

Axial Cemented, Fusible, Leaded Wirewound Safety Resistor



KEY BENEFITS

- Complies with UL1412 safety requirements
- Acts as an inrush current limiting resistor during normal operation
- Eliminates the need to utilize additional fuses in series with the input resistor
- Maximum surge voltage handling capability: 4 kV ($R \geq 75 \Omega$), as per IEC 61000-4-5
- Specially developed lacquer coating for immediate interruption without flame and explosion when mains voltage (110 V_{AC} / 230 V_{AC}) is applied
- Fusing time: < 30 s for 45 W overload
- $P_{40} = 3.0 \text{ W}$

APPLICATIONS

- Fusible safety input resistor for home appliances (e.g. washing machines)
- High surge handling fusible resistor for energy meters
- Inrush current limiting resistor for power supplies

RESOURCES

- Datasheet: AC03-CS - www.vishay.com/ppg?28909
- For technical questions contact ww1resistors@vishay.com
- Material categorization: for definitions, please see www.vishay.com/doc?99912

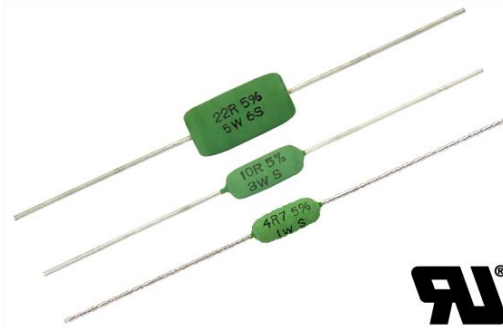


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Axial Cemented, Fusible, Leaded Wirewound Safety Resistor



DESIGN SUPPORT TOOLS AVAILABLE



ACxx-CS series wirewound safety resistors are designed to be used as fusible safety resistors (or AC mains input resistors). 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 for normal operation. The specially developed lacquer coating has superior thermal and electrical insulating properties. This allows designers to more easily meet the requirements of safety approval, whilst eliminating the need to put additional fuses in series with the input resistor.

FEATURES

- UL1412 recognized; UL file no. E362452
- Surge voltage handling capability (up to 6 kV) (1.2 / 50 μ s pulse in IEC 61000-4-5)
- Silent and safe fusing
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



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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 W	$\sqrt{P \times R}$	3 Ω to 100 Ω	$\pm 5 \%$	± 200 ppm/K
AC03-CS	3 W	2.5 W	$\sqrt{P \times R}$	4.7 Ω to 100 Ω	$\pm 5 \%$	± 200 ppm/K
AC05-CS	5 W	4.5 W	$\sqrt{P \times R}$	10 Ω to 100 Ω	$\pm 5 \%$	± 200 ppm/K

Note

⁽¹⁾ Resistance value to be selected for $\pm 5 \%$ from E24 series

TECHNICAL SPECIFICATIONS

DESCRIPTION	AC01-CS	AC03-CS	AC05-CS
Operating temperature range	-40 °C to 200 °C		
Max. resistance change for 116 % of P_{70} , ΔR max., after 1000 h:	$\pm (5 \% R + 0.1 \Omega)$		

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