



# EMI/RFI CAPACITORS

VY2 Series 300 V (AC)



## Ceramic Disc Capacitors

### KEY BENEFITS

- Comply 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 10 nF
- Rated voltage IEC 60384-14.2:
  - X1: 440 V (AC), 50 Hz
  - Y2: 300 V (AC), 50 Hz
- Components 100 % voltage-tested at 2600 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 VY2 Series 300 V (AC) - <http://www.vishay.com/doc?28535>

# 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

- 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 5.0 mm, 7.5 mm or 10.0 mm. Encapsulation is made of flammable resistant epoxy resin in accordance with "UL 94 V-0".

### CAPACITANCE RANGE

10 pF to 0.01 µF

### RATED VOLTAGE $U_r$

IEC 60384-14-2:

- (X1): 440 V<sub>AC</sub>, 50 Hz
- (Y2): 300 V<sub>AC</sub>, 50 Hz

### TEST VOLTAGE

Component test (100 %)

2600 V<sub>AC</sub>, 50 Hz, 2 s

(2600 V<sub>AC</sub> for LS 7.5 mm and 10 mm)

(2200 V<sub>AC</sub> for LS 5.0 mm)

Random sampling test (destructive test)

2600 V<sub>AC</sub>, 50 Hz, 60 s

Voltage proof of coating (destructive test)

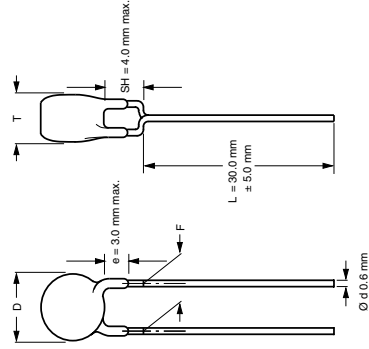
2600 V<sub>AC</sub>, 50 Hz, 60 s

### INSULATION RESISTANCE

10 000 MΩ minimum

### TOLERANCE OF CAPACITANCE

± 20 % (code M); ± 10 % (code K)



Capacitors with 5.0 mm, 7.5 mm or 10 mm lead spacing

### 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

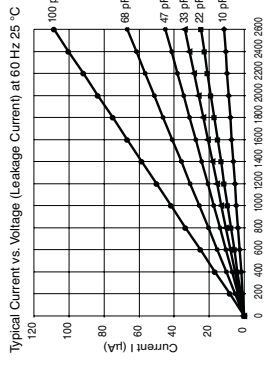
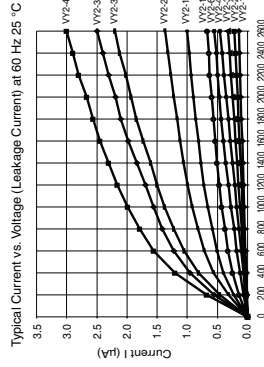
ENEC - VDE DE 1-30691

UL 1414 file E183844

CSA 22-2

### PACKAGING

Bulk; tape and reel; taped ammpack



The capacitors meet the essential requirements of "EIA 198". Unless stated otherwise all electrical values apply at an ambient temperature of 25 ± 3 °C, at normal atmospheric conditions

ORDERING INFORMATION		CLEAR TEXT CODE		ROHS AND HALOGEN-FREE					
C	TOL. COEFFICIENT (%)	TEMP. COEFFICIENT	BODY DIAMETER D <sub>max</sub> (mm)	BODY THICK T <sub>max</sub> (mm)	LEAD SPACING F (mm)	COATING EXTENSION e <sub>max</sub> (4) (mm)	(15 <sup>th</sup> DIGIT *): T = REEL; U = AMMO; 3 = BULK (5)	ROHS COMPLIANT	HALOGEN-FREE
VY2 FOR LEADSPACING 5.0 mm									
10								2200 VAC, 50 Hz, 2 s	
15								VY2100K29U2JG6V5	
22		U2J (N750)						VY2150K29U2JG6V5	
33								VY2200K29U2JG6V5	
47								VY2300K29U2JG6V5	
68	± 10							VY2470K29U2JG6V5	
100			7.5					VY2600K29Y5SG6V5	
150		Y5S (2C3)		5.0	3.0			VY2101K29Y5SG6V5	
220								VY2151K29Y5SG6V5	
330								VY2221K29Y5SG6V5	
470								VY2331K29Y5SG6V5	
680								VY2471K29Y5SG6V5	
1000								VY2661M29Y5UG6V5	
1500	± 20	Y5U (2E3)						VY2102M29Y5UG6V5	
2200			8.0					VY2152M3Y5UG6V5	
3300			9.0					VY2222M3Y5UG6V5	
3900			10.5					VY2332M4Y5UG6V5	
			11.0					VY2472M4Y5UG6V5	
								VY2392M43Y5UG6V5	

ORDERING INFORMATION		CLEAR TEXT CODE		ROHS AND HALOGEN-FREE					
C	TOL. COEFFICIENT (%)	TEMP. COEFFICIENT	BODY DIAMETER D <sub>max</sub> (mm)	BODY THICK T <sub>max</sub> (mm)	LEAD SPACING F (mm)	COATING EXTENSION e <sub>max</sub> (4) (mm)	(15 <sup>th</sup> DIGIT *): T = REEL; U = AMMO; 3 = BULK (5)	ROHS COMPLIANT	HALOGEN-FREE
VY2 FOR LEADSPACING 7.5 mm									
10								2600 VAC, 50 Hz, 2 s	
15								VY2100K29U2JG6V7	
22		U2J (N750)						VY2150K29U2JG6V7	
33								VY2200K29U2JG6V7	
47								VY2300K29U2JG6V7	

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