

## Metallized Polyester Film Capacitors

### Related Document: IEC 60384-2, 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<sub>R</sub>):**

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<sub>R</sub> for 2 s

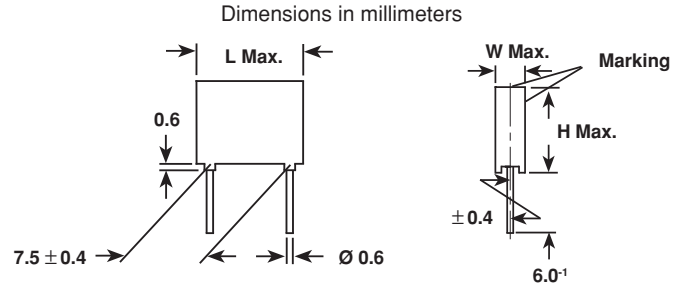
**MAXIMUM PULSE RISE TIME**

PCM (mm)	Maximum Pulse Rise Time d <sub>v</sub> /d <sub>t</sub> [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<sub>v</sub>/d<sub>t</sub> values can be permitted.

**DISSIPATION FACTOR TAN δ**

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



**INSULATION RESISTANCE:**

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

**For C ≤ 0.33µF and U<sub>R</sub> > 100 VDC:**

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

**For C ≤ 0.33µF and U<sub>R</sub> ≤ 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 > 0.33µF and U<sub>R</sub> ≤ 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<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:**

~ 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 x U<sub>R</sub>)

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
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	—	—	—	—	—	—	—	—	—	—	—	—

Further values upon request.

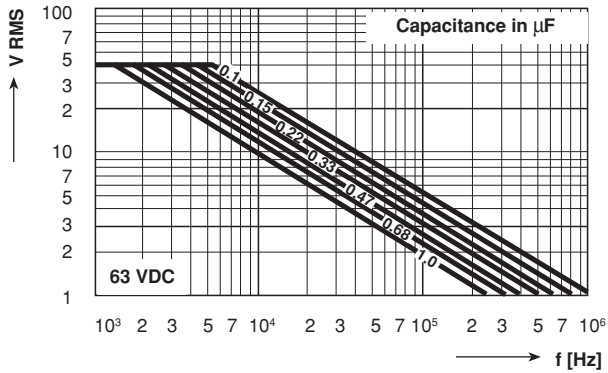
\*Not suitable for mains applications.

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

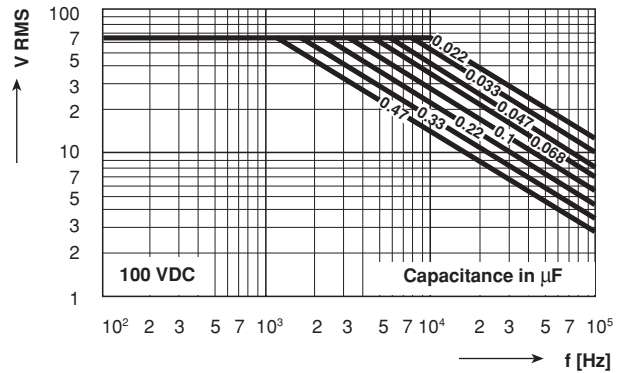
**RECOMMENDED PACKAGING**

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

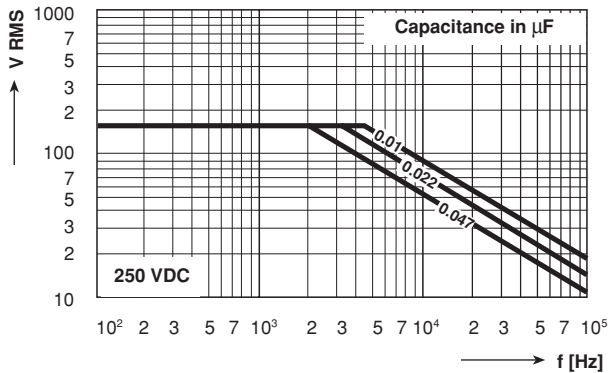
\*S = box size 55 x 210 x 340mm (W x H x L)



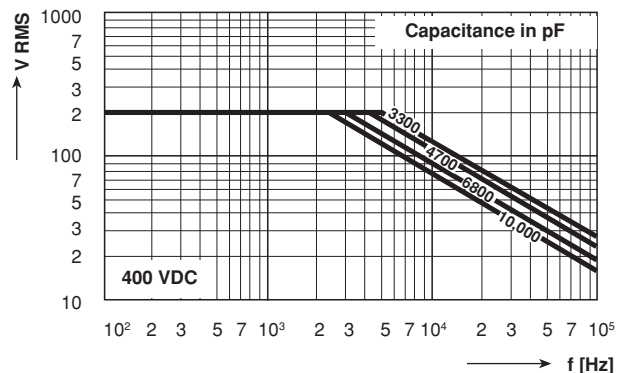
Permissible AC Voltage versus Frequency



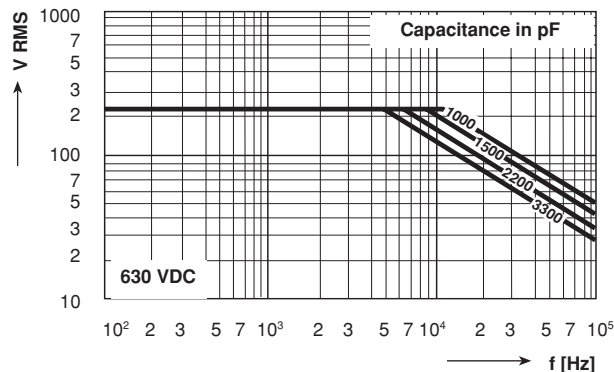
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