

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



Features and Benefits

DIN rail or standard panel mount

- Versatile, quick and low-cost installation

Compact size

- Reduced panel space; less cost

Touch-safe terminals

- Increased safety for installer/user

Single- and three-phase power

- Permits use in a variety of applications

No mercury

- Environmentally safe product

Faster switching with solid state

- Saves energy and extends heater life

UL[®] 508 listed, C-UL[®] and CE with filter

- Meets applications requiring agency approval

Back-to-back SCR design

- Rugged design

Shorted output alarm (optional)

- Notifies you in case of a shorted SCR

Watlow's DIN-A-MITE[®] Style B power controller provides a low-cost, highly compact and versatile solid state option for controlling electric heat. You also get all the quality you expect from a Watlow designed and manufactured product. DIN rail and back panel mounting are standard on every control. There is no need to worry about mercury; the DIN-A-MITE controller is mercury free.

Capabilities include single-phase and three-phase zero cross switching up to 40 and 22 amps, respectively, at 600V~(ac) (see rating curve). A unique, integrated design removes the guesswork associated with selecting a proper heatsink and adequate terminations for the application.

Variable time base, 4-20mA process control or $V \approx (ac/dc)$ input contactor versions are available. A shorted SCR alarm option is also available. All configurations are model number dependent and factory selectable.

The DIN-A-MITE power controller is made in the USA.

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WIN-DMB-0403
ISO 9001



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Latin American Sales Office: Mexico, +52 (442) 217-6235



Specifications

Operator Interface

- Command signal input and indication light
- Alarm output and indication light

Amperage Rating

- See the output rating curve
- Maximum surge current for 16.6 milliseconds, 380A peak
- Maximum I^2t for fusing is 4,000A²s
- Latching current: 200mA minimum
- Holding current: 100mA minimum
- Off-state leakage 1mA at 25°C (77°F) maximum
- Power dissipation = 1.2 watts per amp per leg switched

Line Voltage

- 20V~(ac) to 660V~(ac) model number dependent. See ordering information

Control Mode, Zero-Cross

- Input Control Signal Type C: V=(dc) input contactor
- Input Control Signal Type K: V~(ac) input contactor
- To increase service life on contactor input models the cycle time should be less than three seconds
- Input Control Signal Type F: 4 to 20mA=(dc) proportional variable time base control

Input Command Signal

- AC contactor
24V~(ac) ±10 percent, 120V~(ac) +10/-25 percent, 240V~(ac) +10/-25 percent @ 25mA maximum per controlled leg
- DC Contactor
4.5V= to 32V=(dc): maximum current @ 4.5V=(dc) is 6mA per leg. Add 2mA per LED used to the total current
- Loop powered linear current
4mA= to 20mA=(dc): loop-powered. Input Type F0 option only. (Requires current source with 6.2V=(dc) available. No more than three DIN-A-MITE inputs 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 240V~(ac), external supply with a current rating of 300mA @ 25°C (77°F), 200mA @ 50°C (122°F), 100mA @ 80°C (176°F) and a holding current of 200 µA with a latching current of 5mA typical

Agency Approvals

- CE with proper filter:
89/336/EEC Electromagnetic Compatibility Directive
EN 61326: Industrial Immunity Class A emissions
- 73/23/EEC Low Voltage Directive
EN 50178 Safety Requirements
- Installation category III, pollution degree 2
-  UL® 508 listed and C-UL® File E73741

Input Terminals

- Compression: Will accept 0.2. to 2 mm² (24 to 14 AWG) wire

Line and Load Terminals

- Compression: Will accept 0.8 to 8.4 mm² (18 to 8 AWG) wire

Operating Environment

- See the output rating curve
- 0 to 90 percent RH (relative humidity), non-condensing
- Storage temperature: -40 to +85°C (-40 to 185°F)
- Insulation only tested to 3,000 meters

DIN Rail Mount

- DIN EN 50022, 35 mm by 7.5 mm

Back Panel Mount

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

Dimensions

- Height: 95 mm (3.7 in.) high x 80 mm (3.1 in.) wide x 124 mm (4.9 in.) deep
- Weight: 0.68 kg (1.5 lb)

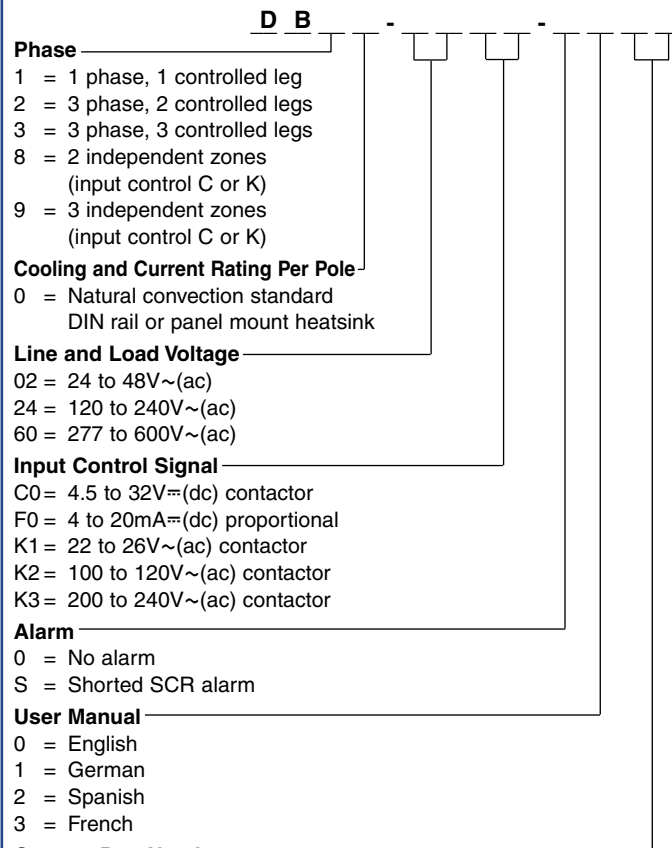
Specifications are subject to change without notice.

Ordering Information

To order, complete the code number on the right with the information below.

DIN-A-MITE

Style B = Solid State Power Controller

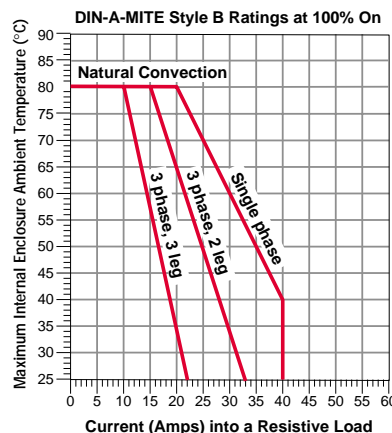
<p>Phase</p> <p>1 = 1 phase, 1 controlled leg</p> <p>2 = 3 phase, 2 controlled legs</p> <p>3 = 3 phase, 3 controlled legs</p> <p>8 = 2 independent zones (input control C or K)</p> <p>9 = 3 independent zones (input control C or K)</p> <p>Cooling and Current Rating Per Pole</p> <p>0 = Natural convection standard DIN rail or panel mount heatsink</p> <p>Line and Load Voltage</p> <p>02 = 24 to 48V~(ac)</p> <p>24 = 120 to 240V~(ac)</p> <p>60 = 277 to 600V~(ac)</p> <p>Input Control Signal</p> <p>C0 = 4.5 to 32V=(dc) contactor</p> <p>F0 = 4 to 20mA=(dc) proportional</p> <p>K1 = 22 to 26V~(ac) contactor</p> <p>K2 = 100 to 120V~(ac) contactor</p> <p>K3 = 200 to 240V~(ac) contactor</p> <p>Alarm</p> <p>0 = No alarm</p> <p>S = Shorted SCR alarm</p> <p>User Manual</p> <p>0 = English</p> <p>1 = German</p> <p>2 = Spanish</p> <p>3 = French</p> <p>Custom Part Numbers</p> <p>00 = Standard part</p> <p>XX = Any letter or number, custom options, labeling, etc.</p>	<p>D B</p> 
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Recommended Semiconductor Fuse and Fuse Holders

Fuse Rating	Wattlow	Bussmann	Ferraz
20A	17-8020	FWC20A10F	PFZ-K330013
25A	17-8025	FWC25A10F	PFZ-L330014
40A	17-8040	FWC40A14F	PFZ-A093909
50A	17-8050	FWC50A14F	PFZ-B93910

Fuse Rating	Wattlow	Bussmann	Ferraz
20A	17-5110	CHM1G	PFZ-G81219
25A	17-5110	CHM1G	PFZ-G81219
40A	17-5114	CH141G	PFZ-J081221
50A	17-5114	CH141G	PFZ-J081221

Output Rating Curve



Current Rating Table

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