

# PME278

**RoHS**  
Compliant

- EMI suppressor, class X1, metallized paper
- 0.001 – 0.15  $\mu\text{F}$ , 440 VAC, +110 °C

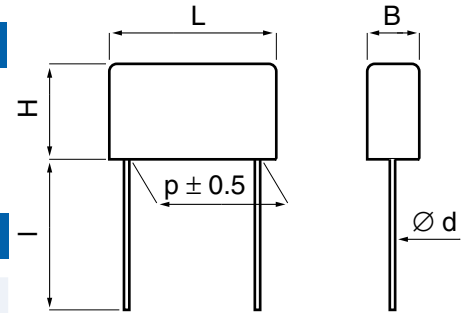
- High dU/dt capability.
- Excellent self-healing properties. Ensures long life even when subjected to frequent overvoltages.
- Good resistance to ionisation due to impregnated dielectric.
- The capacitors meet the most stringent IEC humidity class, 56 days.
- The impregnated paper ensures excellent stability giving outstanding reliability properties, especially in applications having continuous operation.

## TYPICAL APPLICATIONS

The capacitors are intended for use as interference suppressors in X1, across-the-line, 440 VAC applications.

## CONSTRUCTION

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



## TECHNICAL DATA

<b>Rated voltage</b>	440 VAC 50/60 Hz
<b>Capacitance range</b>	0.001 – 0.15 $\mu\text{F}$
<b>Capacitance tolerance</b>	± 20%
<b>Temperature range</b>	-40 to +110°C
<b>Climatic category IEC</b>	40/110/56/B
<b>Approvals</b>	ENEC
<b>Dissipation factor <math>\tan\delta</math></b>	≤ 1.3 % at 1 kHz
<b>Insulation resistance</b>	≥ 12000 M $\Omega$ Measured at 500 VDC after 60 s, +23°C
<b>Resonance frequency</b>	Tabulated self-resonance frequencies $f_0$ refer to 5 mm lead length.
<b>In DC applications</b>	Recommended voltage: ≤ 1000 VDC
<b>Test voltage between terminals</b>	The 100% screening factory test is carried out at 2700 VDC. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test.

d = 0.6 for p = 10.2  
0.8 for p = 15.2 and 20.3  
1.0 for p = 25.4

l = standard : 30 +5/-0 mm

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

## ENVIRONMENTAL TEST DATA

<b>Vibration</b>	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
<b>Bump</b>	IEC 60068-2-29 Test Eb	4000 bumps at 390 m/s <sup>2</sup>	No visible damage No open or short circuit
<b>Solderability</b>	IEC 60068-2-20 Test Ta	Solder globule method	Wetting time for d ≤ 0.8 < 1 s for d > 0.8 < 1.5 s
<b>Active flammability</b>	EN/IEC 60384-14:2005		
<b>Passive flammability</b>	EN/IEC 60384-14:2005		
<b>Humidity</b>	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	53.0	2000	PME278RA4100MR30
0.0015	3.9	7.5	13.5	10.2	1000	2000	700	0.7	44.0	2000	PME278RA4150MR30
0.0022	3.9	7.5	13.5	10.2	1000	2000	700	0.7	37.0	2000	PME278RA4220MR30
0.0033	4.1	8.2	13.5	10.2	1000	2000	600	0.9	30.0	2000	PME278RA4330MR30
0.0047	5.1	10.5	13.5	10.2	800	1600	600	1.2	24.0	2000	PME278RA4470MR30
0.0068	5.2	10.5	18.5	15.2	500	1000	600	1.7	18.5	1400	PME278RB4680MR30
0.010	5.2	10.5	18.5	15.2	500	1000	600	1.7	15.5	1400	PME278RB5100MR30
0.015	5.5	11.1	18.5	15.2	500	1000	500	2.0	13.0	1400	PME278RB5150MR30
0.022	8.5	14.3	18.5	15.2	300	500	350	3.8	9.6	1400	PME278RB5220MR30
0.033	7.6	14.0	24.0	20.3	250	1500	250	4.0	9.6	1000	PME278RC5330MR30
0.047	9.0	15.0	24.0	20.3	200	1200	250	5.0	7.5	1000	PME278RC5470MR30
0.068	11.3	16.5	24.0	20.3	150	1000	180	7.0	6.2	1000	PME278RC5680MR30
0.033	8.0	17.0	27.0	22.5	200	1200	250	5.5	7.2	1000	PME278RD5330MR30
0.047	8.0	17.0	27.0	22.5	200	1200	250	5.5	6.0	1000	PME278RD5470MR30
0.068	10.0	19.0	27.0	22.5	150	1000	200	7.5	4.8	1000	PME278RD5680MR30
0.10	12.0	22.0	27.0	22.5	100	800	180	10.0	3.6	600	PME278RD6100MR30
0.10	12.1	19.0	30.5	25.4	100	800		10.0	3.9	600	PME278RE6100MR30
0.15	15.3	22.0	30.5	25.4	75	600		15.0	3.2	600	PME278RE6150MR30

## APPROVALS

Certification Body	Specification
ENEC	EN/IEC 60384-14:2005

## MARKING

- RIFA
- RIFA article code
- Rated capacitance
- Rated voltage
- X1
- 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.