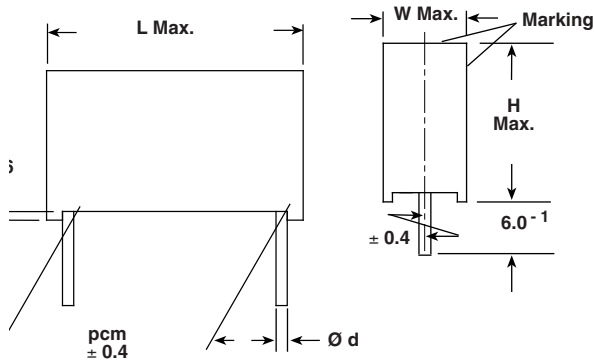


# Double Metallized Polypropylene Film Capacitor Radial AC and Pulse Capacitor

Dimensions in millimeters



W	Ø d
< 16.0	0.8
≥ 16.0	1.0

**MAIN APPLICATIONS**

High voltage, high current and high pulse operations, deflection circuits in TV sets (S-correction and fly-back tuning). Protection circuits in SMPS's. Snubber and electronic ballast circuits. Input and output filtering in SPS designs, storage, timing and integrating circuits.

**MARKING**

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

**DIELECTRIC**

Polypropylene film

**ELECTRODES**

Vacuum deposited aluminum

**COATING**

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

**CONSTRUCTION**

Extended double-sided metallized polyester film, internal series connection, single-sided metallized polypropylene film (refer to general information)

**LEADS**

Tinned wire

**IEC TEST CLASSIFICATION**

55/100/56, according to IEC 60068

**MAXIMUM PULSE RISE TIME**

PCM (mm)	Maximum Pulse Rise Time $d_v/d_t$ [V/μs]			
	630 VDC	1000 VDC	1600 VDC	2000 VDC
15	3430	6600	11100	—
22.5	2120	2800	3800	6200
27.5	1524	2000	2680	4200
37.5	980	1280	1690	2600

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

**FEATURES**

Product is completely lead (Pb)-free  
Product is RoHS-compliant

**OPERATING TEMPERATURE RANGE**

- 55°C to + 100°C

**CAPACITANCE RANGE**

1000pF to 0.68μF

**CAPACITANCE TOLERANCES**

± 20% (M), ± 10% (K), ± 5% (J)

**RATED VOLTAGES (U<sub>R</sub>):**

630 VDC, 1000 VDC, 1600 VDC, 2000 VDC

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

400 VAC, 600 VAC, 650 VAC, 700 VAC

**TEST VOLTAGE (ELECTRODE/ELECTRODE)**

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

**INSULATION RESISTANCE**

Measured at 100 VDC after one minute

For C ≤ 0.33μF:

100,000 MΩ minimum value

**TIME CONSTANT**

Measured at 100 VDC after one minute

For C > 0.33μF:

30,000 s minimum value

**TEMPERATURE COEFFICIENT**

- 250 x 10<sup>-6</sup>/°C (typical value)

**CAPACITANCE DRIFT**

Up to + 40°C, ± 0.5% 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> = 0.7 U<sub>R</sub>

**SELF INDUCTANCE**

~ 6 nH measured with 2mm long leads

**PULL TEST ON LEADS**

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

**RELIABILITY**

Operational life > 300,000 h

Failure rate < 5 FIT (40°C and 0.5 x U<sub>R</sub>)

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


**RoHS  
COMPLIANT**



### DISSIPATION FACTOR TAN $\delta$

MEASURED AT	$C \leq 0.1\mu\text{F}$	$0.1\mu\text{F} < C \leq 1.0\mu\text{F}$
1kHz	$0.3 \times 10^{-3}$	$0.3 \times 10^{-3}$
10kHz	$0.4 \times 10^{-3}$	$0.4 \times 10^{-3}$
100kHz	$1.5 \times 10^{-3}$	—
Maximum values		

CAPACITANCE	CAPACITANCE CODE	VOLTAGE CODE 63 630 VDC/400 VAC				VOLTAGE CODE 10 1000 VDC/600 VAC				VOLTAGE CODE 13 1600 VDC/650 VAC				VOLTAGE CODE 20 2000 VDC/700 VAC			
		W	H	L	PCM	W	H	L	PCM	W	H	L	PCM	W	H	L	PCM
1000pF	- 210	—	—	—	—	—	—	—	—	5.5	10.5	18.0	15	6.5	14.5	26.5	22.5
1500pF	- 215	—	—	—	—	—	—	—	—	5.5	10.5	18.0	15	6.5	14.5	26.5	22.5
2200pF	- 222	—	—	—	—	—	—	—	—	5.5	10.5	18.0	15	6.5	14.5	26.5	22.5
3300pF	- 233	—	—	—	—	5.5	10.5	18.0	15	6.5	12.5	18.0	15	6.5	14.5	26.5	22.5
4700pF	- 247	—	—	—	—	5.5	10.5	18.0	15	7.5	13.5	18.0	15	6.5	14.5	26.5	22.5
6800pF	- 268	5.5	10.5	18.0	15	6.5	12.5	18.0	15	8.5	14.5	18.0	15	7.5	15.5	26.5	22.5
0.01 $\mu\text{F}$	- 310	5.5	10.5	18.0	15	6.5	14.5	26.5	22.5	6.5	14.5	26.5	22.5	8.5	16.5	26.5	22.5
0.015 $\mu\text{F}$	- 315	6.5	12.5	18.0	15	6.5	14.5	26.5	22.5	7.5	15.5	26.5	22.5	10.5	18.5	26.5	22.5
0.022 $\mu\text{F}$	- 322	7.5	13.5	18.0	15	6.5	14.5	26.5	22.5	8.5	16.5	26.5	22.5	11.5	20.5	31.5	27.5
0.033 $\mu\text{F}$	- 333	8.5	14.5	18.0	15	7.5	15.5	26.5	22.5	10.5	18.5	26.5	22.5	13.5	23.5	31.5	27.5
0.047 $\mu\text{F}$	- 347	7.5	15.5	26.5	22.5	10.5	18.5	26.5	22.5	11.5	20.5	31.5	27.5	15.0	24.5	31.5	27.5
0.068 $\mu\text{F}$	- 368	8.5	16.5	26.5	22.5	11.0	21.0	26.5	22.5	11.5	20.5	31.5	27.5	16.5	29.5	31.5	27.5
0.1 $\mu\text{F}$	- 410	10.5	18.5	26.5	22.5	11.5	20.5	31.5	27.5	15.0	24.5	31.5	27.5	16.0	28.5	41.5	37.5
0.15 $\mu\text{F}$	- 415	11.5	20.5	31.5	27.5	13.5	23.5	31.5	27.5	14.5	24.5	41.5	37.5	—	—	—	—
0.22 $\mu\text{F}$	- 422	13.5	23.5	31.5	27.5	16.5	29.5	31.5	27.5	16.0	28.5	41.5	37.5	—	—	—	—
0.33 $\mu\text{F}$	- 433	15.0	24.5	31.5	27.5	—	—	—	—	—	—	—	—	—	—	—	—
0.47 $\mu\text{F}$	- 447	14.5	24.5	41.5	37.5	—	—	—	—	—	—	—	—	—	—	—	—
0.68 $\mu\text{F}$	- 468	18.0	32.5	41.5	37.5	—	—	—	—	—	—	—	—	—	—	—	—

Further C-values upon request.

### RECOMMENDED PACKAGING

LETTER CODE	TYPE OF PACKAGING	HEIGHT (H) (mm)	REEL DIAMETER (mm)	ORDERING CODE EXAMPLES	PCM 15	PCM 22.5 - 27.5	PCM 37.5
D	AMMO	16.5	S*	MKP 1846-310/635-D	X	—	—
G	AMMO	18.5	S*	MKP 1846-310/635-G	X	—	—
F	REEL	16.5	350	MKP 1846-310/635-F	X	—	—
W	REEL	18.5	350	MKP 1846-310/635-W	X	—	—
V	REEL	18.5	500	MKP 1846-410/105-V	X	X	—
G	AMMO	18.5	L*	MKP 1846-410/105-G	—	X	—
—	BULK	—	—	MKP 1846-422-135	X	X	X

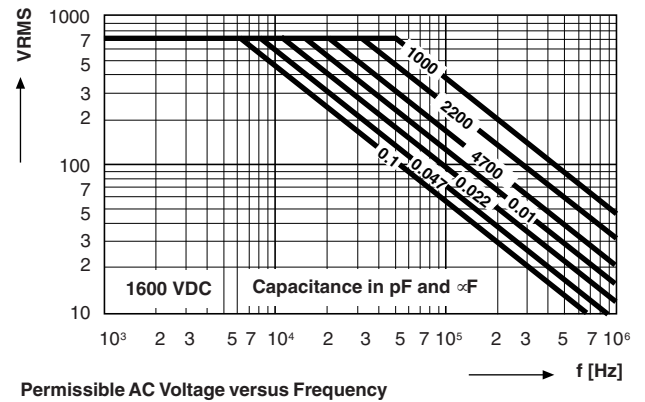
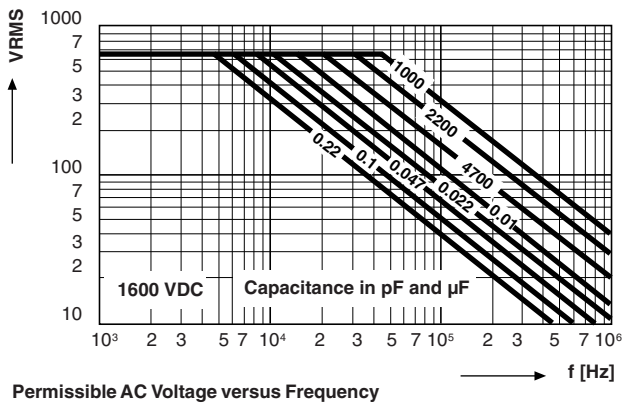
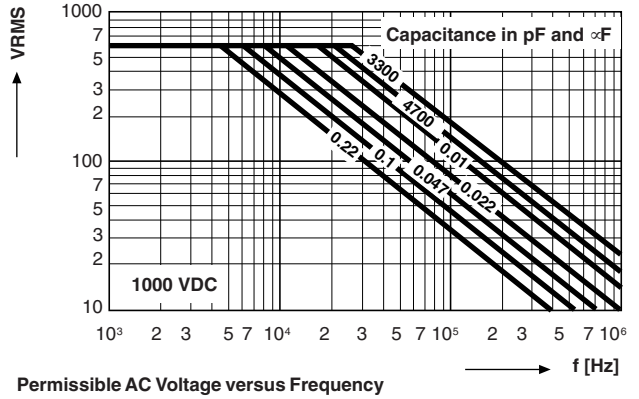
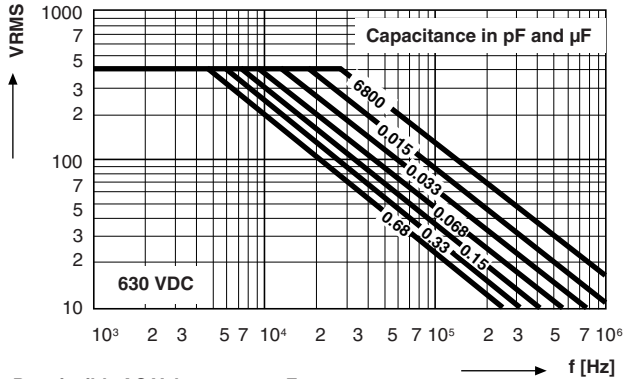
\*S = box size 55 x 210 x 340mm (W x H x L)

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



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Radial AC and Pulse Capacitor

Vishay Roederstein





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