

# PHE840M

- EMI suppressor, class X2, metallized polypropylene
- 0.01 – 10.0  $\mu\text{F}$ , 275/280 VAC, +105°C
- New, small dimensions including low profile capacitors
- Replaces PHE843

## TYPICAL APPLICATIONS

For worldwide use as electromagnetic interference suppressor in all X2 and across-the-line applications.

## CONSTRUCTION

Metallized polypropylene film encapsulated with selfextinguishing epoxy resin in a box of material recognized to UL 94 V-0.

## TECHNICAL DATA

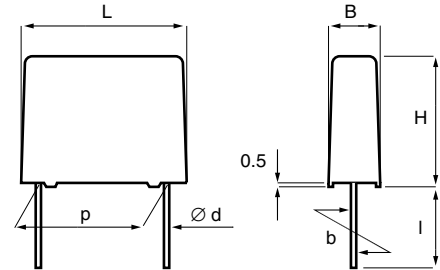
|                       |                                                              |
|-----------------------|--------------------------------------------------------------|
| Rated voltage         | 275 VAC 50/60 Hz (ENEC)<br>280 VAC 50/60 Hz (UL, CSA)        |
| Capacitance range     | 0.01 – 10.0 $\mu\text{F}$                                    |
| Capacitance tolerance | $\pm 20\%$ standard, $\pm 10\%$ option, $\pm 5\%$ on request |
| Temperature range     | -55 to +105°C                                                |
| Climatic category     | 55/105/56/B                                                  |
| Approvals             | ENEC, UL, CSA                                                |
| Dissipation factor    | Maximum values at +23°C                                      |

|         | $C \leq 0.1 \mu\text{F}$ | $0.1 \mu\text{F} < C \leq 1 \mu\text{F}$ | $C > 1 \mu\text{F}$ |
|---------|--------------------------|------------------------------------------|---------------------|
| 1 kHz   | 0.1%                     | 0.1%                                     | 0.1%                |
| 10 kHz  | 0.2%                     | 0.4%                                     | 0.8%                |
| 100 kHz | 0.6%                     | –                                        | –                   |

|                                |                                                                                                                                                                                                                  |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test voltage between terminals | The 100% screening factory test is carried out at 2200 VDC. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test. |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                       |                                                                                                                 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------|
| Insulation resistance | $C \leq 0.33 \mu\text{F}$ : $\geq 30\,000 \text{ M}\Omega$<br>$C > 0.33 \mu\text{F}$ : $\geq 10\,000 \text{ s}$ |
|-----------------------|-----------------------------------------------------------------------------------------------------------------|

|                    |                         |
|--------------------|-------------------------|
| In DC applications | Maximum voltage 630 VDC |
|--------------------|-------------------------|



| p              | d   | std l | max l | b         |
|----------------|-----|-------|-------|-----------|
| $7.5 \pm 0.4$  | 0.6 | 17    | 20    | $\pm 0.4$ |
| $10.0 \pm 0.4$ | 0.6 | 17    | 30    | $\pm 0.4$ |
| $15.0 \pm 0.4$ | 0.8 | 17    | 30    | $\pm 0.4$ |
| $22.5 \pm 0.4$ | 0.8 | 6     | 30    | $\pm 0.4$ |
| $27.5 \pm 0.4$ | 0.8 | 6     | 30    | $\pm 0.4$ |
| $37.5 \pm 0.5$ | 1.0 | 6     | 30    | $\pm 0.7$ |

Tolerance in lead length

< 30 mm  $\begin{smallmatrix} +0 \\ -1 \end{smallmatrix}$  mm

$\geq 30$  mm  $\begin{smallmatrix} +5 \\ -0 \end{smallmatrix}$  mm

## ENVIRONMENTAL TEST DATA

|                       |                                            |                                                                                                                     |                                               |
|-----------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Endurance             | IEC 60384-14                               | 1.25 x $U_R$ VAC 50 Hz,<br>once every hour increased<br>to 1000 VAC for 0.1 s,<br>1000 h at upper rated temperature |                                               |
| Vibration             | IEC 60068-2-6<br>Test Fc                   | 3 directions at 2 hours each,<br>10–55 Hz at 0.75 mm or 98 m/s <sup>2</sup>                                         | No visible damage<br>No open or short circuit |
| Bump                  | IEC 60068-2-29<br>Test Eb                  | 1000 bumps at<br>390 m/s <sup>2</sup>                                                                               | No visible damage<br>No open or short circuit |
| Change of temperature | IEC 60068-2-14<br>Test Na                  | Upper and lower rated<br>temperature 5 cycles                                                                       | No visible damage                             |
| Active flammability   | EN 132400                                  |                                                                                                                     |                                               |
| Passive flammability  | IEC 60384-14 (1993)<br>EN 132400<br>UL1414 | Enclosure material of<br>UL94V-0 flammability class                                                                 |                                               |
| Humidity              | IEC 60068-2-3<br>Test Ca                   | +40°C and<br>90 – 95% R.H.                                                                                          | 56 days                                       |

## ARTICLE TABLE

| Capaci-<br>tance<br>μF | Max dimensions<br>in mm |      |      |      | Quantity per package |             |                      |             | f <sub>0</sub><br>MHz | Max<br>dU/dt<br>V/μs | Approvals |    |     | Article code          |
|------------------------|-------------------------|------|------|------|----------------------|-------------|----------------------|-------------|-----------------------|----------------------|-----------|----|-----|-----------------------|
|                        | B                       | H    | L    | p    | Bulk<br>pcs          | Tray<br>pcs | reel<br>taped<br>pcs | Weight<br>g |                       |                      | ENEC      | UL | CSA |                       |
| LEAD SPACING 7.5 MM    |                         |      |      |      |                      |             |                      |             |                       |                      |           |    |     |                       |
| 0.010                  | 4.0                     | 8.0  | 10.5 | 7.5  | 1000                 |             | 1700                 | 0.5         | 14                    | 100                  | ✓         | ✓  | ✓   | PHE840MK5100MK01R17   |
| 0.012                  | 4.0                     | 8.0  | 10.5 | 7.5  | 1000                 |             | 1700                 | 0.5         | 13                    | 100                  | ✓         | ✓  | ✓   | PHE840MK5120MK01R17   |
| 0.015                  | 4.0                     | 8.0  | 10.5 | 7.5  | 1000                 |             | 1700                 | 0.5         | 12                    | 100                  | ✓         | ✓  | ✓   | PHE840MK5150MK01R17   |
| 0.018                  | 5.0                     | 11.0 | 10.5 | 7.5  | 1000                 |             | 1300                 | 0.8         | 11                    | 100                  | ✓         | ✓  | ✓   | PHE840MK5180MK03R17   |
| 0.022                  | 5.0                     | 11.0 | 10.5 | 7.5  | 1000                 |             | 1300                 | 0.8         | 10                    | 100                  | ✓         | ✓  | ✓   | PHE840MK5220MK03R17   |
| 0.027                  | 5.0                     | 11.0 | 10.5 | 7.5  | 1000                 |             | 1300                 | 0.8         | 9.5                   | 100                  | ✓         | ✓  | ✓   | PHE840MK5270MK03R17   |
| 0.033                  | 5.0                     | 11.0 | 10.5 | 7.5  | 1000                 |             | 1300                 | 0.8         | 8.8                   | 100                  | ✓         | ✓  | ✓   | PHE840MK5330MK03R17   |
| 0.039                  | 5.0                     | 11.0 | 10.5 | 7.5  | 1000                 |             | 1300                 | 0.8         | 8.3                   | 100                  | ✓         | ✓  | ✓   | PHE840MK5390MK03R17   |
| 0.047                  | 6.0                     | 12.0 | 10.5 | 7.5  | 1000                 |             | 1000                 | 1.0         | 7.5                   | 100                  | ✓         | ✓  | ✓   | PHE840MK5470MK04R17   |
| LEAD SPACING 10 MM     |                         |      |      |      |                      |             |                      |             |                       |                      |           |    |     |                       |
| 0.022                  | 4.0                     | 9.0  | 13.0 | 10.0 | 1000                 |             | 900                  | 0.7         | 8.5                   | 100                  | ✓         | ✓  | ✓   | PHE840MA5220MA01R17   |
| 0.027                  | 4.0                     | 9.0  | 13.0 | 10.0 | 1000                 |             | 900                  | 0.7         | 8.0                   | 100                  | ✓         | ✓  | ✓   | PHE840MA5270MA01R17   |
| 0.033                  | 4.0                     | 9.0  | 13.0 | 10.0 | 1000                 |             | 900                  | 0.7         | 7.6                   | 100                  | ✓         | ✓  | ✓   | PHE840MA5330MA01R17   |
| 0.039                  | 4.5                     | 10.5 | 13.0 | 10.0 | 1000                 |             | 800                  | 0.9         | 6.7                   | 100                  | ✓         | ✓  | ✓   | PHE840MA5390MA02R17   |
| 0.047                  | 4.5                     | 10.5 | 13.0 | 10.0 | 1000                 |             | 800                  | 0.9         | 5.9                   | 100                  | ✓         | ✓  | ✓   | PHE840MA5470MA02R17   |
| 0.056                  | 5.0                     | 11.0 | 13.0 | 10.0 | 800                  |             | 700                  | 1.0         | 5.5                   | 100                  | ✓         | ✓  | ✓   | PHE840MA5560MA03R17   |
| 0.068                  | 5.0                     | 11.0 | 13.0 | 10.0 | 800                  |             | 700                  | 1.0         | 4.9                   | 100                  | ✓         | ✓  | ✓   | PHE840MA5680MA03R17   |
| 0.082                  | 6.0                     | 12.0 | 13.0 | 10.0 | 600                  |             | 500                  | 1.2         | 4.4                   | 100                  | ✓         | ✓  | ✓   | PHE840MA5820MA04R17   |
| 0.10                   | 9.5                     | 7.5  | 13.0 | 10.0 | 600                  |             | 350                  | 1.2         | 4.0                   | 100                  | ✓         | ✓  | ✓   | PHE840MP6100MA05R17   |
| 0.10                   | 6.0                     | 12.0 | 13.0 | 10.0 | 600                  |             | 500                  | 1.2         | 4.0                   | 100                  | ✓         | ✓  | ✓   | PHE840MA6100MA04R17   |
| LEAD SPACING 15 MM     |                         |      |      |      |                      |             |                      |             |                       |                      |           |    |     |                       |
| 0.047                  | 5.5                     | 10.5 | 18.0 | 15.0 | 800                  |             | 600                  | 1.4         | 5.0                   | 100                  | ✓         | ✓  | ✓   | PHE840MB5470MB04R17   |
| 0.056                  | 5.5                     | 10.5 | 18.0 | 15.0 | 800                  |             | 600                  | 1.4         | 4.6                   | 100                  | ✓         | ✓  | ✓   | PHE840MB5560MB04R17   |
| 0.068                  | 5.5                     | 10.5 | 18.0 | 15.0 | 800                  |             | 600                  | 1.4         | 4.2                   | 100                  | ✓         | ✓  | ✓   | PHE840MB5680MB04R17   |
| 0.082                  | 5.5                     | 12.5 | 18.0 | 15.0 | 800                  |             | 600                  | 1.6         | 3.9                   | 100                  | ✓         | ✓  | ✓   | PHE840MB5820MB05R17   |
| 0.10                   | 5.5                     | 12.5 | 18.0 | 15.0 | 800                  |             | 600                  | 1.6         | 3.7                   | 100                  | ✓         | ✓  | ✓   | PHE840MB6100MB05R17   |
| 0.12                   | 6.5                     | 12.5 | 18.0 | 15.0 | 600                  |             | 500                  | 1.9         | 3.3                   | 100                  | ✓         | ✓  | ✓   | PHE840MB6120MB10R17   |
| 0.15                   | 6.5                     | 12.5 | 18.0 | 15.0 | 600                  |             | 500                  | 1.9         | 2.8                   | 100                  | ✓         | ✓  | ✓   | PHE840MB6150MB10R17   |
| 0.18                   | 7.5                     | 14.5 | 18.0 | 15.0 | 400                  |             | 400                  | 2.2         | 2.7                   | 100                  | ✓         | ✓  | ✓   | PHE840MB6180MB06R17   |
| 0.22                   | 7.5                     | 14.5 | 18.0 | 15.0 | 400                  |             | 400                  | 2.2         | 2.6                   | 100                  | ✓         | ✓  | ✓   | PHE840MX6220MB06R17 * |
| 0.22                   | 13.0                    | 12.5 | 18.0 | 15.0 | 300                  |             | 250                  | 3.4         | 2.5                   | 100                  | ✓         | ✓  | ✓   | PHE840MQ6220MB17R17   |
| 0.22                   | 8.0                     | 15.0 | 18.0 | 15.0 | 400                  |             | 400                  | 2.5         | 2.5                   | 100                  | ✓         | ✓  | ✓   | PHE840MB6220MB12R17   |
| 0.27                   | 8.5                     | 16.0 | 18.0 | 15.0 | 400                  |             | 400                  | 2.9         | 2.3                   | 100                  | ✓         | ✓  | ✓   | PHE840MB6270MB11R17   |
| 0.33                   | 8.5                     | 16.0 | 18.0 | 15.0 | 400                  |             | 400                  | 2.9         | 2.2                   | 100                  | ✓         | ✓  | ✓   | PHE840MX6330MB11R17 * |
| 0.33                   | 13.0                    | 12.5 | 18.0 | 15.0 | 300                  |             | 250                  | 3.4         | 2.2                   | 100                  | ✓         | ✓  | ✓   | PHE840MH6330MB17R17 * |
| 0.33                   | 9.5                     | 17.5 | 18.0 | 15.0 | 300                  |             | 350                  | 3.5         | 2.0                   | 100                  | ✓         | ✓  | ✓   | PHE840MB6330MB14R17   |
| 0.39                   | 11.0                    | 19.0 | 18.0 | 15.0 | 250                  |             | 300                  | 4.4         | 1.9                   | 100                  | ✓         | ✓  | ✓   | PHE840MB6390MB16R17   |
| 0.47                   | 11.0                    | 19.0 | 18.0 | 15.0 | 250                  |             | 300                  | 4.4         | 1.8                   | 100                  | ✓         | ✓  | ✓   | PHE840MB6470MB16R17   |
| LEAD SPACING 22.5 MM   |                         |      |      |      |                      |             |                      |             |                       |                      |           |    |     |                       |
| 0.22                   | 6.5                     | 14.5 | 26.0 | 22.5 |                      | 234         |                      | 2.7         | 2.1                   | 100                  | ✓         | ✓  | ✓   | PHE840MD6220MD13R06L2 |
| 0.27                   | 7.0                     | 16.5 | 26.0 | 22.5 |                      | 216         |                      | 3.2         | 1.9                   | 100                  | ✓         | ✓  | ✓   | PHE840MD6270MD17R06L2 |
| 0.33                   | 7.0                     | 16.5 | 26.0 | 22.5 |                      | 216         |                      | 3.2         | 1.8                   | 100                  | ✓         | ✓  | ✓   | PHE840MD6330MD17R06L2 |
| 0.39                   | 8.0                     | 16.0 | 26.0 | 22.5 |                      | 186         |                      | 3.8         | 1.7                   | 100                  | ✓         | ✓  | ✓   | PHE840MD6390MD14R06L2 |
| 0.47                   | 8.0                     | 16.0 | 26.0 | 22.5 |                      | 186         |                      | 3.8         | 1.6                   | 100                  | ✓         | ✓  | ✓   | PHE840MY6470MD14R06L2 |
| 0.47                   | 9.0                     | 18.5 | 26.0 | 22.5 |                      | 168         |                      | 5.0         | 1.5                   | 100                  | ✓         | ✓  | ✓   | PHE840MD6470MD15R06L2 |
| 0.56                   | 9.0                     | 18.5 | 26.0 | 22.5 |                      | 168         |                      | 5.0         | 1.4                   | 100                  | ✓         | ✓  | ✓   | PHE840MD6560MD15R06L2 |
| 0.68                   | 9.0                     | 18.5 | 26.0 | 22.5 |                      | 168         |                      | 5.0         | 1.3                   | 100                  | ✓         | ✓  | ✓   | PHE840MY6680MD15R06L2 |
| 0.68                   | 10.5                    | 19.0 | 26.0 | 22.5 |                      | 264         |                      | 5.8         | 1.2                   | 100                  | ✓         | ✓  | ✓   | PHE840MD6680MD18R06L2 |
| 0.82                   | 11.0                    | 21.5 | 26.0 | 22.5 |                      | 253         |                      | 6.6         | 1.1                   | 100                  | ✓         | ✓  | ✓   | PHE840MD6820MD16R06L2 |
| 1.0                    | 11.0                    | 21.5 | 26.0 | 22.5 |                      | 253         |                      | 6.6         | 1.1                   | 100                  | ✓         | ✓  | ✓   | PHE840MY7100MD16R06L2 |
| 1.0                    | 13.5                    | 23.0 | 26.0 | 22.5 |                      | 209         |                      | 8.2         | 1.0                   | 100                  | ✓         | ✓  | ✓   | PHE840MD7100MD20R06L2 |
| 1.2                    | 15.5                    | 24.5 | 26.0 | 22.5 |                      | 176         |                      | 10.0        | 0.90                  | 100                  | ✓         | ✓  | ✓   | PHE840MD7120MD19R06L2 |
| 1.5                    | 15.5                    | 24.5 | 26.0 | 22.5 |                      | 176         |                      | 10.0        | 0.85                  | 100                  | ✓         | ✓  | ✓   | PHE840MD7150MD19R06L2 |

\* Only  $\pm 20\%$  tolerance

## ARTICLE TABLE

| Capacitance<br>μF    | Max dimensions<br>in mm |      |      |             | p | Quantity per package<br>reel |              |      | Weight<br>g | f <sub>0</sub><br>MHz | Max<br>dU/dt<br>V/μs | Approvals |     |   | Article code            |
|----------------------|-------------------------|------|------|-------------|---|------------------------------|--------------|------|-------------|-----------------------|----------------------|-----------|-----|---|-------------------------|
|                      | B                       | H    | L    | Bulk<br>pcs |   | Tray<br>pcs                  | taped<br>pcs | ENEC |             |                       |                      | UL        | CSA |   |                         |
| LEAD SPACING 27.5 MM |                         |      |      |             |   |                              |              |      |             |                       |                      |           |     |   |                         |
| 0.82                 | 10.5                    | 20.5 | 31.5 | 27.5        |   | 216                          |              |      | 8.0         | 1.0                   | 100                  | ✓         | ✓   | ✓ | PHE840MF6820MF11R06L2   |
| 1.0                  | 10.5                    | 20.5 | 31.5 | 27.5        |   | 216                          |              |      | 8.0         | 1.0                   | 100                  | ✓         | ✓   | ✓ | PHE840MZ7100MF11R06L2 * |
| 1.0                  | 11.5                    | 22.5 | 31.5 | 27.5        |   | 198                          |              |      | 9.1         | 0.95                  | 100                  | ✓         | ✓   | ✓ | PHE840MF7100MF12R06L2   |
| 1.2                  | 13.5                    | 23.0 | 31.5 | 27.5        |   | 171                          |              |      | 10.8        | 0.82                  | 100                  | ✓         | ✓   | ✓ | PHE840MF7120MF03R06L2   |
| 1.5                  | 14.5                    | 24.5 | 31.5 | 27.5        |   | 153                          |              |      | 14.5        | 0.73                  | 100                  | ✓         | ✓   | ✓ | PHE840MF7150MF13R06L2   |
| 1.8                  | 17.5                    | 28.0 | 31.5 | 27.5        |   | 126                          |              |      | 17.0        | 0.65                  | 100                  | ✓         | ✓   | ✓ | PHE840MF7180MF14R06L2   |
| 2.2                  | 17.5                    | 28.0 | 31.5 | 27.5        |   | 126                          |              |      | 17.0        | 0.64                  | 100                  | ✓         | ✓   | ✓ | PHE840MZ7220MF14R06L2 * |
| 2.2                  | 19.0                    | 29.0 | 31.5 | 27.5        |   | 117                          |              |      | 19.5        | 0.62                  | 100                  | ✓         | ✓   | ✓ | PHE840MF7220MF15R06L2   |
| 2.7                  | 19.0                    | 29.0 | 31.5 | 27.5        |   | 117                          |              |      | 19.5        | 0.58                  | 100                  | ✓         | ✓   | ✓ | PHE840MF7270MF15R06L2   |
| 3.3                  | 19.0                    | 29.0 | 31.5 | 27.5        |   | 117                          |              |      | 19.5        | 0.54                  | 100                  | ✓         | ✓   | ✓ | PHE840MZ7330MF15R06L2 * |
| 3.3                  | 21.0                    | 30.0 | 31.5 | 27.5        |   | 108                          |              |      | 22.6        | 0.50                  | 100                  | ✓         | ✓   | ✓ | PHE840MF7330MF16R06L2   |
| 3.3                  | 31.0                    | 18.5 | 31.5 | 27.5        |   | 72                           |              |      | 20.0        | 0.50                  | 100                  | ✓         | ✓   | ✓ | PHE840MT7330MF18R06L2   |
| LEAD SPACING 37.5 MM |                         |      |      |             |   |                              |              |      |             |                       |                      |           |     |   |                         |
| 1.8                  | 13.0                    | 24.0 | 41.0 | 37.5        |   | 140                          |              |      | 14.0        | 0.60                  | 100                  | ✓         | ✓   | ✓ | PHE840MR7180MR05R06L2   |
| 2.2                  | 13.0                    | 24.0 | 41.0 | 37.5        |   | 140                          |              |      | 14.0        | 0.58                  | 100                  | ✓         | ✓   | ✓ | PHE840MR7220MR05R06L2   |
| 2.7                  | 15.0                    | 26.0 | 41.0 | 37.5        |   | 119                          |              |      | 17.0        | 0.53                  | 100                  | ✓         | ✓   | ✓ | PHE840MR7270MR04R06L2   |
| 3.3                  | 15.0                    | 26.0 | 41.0 | 37.5        |   | 119                          |              |      | 17.0        | 0.49                  | 100                  | ✓         | ✓   | ✓ | PHE840MR7330MR04R06L2   |
| 3.9                  | 16.5                    | 32.0 | 41.0 | 37.5        |   | 105                          |              |      | 23.0        | 0.46                  | 100                  | ✓         | ✓   | ✓ | PHE840MR7390MR02R06L2   |
| 4.7                  | 19.0                    | 36.0 | 41.0 | 37.5        |   | 91                           |              |      | 28.5        | 0.44                  | 100                  | ✓         | ✓   | ✓ | PHE840MR7470MR03R06L2   |
| 5.6                  | 21.0                    | 38.0 | 41.0 | 37.5        |   | 84                           |              |      | 34.4        | 0.41                  | 100                  | ✓         | ✓   | ✓ | PHE840MR7560MR06R06L2   |
| 6.8                  | 21.0                    | 38.0 | 41.0 | 37.5        |   | 84                           |              |      | 34.4        | 0.39                  | 100                  | ✓         | ✓   | ✓ | PHE840MR7680MR06R06L2   |
| 8.2                  | 28.0                    | 43.0 | 41.0 | 37.5        |   | 63                           |              |      | 53.0        | 0.30                  | 100                  | ✓         | ✓   | ✓ | PHE840MR7820MR08R06L2   |
| 10.0                 | 28.0                    | 43.0 | 41.0 | 37.5        |   | 63                           |              |      | 53.0        | 0.26                  | 100                  | ✓         | ✓   | ✓ | PHE840MR8100MR08R06L2   |

\* Only  $\pm 20\%$  tolerance

## APPROVALS/REFERENCE DOCUMENTS

| Certification Body       | Specification                               | Approval reference |
|--------------------------|---------------------------------------------|--------------------|
| ENEC<br>UL               | EN 132400                                   | SE/0140-4A         |
|                          | UL 1283<br>( $U_R = 280 \text{ VAC}$ )      | E100117            |
| cUL recognition<br>(CSA) | UL 1414<br>( $U_R = 250 \text{ VAC}$ )      | E73869             |
|                          | C 22.2 No. 8<br>( $U_R = 280 \text{ VAC}$ ) | E100117            |
|                          | C 22.2 No. 1<br>( $U_R = 280 \text{ VAC}$ ) | E73869             |
|                          | ( $U_R = 250 \text{ VAC}$ )                 |                    |

## MARKING

- RIFA
- RIFA article code
- Rated capacitance
- Capacitance tolerance code
- Rated voltage
- X2
- Approval marks
- Manufacturing date code
- IEC climatic category
- Passive flammability class

## ORDERING INFORMATION

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

## PACKING

The box dimensions for bulk packaging are 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. Quantity/reel according to article table. 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.