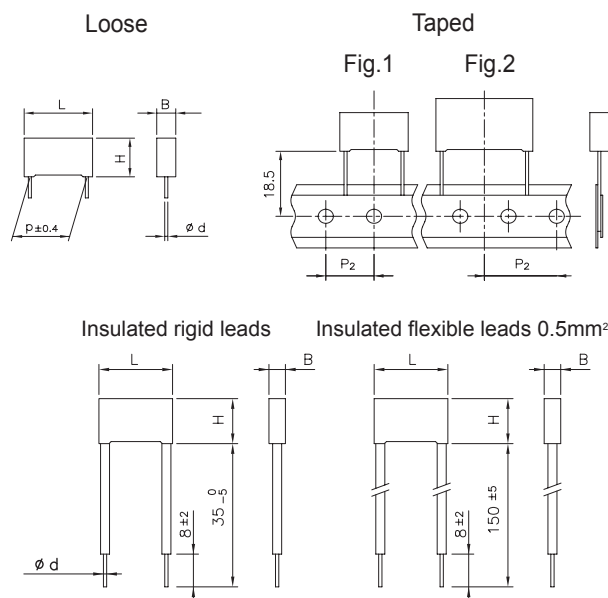




| Ø d ±0.05 | p ≤ 15      | 22.5 ≤ p ≤ 27.5 | p = 37.5 |
|-----------|-------------|-----------------|----------|
|           | 0.6 or 0.8* | 0.8             | 1.0      |

\*See size table.

All dimensions are in mm.

## GENERAL TECHNICAL DATA

**Dielectric:** polypropylene film.

**Plates:** metal layer deposited by evaporation under vacuum.

**Winding:** non-inductive type.

**Leads:** tinned wire.

**Protection:** plastic case, thermosetting resin filled.

Box material is solvent resistant and flame retardant according to UL94 V0.

**Marking:** Manufacturer's logo, series, capacitance, tolerance, rated voltage, capacitor class, dielectric code, climatic category, passive flammability category, manufacturing date code, approvals, manufacturing plant.

**Climatic category:** 40/110/56 IEC 60068-1

**Operating temperature range:** -40 to +110°C

**Related documents:** IEC 60384-14, EN 60384-14.

## ELECTRICAL CHARACTERISTICS

**Rated voltage (V<sub>R</sub>):** 310Vac / 800Vdc; (50/60Hz)

330Vac / 800Vdc; (50/60Hz)

**Capacitance range:** 0.01µF to 6.8µF

**Capacitance values:** E6 series (IEC 60063 Norm).

**Capacitance tolerances** (measured at 1 kHz):

±10% (K); ±20% (M);

Tolerance ±5% (J) available upon request.

**Dissipation factor (DF):**

$\tan \delta \times 10^{-4}$  at +25°C ±5°C: ≤10 (6)\* at 1kHz

Typical value

**Insulation resistance:**

**Test conditions**

Temperature: +25°C ±5°C

Voltage charge time: 1 min

Voltage charge: 100 Vdc

**Performance**

≥1x10<sup>5</sup> MΩ (5x10<sup>5</sup> MΩ)\* for C ≤ 0.33µF

≥30000 s (150000 s)\* for C > 0.33µF

\* Typical value

**Test voltage between terminations** (on all pieces):

1500Vac for 1 s + 2200Vdc for 1 s at +25°C ±5°C

## X1 CLASS (IEC 60384-14) - MKP Series METALLIZED POLYPROPYLENE FILM CAPACITOR SELF-HEALING PROPERTIES

**Typical applications:** interference suppression and «across-the-line» applications. Suitable for use in situations where failure of the capacitor would not lead to danger of electric shock.

Class X1 shall be applied for PERMANENTLY CONNECTED APPARATUS.

**Note: PERMANENTLY CONNECTED APPARATUS:**

apparatus which is intended for connection to the mains by a connection which cannot be loosened **BY HAND**.

**BY HAND:**

operation that does not require the use of any object such a tool, coin, etc.

**PRODUCT CODE: R49**

**Note:** R.49 series has replaced the 1.58 series (available upon request). For new design we suggest the use of the R.49 series.

| Pitch<br>(mm) | Box thickness (B)<br>(mm) | Maximum dimensions (mm) |        |        |
|---------------|---------------------------|-------------------------|--------|--------|
|               |                           | B max                   | H max  | L max  |
| 10.0          | All                       | B +0.2                  | H +0.1 | L +0.2 |
| 15.0          | <7.5                      | B +0.2                  | H +0.1 | L +0.3 |
| 15.0          | ≥7.5                      | B +0.2                  | H +0.1 | L +0.5 |
| 22.5          | All                       | B +0.2                  | H +0.1 | L +0.3 |
| 27.5          | All                       | B +0.2                  | H +0.1 | L +0.3 |
| 37.5          | All                       | B +0.3                  | H +0.1 | L +0.3 |

## TEST METHOD AND PERFORMANCE

**Damp heat, steady state:**

**Test conditions**

Temperature: +40°C ±2°C

Relative humidity (RH): 93% ±2%

Test duration: 56 days

**Performance**

Dielectric strength: no dielectric breakdown or flashover at 4.3 x V<sub>R</sub> (d.c.)/1 min

Capacitance change |ΔC/C|: ≤5%

Insulation resistance: ≥50% of initial limit.

**Endurance:**

**Test conditions**

Temperature: +110°C ±2°C

Test duration: 1000 h

Voltage applied: 1.25 x V<sub>R</sub> +1000Vac 0.1 s/h

**Performance**

Dielectric strength: no dielectric breakdown or flashover at 4.3 x V<sub>R</sub> (d.c.)/1 min

Capacitance change |ΔC/C|: ≤10%

Insulation resistance: ≥50% of initial limit.

**Resistance to soldering heat:**

**Test conditions**

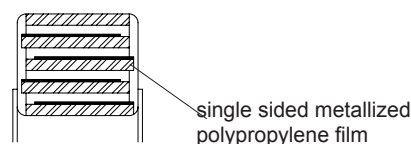
Solder bath temperature: +260°C ±5°C

Dipping time (with heat screen): 10 s ±1 s

**Performance**

Capacitance change |ΔC/C|: ≤2%

**Winding scheme**



X1 CLASS (IEC 60384-14) - MKP Series  
**METALLIZED POLYPROPYLENE FILM CAPACITOR**  
 SELF-HEALING PROPERTIES  
 PRODUCT CODE: **R49**

| Rated Cap. (*) | 310 Vac / 800 Vdc<br>Std dimensions |      |      |      | Ø d | Max dv/dt at 440Vdc (V/µs) | Part Number         |
|----------------|-------------------------------------|------|------|------|-----|----------------------------|---------------------|
|                | B                                   | H    | L    | p    |     |                            |                     |
| 0.010 µF       | 5.0                                 | 11.0 | 13.0 | 10.0 | 0.6 | 600                        | R49AF 2100 -- 01 -  |
| 0.015 µF       | 5.0                                 | 11.0 | 13.0 | 10.0 | 0.6 | 600                        | R49AF 2150 -- 01 -  |
| 0.022 µF       | 6.0                                 | 12.0 | 13.0 | 10.0 | 0.6 | 600                        | R49AF 2120 -- 01 -  |
| 0.033 µF       | 6.0                                 | 12.0 | 13.0 | 10.0 | 0.6 | 600                        | R49AF 2330 -- 01 -  |
| 0.010 µF       | 5.0                                 | 11.0 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 2100 -- 01 -  |
| 0.015 µF       | 5.0                                 | 11.0 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 2150 -- 01 -  |
| 0.022 µF       | 5.0                                 | 11.0 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 2220 -- 01 -  |
| 0.033 µF       | 5.0                                 | 11.0 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 2330 -- 01 -  |
| 0.047 µF       | 6.0                                 | 12.5 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 2470 -- 01 -  |
| 0.068 µF       | 6.0                                 | 12.0 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 2680 -- M1 -M |
| 0.068 µF       | 7.5                                 | 13.5 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 2680 -- 01 -  |
| 0.10 µF        | 7.5                                 | 13.5 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 3100 -- M1 -M |
| 0.10 µF        | 8.5                                 | 14.5 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 3100 -- 01 -  |
| 0.15 µF        | 10.0                                | 16.0 | 18.0 | 15.0 | 0.8 | 500                        | R49AI 3150 -- 01 -  |
| 0.10 µF        | 6.0                                 | 15.0 | 26.5 | 22.5 | 0.8 | 400                        | R49AN 3100 -- 01    |
| 0.15 µF        | 7.0                                 | 16.0 | 26.5 | 22.5 | 0.8 | 400                        | R49AN 3150 -- 01    |
| 0.22 µF        | 8.5                                 | 17.0 | 26.5 | 22.5 | 0.8 | 400                        | R49AN 3220 -- 01    |
| 0.33 µF        | 10.0                                | 18.5 | 26.5 | 22.5 | 0.8 | 400                        | R49AN 3330 -- 01    |
| 0.47 µF        | 11.0                                | 20.0 | 26.5 | 22.5 | 0.8 | 400                        | R49AN 3470 -- 01    |
| 0.33 µF        | 9.0                                 | 17.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 3330 -- 01    |
| 0.47 µF        | 11.0                                | 20.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 3470 -- 01    |
| 0.68 µF        | 13.0                                | 22.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 3680 -- 01    |
| 1.0 µF         | 14.0                                | 28.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 4100 -- 01    |
| 1.5 µF         | 18.0                                | 33.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 4150 -- 01    |
| 2.2 µF         | 22.0                                | 37.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 4220 -- 01    |

Mechanical version and packaging (Table1)

Tolerance: K (±10%); M (±20%)

All dimensions are in mm

E12 Series available upon request

For "capacitor connected in serial with main line" (two - phase and three - phase net) application, please read the "SHORT GUIDE TO CHOOSE THE RIGHT FILM CAPACITORS" at pag. 152 and contact our Technical Service for choosing the safest solution.

| Rated Cap. (*) | 330 Vac / 800 Vdc<br>Std dimensions |      |      |      | Ø d | Max dv/dt at 440Vdc (V/µs) | Part Number        |
|----------------|-------------------------------------|------|------|------|-----|----------------------------|--------------------|
|                | B                                   | H    | L    | p    |     |                            |                    |
| 0.047 µF       | 5.0                                 | 11.0 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 2470 -- B1 - |
| 0.068 µF       | 6.0                                 | 12.0 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 2680 -- B1 - |
| 0.068 µF       | 6.0                                 | 17.5 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 2680 -- A2 - |
| 0.10 µF        | 6.0                                 | 17.5 | 18.0 | 15.0 | 0.6 | 500                        | R49AI 3100 -- A2 - |
| 0.15 µF        | 13.0                                | 12.0 | 18.0 | 15.0 | 0.8 | 500                        | R49AI 3150 -- A3 - |
| 0.15 µF        | 8.5                                 | 14.5 | 18.0 | 15.0 | 0.8 | 500                        | R49AI 3150 -- B1 M |
| 0.22 µF        | 10.0                                | 16.0 | 18.0 | 15.0 | 0.8 | 500                        | R49AI 3220 -- B2 M |
| 0.22 µF        | 11.0                                | 19.0 | 18.0 | 15.0 | 0.8 | 500                        | R49AI 3220 -- B1-  |
| 0.15 µF        | 6.0                                 | 15.0 | 26.5 | 22.5 | 0.8 | 400                        | R49AN 3150 -- B1 - |
| 0.22 µF        | 7.0                                 | 16.0 | 26.5 | 22.5 | 0.8 | 400                        | R49AN 3220 -- B1 - |
| 0.33 µF        | 8.5                                 | 17.0 | 26.5 | 22.5 | 0.8 | 400                        | R49AN 3330 -- B1 M |
| 0.47 µF        | 10.0                                | 18.5 | 26.5 | 22.5 | 0.8 | 400                        | R49AN 3470 -- B1 M |
| 0.68 µF        | 13.0                                | 22.0 | 26.5 | 22.5 | 0.8 | 400                        | R49AN 3680 -- B1 M |
| 0.33 µF        | 9.0                                 | 17.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 3330 -- A1 - |
| 0.47 µF        | 11.0                                | 20.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 3470 -- A1 - |
| 0.68 µF        | 11.0                                | 20.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 3680 -- B1 - |
| 0.68 µF        | 13.0                                | 22.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 3680 -- A1 - |
| 1.0 µF         | 13.0                                | 25.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 4100 -- B1 - |
| 1.0 µF         | 14.0                                | 28.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 4100 -- A1 - |
| 1.5 µF         | 14.0                                | 28.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 4150 -- B1 - |
| 1.5 µF         | 18.0                                | 33.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 4150 -- A1 - |
| 2.2 µF         | 18.0                                | 33.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 4220 -- B1 - |
| 2.2 µF         | 22.0                                | 37.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 4220 -- A1 - |
| 3.3 µF         | 22.0                                | 37.0 | 32.0 | 27.5 | 0.8 | 200                        | R49AR 4330 -- B1 - |
| 0.68 µF        | 11.0                                | 22.0 | 41.5 | 37.5 | 1.0 | 100                        | R49AW 3680 -- B1 - |
| 1.0 µF         | 11.0                                | 22.0 | 41.5 | 37.5 | 1.0 | 100                        | R49AW 4100 -- B1 - |
| 1.5 µF         | 13.0                                | 24.0 | 41.5 | 37.5 | 1.0 | 100                        | R49AW 4150 -- B1 - |
| 2.2 µF         | 16.0                                | 28.5 | 41.5 | 37.5 | 1.0 | 100                        | R49AW 4220 -- B1 - |
| 3.3 µF         | 19.0                                | 32.0 | 41.5 | 37.5 | 1.0 | 100                        | R49AW 4330 -- B1 - |
| 4.7 µF         | 19.0                                | 32.0 | 41.5 | 37.5 | 1.0 | 100                        | R49AW 4470 -- B1 - |
| 6.8 µF         | 30.0                                | 45.0 | 41.5 | 37.5 | 1.0 | 100                        | R49AW 4680 -- B1 - |

Mechanical version and packaging (Table1)

Tolerance: K (±10%); M (±20%)

## APPROVALS

|                                                                                     |                                            |                                                           |                    |
|-------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------|--------------------|
|  | ENEC IEC 60384-14                          | Class X1                                                  | File No.CA08.00030 |
|                                                                                     | UL 1414 (up to 1µF, 85°C; 250Vac)          | Across-the-line                                           | File No.E97797     |
|                                                                                     | CSA - C22.2 No.1 (up to 1µF, 85°C; 250Vac) | Across-the-line certified for Canad                       | File No.E97797     |
|                                                                                     | UL 1283 (310 Vac)                          | Electromagnetic Interference Filters                      | File No.E85238     |
|                                                                                     | CSA - C22.2 No.8 (310 Vac)                 | Electromagnetic Interference Filters certified for Canada | File No.E85238     |

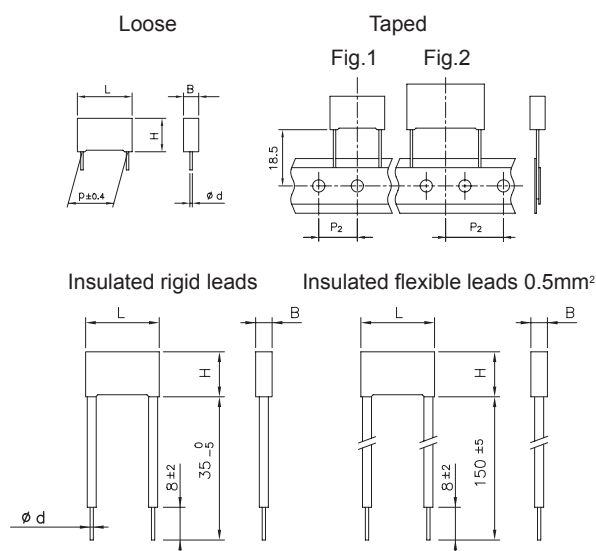
Approved according to IEC 60384-14

According to IEC 60065.

Table 1

| Standard packaging style        | Lead length (mm)    | Taping style        |            |            | Ordering code (Digit 10 to 11) |
|---------------------------------|---------------------|---------------------|------------|------------|--------------------------------|
|                                 |                     | P <sub>2</sub> (mm) | Fig. (No.) | Pitch (mm) |                                |
| AMMO-PACK                       |                     | 12.70               | 1          | 10.0/15.0  | DQ                             |
| AMMO-PACK                       |                     | 19.05               | 2          | 22.5       | DQ                             |
| REEL Ø500mm                     |                     | 12.70               | 1          | 10.0/15.0  | CK                             |
| REEL Ø500mm                     |                     | 19.05               | 2          | 22.5/27.5  | CK                             |
| Loose, short leads              | 4 <sup>+2</sup>     |                     |            |            | 00                             |
| Loose, long leads               | 25 <sup>-1/+2</sup> |                     |            |            | 50                             |
| Loose, long leads               | 30 <sup>+5</sup>    |                     |            |            | 40                             |
| Loose, insulated rigid leads    | 30 <sup>+5</sup>    |                     |            |            | 51                             |
| Loose, insulated flexible leads | 150 <sup>+5</sup>   |                     |            |            | 52                             |

Note: Ammo-pack is the preferred packaging for taped version.



| Ø d ±0.05 | p = 27.5 | p = 37.5 |
|-----------|----------|----------|
|           | 0.8      | 1        |

All dimensions are in mm.

## GENERAL TECHNICAL DATA

**Dielectric:** polypropylene film.

**Plates:** metal layer deposited by evaporation under vacuum.

**Winding:** non-inductive type.

**Leads:** tinned wire.

**Protection:** plastic case, thermosetting resin filled.

Box material is solvent resistant and flame retardant according to UL94 V0.

**Marking:** Manufacturer's logo, series, capacitance, tolerance, rated voltage, capacitor class, dielectric code, climatic category, passive flammability category, manufacturing date code, approvals, manufacturing plant.

**Climatic category:** 40/110/56 IEC 60068-1

**Operating temperature range:** -40 to +110°C

**Related documents:** IEC 60384-14, EN 132400.

## ELECTRICAL CHARACTERISTICS

**Rated voltage ( $V_R$ ):** 330Vac; 800Vdc(50/60Hz)\*

**Capacitance range:** 0.33µF to 6.8µF

**Capacitance values:** E6 series (IEC 60063 Norm).

**Capacitance tolerances** (measured at 1 kHz):  
±10% (K); ±20% (M).

**Dissipation factor (DF):**

$\text{tg} \delta \times 10^{-4}$  at +25°C ±5°C: ≤10 (6)\* at 1kHz \*

Typical value

**Insulation resistance:**

**Test conditions**

Temperature: +25°C±5°C

Voltage charge time: 1 min

Voltage charge: 100 Vdc

**Performance**

≥1×10<sup>5</sup> MΩ (5×10<sup>5</sup> MΩ)\* for C≤0.33µF

≥30000 s (150000 s)\* for C>0.33µF

\* Typical value

**Test voltage between terminations** (on all pieces):

1500Vac for 1 s + 2200Vdc for 1 s at +25°C±5°C

Capacitors with discharge resistor

X1 CLASS (IEC 60384-14) - MKP Series

**METALLIZED POLYPROPYLENE FILM CAPACITOR**  
**SELF-HEALING PROPERTIES**

**Typical applications:** interference suppression and «across-the-line» applications. Suitable for use in situations where failure of the capacitor would not lead to danger of electric shock.

Class X1 shall be applied for PERMANENTLY CONNECTED APPARATUS.

Note: **PERMANENTLY CONNECTED APPARATUS:**

apparatus which is intended for connection to the mains by a connection which cannot be loosened **BY HAND**.

**BY HAND:**

operation that does not require the use of any object such a tool, coin, etc.

PRODUCT CODE: **R49**

| Pitch<br>(mm) | Box thickness<br>(mm) | Maximum dimensions (mm) |        |        |
|---------------|-----------------------|-------------------------|--------|--------|
|               |                       | B max                   | H max  | L max  |
| 27.5          | All                   | B +0.2                  | H +0.1 | L +0.3 |
| 37.5          | All                   | B +0.3                  | H +0.1 | L +0.3 |

## TEST METHOD AND PERFORMANCE

**Damp heat, steady state:**

**Test conditions**

Temperature: +40°C±2°C

Relative humidity (RH): 93% ±2%

Test duration: 56 days

**Performance**

Dielectric strength: no dielectric breakdown or flashover at 4.3 x  $V_R$  (d.c.)/1 min

Capacitance change  $|\Delta C/C|$ : ≤5%

Insulation resistance: ≥50% of initial limit.

**Endurance:**

**Test conditions**

Temperature: +110°C±2°C

Test duration: 1000 h

Voltage applied: 1.25 x  $V_R$  +1000Vac 0.1 s/h

**Performance**

Dielectric strength: no dielectric breakdown or flashover at 4.3 x  $V_R$  (d.c.)/1 min

Capacitance change  $|\Delta C/C|$ : ≤10%

Insulation resistance: ≥50% of initial limit.

**Resistance to soldering heat:**

**Test conditions**

Solder bath temperature: +260°C±5°C

Dipping time (with heat screen): 10 s±1 s

**Performance**

Capacitance change  $|\Delta C/C|$ : ≤2%

Capacitor with discharge resistor  
X1 CLASS (IEC 60384-14) - MKP Series  
**METALLIZED POLYPROPYLENE FILM CAPACITOR**  
SELF-HEALING PROPERTIES  
PRODUCT CODE: **R49**

| Rated Cap. (*) | 330 Vac / 800 Vdc<br>Std dimensions |      |      |      | Ø d | Max dv/dt at 440Vdc (V/ µs) | Part Number |      |           |
|----------------|-------------------------------------|------|------|------|-----|-----------------------------|-------------|------|-----------|
|                | B                                   | H    | L    | p    |     |                             |             |      |           |
| 0.33 µF        | 9.0                                 | 17.0 | 32.0 | 27.5 | 0.8 | 200                         | R49AR       | 3330 | -- B1 --  |
| 0.47 µF        | 11.0                                | 20.0 | 32.0 | 27.5 | 0.8 | 200                         | R49AR       | 3470 | -- B1 --  |
| 0.68 µF        | 13.0                                | 22.0 | 32.0 | 27.5 | 0.8 | 200                         | R49AR       | 3680 | -- B1 --  |
| 1.0 µF         | 13.0                                | 22.0 | 32.0 | 27.5 | 0.8 | 200                         | R49AR       | 4100 | -- B1 M - |
| 1.0 µF         | 14.0                                | 28.0 | 32.0 | 27.5 | 0.8 | 200                         | R49AR       | 4100 | -- B2 --  |
| 1.5 µF         | 18.0                                | 33.0 | 32.0 | 27.5 | 0.8 | 200                         | R49AR       | 4150 | -- B1 M - |
| 1.5 µF         | 14.0                                | 28.0 | 32.0 | 27.5 | 0.8 | 200                         | R49AR       | 4150 | -- B2 --  |
| 2.2 µF         | 22.0                                | 37.0 | 32.0 | 27.5 | 0.8 | 200                         | R49AR       | 4220 | -- B1 --  |
| 0.68 µF        | 11.0                                | 22.0 | 41.5 | 37.5 | 1.0 | 100                         | R49AW       | 3680 | -- A1 --  |
| 1.0 µF         | 11.0                                | 22.0 | 41.5 | 37.5 | 1.0 | 100                         | R49AW       | 4100 | -- B1 --  |
| 1.5 µF         | 13.0                                | 24.0 | 41.5 | 37.5 | 1.0 | 100                         | R49AW       | 4150 | -- B1 --  |
| 2.2 µF         | 16.0                                | 28.5 | 41.5 | 37.5 | 1.0 | 100                         | R49AW       | 4220 | -- B1 --  |
| 3.3 µF         | 19.0                                | 32.0 | 41.5 | 37.5 | 1.0 | 100                         | R49AW       | 4330 | -- B1 --  |
| 4.7 µF         | 20.0                                | 40.0 | 41.5 | 37.5 | 1.0 | 100                         | R49AW       | 4470 | -- B1 --  |
| 6.8 µF         | 30.0                                | 45.0 | 41.5 | 37.5 | 1.0 | 100                         | R49AW       | 4680 | -- B1 --  |

Rated voltage (A=330Vac) \_\_\_\_\_  
Mechanical version and packaging (Table 1) \_\_\_\_\_  
Tolerance: K (±10%); M (±20%) \_\_\_\_\_  
Value of discharge resistor (Table 2) \_\_\_\_\_

All dimensions are in mm

## APPROVALS

|                                                                                     |                                     |                                                                    |                    |
|-------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------------------------------------|--------------------|
|  | ENEC<br>IEC 60384-14                | Class X1                                                           | File No.CA08.00030 |
|  | UL 1283<br>(310 Vac-105°C)          | Electromagnetic<br>Interference<br>Filters                         | File No.E85238     |
|                                                                                     | CSA - C22.2 No.8<br>(310 Vac-105°C) | Electromagnetic<br>Interference<br>Filters certified<br>for Canada | File No.E85238     |

Approved according to IEC 60384-14  
According to IEC 60065.

Table 1

| Standard packaging style        | Lead length (mm)    | Taping style        |            |            | Ordering code (Digit 10 to 11) |
|---------------------------------|---------------------|---------------------|------------|------------|--------------------------------|
|                                 |                     | P <sub>2</sub> (mm) | Fig. (No.) | Pitch (mm) |                                |
| REEL Ø500mm                     |                     | 19.05               | 2          | 27.5       | CK                             |
| Loose, short leads              | 4 <sup>+2</sup>     |                     |            |            | 00                             |
| Loose, long leads               | 25 <sup>-1/+2</sup> |                     |            |            | 50                             |
| Loose, long leads               | 30 <sup>+5</sup>    |                     |            |            | 40                             |
| Loose, insulated rigid leads    | 30 <sup>+5</sup>    |                     |            |            | 51                             |
| Loose, insulated flexible leads | 150 <sup>±5</sup>   |                     |            |            | 52                             |

## PRODUCT CODE SYSTEM

The part number, comprising 15 digits, is formed as follows:

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| R | 4 | 9 |   |   |   |   |   |   |    |    |    | -  |    | -  |

- Digit 1 to 3 Series code.  
Digit 4 a.c. rated voltage:  
A = 330Vac;  
Digit 5 Pitch:  
R = 27.5; W = 37.5 mm  
Digit 6 to 9 Digits 7 - 8 - 9 indicate the first three digits of Capacitance value and the 6th digit indicates the number of zeros that must be added to obtain the Rated Capacitance in pF.  
Digit 10 to 11 Mechanical version and/or packaging (table 1)  
Digit 12 Identifies the dimensions and electrical characteristics.  
Digit 13 Internal use  
Digit 14 Capacitance tolerance:  
K=±10%; M=±20%  
Digit 15 Value of the discharge resistor (tolerance±10%) according to the following table\*:

Table 2

| R      | code (-) |
|--------|----------|
| 470 kΩ | E        |
| 680 kΩ | F        |
| 1 MΩ   | G        |
| 1.2 MΩ | L        |
| 1.5 MΩ | N        |
| 2.2 MΩ | P        |
| 3.3 MΩ | Q        |
| 4.7 MΩ | S        |
| 6.8 MΩ | T        |
| 10 MΩ  | V        |

\*Other resistors are available upon request.