



# AC Filter Capacitor Single Phase

An AC Filter Capacitor in a cylindrical form is a crucial component used to filter and smooth out alternating current (AC) signals in various electrical and electronic applications. The cylindrical shape allows for efficient thermal management and compact installation, making these capacitors suitable for a wide range of environments. They provide high capacitance values and low equivalent series resistance (ESR), which are essential for effective filtering and reducing noise in AC circuits.

These capacitors are designed to handle high ripple currents and withstand significant voltage variations, making them ideal for applications such as power supplies, inverters, and motor drives. The robust cylindrical casing offers enhanced protection against mechanical stress and environmental factors, ensuring long-term reliability and performance stability.

AC Filter Capacitors in a cylindrical design often include self-healing properties, which enhance their durability and safety by preventing catastrophic failures from electrical overstress. Their compact and modular design facilitates easy integration into existing systems, offering flexibility for space-constrained applications. Available in various capacitance and voltage ratings, these capacitors can meet specific filtering needs across different industries. Overall, AC Filter Capacitors in cylindrical form are essential for maintaining the integrity of AC signals, ensuring smooth operation, and protecting sensitive electronic components in modern power electronic systems.

## Technical Data

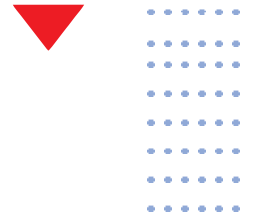
**Applications:** AC motor drives, power conditioning, and harmonic filtering.

**Voltage Range:** Up to 1000 V DC.

### Safety:

- Creepage and Clearance Distances as per UL
- Self-Healing Capacitor Technology
- Over Pressure Disconnecter





## Construction

- Dielectric: Metallised Polypropylene film
- Non-PCB, Impregnation – Biodegradable PU Resin
- Aluminium

## Features

- Self-Healing Technology
- High partial discharge voltage
- High humidity resistance
- Low dissipation factor
- High insulation resistance
- Overpressure Disconnecter
- CE & RoHS Compliant
- NPCB, Biodegradable Polyurethane Resin

## Technical data and Specifications:

Capacitance Value	Up to 300 $\mu$ F * Higher ratings available on request
Tolerance	$\pm$ 5%
Voltage Rating	Up to 2500 V AC.
tan $\delta$ 0 (dielectric)	$2 \times 10^{-4}$
Voltage test between terminals	
V (Terminal to Terminal)	1.5 X $U_{RMS}$ AC, 2 sec
Voltage test between terminals and case	
V (Terminals and Case) (Uiso)	2* $U_i$ + 1000 V or 2000 V whichever is the highest value for 10 seconds
TMIN	-40 °C
TMAX	+70 °C
Storage temperature	-40 °C to +85 °C
Hot Spot temperature	+85 °C
Maximum Humidity	Max. 95% (non-condensing)
Life Expectancy	up to 100,000 hours * Greater life expectancy can be offered based on customer request
Impregnation	Biodegradable PU resin
Mounting position	Vertical / Horizontal
Terminals Type	As per customer requirement
Enclosure material	Aluminium / Stainless Steel
Reference Standard	IEC 61071/ IEC 61881

