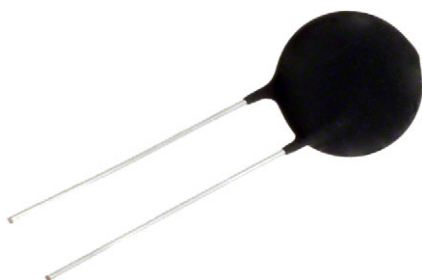


# PTC Thermistors, Inrush Current Limiters



## DESCRIPTION

With its industry high voltage rating, Vishay Ametherm's inrush PTC thermistors can withstand hundreds of hits of maximum inrush current without degrading.

The device offers a short reset time, and as a PTC thermistor a quick reset will not result in a large inrush current, as its resistance is already at a high state. The result is extremely high reliability and stability in high voltage applications.

This solution provides designers with a more compact and cost-effective alternative to combining a power resistor, relay, and timer on one circuit to achieve the same functionality.

## QUICK REFERENCE DATA

PARAMETER	VALUE	UNIT
Resistance at 25 °C ( $R_{25}$ )	10	$\Omega$
Tolerance on $R_{25}$ value	$\pm 25$	%
Transition temperature	120	$^{\circ}\text{C}$
Maximum voltage rating	480	$V_{\text{RMS}}$
Maximum energy rating	250	J
Switching temperature	92 to 108	$^{\circ}\text{C}$
Operating temperature range	-50 to +150	$^{\circ}\text{C}$
Switch current at 25 °C	0.8	A
Continuous current at 25 °C	0.4	A
Heat capacity	2	J/ $^{\circ}\text{C}$
Dissipation factor	22.5	mW/ $^{\circ}\text{C}$
Thermal time constant	65	s
Max. body temperature at max. voltage	174	$^{\circ}\text{C}$

## FEATURES

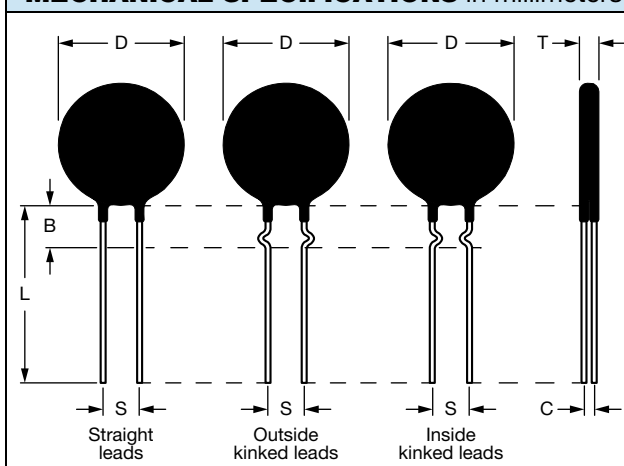
- Short reset time
- High reliability and stability
- Compact and cost-effective solution
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

**RoHS**  
COMPLIANT

## APPLICATIONS

- Limiting inrush current in the EV chargers, usually used to protect contractors in the chargers
- Temperature sensing
- Overcurrent protection
- Temperature compensation
- Motor starters
- Liquid level sensing
- Heating elements

## MECHANICAL SPECIFICATIONS in millimeters

	
SYMBOL	CL20100120
B	9.0 $\pm$ 1.0
D	22.0 max.
L	38.0 nom.
S	7.8 nom.
T	6.0 max.
Lead diameter	1.0 nom.



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