

# PME294



- EMI suppressor, class Y1, metallized paper
- Safety capacitor, ceramic replacement
- 470 – 4700 pF, 440 VAC, +115 °C, test voltage 4000 VAC 60 s

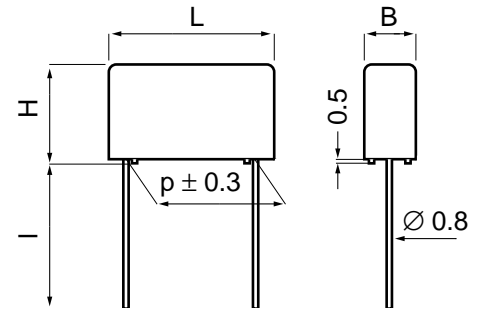
- Self-extinguishing encapsulation. The material is recognized according to UL 94 V-0.
- Very precise positioning of the leads in relation to the case giving efficient utilisation of PC board space.
- Excellent self-healing properties. Ensures long life even when subjected to frequent overvoltages.
- High dU/dt capability.
- 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

Safety capacitor for bridging of double or reinforced insulation applications requiring voltage test up to 4000 VAC 60 seconds. PME294 can be left in place during this test.

## CONSTRUCTION

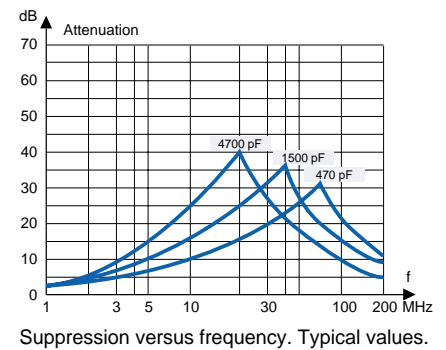
Multi-layer metallized paper. Encapsulated and impregnated in self-extinguishing material meeting the requirements of UL 94V-0.



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	440 VAC 50/60 Hz
Capacitance range	470 – 4700 pF
Capacitance tolerance	± 20%
Temperature range	-40 to +115 °C
Climatic category IEC	40/115/56/B
Approvals	S, N, D, FI, VDE, SEV, IMQ, UL, CSA
Dissipation factor tanδ	≤ 1.3 % at 1 kHz
Insulation resistance	≥ 12000 MΩ 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: ≤ 1500 VDC
Test voltage between terminals	The 100% screening factory test is carried out at 4000 VAC, 50 Hz, 2 s. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test.



## 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 < 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

Capacitance pF	Max dimensions in mm				Quantity per package reel			Weight g	f <sub>o</sub> MHz	Max dU/dt V/μs	Approvals							Article code 1 st block
	B	H	L	p	R30 pcs	R06 pcs	taped pcs				S	Z	D	E	VDE	SEV	IMO	
470	5.5	12.0	18.0	15.0	500	1000	600	1.7	64.0	2000	√	√	√	√	√	√	√	PME294RB3470M
560	5.5	12.0	18.0	15.0	500	1000	600	1.7	59.0	2000	√	√	√	√	√	√	√	PME294RB3560M
680	5.5	12.0	18.0	15.0	500	1000	600	1.7	54.0	2000	√	√	√	√	√	√	√	PME294RB3680M
820	5.5	12.5	18.0	15.0	500	1000	600	1.8	49.0	2000	√	√	√	√	√	√	√	PME294RB3820M
1000	5.5	12.5	18.0	15.0	500	1000	600	1.8	46.0	2000	√	√	√	√	√	√	√	PME294RB4100M
1200	5.5	14.0	18.0	15.0	500	1000	600	2.0	43.0	2000	√	√	√	√	√	√	√	PME294RB4120M
1500	5.5	14.5	18.0	15.0	500	800	600	2.1	40.0	2000	√	√	√	√	√	√	√	PME294RB4150M
1800	7.5	13.0	18.0	15.0	400	600	400	2.5	37.0	2000	√	√	√	√	√	√	√	PME294RB4180M
2200	7.5	13.0	18.0	15.0	400	600	400	2.5	33.0	2000	√	√	√	√	√	√	√	PME294RB4220M
2500	7.5	13.5	18.0	15.0	400	600	400	2.6	31.0	2000	√	√	√	√	√	√	√	PME294RB4250M
2700	7.5	15.5	18.0	15.0	400	600	400	3.0	30.0	2000	√	√	√	√	√	√	√	PME294RB4270M
3300	7.5	15.5	18.0	15.0	400	600	400	3.0	27.0	2000	√	√	√	√	√	√	√	PME294RB4330M
3900	8.5	17.0	18.0	15.0	250	400	400	3.6	24.0	2000	√	√	√	√	√	√	√	PME294RB4390M
4700	8.5	17.0	18.0	15.0	250	400	400	3.6	22.0	2000	√	√	√	√	√	√	√	PME294RB4470M

APPROVALS/REFERENCE DOCUMENTS

Country	Specification	Approval reference
S = Sweden	EN 132400	9902042/01
N = Norway	EN 132400	P99100386
D = Denmark	EN 132400	308446
FI = Finland	EN 132400	205353
VDE = Germany	EN 132400	91852
SEV = Switzerland	EN 132400	99.7 70114.01
IMO = Italy	EN 132400	V4715
UL = USA	UL 1414 (U <sub>r</sub> = 250 VAC) Double protection	E73869
CSA = Canada	C22.2. No 1	53108
	C22.2. No. 8	53108

MARKING

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

ORDERING INFORMATION

Article code

1st block

See article table  
Pos. 13, capacitance tolerance code:  
M = ± 20%

2nd block

Options:  
Short leads: e.g. 6 mm, add R06  
in pos. 14–16.  
Reel taped: Add T0 or T1 in pos. 14–15.

P M E 2 9 4 R B 4 2 2 0 M

R 0 6

1 2 3 4 5 6 7 8 9 10 11 12 13

14 15 16 17 18 19 20

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.