

July 2013

AS Series: Inrush Current Limiting NTC Thermistors

The News: Ametherm introduces new inrush current limiting NTC thermistors designed to withstand high currents from 6 A to 50 A and 250 J to 800 J of input energy

Key Benefits:

- Recognized by Underwriters Laboratories (UL) for ensured safety
- Enhanced performance over traditional inrush current limiters:
 - High Current Capacity
 - Fast Reset Times
 - Wide Operating Temperature Range
- Cost Effective One-Component Solution



Key Specifications:

- Withstand high currents from 6 A to 50 A and 250 J to 800 J of input energy
- Hot R from 0.0074 Ω to 0.380 Ω
- Resistance at 25 $^{\circ}\text{C}$ from .50 Ω to 50 Ω
- Maximum capacitance at 680 VAC from 500 μF to 1730 μF
- Available with diameters of 30 mm and 36 mm

Target Applications:

- Protection of pre-charge circuits in lithium ion batteries; variable-frequency drives in sports equipment like treadmills, high-speed computers, and processors; switch mode power supplies for plasma cutters and welders; and audio amplifiers, MRIs, and x-ray machines

New Product Announcement

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Key Specifications:

Part	UL	R	SSI Max	Joules Max	D Max (mm)	T Nom (mm)	Get-It-Now Digikey	Get-It-Now Mouser
AS32 0R536	Y	0.5	30	300	29	8	570-1103-ND	995-AS32-0R536-100
AS32 0R530	Y	0.5	30	300	29	5	570-1118-ND	995-AS32-0R530-100
AS32 1R030	Y	1.0	30	300	30	8	570-1104-ND	995-AS32-1R030
AS32 1R036	Y	1.0	36	300	30	8	570-1119-ND	995-AS32-1R036-100
AS32 2R025	Y	2.0	25	300	30	8	570-1105-ND	995-AS32-2R025
AS32 5R020	Y	5.0	20	300	32	8	570-1106-ND	995-AS32-5R020
AS32 10015	Y	10.0	15	250	30	9	570-1107-ND	995-AS32-10015
AS32 20010		20.0	10	250	29	9	570-1108-ND	
AS32 50006		50.0	6	250	30	9	570-1109-ND	

The Context: Designed to withstand high steady-state currents and input energy, AS Series inrush current limiting NTC thermistors reduce costs and greatly simplifying designs by providing simple one-component alternatives to using power resistors with timers and relays. Compared to traditional inrush current limiters, the devices offer lower current density, faster reset times, and a wider temperature range without derating. While traditional inrush current limiters handle approximately 167 A per square inch for the duration of the inrush current, AS Series devices are designed to withstand 400 A per square inch. This lower current density, in combination with a uniform temperature gradient throughout the disc, increases reliability by eliminating hot spots from fatigue.

Availability: Samples of the AS Series are available in three to five days. Production quantities are available with lead times of four weeks.

Datasheets: <http://www.ametherm.com/inrush-current/as-series-inrush-current-limiters.html>

Download this New Product Announcement as a PDF:

<http://www.ametherm.com/download/as-inrush-current-limiter-npa-july-2013.pdf>

Request a Sample: Call 800-808-2434 (toll free in the United States) or 775-884-2434 from outside the US and Canada.