



# EMI/RFI CAPACITORS

VY1 Series 500 V (AC)



## Ceramic Disc Capacitors

### KEY BENEFITS

- Complies with IEC 60384 - 14 3rd edition, ENEC-VDE, UL1414, and CSA approved
- High reliability
- WEEE/RoHS-compliant per EU directive 2002/95/EC
- Halogen-free available
- Small size, vertical (inline) kink or straight leads

### KEY SPECIFICATIONS

- Capacitance range: 10 pF to 4.7 nF
- Rated voltage IEC 60384-14.2  
(X1) 760 V (AC), 50 Hz  
(Y1) 500 V (AC), 50 Hz
- Components 100 % voltage-tested at 4000 V (AC), 50 Hz, 2 sec
- Operating temperature: - 40 °C to + 125 °C

### APPLICATIONS

- Across the line
- Line bypass
- Antenna coupling

Datasheet is available on our web site at [www.vishay.com](http://www.vishay.com)  
for VY1 Series 500 V (AC) - <http://www.vishay.com/doc?28537>

# Ceramic Disc Capacitors Safety Standard Approved Disc AC Capacitors

### FEATURES

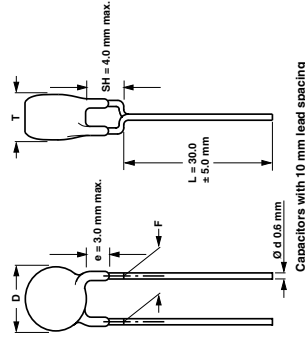
- Complying with IEC 60384-14, 3rd edition
- High reliability
- Vertical (inline) kinked or straight leads
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition

### APPLICATIONS

- X1, Y1 according to IEC 60384-14.2
- Across-the-line
- Line by-pass
- Antenna coupling

### DESIGN

The capacitors consist of a ceramic disc both sides of which are silver-plated. Connection leads are made of tinned copper having a diameter of 0.6 mm. The capacitors may be supplied with vertical (inline) kinked leads having a lead spacing of 10.0 mm. Encapsulation is made of flammable resistant epoxy resin in accordance with "UL 94 V-0".



### DISSIPATION FACTOR

2.5 % maximum

### CATEGORY TEMPERATURE RANGE

-40 °C to +125 °C

### TEMPERATURE CHARACTERISTICS

See Ordering Information tables

### CLIMATIC CATEGORY

40/125/21 according to EN60068-1

### COATING

According to UL 94 V-0

Epoxy resin, isolating, flame retardant

### APPROVALS

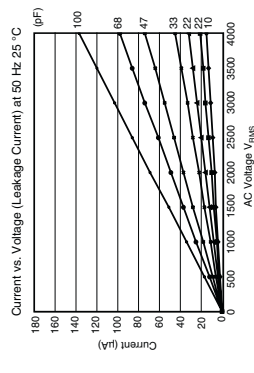
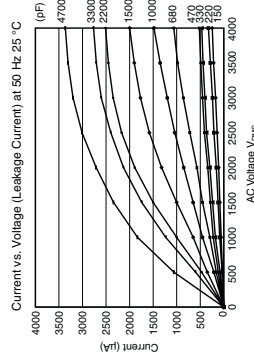
ENEC VDE (DEI-32019)

UL 1414 file E183844

CSA 22.2

### PACKAGING

Bulk; tape and reel; taped ammpack



The capacitors meet the essential requirements of "EIA 198" at normal atmospheric conditions. temperature of 25 °C ± 3 °C.

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For technical questions, contact [CDC@vishay.com](mailto:CDC@vishay.com)

### ORDERING INFORMATION

| C    | TOL (%) | TEMP. COEFFICIENT | BODY DIAMETER D max. (mm) | BODY THICK T max. (mm) | LEAD SPACING F (mm) | CLEAR TEXT CODE (15 <sup>th</sup> DIGIT): T = REEL; U = AMMO; 3 = BULK (*) | RoHS COMPLIANT | HALOGEN-FREE |
|------|---------|-------------------|---------------------------|------------------------|---------------------|--|----------------|--------------|
| 10   |         | U2J (N750)        |                           |                        |                     | VY1100K31U2J06*V0  |                |              |
| 15   |         |                   |                           |                        |                     | VY1150K31U2J06*V0  |                |              |
| 22   |         |                   |                           |                        |                     | VY1220K31U2J06*V0  |                |              |
| 33   |         |                   |                           |                        |                     | VY1330K31Y5SQ6*V0  |                |              |
| 47   | ± 10    |                   | 8                         |                        |                     | VY1470K31Y5SG6*V0  |                |              |
| 68   |         | Y6S (2C3)         |                           |                        |                     | VY1680K31Y5SQ6*V0  |                |              |
| 100  |         |                   |                           |                        |                     | VY1101K31Y5SQ6*V0  |                |              |
| 150  |         |                   |                           |                        |                     | VY1151K31Y5SQ6*V0  |                |              |
| 220  |         |                   |                           | 5.0                    | 10.0                | VY1221K31Y5SQ6*V0  |                |              |
| 330  |         |                   |                           |                        |                     | VY1331K31Y5SQ6*V0  |                |              |
| 470  |         |                   |                           |                        |                     | VY1471M31Y5UQ6*V0  |                |              |
| 680  |         |                   | 9                         |                        |                     | VY1681M31Y5UQ6*V0  |                |              |
| 1000 |         |                   | 10.5                      |                        |                     | VY1102M3Y5UQ6*V0   |                |              |
| 2200 | ± 20    | Y5U (2E3)         | 12                        |                        |                     | VY1152M41Y5UQ6*V0  |                |              |
| 3300 |         |                   | 15                        |                        |                     | VY1222M47Y5UQ6*V0  |                |              |
| 3900 |         |                   | 15.5                      |                        |                     | VY1332M59Y5UQ6*V0  |                |              |
| 4700 |         |                   | 16.0                      |                        |                     | VY1392M61Y5UQ6*V0  |                |              |
|      |         |                   |                           |                        |                     | VY1472M63Y5UQ6*V0  |                |              |

### Notes

- (\*) 15th digit of the clear text code number to be completed with the packaging code
- Straight leads are available on request
- Lead length tolerance: ± 0.1 mm
- On request available: ± 10 % tolerance
- On request available: Leads spacing 12.5 mm

### LEADSPACING 10.0 mm

| CAPACITANCE VALUE  | SIZE CODE | BODY DIAMETER D max. (mm) |      | PACKAGING QUANTITIES |      |
|--------------------|-----------|---------------------------|------|----------------------|------|
|                    |           | BULK                      | REEL | BULK                 | AMMO |
| 10 pF to 2200 pF   | 31 - 47   | 12.0                      | 10.0 | 1000                 | 500  |
| 3300 pF to 4700 pF | 51 - 63   | 16.0                      | 500  | 500                  | 750  |

### Note

The capacitors are supplied in bulk packaging (cardboard boxes), in tape on reel or in ammpack

### STRAIGHT LEADS

