

# PME278

- 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

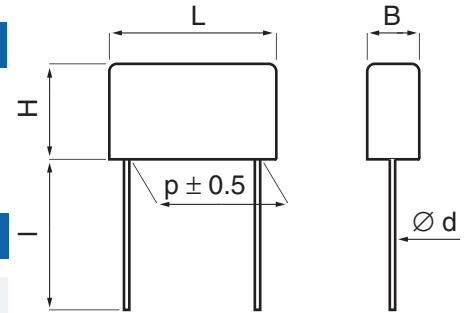
The capacitors are intended for use as interference suppressors in X1, across-the-line, 440 VAC applications.

## 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>	$\pm 20\%$
<b>Temperature range</b>	-40 to +110°C
<b>Climatic category IEC</b>	40/110/56/B
<b>Approvals</b>	S, N, D, FI, VDE, SEV, IMQ
<b>Dissipation factor <math>\tan\delta</math></b>	$\leq 1.3\%$ at 1 kHz
<b>Insulation resistance</b>	$\geq 12000\text{ M}\Omega$ 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: $\leq 1000\text{ VDC}$
<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 :  $30 +5/-0\text{ mm}$   
 option : short leads, tolerance  $+0/-1\text{ mm}$   
 (standard 6 mm, code R06)  
 Other lead lengths on request

## 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 $d \leq 0.8 < 1\text{ s}$ for $d > 0.8 < 1.5\text{ s}$
<b>Active flammability</b>	EN 132400		
<b>Passive flammability</b>	IEC 60384-14 (1993) EN 132400		
<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/REFERENCE DOCUMENTS

Certification Body	Specification	Approval reference
S	EN 132400	9516076
N	EN 132400	P95101829
D	EN 132400	303938
FI	EN 132400	182572-01
VDE	EN 132400	89760
SEV	EN 132400	95.7 70725
IMQ	EN 132400	V4070

## 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 12.