



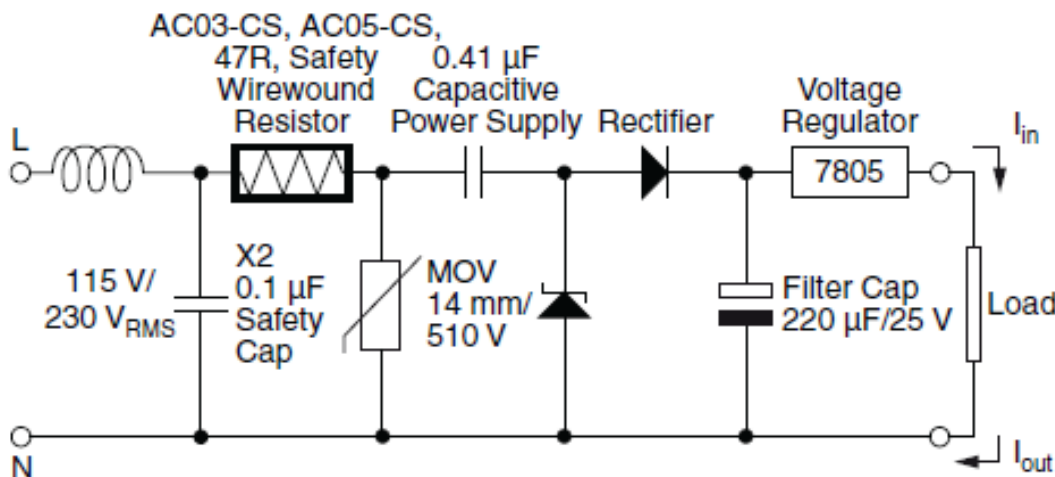
# DID YOU KNOW? “SILENT FUSING” OF AC-CS SAFETY WIREWOUND RESISTORS

AC-CS wirewound safety resistors are designed to be used as fusible safety resistors (or AC mains input resistors). In normal operation, the resistors act as inrush current limiters; in the event of an overload they fuse “without a bang.” Their specially developed silicone lacquer coating has superior thermal and electrical insulating properties. This allows designers to more easily meet the requirements for safety approval, while eliminating the need to put additional fuses in series with the input resistor.

## The most important properties of AC-CS fusible wirewound safety resistors are:

1. Fuse without a bang or blast when the mains voltage comes across the resistor due to an overload in the circuit
2. UL1412-recognized for safety; UL file no. E362452
3. Can handle short pulses of up to 6 kV (1.2 / 50  $\mu$ s in accordance with IEC 61000-4-5)
4. Eliminate the need for additional fuses in series with the input resistor

Below is a diagram of a typical application using ACxx-CS resistors in energy meters:



More details and application information related to energy meter is provided in the application note <http://www.vishay.com/docs/28897/ac0xcsenrgymet.pdf>.

Other important applications where ACxx-CS resistors are being used include:

- **Consumer electronics:** washing machines, dishwashers
- **Industrial:** power supplies