

PME290

- EMI suppressor, classes X1 and Y2, metallized paper
- 0.001 – 0.022 μF , 250 VAC Y2, 300 VAC X1, +100 °C

- Self-extinguishing encapsulation.
The material is recognized according to UL 94 V-0.
- Very precise positioning of leads in relation to the case giving efficient utilisation of PC board space.
- 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.

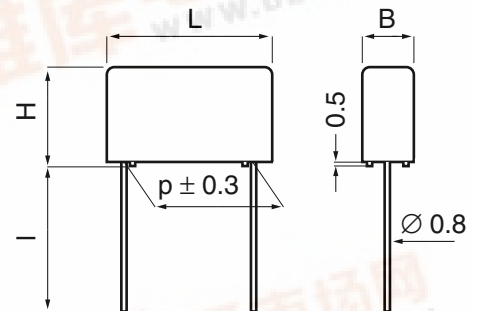
- The impregnated paper ensures excellent stability giving outstanding reliability properties, especially in applications having continuous operation.

TYPICAL APPLICATIONS

For use in mains operated electronic equipment requiring safety components according to IEC 60065, edition 5, and/or national standards based on that document. Across-the-line, antenna-coupling and line-by-pass. The capacitor is also intended for use as interference suppressor in X1 and Y2 applications.

CONSTRUCTION

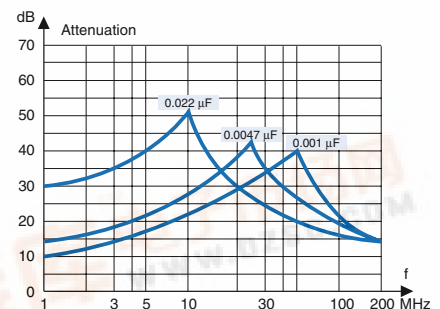
Multi-layer metallized paper. Encapsulated and impregnated in self-extinguishing material meeting the requirements of UL 94V-0.



l = standard : 30 +5/-0 mm
option : short leads, tolerance +0/-1 mm (standard 6 mm, code R06)
Other lead lengths on request

TECHNICAL DATA

Rated voltage	250 VAC, Y2; 300 VAC, X1; 50/60 Hz
Capacitance range	0.001 – 0.022 μF
Capacitance tolerance	$\pm 20\%$
Temperature range	-40 to +100 °C
Climatic category IEC	40/100/56/C
Approvals	S, N, D, FI, VDE, SEV, IMQ, UL, CSA
Dissipation factor $\tan\delta$	$\leq 1.3\%$ at 1 kHz
Insulation resistance	$\geq 12000\text{ M}\Omega$ Measured at 500 VDC after 60 s, +23°C
Resonance frequency	Tabulated self-resonance frequencies f_0 refer to 5 mm lead length.
In DC applications	Recommended voltage: $\leq 1000\text{ VDC}$
Test voltage between terminals	The 100% screening factory test is carried out at 2000 VAC, 50 Hz, 2 s and at 3000 VDC, 1 s. 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 ²	No visible damage No open or short circuit
Bump	IEC 60068-2-29, Test Eb	4000 bumps at 390 m/s ²	No visible damage, No open or short circuit
Solderability	IEC 60068-2-20, Test Ta	Solder globule method	Wetting time < 1 s
Active flammability	EN 132400		
Passive flammability	IEC 60384-14 (1993) EN 132400		
Humidity	IEC 60068-2-3, Test Ca	+40°C and 90 – 95% R.H.	56 days



ARTICLE TABLE

Capaci- tance μF	Max dimensions in mm				Quantity per package				f _o MHz	Max dU/dt V/μs	Approvals								Article code
	B	H	L	p	R30 pcs	R06 pcs	reel taped pcs	Weight g			S	Z	D	FI	VDE	SEV	IMQ	UL	
0.0010	4.5	12.5	13.0	10.0	800	1600	700	1.3	56	2000	✓	✓	✓	✓	✓	✓	✓	✓	PME290MA4100MR30
0.0015	4.5	12.5	13.0	10.0	800	1600	700	1.4	46	2000	✓	✓	✓	✓	✓	✓	✓	✓	PME290MA4150MR30
0.0022	5.5	12.0	13.0	10.0	800	1200	600	1.4	39	2000	✓	✓	✓	✓	✓	✓	✓	✓	PME290MA4220MR30
0.0025	5.5	12.0	13.0	10.0	800	1200	600	1.4	36	2000	✓	✓	✓	✓	✓	✓	✓	✓	PME290MA4250MR30
0.0033	5.5	13.5	13.0	10.0	800	1200	600	1.6	31	2000	✓	✓	✓	✓	✓	✓	✓	✓	PME290MA4330MR30
0.0039	5.5	13.5	13.0	10.0	800	1200	600	1.6	28	2000	✓	✓	✓	✓	✓	✓	✓	✓	PME290MA4390MR30
0.0047	5.5	14.5	13.0	10.0	600	1200	600	1.7	26	2000	✓	✓	✓	✓	✓	✓	✓	✓	PME290MA4470MR30
0.0068	5.5	14.5	18.0	15.0	500	800	600	2.1	18	1400	✓	✓	✓	✓	✓	✓	✓	✓	PME290MB4680MR30
0.010	7.5	13.5	18.0	15.0	400	600	400	2.6	15	1400	✓	✓	✓	✓	✓	✓	✓	✓	PME290MB5100MR30
0.015	8.5	14.5	18.0	15.0	250	500	400	3.0	12	1400	✓	✓	✓	✓	✓	✓	✓	✓	PME290MB5150MR30
0.022	8.5	17.0	18.0	15.0	250	400	400	3.6	9.8	1400	✓	✓	✓	✓	✓	✓	✓	✓	PME290MB5220MR30

APPROVALS/REFERENCE DOCUMENTS

Certification Body	Specification	Approval reference
S	EN 132400	9511114 (Y2, X1)
N	EN 132400	P95101669 (Y2, X1)
D	EN 132400	303829 (Y2, X1)
FI	EN 132400	182218-01 (Y2)
		182218-02 (X1)
VDE	EN 132400	131398
SEV	EN 132400	00.2218
IMQ	CEI 40-7/VI-1980	V 2175
UL	UL 1414 (250 VAC)	E 73869
CSA	C 22.2 No. 1 (250 VAC)	53108
	C 22.2 No. 8 (250 VAC)	53108

MARKING

- RIFA
- RIFA article code
- Rated capacitance
- Rated voltage
- 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 21.

PACKING

Capacitors in standard design (lead length 30 mm) and with lead length 5 or 6 mm are packed bulk in a box with dimensions 245 x 145 x 80 mm. Quantity/package as per article table.

Reels with taped capacitors are packed 10 in a box with dimension 370 x 370 x 560 mm. The standard quantity/reel is for 360 mm reel. If 500 mm reel is required, it must be specified when ordering and the quantity is 2 x the given quantity.