30LVS Series
Vishay Cera-Mite

AC Line Rated Disc Capacitors
Class X1, 400 VAC / Class Y2, 300 VAC / 250 VAC

FEATURES
• Complying with IEC 60384-14
• High reliability
• Complete range of capacitance values
• Radial leads
• Singlelayer AC disc safety capacitors
• Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

APPLICATIONS
• X1 / Y2 according to IEC 60384-14
• Across-the-line
• Line by-pass
• Antenna coupling

DESIGN
The capacitors consist of a ceramic disc of which both sides are silver-plated. Connection leads are made of tinned copper having a diameter of 0.032" (0.81 mm) or 0.025" (0.64 mm). The capacitors may be supplied with radial kinked or straight leads having a lead spacing of 0.375" (9.5 mm) or 0.250" (6.4 mm). The standard tolerance is ± 20 %. Coating is made of flame retardant epoxy resin in accordance with “UL 94 V-0.”

CAPACITANCE RANGE
1.0 nF to 0.01 μF

RATED VOLTAGE
IEC 60384-14:
• X1: 400 VAC, 50 Hz
• Y2: 300 VAC, 50 Hz (LS ≥ 5.5 mm)
• Y2: 250 VAC, 50 Hz (LS < 5.5 mm)

DIELECTRIC STRENGTH BETWEEN LEADS
Component test:
2500 VAC, 50 Hz, 2 s
As repeated test admissible only once with:
2250 VAC, 50 Hz, 2 s
Random sampling test (destructive test):
2500 VAC, 50 Hz, 60 s

DIELECTRIC STRENGTH OF BODY INSULATION
2300 VAC, 50 Hz, 60 s (destructive test)
### DIMENSIONS in inches (millimeters)

![Diagram showing dimensions](image)

### ORDERING INFORMATION, CERAMIC X1 / Y2 CAPACITORS 30LVS

<table>
<thead>
<tr>
<th>C (pF)</th>
<th>TOL. (%)</th>
<th>Dmax. DIAMETER INCH (mm)</th>
<th>Tmax. THICKNESS INCH (mm)</th>
<th>WIRE SIZE</th>
<th>LS LEAD SPACE INCH (mm) ± 1 mm</th>
<th>LO LEAD OFFSET INCH (mm) ± 0.5 mm</th>
<th>ORDERING CODE</th>
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<tbody>
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<td>Y5U</td>
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<td>1000</td>
<td>± 20</td>
<td>0.330 (8.4)</td>
<td>0.195 (5.0)</td>
<td>0.025 (0.64)</td>
<td>0.250 (6.4)</td>
<td>0.098 (2.5)</td>
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<td>1500</td>
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<td>0.185 (4.7)</td>
<td>0.091 (2.3)</td>
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<td>30LVSD47-R</td>
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<td>10 000</td>
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<td>0.620 (15.7)</td>
<td>0.200 (5.1)</td>
<td>0.098 (2.5)</td>
<td>30LVVS10-R</td>
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</table>

**Notes**

- Alternate lead spacings of 7.5 mm and 10 mm are available bulk or tape and reel on request
- Minimum lead clearance according to IEC 60384-14: 0.118" (3 mm)

**TAPE AND REEL OPTIONS**

Part number codes and specifications for tape and reel packaging are found in the general information document - find web-link below.
LEAKAGE CURRENT VS. VOLTAGE (Typical)

- 30LVSD28-R
- 30LVSD27-R
- 30LVSD22-R
- 30LVSD20-R
- 30LVSD15-R
- 30LVSD10-R

INSERTION LOSS VS. FREQUENCY (Typical)

- 30LVSD40-R
- 30LVSD39-R
- 30LVSD33-R
- 30LVSD32-R
- 30LVSD30-R

- 30LVSS10-R
- 30LVSD68-R
- 30LVSD55-R
- 30LVSD50-R
- 30LVSD47-R

- 30LVSVS10-R
- 30LVSVD47-R
30LVS Series
Vishay Cera-Mite

APPROVALS

IEC 60384-14 - Safety tests
This approval together with CB test certificate substitutes all national approvals.

CB Certificate
Y2-capacitor: CB test certificate: DE1-63490 1 nF to 10 nF 250 VAC
X1-capacitor: CB test certificate: DE1-63490 1 nF to 10 nF 400 VAC

VDE
Y2-capacitor: VDE marks approval: 40003969 1 nF to 10 nF 250 VAC
X1-capacitor: VDE marks approval: 40003969 1 nF to 10 nF 400 VAC

DIN EN 60384-14 VDE 0565-1-1 - Safety tests

Underwriters Laboratories Inc.
Y2-capacitor: UL test certificate: E99264 1 nF to 10 nF 300 VAC (1)
Y2-capacitor: UL test certificate: E99264 1 nF to 10 nF 250 VAC (1)
X1-capacitor: UL test certificate: E99264 1 nF to 10 nF 400 VAC

VDE marks approval: 40003969 1 nF to 10 nF 250 VAC

UL 60384-14, CSA E60384-1, CSA E60384-14

Fixed capacitors for electromagnetic interference suppression and connection to the supply mains.

Note
(1) LS ≥ 5.5 mm: 300 VAC; LS < 5.5 mm: 250 VAC

MARKING

Sample

Y2  250V~
X1  400V~

Notes
• Marking IEC 60384-14 does not apply for Ø ≤ 9 mm
• Coding is as follows: 1st figure indicates the year and 2nd figure indicates the month according to IEC 60062. The 3rd to 5th figure indicate the last three digits of the lot number

RELATED DOCUMENTS

| General Information | www.vishay.com/doc?23140 |
| CB Test Certificate | www.vishay.com/doc?22231 |
| VDE Marks Approval | www.vishay.com/doc?22232 |
| UL Test Certificate | www.vishay.com/doc?22233 |
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