

Ceramic AC Capacitors Class X1, 760 V_{AC}/Class Y1, 500 V_{AC}



Dimensions in mm

Note

Impedance (Z) as a function of frequency (f) at T_a = 20 °C (average).
Measurement with lead length 6 mm.



I = f (U_R) (typ.)



DESIGN

Disc capacitors with epoxy coating

RATED VOLTAGE U_R

- (X1): 760 V_{AC}, 50 Hz (IEC 60384-14.2)
- (Y1): 500 V_{AC}, 50 Hz (IEC 60384-14.2)
- 250 V_{AC}, 60 Hz (UL1414, CSA C22.2)

DIELECTRIC STRENGTH BETWEEN LEADS

- Component test:
- 4000 V_{AC}, 50 Hz, 2 s
- As repeated test admissible only once with:
- 3600 V_{AC}, 50 Hz, 2 s
- Random sampling test (destructive test):
- 4000 V_{AC}, 50 Hz, 60 s

DIELECTRIC STRENGTH OF BODY INSULATION

4000 V_{AC}, 50 Hz, 60 s (destructive test)

DISSIPATION FACTOR tan δ

≤ 25 x 10⁻³

INSULATION RESISTANCE R_{IS}

≥ 10 x 10⁹ Ω

CATEGORY TEMPERATURE RANGE θ_A

(- 40 to + 125) °C

CLIMATIC CATEGORY ACC. TO EN60068-1

40/125/21

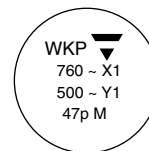
COATING

Epoxy dipped, insulating, flame retarding acc. to UL 94V-0

TAPING AND SPECIAL LEAD CONFIGURATIONS

On request

MARKING



WKP 33 pF to 1.5 nF

WKP 2.2 nF to 4.7 nF

Note

- All approval marks are also shown on the label.




| ORDERING INFORMATION, CERAMIC X1/Y1 CAPACITORS WKP | | | | | | |
|---|-------------|---------------|------------------------------|---------------------------------|--------------------------------|----------------|
| CAPACITANCE ⁽²⁾ (pF) | TOL. (%) | D x s (mm) | F ± 1 ⁽¹⁾ (mm) | d ± 0.05 ⁽¹⁾ (mm) | V ± 0.5 ⁽¹⁾ (mm) | ORDERING CODE |
| CLASS 1 N 750 | | | | | | |
| 33 | ± 10 , ± 20 | 8.0 x 6.0 | 12.5 | 0.6 | 1.9 | WKP330□CP□□□KR |
| CLASS 2 K 1200 | | | | | | |
| 47 | ± 10 , ± 20 | 8.0 x 6.0 | 12.5 | 0.6 | 2.3 | WKP470□CP□□□KR |
| 68 | | | | | | WKP680□CP□□□KR |
| CLASS 2 K 1500 | | | | | | |
| 100 | ± 10 , ± 20 | 8.0 x 6.0 | 12.5 | 0.6 | 2.3 | WKP101□CP□□□KR |
| CLASS 2 K 2000 | | | | | | |
| 150 | ± 10 , ± 20 | 8.0 x 6.0 | 12.5 | 0.6 | 2.3 | WKP151□CP□□□KR |
| 220 | | | | | | WKP221□CP□□□KR |
| CLASS 2 K 4000 | | | | | | |
| 330 | ± 10 , ± 20 | 8.0 x 6.0 | 12.5 | 0.6 | 2.5 | WKP331□CP□□□KR |
| 470 | | 9.0 x 6.0 | | | | WKP471□CP□□□KR |
| 680 | | 10.0 x 6.0 | | | | WKP681□CP□□□KR |
| 1000 | | 12.0 x 6.0 | | | | WKP102□CP□□□KR |
| 1500 | | 13.0 x 6.0 | | 0.8 | 2.7 | WKP152□CP□□□KR |
| 2200 | | 15.0 x 6.0 | | | | WKP222□CP□□□KR |
| 3300 | | 16.0 x 6.0 | | | | WKP332□CP□□□KR |
| 3900 | | 18.0 x 6.0 | | | | WKP392□CP□□□KR |
| 4700 | | | | | | WKP472□CP□□□KR |
| | | | | | | |

Notes

⁽¹⁾ Standard lead configuration, other lead spacing and diameter available on request.

⁽²⁾ Capacitance values from 470 pF to 4700 pF: The alternative usage of smaller VKP series is recommended for new application.

| ORDERING CODE | | | |
|----------------------|--|--|--------------------------|
| □ | 7 th digit | Capacitance Tolerance: | ± 10 % = K ± 20 % = M |
| □□□ | 10 th to 12 th digit | Lead Configuration (see General Information) | |
| R | 14 th digit | RoHS Compliant Component | |

| APPROVALS | | | | | | |
|---|---|-------------|-------------|------------------|---------------------|---|
| IEC 60384 - 14 / 2nd Issue (1993) incl. Am. 1 (1995) - Safety Tests | | | | | | |
| EN 132 400 (1994) - Safety Tests | | | | | | |
| THAT APPROVAL TOGETHER WITH THE CB TEST CERTIFICATE SUBSTITUTES THE NATIONAL APPROVAL OF THE FOLLOWING | | | | | | |
| Belgium | France | Italy | Austria | China | Japan | Spain |
| Denmark | Greece | Luxembourg | Portugal | Singapore | Poland | United |
| Germany | Ireland | Netherlands | Sweden | Slovenia | Hungaria | Czech Republic |
| Finland | Iceland | Norway | Switzerland | Korea | Israel | |
| Y1 - Capacitor: CB-Test Certificate: DE-1-11002-A1 | | | | 33 pF ... 4.7 nF | 500 V _{AC} |  |
| X1 - Capacitor: CB-Test Certificate: DE-1-11002-A1 | | | | 33 pF ... 4.7 nF | 760 V _{AC} | |
| Minimum thickness of insulation: 0.4 mm | | | | | | |
| UNDERWRITERS LABORATORIES INC. | | | | | | |
| UL 1414 | Across-the-line, Antenna-coupling and Line-by-pass component. | | | 33 pF ... 4.7 nF | 250 V _{AC} |  |
| CANADIAN STANDARDS ASSOCIATION | | | | | | |
| CSA C22.2 | Across-the-line, antenna-coupling and line-by-pass component | | | 33 pF ... 4.7 nF | 250 V _{AC} |  |
| NO 1-98 | Agency Files / Licences | | | E 183 844 V1 S1 | | |

| ORDERING INFORMATION | | | | | | |
|-----------------------------|------------|-----------|---------------|--------------------|---------------|----------------|
| <u>WKP</u> | <u>221</u> | <u>M</u> | <u>CP</u> | <u>ED0</u> | <u>K</u> | <u>R</u> |
| SERIES | CAP. VALUE | TOLERANCE | RATED VOLTAGE | LEAD CONFIGURATION | INTERNAL CODE | ROHS COMPLIANT |



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