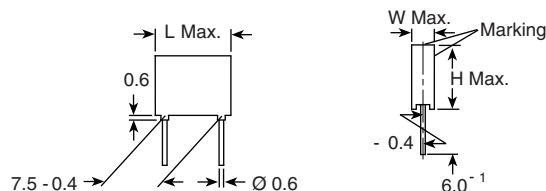


Metallized Polyester Film Capacitors

Related Document: IEC 60384-2

Dimensions in millimeters



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), 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

1000 pF to 1.0 µF

CAPACITANCE TOLERANCES

± 20 % (M), ± 10 % (K), ± 5 % (J)

RATED VOLTAGES (U_R)

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

FEATURES

- Compliant to RoHS directive 2002/95/EC

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

For $C \leq 0.33 \mu F$ and $U_R > 100 V_{DC}$:

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

For $C \leq 0.33 \mu F$ and $U_R \leq 100 V_{DC}$:

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 $C > 0.33 \mu F$ and $U_R \leq 100 V_{DC}$:

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

RELIABILITY

Operational life > 300 000 Hz

Failure rate < 2 FIT (40 °C and 0.5 x U_R)



RoHS
COMPLIANT

For further details, please refer to the general information available at www.vishay.com/doc?26033.

MAXIMUM PULSE RISE TIME

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}
7.5	12	20	32	41	70

Note

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

DISSIPATION FACTOR TAN δ

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

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}			VOLTAGE CODE 40 400 V _{DC} /200 V _{AC}			VOLTAGE CODE 63 ⁽¹⁾ 630 V _{DC} /220 V _{AC}		
		W	H	L	W	H	L	W	H	L	W	H	L	W	H	L
1000 pF	-210	-	-	-	-	-	-	-	-	-	-	-	-	2.5	7.5	10.0
1500 pF	-215	-	-	-	-	-	-	-	-	-	-	-	-	2.5	7.5	10.0
2200 pF	-222	-	-	-	-	-	-	-	-	-	-	-	-	2.5	7.5	10.0
3300 pF	-233	-	-	-	-	-	-	-	-	-	2.5	7.5	10.0	3.0	8.5	10.0
4700 pF	-247	-	-	-	-	-	-	-	-	-	2.5	7.5	10.0	-	-	-
6800 pF	-268	-	-	-	-	-	-	-	-	-	2.5	7.5	10.0	-	-	-
0.01 μF	-310	-	-	-	-	-	-	2.5	7.5	10.0	3.0	8.5	10.0	-	-	-
0.015 μF	-315	-	-	-	-	-	-	2.5	7.5	10.0	-	-	-	-	-	-
0.022 μF	-322	-	-	-	2.5	7.5	10.0	3.0	8.5	10.0	-	-	-	-	-	-
0.033 μF	-333	-	-	-	2.5	7.5	10.0	3.0	8.5	10.0	-	-	-	-	-	-
0.047 μF	-347	-	-	-	2.5	7.5	10.0	4.0	9.0	10.0	-	-	-	-	-	-
0.068 μF	-368	-	-	-	2.5	7.5	10.0	4.5	9.5	10.0	-	-	-	-	-	-
0.1 μF	-410	2.5	7.5	10.0	3.0	8.5	10.0	5.0	10.5	10.3	-	-	-	-	-	-
0.15 μF	-415	2.5	7.5	10.0	3.0	8.5	10.0	-	-	-	-	-	-	-	-	-
0.22 μF	-422	3.0	8.5	10.0	4.0	9.0	10.0	-	-	-	-	-	-	-	-	-
0.33 μF	-433	4.0	9.0	10.0	5.0	10.5	10.3	-	-	-	-	-	-	-	-	-
0.47 μF	-447	4.5	9.5	10.0	5.7	11.5	10.3	-	-	-	-	-	-	-	-	-
0.68 μF	-468	5.0	10.5	10.3	-	-	-	-	-	-	-	-	-	-	-	-
1.0 μF	-510	5.7	11.5	10.3	-	-	-	-	-	-	-	-	-	-	-	-

Notes

- Further values upon request

⁽¹⁾ Not suitable for mains applications.

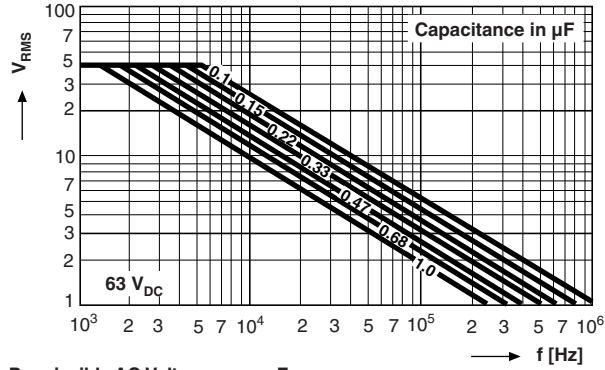
Please refer to X-capacitors in our catalog "RFI Suppression Components".

RECOMMENDED PACKAGING

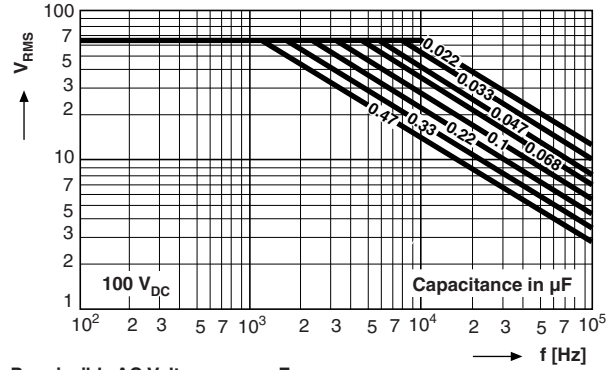
LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLE	PCM 7.5
D	Ammo	16.5	S ⁽¹⁾	MKT 1818-310-255-D	X
G	Ammo	18.5	S ⁽¹⁾	MKT 1818-310-255-G	X
F	Reel	16.5	350	MKT 1818-310-255-F	X
W	Reel	18.5	350	MKT 1818-310-255-W	X
-	Bulk	-	-	MKT 1818-310-255	X

Note

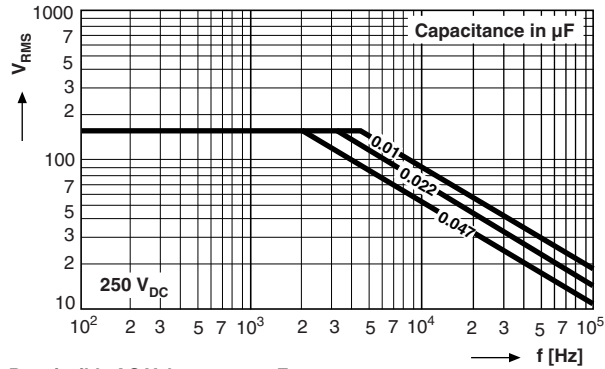
⁽¹⁾ S = box size 55 mm x 210 mm x 340 mm (W x H x L)



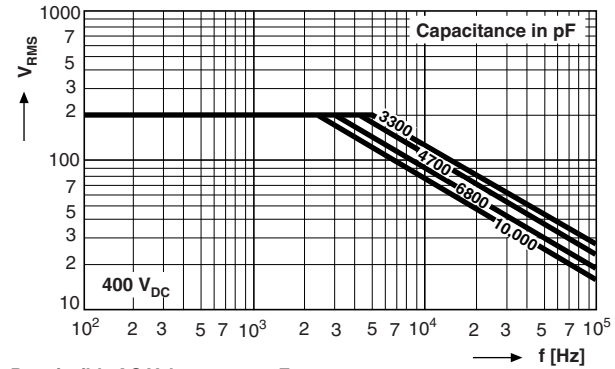
Permissible AC Voltage versus Frequency



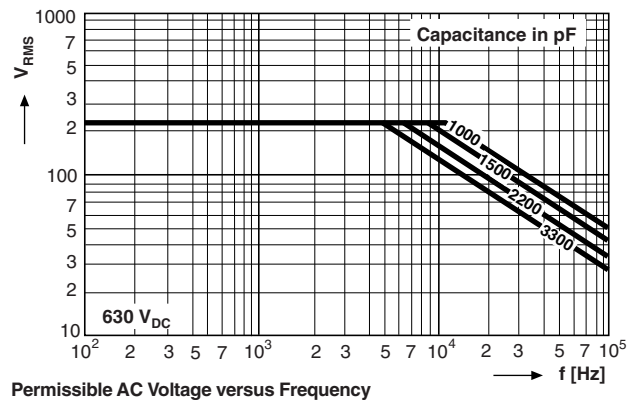
Permissible AC Voltage versus Frequency



Permissible AC Voltage versus Frequency



Permissible AC Voltage versus Frequency



Permissible AC Voltage versus Frequency



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