



Ametherm's new Inrush Current Limiter provides big protection.

Ametherm's MegaSurge™ Inrush Current Limiter is an economical and space saving way to limit high inrush current. MegaSurge's rugged high temperature construction allows safe operation at high continuous currents. It is specially designed to withstand up to 50 amperes of continuous current and 900 joules of input energy.

The MegaSurge Inrush Current Limiter is useful in:

- AC Motors
- Power Supplies
- Motor Drives
- Audio Amplifiers
- Battery Chargers
- Frequency Generators
- Plasma Cutting Tools
- MRI Machines
- Toroidal Transformers up to 4.0KVA
- Other equipment that can be improved with inrush current protection

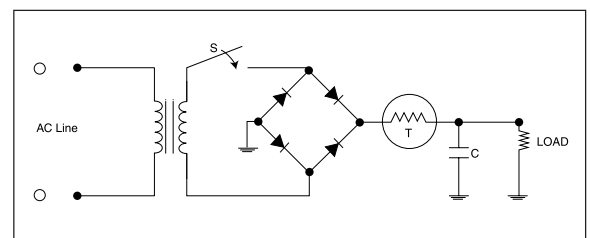
How does the MegaSurge Inrush Current Limiter work?

The MegaSurge Inrush Current Limiter absorbs high amounts of inrush current when electrical equipment is turned on by offering a high resistance to current and quickly decreasing in resistance once steady state current begins to flow through the thermistor. In a switching power supply, the instantaneous surge energy is caused by the large input filter capacitors and AC input voltage.

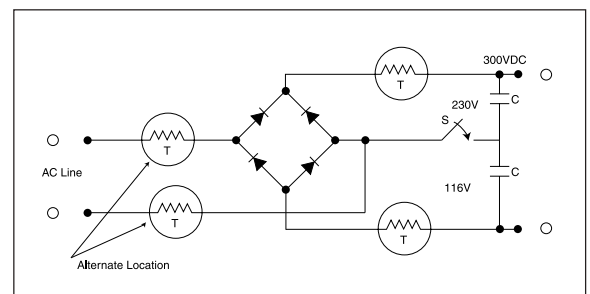
During the absorption of energy, the initial high resistance of the thermistor drops within milliseconds to a negligible resistance in preparation of allowing high levels of steady state current to flow with a minimal loss of power through the circuit. The MegaSurge Inrush Current Limiter will absorb up to 900 joules of input energy and carry 50 amperes of steady state current.

Specify the right MegaSurge Inrush Current Limiter for your application.

- Use the maximum allowable inrush current and Ohm's Law to determine the least allowable resistance at turn on for your application.
- Using the formula $J = \frac{1}{2}CV^2$, determine how much input energy the thermistor will absorb when the device is turned on.
- Determine the maximum steady state current that will flow through the Inrush Current Limiter.
- Select the Ametherm Inrush Current Limiter that will work for your application.



One example of a typical circuit for limiting inrush current.



Another example of a typical circuit for limiting inrush current.

