

Inrush Current » MM35-DIN Series for High Power Inrush Current Applications

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Ametherm thermistor Inrush Current Limiters have become the industry standard to reduce inrush current across the electronics industry. With the development of **Ametherm's MM35-DIN Series**, Inrush Current Limiters can now take on industrial-strength high power inrush current inrush for high power industrial applications.



High Power Inrush Current Deserves Industrial Strength Inrush Current Protection

With continuous current ratings from 50A to 80A at 680V RMS and energy to 1,200 joules, the Ametherm MM35-DIN Series of Inrush Current Limiters can handle the high power levels found in the industrial environment.

Benefits of Employing the MM35-DIN Series

The MM35-DIN Series offer:

- Higher energy ratings.
- ✓ Ideal for power distribution.
- Higher continuous current ratings.
- ✓ Ideal for systems that are typically powered on once daily.



Single Part Solution. No need for additional by-pass circuitry.

Single and Three Phase Applications Include:

- AC Motors.
- Transformers.
- Power Supply/Inverters.
- Refer to the Maximum Power Ratings Chart for more applications.

SPECIAL INSTRUCTIONS

Inrush Current Limiter Selection Process – Depending on your equipment and load type and your power requirements, go to the Inrush Current Limiter Selection calculators chart below to determine the right calculations for your application.



MM35-DIN MECHAN	NICAL SPECIFICATIONS		
D 68.0mm Max			
Т	8.5mm Max		
s	34.0mm Nom		
L	38.5 mm Nom		
A (Lead Width)	9.6mm Nom		
В	6.0mm Nom		
C (Lead Thickness)	0.8mm Nom		
E	5.7mm Nom		

MM35-DIN Series Electrical Specifications

	MM35	MM35	MM35	MM35
	0R280-DIN	0R560-DIN	1R050-DIN	1R550-DIN
Resistance @ 25 °C	$0.2\Omega \pm 25\%$	$0.5\Omega\pm25\%$	$1.0\Omega \pm 25\%$	$1.5\Omega \pm 25\%$

MM35-DIN Series Electrical Specifications

Max Steady State Current to 65°C	80.0 A	60.0A	50.0A	50.0A
Max Recommended Energy Rating (J)		1200.0 Joules		
Rhot @ 100% Steady State Current	0.004Ω	0.008Ω	0.011Ω	0.013Ω
Rhot @ 75% Steady State Current	0.006Ω	0.011Ω	0.015Ω	0.017Ω
Rhot @ 50% Steady State Current	0.011Ω	0.020Ω	0.030Ω	0.036Ω
Rhot @ 25% Steady State Current	0.029Ω	0.052Ω	0.078Ω	0.091Ω
Max Recommended Voltage		680V RMS		
Max Power		38.4 W		
Thermal Time Constant		< 5 mins		



Ametherm MM35 1R050-DIN Cool Down Duration				
Elapsed Time After Power Off Body Temp (°C)				
0:00	210			
0:30	192			
1:00	177			
1:30	163			
2:00	149			
2:30	137			
3:00	126			
3:30	117			
4:00	109			
4:30	101			
5:00	94			

Steady State Current vs Body Temperature

Ambient Temperature =25 °C

Steady State Current (A)	MM35 0R280-DIN	MM35 0R560 -DIN	MM35 1R050-DIN	MM35 1R550-DIN
5	49	61	66	71
10	73	90	101	99
15	93	110	123	121
20	108	128	140	139
25	123	144	155	152
30	134	157	168	165
35	147	169	182	177
40	156	178	191	188
45	166	188	202	198
50	174	200	214	208
55	181	207		
60	190	217		
65	196			
70	203			
75	209			
80	215			

Typical Maximum Power Ratings for Common Applications

Load Type	Equipment Type	Single-Phase	Three-Phase
JI-		0	

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Typical Maximum Power Ratings	
for Common Applications	

Inductive	Transformer	40 kVA	70 kVA
	AC Motor	50 HP	90 HP
Capacitive	Variable Frequency Drive	50 HP	90 HP
	Power Supply/Inverter	40 kW	70 kW
	Capacitor Bank*	2100 µF	2100 µF
Resistive	Heater/Lamp**	6 kW	
*680 V RMS Max Voltage	**200 Milliseconds Max Inrush Current Duration		

Inrush Current Limiter Selection Calculator

Load Type	Equipment Type	Single-Phase Power	Three-Phase Power
Inductive	Transformer	Go to Calculator	Go to Calculator
	AC Motor	Go to Calculator	Go to Calculator
Capacitive	Variable Frequency Drive	Go to Calculator	Go to Calculator
	Power Supply/Inverter	Go to Calculator	Go to Calculator
	Capacitor Bank	Go to Calculator	Go to Calculator
Resistive	Heater/Lamp	Go to Calculator	Go to Calculator

Kit includes: MM35-DIN & DIN Blocks



MM35-DIN Series Installation

Mounting MM35-DIN Inrush Current Limiters is a snap! Since they are designed for use with DIN blocks, mounting in a power control box requires just a screwdriver.

Whether you're dealing with three-phase or single-phase power, the MM35-DIN Series of Inrush Current Limiters is your best choice for your high power application requirements.



Contact us for more information on our MM35-DIN Series of Inrush Current Limiters. Our engineers are always available to assist you.

Ametherm Part Number	MM35 0R280-	MM35 0R560-	MM35 1R050-	MM35 1R550-
	DIN	DIN	DIN	DIN

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Ametherm MM35-DIN series Now Links Ametherm Data Sheet Coming Soon Coming Soon Coming Soon Coming Soon Coming Soon Coming Soon Coming Soon

Inrush Current Links

Inrush Current Home

Transformer Inrush Current Protection

How To Select an Inrush Current Limiter

Inrush Current FAQ

PTC Thermistors vs. NTC Thermistors for Inrush Current

Transformer Inrush Current: Limiting a 40VA Transformer

Inverter Inrush Current Protection

Inrush Protection for a Precharge Circuit on Lithium Ion Batteries



HAVE A QUESTION?

