Single- and Three-Phase Power in a Compact and Safe Package

The DIN-A-MITE® B 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 are standard on every control. There is no need to worry about mercury, the DIN-A-MITE controller is mercury free.

Features include single-phase and three-phase zero cross switching up to 40 and 22 amperes, respectively, 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. A shorted output alarm option is also available. All options are model number dependent and factory configurable. This power controller 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.

Watlow’s DIN-A-MITE B is available through Watlow SELECT®, a program that enables you to quickly identify, configure and receive your thermal products faster and easier than ever before. With SELECT, you use a variety of tools to guide your decision, configure products for an exact fit and quickly receive your order. Visit www.watlow.com/select to learn more.

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
- **Single- and three-phase power**
  - Permits use in a variety of applications
- **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
- **Shorted output alarm (optional)**
  - Simplifies troubleshooting and reduces downtime

To be automatically connected to the nearest North American Technical Sales Office:

1-800-WATLOW2 • www.watlow.com

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Specifications

Operator Interface
- Control input and indication light
- Alarm output and indication light

Amperage Rating
- See the output rating curve
- Max. surge current for 16.6ms, 380A peak
- Max. I/ for fusing is 4,000A’s
- Latching current: 400mA max.
- Holding current: 200mA max.
- Off-state leakage 1mA at 77°F (25°C) max.
- Power dissipation = 1.2 watts per ampere per leg 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

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

Control Input
- AC contactor: 24VAC +10%, 120VAC +10/-25%, 240VAC +10/-25% @ 25mA max. per controlled leg
- DC contactor: 4.5V to 32VDC: max. current @ 4.5VDC is 6mA per leg. Add 2mA per LED used to the total current
- 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)

Alarm
- Shorted SCR Alarm Option
  - Alarm state when the input command signal off and a 10A or more load current is detected by the current transformer (two turns required for 5A and three turns for 2.5A)
- Alarm Output
  - Energizes on alarm, non-latching
  - Triac 24 to 240VAC, external supply with a current rating of 5mA typical
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  - Triac 24 to 240VAC, external supply with a current rating of 5mA typical

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® U* 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 mm²) wire
- Line and Load Terminals
  - Compression: will accept 18 to 8 AWG (0.8 to 8.4 mm²) wire

Operating Environment
- See the output rating curve
- 0 to 90% RH (relative humidity), non-condensing
- Storage temperature: -40 to 185°F (-40 to 85°C)
- Operating temperature: -4 to 176°F (-20 to 80°C)
- Insulation tested to 3,000 meters

DIN-rail Mount
- DIN EN 50022, 35 mm by 7.5 mm

Back-Panel Mount
- Four mounting holes No. 6 to No. 8 (M3 to M4) fastener

Dimensions
- 3.7 in. (94 mm) high x 3.3 in. (83 mm) wide x 2.0 in. (51 mm) thick
- Weight: 1.5 lb (0.68kg)

Specifications are subject to change without notice.

Output Rating Curve

Current Rating Table

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<th>Phase</th>
<th>Cooling</th>
<th>Current at 122°F (50°C)</th>
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Ordering Information

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<td>Cooling &amp; Current Rating</td>
<td>Line &amp; Load Voltage</td>
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<td>Alarm</td>
<td>User Manual</td>
<td>Custom Options</td>
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- 0 = No alarm
- S = Shorted SCR alarm

User Manual

- 0 = English
- 1 = German
- 2 = Spanish
- 3 = French

Custom Options

- 00 = Standard part
- XX = Any letter or number, custom options

Recommended DIN-rail Mount Fuses and Fuse Holders

Semiconductor Fuses and Holders
- 17-8020 20A fuse
- 17-8025 25A fuse
- 17-8030 32A fuse
- 17-8040 40A fuse
- 17-8050 50A fuse
- 17-5110 10-25A holder
- 17-5114 32-50A holder

DFJ Combination Fuses and Holders
- 0808-0325-0025 25A fuse
- 0808-0325-0030 30A fuse
- 0808-0325-0040 40A fuse
- 0808-0325-0050 50A fuse
- 0808-0326-1530 15-30A holder
- 0808-0326-3560 35-60A holder

Weight: 1.5 lb (0.68kg)

Insulation tested to 3,000 meters

Operating temperature: -4 to 176°F (-20 to 80°C)

Storage temperature: -40 to 185°F (-40 to 85°C)

0 to 90% RH (relative humidity), non-condensing