

# Compact Solid State Power Controller Delivers Big Performance



The DIN-A-MITE® A power controller provides a low-cost, highly compact and versatile solid state option for controlling electric heat. This controller is designed and manufactured with the quality features expected from Watlow®, DIN-rail and panel mounting is standard on every controller. There is no need to worry about mercury, the DIN-A-MITE controller is mercury free.

Features include single-phase zero cross switching up to 25 amperes at 600VAC (see rating curve). A unique integrated design removes the guesswork associated with selecting a proper heat sink and adequate terminations for the application.

Variable time-base, 4-20mA process control and VAC/VDC input contactor versions are available. All options are model number dependent and factory configurable. This power controller also includes 200KA short circuit current rating (SCCR) tested up to 480VAC to minimize damage in the event of a short circuit when used with required fusing.

## Features and Benefits

### 200KA SCCR with proper fusing

- Minimizes damage in the event of a short circuit

### DIN-rail and panel mounting

- Provides versatility and quick, low-cost installation

### Compact size

- Reduces panel space and cost

### Touch-safe terminals

- Increases safety for installer and user

### Mercury free

- Assures environmental safety

### Faster switching with solid state

- Saves energy and extends heater life

### UL® 508 listed, C-UL®, RoHS 2 and CE with filter

- Meets applications requiring agency approval
- Reduces end product documentation cost

### Back-to-back SCR design

- Ensures a rugged design

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## Specifications

### Operator Interface

- Control input
- Input indication LED

### Amperage

- Single-phase, see the output rating curve
- Max. I<sup>2</sup>t for fusing: 4000A<sup>2</sup>sec
- Latching current: 400mA max.
- Holding current: 200mA max.
- Power dissipation is 1.2 watts per ampere switched
- 200KA SCCR, Type 1 and 2 approved with the recommended fusing; see user manual.

### Line Voltage

- 24 to 660VAC model number dependent; see ordering information
- Off-state leakage: 1mA at 77°F (25°C) max.
- 50/60Hz independent

### Control Mode, Zero Cross

- Control option C: VDC input, contactor output
- Control option K: VAC input, contactor output
- To increase service life on contactor models, the cycle time should be less than three seconds
- Control option F: 4 to 20mA DC input, variable time-base control output (3 cycles on, 3 cycles off at 50% power)

### Control Input

- AC contactor: 24VAC ±10%, 120VAC +10/-25%, 240VAC +10/-25% @ 25mA max.
- DC contactor: 4.5 to 32VDC: max. current @ 4.5VDC is 8mA
- Loop powered linear current 4 to 20mA DC: loop-powered, control option F0 only (requires current source with 8.0VDC available, no more than two DIN-A-MITE inputs can be connected in series)

### Agency Approvals

- CE with proper filter:
  - 204/108/EC Electromagnetic Compatibility Directive
  - EN 61326-1: Industrial Immunity Class A Emissions
- 2006/95/EC Low Voltage Directive
- EN 50178 Safety Requirements
- Installation category III, pollution degree 2
- UL® 508 listed and C-UL® File E73741
- 2011/65/EU RoHS 2

### Control Input Terminals

- Compression: will accept 24 to 16 AWG (0.2 to 1.5 mm<sup>2</sup>) wire

### Line and Load Terminals

- Compression: will accept 18 to 8 AWG (0.8 to 8.4 mm<sup>2</sup>) wire

### Operating Environment

- -4 to 176°F (-20 to 80°C); see the output rating curve chart for your application
- 0 to 90% RH (relative humidity), non-condensing
- Insulation tested to 3,000 meters
- Units are suitable for "Pollution degree 2"

### Mounting

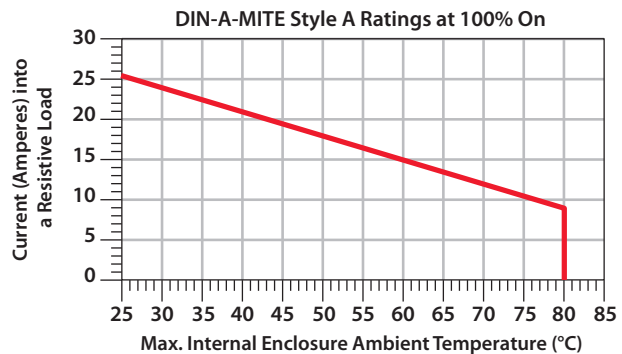
- Options include DIN-rail or standard back panel mounting
- DIN EN 50022, 35 mm by 7.5 mm
- Mount cooling fins vertically

### Dimensions

- 3.7 in. (94 mm) high x 2.0 in. (50 mm) wide x 3.9 in. (98 mm) deep
- Weight: 0.71 lb (0.32kg)

Specifications are subject to change without notice.

## Output Rating Curve



## Ordering Information

### Part Number

①	②	③	④	⑤ ⑥	⑦ ⑧	⑨	⑩	⑪ ⑫
<b>D</b>	<b>A</b>	<b>1</b>	<b>Cooling &amp; Current Rating</b>	<b>Line &amp; Load Voltage</b>	<b>Control</b>	<b>0</b>	<b>User Manual</b>	<b>Custom Options</b>
			<b>0</b>					

③	<b>Phase</b>
1 =	1-phase, 1 controlled leg

④	<b>Cooling and Current Rating (see rating curve)</b>
0 =	Natural convection current rating 18A @50°C

⑤ ⑥	<b>Line and Load Voltage</b>
02 =	24 to 48VAC
24 =	120 to 240VAC
60 =	277 to 600VAC

⑦ ⑧	<b>Control</b>
C0 =	4.5 to 32VDC input, contactor output
F0 =	4 to 20mA DC input, variable time-base output
K1 =	22 to 26VAC input, contactor output
K2 =	100 to 120VAC input, contactor output
K3 =	200 to 240VAC input, contactor output

⑩	<b>User Manual</b>
0 =	English
1 =	German
2 =	Spanish
3 =	French

⑪ ⑫	<b>Custom Options</b>
00 =	Standard part
XX =	Any letter or number, custom options

## Recommended Fuses and Fuse Holders

### Semiconductor Fuses and Holders

Part Nbr.	Description
17-8025	25A fuse
17-5110	10-25A holder

### DFJ Combination Fuses and Holders

Part Nbr.	Description
0808-0325-0020	20A fuse
0808-0325-0030	30A fuse
0808-0326-1530	15-30A holder