

# PME271M

**RoHS**  
Compliant

- EMI suppressor, class X2, metallized paper
- 0.001 – 0.6  $\mu\text{F}$ , 275 VAC, +110 °C

- The highest possible safety regarding active and passive flammability.
- Self-extinguishing UL 94V-0 encapsulation material.
- Excellent self-healing properties. Ensures long life even when subjected to frequent overvoltages.

- Good resistance to ionisation due to impregnated dielectric.
- High dU/dt capability.
- Small dimensions.
- Safety approvals for worldwide use.
- The capacitors meet the most stringent IEC humidity class, 56 days.

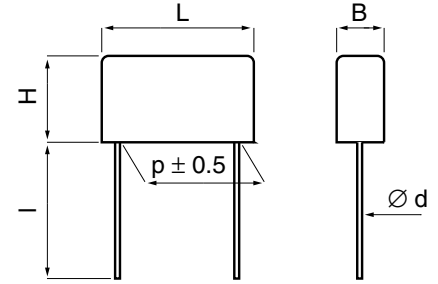
- The impregnated paper ensures excellent stability giving outstanding reliability properties, especially in applications having continuous operation.

## TYPICAL APPLICATIONS

The capacitors are intended for use as interference suppressors in X2 (across-the-line) applications.

## CONSTRUCTION

Multi-layer metallized paper. Encapsulated and impregnated in self-extinguishing material meeting the requirements of UL 94V-0.



d = 0.6 for p = 10.2  
0.8 for p = 15.2, 20.3, 22.5  
1.0 for p = 25.4

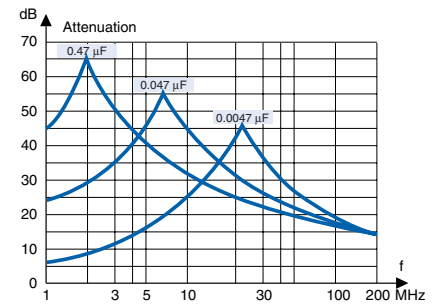
l = standard: 30 +5/-0 mm (code R30)

option 1: short leads, tolerance +0/-1 mm (standard 6 mm, code R06)  
Other lead lengths on request

option 2: 30 mm insulated solid leads, ordering code: replace R30 with R300PS in std P/N

## TECHNICAL DATA

Rated voltage VAC, 50/60Hz	275
Capacitance range $\mu\text{F}$	0.001–0.6
Temperature range °C	-40/+110
Climatic category IEC	40/110/56/B
Capacitance tolerance	$\pm 10\%$ for $C > 0.1 \mu\text{F}$ , code K $\pm 20\%$ for $C \leq 0.1 \mu\text{F}$ , code M
Approvals	ENEC, UL, CSA
Dissipation factor $\tan\delta$	$\leq 1.3\%$ at 1 kHz
Insulation resistance	$C \leq 0.33 \mu\text{F} \geq 12000 \text{ M}\Omega$ $C > 0.33 \mu\text{F} \geq 4000 \text{ s}$ Measured at 500 VDC after 60 s, +23°C
In DC applications	Recommended voltage: $\leq 630 \text{ VDC}$
Resonance frequency	Tabulated self-resonance frequencies $f_0$ refer to 5 mm lead lengths.
Test voltage between	The 100% screening factory test is carried out at 2150 VDC. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test.



Suppression versus frequency. Typical values.

## ENVIRONMENTAL TEST DATA

Vibration	IEC 60068-2-6, Test Fc	3 directions at 2 hour each, 10 – 500 Hz at 0.75 mm or 98 m/s <sup>2</sup>	No visible damage, No open or short circuit
Bump	IEC 60068-2-29, Test Eb	4000 bumps at 390 m/s <sup>2</sup>	No visible damage, No open or short circuit
Solderability	IEC 60068-2-20, Test Ta	Solder globule method	Wetting time for $d \leq 0.8 < 1 \text{ s}$ for $d > 0.8 < 1.5 \text{ s}$
Active flammability	EN/IEC 60384-14:2005		
Passive flammability	EN/IEC 60384-14:2005		
Humidity	IEC 60068-2-3, Test Ca	+40°C and 90 – 95% R.H.	56 days

## ARTICLE TABLE

Capacitance $\mu\text{F}$	Max dimensions in mm				Quantity per package			Weight g	$f_o$ MHz	Max $dU/dt$ V/ $\mu\text{s}$	Article code
	B	H	L	p	R30 pcs	R06 pcs	reel taped pcs				
0.0010	3.9	7.5	13.5	10.2	1000	2000	700	0.7	53	1200	PME271M410MR30
0.0015	3.9	7.5	13.5	10.2	1000	2000	700	0.7	44	1200	PME271M415MR30
0.0022	3.9	7.5	13.5	10.2	1000	2000	700	0.7	37	1200	PME271M422MR30
0.0033	4.1	8.2	13.5	10.2	1000	2000	600	0.9	30	1200	PME271M433MR30
0.0047	5.1	10.5	13.5	10.2	800	1600	600	1.2	24	1200	PME271M447MR30
0.0068	5.1	10.5	13.5	10.2	800	1600	600	1.2	21	1200	PME271MA4680MR30
0.0068	5.2	10.5	18.5	15.2	500	1000	600	1.7	19	1200	PME271M468MR30
0.010	5.2	10.5	18.5	15.2	500	1000	600	1.7	16	1200	PME271M510MR30
0.015	5.2	10.5	18.5	15.2	500	1000	600	1.7	13	1200	PME271M515MR30
0.022	6.0	12.5	18.5	15.2	400	800	400	3.0	10	1200	PME271M522MR30
0.033	6.0	12.5	18.5	15.2	400	800	400	3.0	8.4	1200	PME271M533MR30
0.047	6.0	12.5	18.5	15.2	400	800	400	3.0	7.0	1200	PME271M547MR30
0.068	7.8	13.5	18.5	15.2	400	800	400	3.3	5.6	1200	PME271M568MR30
0.10	8.5	14.3	18.5	15.2	300	500	350	3.8	4.3	1200	PME271MB6100MR30
0.10	7.6	14.0	24.0	20.3	250	1500	250	4.0	4.1	600	PME271M610MR30
0.15	9.0	15.0	24.0	20.3	200	1200	250	5.0	3.4	600	PME271M615KR30
0.22	11.3	16.5	24.0	20.3	150	1000	180	7.0	2.7	600	PME271M622KR30
0.10	8.0	17.0	27.0	22.5	200	1200	250	5.5	3.9	600	PME271MD6100MR30
0.15	8.0	17.0	27.0	22.5	200	1200	250	5.5	3.3	600	PME271MD6150KR30
0.22	10.0	19.0	27.0	22.5	150	1000	200	7.5	2.6	600	PME271MD6220KR30
0.27	12.0	22.0	27.0	22.5	100	800		10.0	2.3	400	PME271MD6270KR30
0.33	12.0	22.0	27.0	22.5	100	800		10.0	2.1	400	PME271MD6330KR30
0.27	10.5	17.3	30.5	25.4	100	1000		8.5	2.4	400	PME271M627KR30
0.33	12.1	19.0	30.5	25.4	100	800		10.0	2.1	400	PME271M633KR30
0.47	15.3	22.0	30.5	25.4	75	600		15.0	1.8	400	PME271M647KR30
0.60	15.3	22.0	30.5	25.4	75	600		15.0	1.6	400	PME271M660KR30

## APPROVALS

Certification Body	Specification	
ENEC	EN/IEC 60384-14:2005	
UL	UL 1283 UL 1414	( $U_R = 250 \text{ VAC}$ ) ( $U_R = 250 \text{ VAC}$ )
CSA	C 22.2 No. 1	( $U_R = 250 \text{ VAC}$ )

## MARKING

- RIFA
- RIFA article code
- Rated capacitance
- Rated voltage
- X2
- SH, for self-healing
- Climatic category according to IEC 60068-1, appendix A
- Passive flammability class
- Approval marks
- Manufacturing code (year, month)

## ORDERING INFORMATION

The article code for the standard part is given in the article table.  
For other options, see page 11.