PME294

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

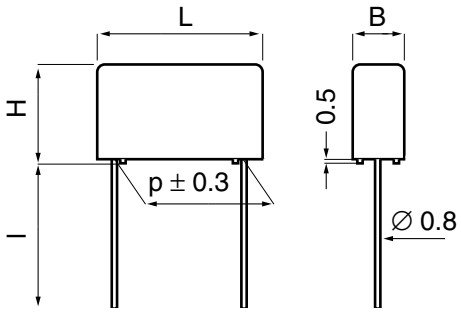
- Self-extinguishing encapsulation. The material is recognized according to UL 94 V-0.
- Very precise positioning of the leads in relation to the case giving efficient utilisation of PC board space.
- Excellent self-healing properties. Ensures long life even when subjected to frequent overvoltages.
-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

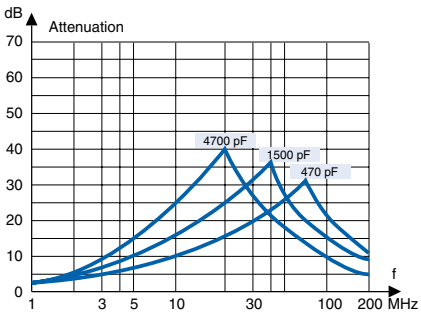
Safety capacitor for bridging of double or reinforced insulation applications requiring voltage test up to 4000 VAC 60 seconds. PME294 can be left in place during this test.

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



Suppression versus frequency. Typical values.

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/s²	No visible damage No open or short circuit
Bump	IEC 60068-2-29 Test Eb	4000 bumps at 390 m/s²	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 B	H	L	p	Quantity per package R30 pcs	R06 pcs	reel taped pcs	Weight g	f_O MHz	Max dU/dt V/µs	Approvals S	N	D	FI	VDE	SEV	IMQ	UL	CSA	Article code
470	5.5	12.0	18.0	15.0	500	1000	600	1.7	64	2000	√	√	√	√	√	√	√	√	√	PME294RB3470MR30
560	5.5	12.0	18.0	15.0	500	1000	600	1.7	59	2000	√	√	√	√	√	√	√	√	√	PME294RB3560MR30
680	5.5	12.0	18.0	15.0	500	1000	600	1.7	54	2000	√	√	√	√	√	√	√	√	√	PME294RB3680MR30
820	5.5	12.5	18.0	15.0	500	1000	600	1.8	49	2000	√	√	√	√	√	√	√	√	√	PME294RB3820MR30
1000	5.5	12.5	18.0	15.0	500	1000	600	1.8	46	2000	√	√	√	√	√	√	√	√	√	PME294RB4100MR30
1200	5.5	14.0	18.0	15.0	500	1000	600	2.0	43	2000	√	√	√	√	√	√	√	√	√	PME294RB4120MR30
1500	5.5	14.5	18.0	15.0	500	800	600	2.1	40	2000	√	√	√	√	√	√	√	√	√	PME294RB4150MR30
1800	7.5	13.0	18.0	15.0	400	600	400	2.5	37	2000	√	√	√	√	√	√	√	√	√	PME294RB4180MR30
2200	7.5	13.0	18.0	15.0	400	600	400	2.5	33	2000	√	√	√	√	√	√	√	√	√	PME294RB4220MR30
2500	7.5	13.5	18.0	15.0	400	600	400	2.6	31	2000	√	√	√	√	√	√	√	√	√	PME294RB4250MR30
2700	7.5	15.5	18.0	15.0	400	600	400	3.0	30	2000	√	√	√	√	√	√	√	√	√	PME294RB4270MR30
3300	7.5	15.5	18.0	15.0	400	600	400	3.0	27	2000	√	√	√	√	√	√	√	√	√	PME294RB4330MR30
3900	8.5	17.0	18.0	15.0	250	400	400	3.6	24	2000	√	√	√	√	√	√	√	√	√	PME294RB4390MR30
4700	8.5	17.0	18.0	15.0	250	400	400	3.6	22	2000	√	√	√	√	√	√	√	√	√	PME294RB4470MR30

APPROVALS/REFERENCE DOCUMENTS

Certification Body	Specification	Approval reference
S	EN 132400	9902042/01
N	EN 132400	P99100386
D	EN 132400	DK99-00529
FI	EN 132400	205353
VDE	EN 132400	91852
SEV	EN 132400	99.7 70114.01
IMQ	EN 132400	V4715
UL	UL 1414 (U_R = 250 VAC) Double protection	E73869
CSA	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

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.