



EMI/RFI CAPACITORS

VY1 Series 500 V (AC)



Ceramic Disc Capacitors

KEY BENEFITS

- Complies with IEC 60384 - 14 2nd edition, ENEC-VDE, UL1414 and CSA approved
- High reliability
- WEEE/RoHS compliance, acc. EU directive 2002/95/EC
- 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
- Test voltage
Component test 100%: 4000 V (AC), 50 Hz, 2 sec
- Operating temperature: - 40 °C to + 125 °C

APPLICATIONS

- Across the line
- Line by-pass
- Antenna coupling

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

Ceramic Disc Capacitors

FEATURES

- Complying with "EN 132 400" and "IEC 60384-14, 2nd edition, including amendment 1.1995"
- High reliability
- Vertical (inline) kinked or straight leads.

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 "UL94V-0"

CAPACITANCE RANGE:

10pF to 4700pF

RATED VOLTAGE U_R:

IEC 60384-14.2:

(X1): 760V (AC), 50Hz

(Y1): 500V (AC), 50Hz

250V (AC), 50/60Hz, UL1414 and CSA 22.2

TEST VOLTAGE:

Component Test (100%):

4000V (AC), 50Hz, 2 seconds

Random sampling test (destructive test):

4000V (AC), 50Hz, 60 seconds

Voltage proof of coating (destructive test)

4000V (AC), 50Hz, 60 seconds

INSULATION RESISTANCE:

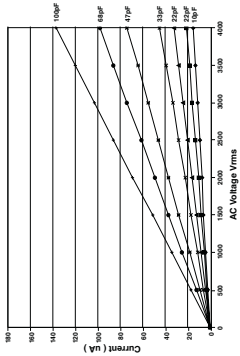
10000 M Ω minimum

TOI FRANCE OF

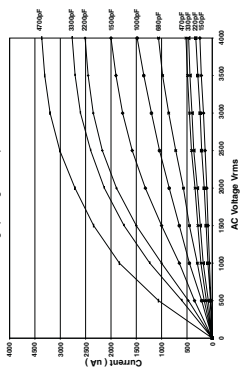
TOLERANCE OF CAPACITANCE:
+20% (Code M) · +10% (Code K)

 $\chi^2_{\text{red}} = 1.0$, $\chi^2_{\text{red}} = 0.77$

Current vs Voltage (Leakage Current) at 50Hz 25°C



Current vs Voltage (Leakage Current) at 50Hz 25°C



The capacitors meet the essential requirements of "EIA 198". Unless stated otherwise all electrical values apply at an ambient temperature of $25 \pm 3^\circ\text{C}$, at normal atmospheric conditions



For technical questions, contact CDC@vishay.com

Revision 02-Mar-05

ORDERING INFORMATION

C	TOL.	TEMP. COEFFICIENT	BODY DIAMETER D _{max} (mm)	BODY THICK T _{max} (mm)	LEAD SPACING P (mm)	CLEAR TEXT CODE T = REL; U = AMMO; 72 = BULK; (a)	CATALOG NUMBER 8 th AND 9 th DIGIT: 70 = REL; 71 = AMMO; 72 = BULK; (b)
(μF)	(%)						
10		U2J (N750)				Y110K0K31U2JQ6*V0	2252 816 **006
15						Y1150K31U2JQ6*V0	2252 816 **106
22						Y11220K31U2JQ6*V0	2252 816 **206
33						Y11330K31Y5SQ6*V0	2252 816 **306
47						Y11470K31Y5SQ6*V0	2252 816 **406
68	±10					Y11680K31Y5SQ6*V0	2252 816 **606
100		Y5S (2C3)	8			Y1101K31Y5SQ6*V0	2252 816 **016
150						Y1151K31Y5SQ6*V0	2252 816 **116
220						Y11221K31Y5SQ6*V0	2252 816 **216
330				5.0 max.	10.0	Y11331K31Y5SQ6*V0	2252 816 **316
470						Y11471M31Y5JQ6*V0	2252 816 **417
680						Y11681M31Y5JQ6*V0	2252 816 **617
1000						Y11102M55Y5JQ6*V0	2252 816 **027
1500			9			Y1152M51Y5JQ6*V0	2252 816 **127
2200	±20	Y5U (2E3)	10.5			Y1122M47Y5JQ6*V0	2252 816 **227
2700			12			Y11272M51Y5JQ6*V0	2252 816 **277
3300			13			Y1132M59Y5JQ6*V0	2252 816 **327
3900			15			Y11382M61Y5JQ6*V0	2252 816 **377
4700			15.5			Y11472M63Y5JQ6*V0	2252 816 **427
			16.0				

Notes

1. Straight leads are available on request.
2. 13th digit of the clear text code number to be completed with the packaging code.
3. 8th and 9th digit of the catalog number to be completed with the packaging code.
4. Coating extension DR valid for straight leads only
5. On request available: $\pm 10\%$ tolerance
6. On request available: lead spacing 12.5mm

LEADSPACING 10.0 mm

PACKAGING				
CAPACITANCE VALUE	SIZE CODE	BODY DIAMETER D _{max}	PACKAGING QUANTITIES	
			BULK	REEL
10pF to 2200pF	31 ~ 47	12.0	1000	500
3300pF to 4700pF	51 ~ 63	16.0	500	500
				750

- Note**
1. The capacitors are supplied in bulk packaging (cardboard boxes), in tape on reel or in ammompack.

STRAIGHT LEADS

