

40 V_{AC}, 63 V_{AC}, 160 V_{AC}, 200 V_{AC}, 220 V_{AC}

TEST VOLTAGE (ELECTRODE/ELECTRODE)

1.6 x U_R for 2 s

INSULATION RESISTANCE

Measured at 100 V_{DC} (63 V_{DC} series measured at 50 V_{DC}) after one minute

For C ≤ 0.33 µF and U_R > 100 V_{DC}:

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

For C ≤ 0.33 µF and U_R ≤ 100 V_{DC}:

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

TIME CONSTANT

Measured at 100 V_{DC} (63 V_{DC} series measured at 50 V_{DC}) after one minute

For C > 0.33 µF and U_R > 100 V_{DC}:

10 000 s minimum value (40 000 s typical value)

For C > 0.33 µF and U_R ≤ 100 V_{DC}:

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

~ 6 nH measured with 2 mm long leads

PULL TEST ON LEADS

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

DISSIPATION FACTOR tan δ

MEASURED AT	C ≤ 0.1 µF	0.1 µF < C ≤ 1.0 µF	C > 1.0 µF
1 kHz	8 x 10 ⁻³	8 x 10 ⁻³	10 x 10 ⁻³
10 kHz	15 x 10 ⁻³	15 x 10 ⁻³	-
100 kHz	25 x 10 ⁻³	-	-
Maximum values			



RoHS
COMPLIANT

CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 06 63 V _{DC} /40 V _{AC}				VOLTAGE CODE 01 100 V _{DC} /63 V _{AC}				VOLTAGE CODE 25 250 V _{DC} /160 V _{AC}			
		W	H	L	PCM	W	H	L	PCM	W	H	L	PCM
1000 pF	-210	-	-	-	-	-	-	-	-	-	-	-	-
1500 pF	-215	-	-	-	-	-	-	-	-	-	-	-	-
2200 pF	-222	-	-	-	-	-	-	-	-	-	-	-	-
3300 pF	-233	-	-	-	-	-	-	-	-	-	-	-	-
4700 pF	-247	-	-	-	-	-	-	-	-	-	-	-	-
6800 pF	-268	-	-	-	-	-	-	-	-	-	-	-	-
0.01 µF	-310	-	-	-	-	-	-	-	-	-	-	-	-
0.015 µF	-315	-	-	-	-	-	-	-	-	-	-	-	-
0.022 µF	-322	-	-	-	-	-	-	-	-	-	-	-	-
0.033 µF	-333	-	-	-	-	-	-	-	-	4.0	9.0	13.0	10
0.047 µF	-347	-	-	-	-	-	-	-	-	4.0	9.0	13.0	10
0.068 µF	-368	-	-	-	-	4.0	9.0	13.0	10	4.5	9.5	13.0	10
0.1 µF	-410	-	-	-	-	4.0	9.0	13.0	10	5.5	10.5	18.0	15
0.15 µF	-415	-	-	-	-	4.0	9.0	13.0	10	5.5	10.5	18.0	15
0.22 µF	-422	4.0	9.0	13.0	10	4.5	9.5	13.0	10	5.5	10.5	18.0	15
0.33 µF	-433	4.0	9.0	13.0	10	5.5	10.5	18.0	15	6.5	12.5	18.0	15
0.47 µF	-447	5.5	10.5	13.0	10	5.5	10.5	18.0	15	6.5	14.5	26.5	22.5
0.68 µF	-468	5.5	10.5	18.0	15	6.5	12.5	18.0	15	7.5	15.5	26.5	22.5
1.0 µF	-510	5.5	10.5	18.0	15	7.5	13.5	18.0	15	8.5	16.5	26.5	22.5
1.5 µF	-515	6.5	12.5	18.0	15	7.5	15.5	26.5	22.5	9.0	18.5	31.5	27.5
2.2 µF	-522	7.5	13.5	18.0	15	8.5	16.5	26.5	22.5	11.5	20.5	31.5	27.5
3.3 µF	-533	7.5	15.5	26.5	22.5	10.5	18.5	26.5	22.5	13.5	23.5	31.5	27.5
4.7 µF	-547	8.5	16.5	26.5	22.5	11.5	20.5	31.5	27.5	-	-	-	-
6.8 µF	-568	10.5	18.5	26.5	22.5	13.5	23.5	31.5	27.5	-	-	-	-
10.0 µF	-610	11.5	20.5	31.5	27.5	15.0	24.5	31.5	27.5	-	-	-	-
15.0 µF	-615	13.5	23.5	31.5	27.5	16.5	29.5	31.5	27.5	-	-	-	-

RECOMMENDED PACKAGING

LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLES	PCM 10	PCM 15	PCM 22.5 to 27.5
D	Ammo	16.5	S ⁽¹⁾	MKT 1822-422-065-D	X	X	-
G	Ammo	18.5	S ⁽¹⁾	MKT 1822-422-065-G	X	X	-
F	Reel	16.5	350	MKT 1822-422-065-F	X	X	-
W	Reel	18.5	350	MKT 1822-422-065-W	X	X	-
V	Reel	18.5	500	MKT 1822-510-255-V	-	X	X
G	Ammo	18.5	L ⁽²⁾	MKT 1822-510-255-G	-	-	X
-	Bulk	-	-	MKT 1822-510-255	X	X	X

Notes⁽¹⁾ S = box size 55 mm x 210 mm x 340 mm (W x H x L)⁽²⁾ L = box size 60 mm x 360 mm x 510 mm (W x H x L)

CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 40 400 V _{DC} /200 V _{AC}				VOLTAGE CODE 63* 630 V _{DC} /220 V _{AC}				VOLTAGE CODE 10* 1000 V _{DC} /220 V _{AC}			
		W	H	L	PCM	W	H	L	PCM	W	H	L	PCM
1000 pF	-210	4.0	9.0	13.0	10	4.0	9.0	13.0	10	4.0	9.0	13.0	10
1500 pF	-215	4.0	9.0	13.0	10	4.0	9.0	13.0	10	4.0	9.0	13.0	10
2200 pF	-222	4.0	9.0	13.0	10	4.0	9.0	13.0	10	4.0	9.0	13.0	10
3300 pF	-233	4.0	9.0	13.0	10	4.0	9.0	13.0	10	4.0	9.0	13.0	10
4700 pF	-247	4.0	9.0	13.0	10	4.0	9.0	13.0	10	5.5	10.5	13.0	10
6800 pF	-268	4.0	9.0	13.0	10	4.0	9.0	13.0	10	6.5	11.5	13.0	10
0.01 µF	-310	4.0	9.0	13.0	10	4.0	9.0	13.0	10	5.5	10.5	18.0	15
0.015 µF	-315	4.0	9.0	13.0	10	5.5	10.5	13.0	10	6.5	12.5	18.0	15
0.022 µF	-322	4.0	9.0	13.0	10	6.5	11.5	13.0	10	7.5	13.5	18.0	15
0.033 µF	-333	4.0	9.0	13.0	10	5.5	10.5	18.0	15	6.5	14.5	26.5	22.5
0.047 µF	-347	5.5	10.5	18.0	15	6.5	12.5	18.0	15	7.5	15.5	26.5	22.5
0.068 µF	-368	5.5	10.5	18.0	15	7.5	13.5	18.0	15	8.5	16.5	26.5	22.5
0.1 µF	-410	5.5	10.5	18.0	15	6.5	14.5	26.5	22.5	10.5	18.5	26.5	22.5
0.15 µF	-415	6.5	12.5	18.0	15	7.5	15.5	26.5	22.5	11.5	20.5	31.5	27.5
0.22 µF	-422	7.5	15.5	26.5	22.5	8.5	16.5	26.5	22.5	13.5	23.5	31.5	27.5
0.33 µF	-433	8.5	16.5	26.5	22.5	11.5	20.5	31.5	27.5	16.5	29.5	31.5	27.5
0.47 µF	-447	10.5	18.5	26.5	22.5	11.5	20.5	31.5	27.5	20.0	35.0	31.5	27.5
0.68 µF	-468	11.5	20.5	31.5	27.5	13.5	23.5	31.5	27.5	-	-	-	-
1.0 µF	-510	11.5	20.5	31.5	27.5	15.0	24.5	31.5	27.5	-	-	-	-
1.5 µF	-515	13.5	23.5	31.5	27.5	-	-	-	-	-	-	-	-
2.2 µF	-522	-	-	-	-	-	-	-	-	-	-	-	-
3.3 µF	-533	-	-	-	-	-	-	-	-	-	-	-	-
4.7 µF	-547	-	-	-	-	-	-	-	-	-	-	-	-
6.8 µF	-568	-	-	-	-	-	-	-	-	-	-	-	-
10.0 µF	-610	-	-	-	-	-	-	-	-	-	-	-	-
15.0 µF	-615	-	-	-	-	-	-	-	-	-	-	-	-

Notes

• Further C-values upon request.

* Not suitable for mains applications.

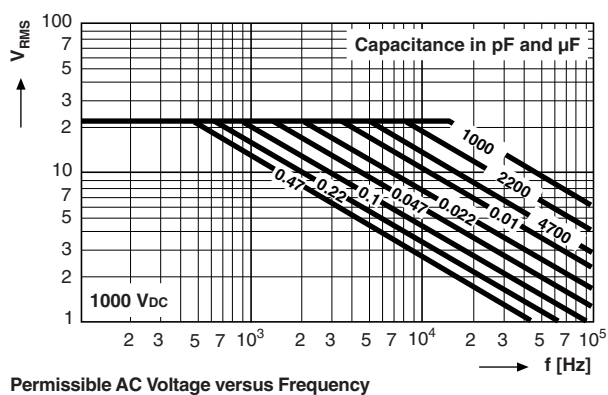
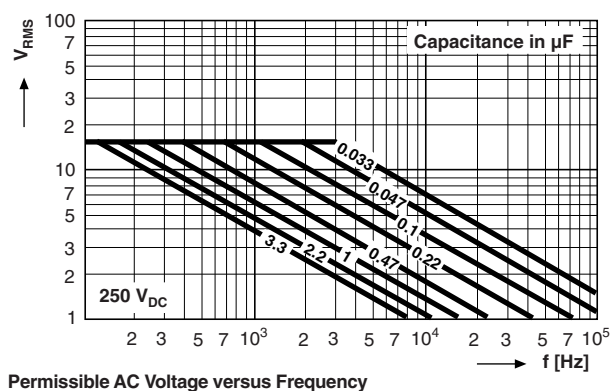
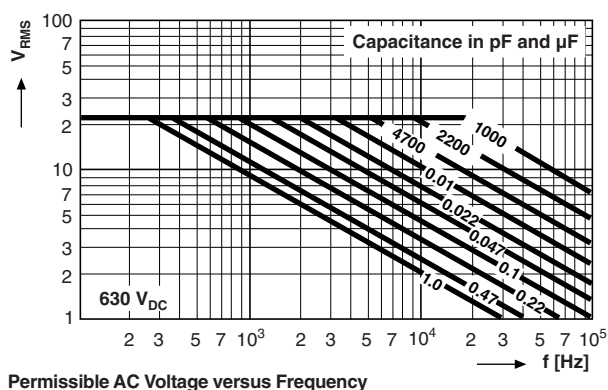
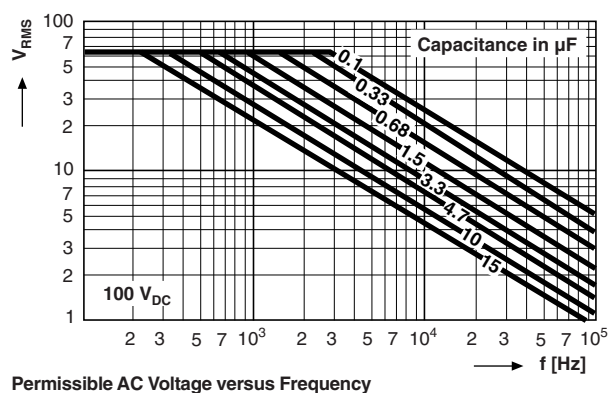
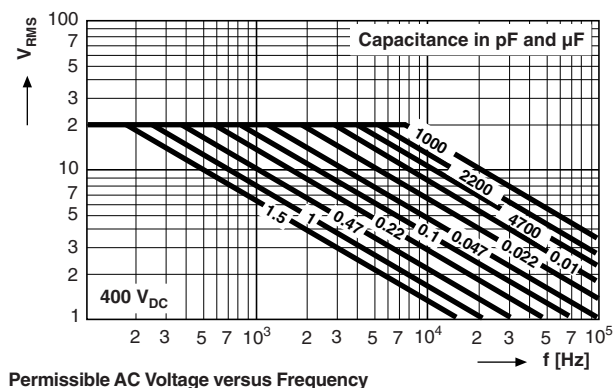
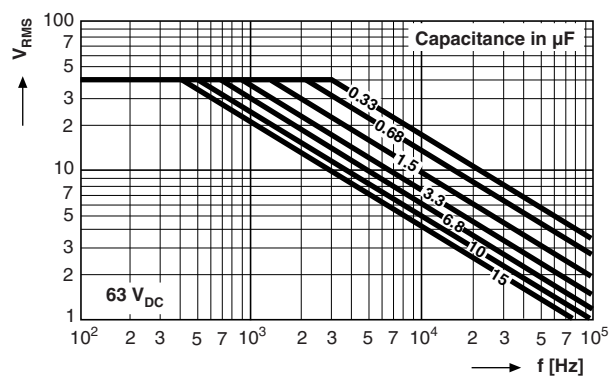
Please refer to X-capacitors in our catalog "RFI Suppression Components"

RECOMMENDED PACKAGING

LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLES	PCM 10	PCM 15	PCM 22.5 to 27.5
D	Ammo	16.5	S ⁽¹⁾	MKT 1822-422-065-D	X	X	-
G	Ammo	18.5	S ⁽¹⁾	MKT 1822-422-065-G	X	X	-
F	Reel	16.5	350	MKT 1822-422-065-F	X	X	-
W	Reel	18.5	350	MKT 1822-422-065-W	X	X	-
V	Reel	18.5	500	MKT 1822-510-255-V	-	X	X
G	Ammo	18.5	L ⁽²⁾	MKT 1822-510-255-G	-	-	X
-	Bulk	-	-	MKT 1822-522-255	X	-	X

Notes
⁽¹⁾ S = box size 55 mm x 210 mm x 340 mm (W x H x L)

⁽²⁾ L = box size 60 mm x 360 mm x 510 mm (W x H x L)





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