

Axial Cemented Fusible Wirewound Safety Resistor



KEY BENEFITS

- Specially designed to meet UL1412 safety requirements
- Maximum surge voltage handling capability: 2 kV ($R \geq 75 \Omega$) as per IEC 61000-4-5
- Non-flammable silicon cement coating for immediate interruption without flame and explosion when mains voltage (230 V_{AC}) is applied
 - New coating material and encapsulation process enables silent and safe fusing
 - Absorbs thermal stresses without fragmenting or burning of resistor coating
- Fusing time: < 30 s for 32 W overload
- $P_{40} = 1.1 \text{ W}$

APPLICATIONS

- Electric home appliances (e.g. washing machines, shaver chargers)
- Inrush limiting resistor in energy meters, power supplies
- Mobile phone charger input supply circuit

RESOURCES

- Datasheet: AC01..CS - www.vishay.com/doc?28908
- For technical questions contact ww1resistors@vishay.com
- Material categorization: for definitions, please see www.vishay.com/doc?99912



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Axial Cemented Fusible Wirewound Safety Resistor

The AC01 safety resistor (AC01..CS) is designed to be used as a fusible safety resistor (or AC mains input resistor). It uses specially selected resistive winding wire and a special non-flammable silicon cement coating material to ensure safe and silent fusing operation in overload conditions. The resistor fuses “without a bang” when AC mains voltage is applied. At the same time, it acts as an in-rush current limiting resistor under normal operation. The specially developed lacquer coating has superior thermal and electrical insulating properties. This allows designers to more easily meet the requirements for safety approvals, while eliminating the need to put additional fuses in series with the input resistor.

APPLICATIONS

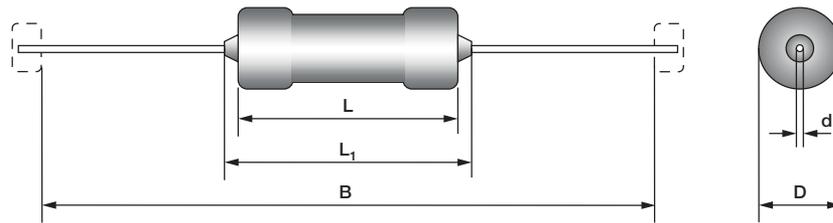
- Energy meters
- LED drivers
- White goods
- Power supplies

STANDARD ELECTRICAL SPECIFICATIONS						
TYPE	POWER RATING P_{40}	POWER RATING P_{70}	LIMITING VOLTAGE $U_{max.}$ V	RESISTANCE RANGE ⁽¹⁾	TOLERANCE	TEMPERATURE COEFFICIENT
AC01..CS	1.1 W	1.0 W	$\sqrt{P \times R}$	3 Ω to 100 Ω	$\pm 5 \%$	± 200 ppm/K

Note

⁽¹⁾ Resistance value to be selected for $\pm 5 \%$ from E24 series, special ohmic values are available on request

DIMENSIONS



DIMENSIONS - Resistor types, mass, and relevant physical dimensions						
TYPE	L _{max.}	L _{1 max.}	D _{max.}	d _{nom.}	B	MASS
AC01..CS	11.0 mm	13 mm	5.0 mm	0.7 mm	63 mm	0.52 g

Note

- Dimension given is applicable for 10R to 100R; for lower ohmic values < 10R, D_{max.} might reach 5.5 mm.

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