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

TOTAL CUSTOMER SATISFACTION 3 Year Warranty

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

ISO 9001 Registered Company Winona, Minnesota USA

CE

WATLOW® Powered by Possibility

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

1-800-WATLOW2 • www.watlow.com

International Technical Sales Offices:

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France	+33 1 41 32 79 70	**Japan**	+81 3 3518 6630	**Spain**	+34 91 675 1292
Germany	+49 7253 9400 0	**Korea**	+82 2 2169 2600	**Taiwan**	+886 7 288 5168
				UK	+44 115 964 0777

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^2t for fusing is 4,000A^2s
- 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: 4.5 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 300mA @ 77°F (25°C), 200mA @ 122°F (50°C), 100mA @ 176°F (80°C) and a holding current of 200 µA with a latching current 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
- c(UL)us LISTED 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^2) wire

Line and Load Terminals
- Compression: will accept 18 to 8 AWG (0.8 to 8.4 mm^2) 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

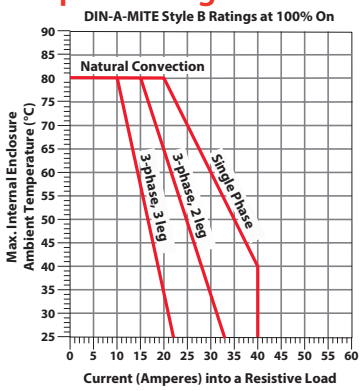
DIN-rail Mount
- DIN EN 50022, 35 mm by 7.5 mm

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 4.9 in. (124 mm) deep
- Weight: 1.5 lb (0.68kg)

Specifications are subject to change without notice.

Output Rating Curve



Current Rating Table

Phase	Cooling	Current at 122°F (50°C)
1	0	35A
2, 8	0	25A
3, 9	0	17A

Ordering Information

Part Number

①	②	③	④		⑤ ⑥	⑦ ⑧		⑨	⑩	⑪ ⑫
		Phase	Cooling & Current Rating	–	Line & Load Voltage	Control	–	Alarm	User Manual	Custom Options
D	B									

③	Phase
1 =	1-phase, 1 controlled leg
2 =	3-phase, 2 controlled legs
3 =	3-phase, 3 controlled legs
8 =	2 independent zones (control options C or K)
9 =	3 independent zones (control options C or K)

④	Cooling and Current Rating (see rating curve)
0 =	Natural convection

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

⑦ ⑧	Control
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

⑨	Alarm
0 =	No alarm
S =	Shorted SCR alarm

⑩	User Manual
0 =	English
1 =	German
2 =	Spanish
3 =	French

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

Recommended DIN-rail Mount Fuses and Fuse Holders

Semiconductor Fuses and Holders

Part Nbr.	Description
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

Part Nbr.	Description
0808-0325-0020	20A 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