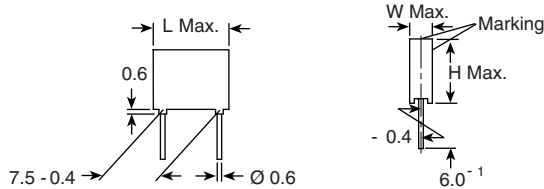


## Metallized Polyester Film Capacitors

### 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<sub>R</sub>)

63 V<sub>DC</sub>, 100 V<sub>DC</sub>, 250 V<sub>DC</sub>, 400 V<sub>DC</sub>, 630 V<sub>DC</sub>

#### FEATURES

- Compliant to RoHS directive 2002/95/EC

#### PERMISSIBLE AC VOLTAGES (RMS) UP TO 60 Hz

40 V<sub>AC</sub>, 63 V<sub>AC</sub>, 160 V<sub>AC</sub>, 200 V<sub>AC</sub>, 220 V<sub>AC</sub>

#### TEST VOLTAGE (ELECTRODE/ELECTRODE)

1.6 x U<sub>R</sub> for 2 s

#### INSULATION RESISTANCE

Measured with 100 V<sub>DC</sub> (63 V<sub>DC</sub> series at 50 V<sub>DC</sub>) after one minute

For C ≤ 0.33 µF and U<sub>R</sub> > 100 V<sub>DC</sub>:

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

For C ≤ 0.33 µF and U<sub>R</sub> ≤ 100 V<sub>DC</sub>:

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

#### TIME CONSTANT

Measured at 100 V<sub>DC</sub> (63 V<sub>DC</sub> series measured at 50 V<sub>DC</sub>) after one minute

For C > 0.33 µF and U<sub>R</sub> ≤ 100 V<sub>DC</sub>:

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<sub>C</sub>

At + 85 °C: U<sub>C</sub> = 1.0 U<sub>R</sub>

At + 100 °C: U<sub>C</sub> = 0.8 U<sub>R</sub>

#### 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<sub>R</sub>)



**RoHS**  
COMPLIANT

For further details, please refer to the general information available at [www.vishay.com/doc?26033](http://www.vishay.com/doc?26033).



## MAXIMUM PULSE RISE TIME

PCM (mm)	Maximum Pulse Rise Time dV/dt [V/μs]				
	63 V <sub>DC</sub>	100 V <sub>DC</sub>	250 V <sub>DC</sub>	400 V <sub>DC</sub>	630 V <sub>DC</sub>
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 <sup>-3</sup>	8 x 10 <sup>-3</sup>
10 kHz	15 x 10 <sup>-3</sup>	15 x 10 <sup>-3</sup>
100 kHz	25 x 10 <sup>-3</sup>	-
Maximum values		

CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 06 63 V <sub>DC</sub> /40 V <sub>AC</sub>			VOLTAGE CODE 01 100 V <sub>DC</sub> /63 V <sub>AC</sub>			VOLTAGE CODE 25 250 V <sub>DC</sub> /160 V <sub>AC</sub>			VOLTAGE CODE 40 400 V <sub>DC</sub> /200 V <sub>AC</sub>			VOLTAGE CODE 63 <sup>(1)</sup> 630 V <sub>DC</sub> /220 V <sub>AC</sub>					
		W	H	L	W	H	L	W	H	L	W	H	L	W	H	L			
		1000 pF	-210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5
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

<sup>(1)</sup> Not suitable for mains applications.

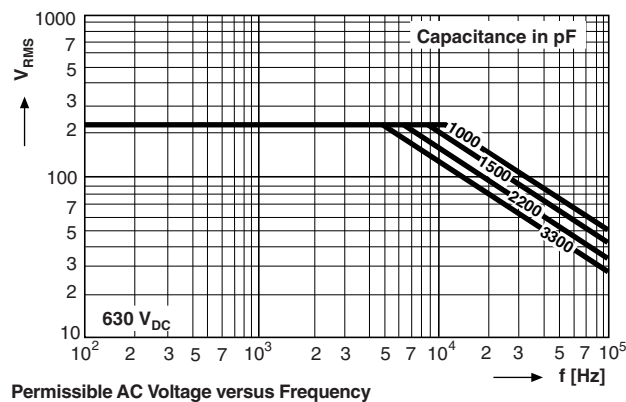
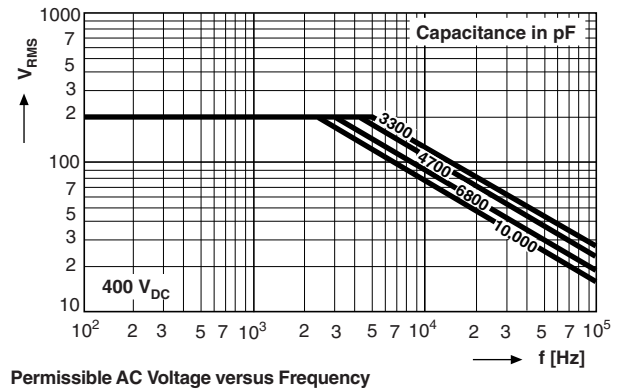
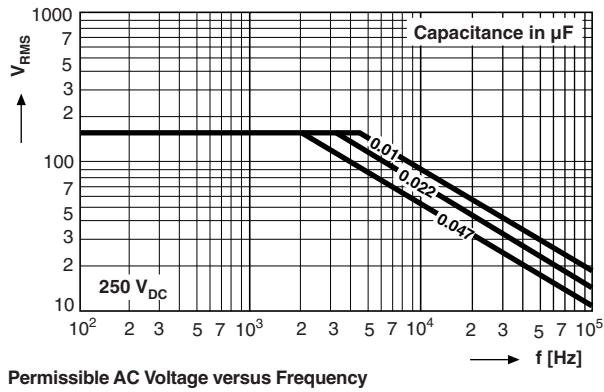
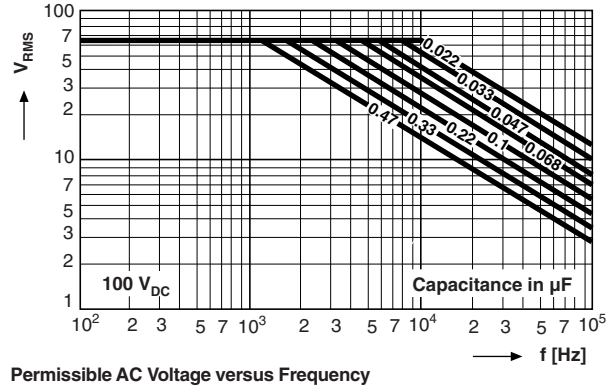
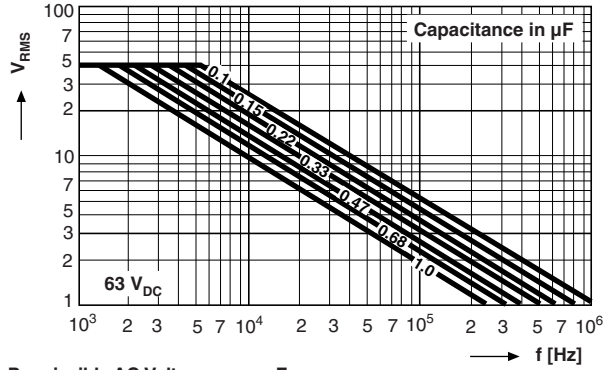
Please refer to X-capacitors in our catalog "RFI Suppression Components".

## RECOMMENDED PACKAGING

LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLE	PCM 7.5
D	Ammo	16.5	S <sup>(1)</sup>	MKT 1818-310-255-D	X
G	Ammo	18.5	S <sup>(1)</sup>	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

<sup>(1)</sup> S = box size 55 mm x 210 mm x 340 mm (W x H x L)





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