



# SINGLE-LAYER CERAMIC CAPACITORS

## VY1 Compact Series

### AC Line Rated Ceramic Disc Capacitors: Class X1, 760 VAC and Class Y1, 500 VAC Compact Size X1/Y1 Safety Capacitors



#### KEY BENEFITS

- Comply with IEC 60384-14 4th edition
- Withstands 85 / 85 / 1000 h test
- Can pass 10 kV pulses (10 per polarity)
- Reduced size for compact designs
- High reliability
- Vertical (inline) kinked or straight leads

#### APPLICATIONS

- X1, Y1 according to IEC 60384-14.4
- Across-the-line
- Line bypass
- Antenna coupling

#### RESOURCES

- Datasheet: VY1 Compact Series - [www.vishay.com/doc?28555](http://www.vishay.com/doc?28555)
- For technical questions contact [CDC@vishay.com](mailto:CDC@vishay.com)
- Material categorization: For definitions please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



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QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Ceramic Class	2
Ceramic Dielectric	Y5U      Y5U
Voltage (V <sub>AC</sub> )	500      760
Min. Capacitance (pF)	470
Max. Capacitance (pF)	4700
Mounting	Radial

**OPERATING TEMPERATURE RANGE**

-40 °C to +125 °C

**TEMPERATURE CHARACTERISTICS**

Y5U

**SECTIONAL SPECIFICATIONS**Climatic category (according to EN 60058-1)  
40/125/21**COATING**

According to UL 94 V-0

Epoxy resin, isolating, flame retardant

Halogen-free

**APPROVALS**

IEC 60384-14.4

UL 60384-14

DIN EN 60384-14

CSA E60384-1:03, CSA E60384-14:09

CQC11-471112-2009

**PACKAGING**

Bulk, tape and reel, taped ammpack

**DESIGN**

The capacitor consists of a ceramic disc which is copper plated on both sides. Connection leads are made of tinned copper clad steel 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, or 12.5 mm. Encapsulation is made of flame retardant epoxy resin in accordance with UL 94 V-0.

**CAPACITANCE RANGE**

470 pF to 4700 pF

**RATED VOLTAGE U<sub>R</sub>**

IEC 60384-14.4:

(X1): 760 V<sub>AC</sub>, 50 Hz(Y1): 500 V<sub>AC</sub>, 50 Hz**TEST VOLTAGE**

Component test (100 %):

4000 V<sub>AC</sub>, 50 Hz, 2 s

Random sampling test (destructive test):

4000 V<sub>AC</sub>, 50 Hz, 60 s

Voltage proof of coating (destructive test):

4000 V<sub>AC</sub>, 50 Hz, 60 s**INSULATION RESISTANCE**

≥ 10 000 MΩ

**CAPACITANCE TOLERANCE**

± 20 %

**DISSIPATION FACTOR**

Max. 2.5 % (1 kHz)

Revision 30-Aug-16