

# PME271M/E

- EMI suppressor, classes X1 and X2, metallized paper
- 0.001 – 0.6  $\mu\text{F}$ , 275/300 VAC, +110 °C

- The highest possible safety regarding active and passive flammability.
- Self-extinguishing UL 94V-0 encapsulation material.
- Excellent self-healing properties. Ensures long life even when subjected to frequent overvoltages.

- Good resistance to ionisation due to impregnated dielectric.
- High  $dU/dt$  capability.
- Small dimensions.
- Safety approvals for worldwide use.
- 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

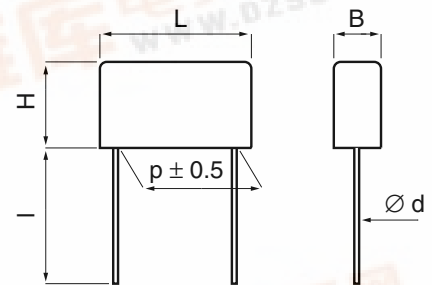
The capacitors are intended for use as interference suppressors in X1 or X2 (across-the-line) applications.

## CONSTRUCTION

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

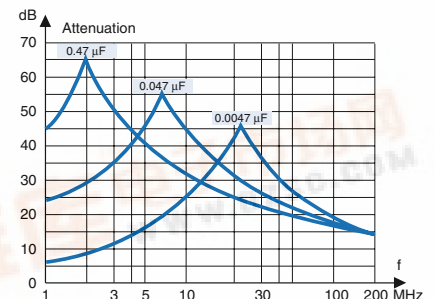
## TECHNICAL DATA

|                                 | PME271M                                                                                                                                                                                                          | PME271E     |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Rated voltage VAC, 50/60Hz      | 275                                                                                                                                                                                                              | 300         |
| Capacitance range $\mu\text{F}$ | 0.001–0.6                                                                                                                                                                                                        | 0.01–0.22   |
| Temperature range °C            | –40/+110                                                                                                                                                                                                         | –40/+110    |
| Climatic category IEC           | 40/110/56/B                                                                                                                                                                                                      | 40/110/56/B |
| Capacitance tolerance           | $\pm 10\%$ for $C > 0.1 \mu\text{F}$ , code K. $\pm 20\%$ for $C \leq 0.1 \mu\text{F}$ , code M                                                                                                                  |             |
| Approvals                       | S, N, D, FI, VDE, SEV, IMQ, UL, CSA                                                                                                                                                                              |             |
| Dissipation factor $\tan\delta$ | $\leq 1.3\%$ at 1 kHz                                                                                                                                                                                            |             |
| Insulation resistance           | $C \leq 0.33 \mu\text{F} \geq 12000 \text{ M}\Omega$<br>$C > 0.33 \mu\text{F} \geq 4000 \text{ s}$<br>Measured at 500 VDC after 60 s, +23°C                                                                      |             |
| In DC applications              | Recommended voltage: $\leq 630 \text{ VDC}$                                                                                                                                                                      |             |
| Resonance frequency             | Tabulated self-resonance frequencies $f_0$ refer to 5 mm lead lengths.                                                                                                                                           |             |
| Test voltage between terminals  | The 100% screening factory test is carried out at 2150 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  $p = 15.2, 20.3, 22.5$   
 $1.0$  for  $p = 25.4$

$l =$  standard 30  $\pm 5/0$  mm (code R30)  
 option short leads, tolerance  $\pm 0/-1$  mm (standard 6 mm, code R06)  
 Other lead lengths on request.



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 <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<br>for $d \leq 0.8 < 1$ s<br>for $d > 0.8 < 1.5$ 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



## APPROVALS/REFERENCE DOCUMENTS

| Certification Body | Specification                                            | Approval reference                       |
|--------------------|----------------------------------------------------------|------------------------------------------|
| S                  | EN 132400                                                | 9834227-01 (X2), 9821105-01 (X1),        |
| N                  | EN 132400                                                | P98102279 (X2), P98101874 (X1)           |
| D                  | EN 132400                                                | 308048 (X2), 307886 (X1),                |
| FI                 | EN 132400                                                | 203301 (X2), 202782 (X1),                |
| VDE                | EN 132400                                                | 118230 (X2), 117365 (X1),                |
| SEV                | EN 132400                                                | 99.7 70053.01 (X2),<br>99.7 70083.01(X1) |
| IMQ                | EN 132400                                                | V 4699 (X2), V 4698 (X1),                |
| UL                 | UL 1283 ( $U_R = 250$ VAC)<br>UL 1414 ( $U_R = 250$ VAC) | E 100117 (X2, X1)<br>E 73869 (X2)        |
| CSA                | C 22.2 No. 1<br>( $U_R = 250$ VAC)                       | 53108 (X2)                               |

## MARKING

- RIFA
- RIFA article code
- Rated capacitance
- Rated voltage
- X2 or X1
- SH, for self-healing
- Climatic category according to IEC 60068-1, appendix A
- Passive flammability class
- Approval marks
- Manufacturing code (year, month)

## PACKING

Capacitors in standard design (lead length 30 mm) and with  $L < 24$  mm and 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.

Capacitors with  $L \geq 24$  mm and lead length 5 or 6 mm are packed on trays piled in a box with dimensions 300 x 260 x 195 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.

## ORDERING INFORMATION

The article code for the standard part is given in the article table.  
For other options, see page 21.