

*The Moldatherm® 1100°C Box Furnace is available with single setpoint or multiple segment programmable power controller. Each version is available in four sizes with a variety of options; see chart for ordering information.*



*Model BF51866C Moldatherm Box Furnace designed for 100°C to 1100°C operation includes high efficiency insulation for rapid heat-up and energy efficient performance.*

## Applications

- Ashing, organic and inorganic
- Heat treating
- Annealing
- Tempering
- Hardening
- Melting
- Fusing
- Bonding
- Drying
- Digestion of samples
- Asphalt testing

## 1100°C Moldatherm® Box Furnaces

Lindberg/Blue M Moldatherm 1100°C box furnaces feature a choice of microprocessor-based single setpoint or programmable control instrumentation. Available in four popular chamber sizes to meet the most demanding laboratory applications, these furnaces include unique insulation and heating element composites to minimize outer surface temperatures while maintaining uniform heat distribution within the chamber.

### Features and Benefits

- Two control options
- Controlled heat-up rate eliminates thermal shock to materials
- Quick heat-up and cool-down rates
- Energy efficient Moldatherm insulation with embedded heating elements
- Unique double-wall construction minimizes exterior surface temperatures for operator safety and energy efficiency
- Side-hinge door for convenient operation and full chamber access
- Long-life Type “K” thermocouple
- Air vent (1" dia., top) and air inlet (.375" dia., rear) for inert atmosphere exchange. Will experience some leakage at door
- Removable and replaceable

Moldatherm hearth plate supports load and prevents damage due to spillage

- Main power on/off switch on control panel
- Safety door switch to interrupt power to heating element when door is opened; protects heating element and minimizes exposure to end-user
- Available in 120V and 208/240V configurations

### Digital, Single Setpoint Controller

- Microprocessor-based control with selectable self-tuning feature sets best control parameters for the thermal process. PID control (proportional, integral, derivative) prevents overshoot
- Single segment, single setpoint, 1 ramp to setpoint
- Adjustable high limit overtemperature protection
- Simultaneous LED display of actual temperature vs. setpoint
- May be configured to display temperature in either °C or °F
- UL approval

### Digital Single Program, Multiple Segment Programmable Controller

- Microprocessor-based control with selectable self-tuning feature sets best control parameters for the thermal process. PID control (proportional, integral, derivative) prevents overshoot
- Single program with multiple segments for ramp (up and down) and dwell (timed hold) temperature control. See page 35 for more information
- Adjustable high limit overtemperature protection
- Simultaneous LED display of actual temperature vs. setpoint
- May be configured to display temperature in either °C or °F
- UL approval

### Optional RS485 Digital Communications Port

- RS485 Digital communications port available as an option. Allows controller to be connected to a PC for remote monitoring and control of the furnace. Up to 30 units can be connected to one PC. Please see page 35 for ordering information and additional options

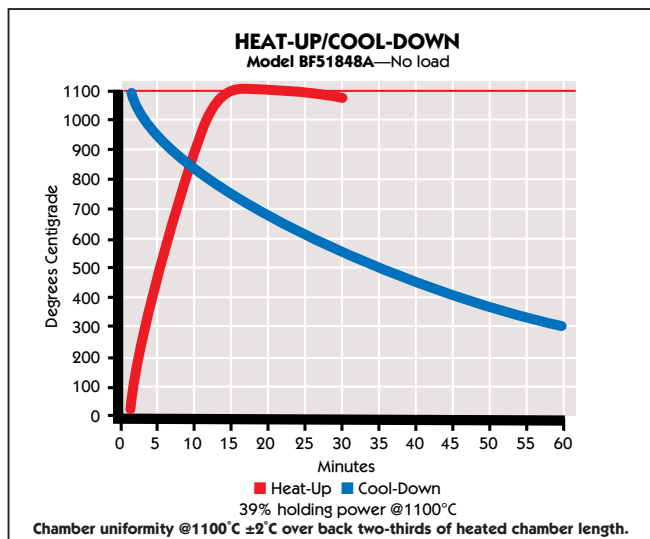
## 1100°C Moldatherm® Box Furnaces, Temperature Range 100°C to 1100°C

| Furnace Model No.                 | Integrated Control      | Electrical Volts, Hz, 1Ø | Watts | Interior Dimensions H x F-B x W in" (mm) | Exterior Dimensions H x F-B x W in" (mm)    | Ship Weight lbs (kg) |
|-----------------------------------|-------------------------|--------------------------|-------|------------------------------------------|---------------------------------------------|----------------------|
| <b>0.07 Cu.Ft. (1.99 liters)</b>  |                         |                          |       |                                          |                                             |                      |
| BF51748A                          | Digital/OTP             | 120V, 50/60 Hz           | 1800  | 4" (101.6) x 8" (203.2) x 4" (101.6)     | 17.5" (444.5) x 20" (508) x 15" (381)       | 55 (25)              |
| BF51748C                          | Digital/OTP             | 208/240V, 50/60 Hz       | 1800  | 4" (101.6) x 8" (203.2) x 4" (101.6)     | 17.5" (444.5) x 20" (508) x 15" (381)       | 55 (25)              |
| BF51848A                          | Multiple Seg/1 Prog/OTP | 120V, 50/60 Hz           | 1800  | 4" (101.6) x 8" (203.2) x 4" (101.6)     | 17.5" (444.5) x 20" (508) x 15" (381)       | 55 (25)              |
| BF51848C                          | Multiple Seg/1 Prog/OTP | 208/240V, 50/60 Hz       | 1800  | 4" (101.6) x 8" (203.2) x 4" (101.6)     | 17.5" (444.5) x 20" (508) x 15" (381)       | 55 (25)              |
| <b>0.1875 Cu.Ft. (5.3 liters)</b> |                         |                          |       |                                          |                                             |                      |
| BF51766A                          | Digital/OTP             | 120V, 50/60 Hz           | 1800  | 6" (152.4) x 9" (228.6) x 6" (152.4)     | 21.5" (546.1) x 21" (533.4) x 17" (431.8)   | 110 (50)             |
| BF51766C                          | Digital/OTP             | 208/240V, 50/60 Hz       | 1800  | 6" (152.4) x 9" (228.6) x 6" (152.4)     | 21.5" (546.1) x 21" (533.4) x 17" (431.8)   | 110 (50)             |
| BF51866A                          | Multiple Seg/1 Prog/OTP | 120V, 50/60 Hz           | 1800  | 6" (152.4) x 9" (228.6) x 6" (152.4)     | 21.5" (546.1) x 21" (533.4) x 17" (431.8)   | 110 (50)             |
| BF51866C                          | Multiple Seg/1 Prog/OTP | 208/240V, 50/60 Hz       | 1800  | 6" (152.4) x 9" (228.6) x 6" (152.4)     | 21.5" (546.1) x 21" (533.4) x 17" (431.8)   | 110 (50)             |
| <b>0.65 Cu.Ft. (18.4 liters)</b>  |                         |                          |       |                                          |                                             |                      |
| BF51794C                          | Digital/OTP             | 208/240V, 50/60 Hz       | 3500  | 9" (228.6) x 14" (355.6) x 9" (228.6)    | 26" (660.4) x 25.75" (654.04) x 21" (533.4) | 130 (59)             |
| BF51894C                          | Multiple Seg/1 Prog/OTP | 208/240V, 50/60 Hz       | 3500  | 9" (228.6) x 14" (355.6) x 9" (228.6)    | 26" (660.4) x 25.75" (654.04) x 21" (533.4) | 130 (59)             |
| <b>1.5 Cu.Ft. (42.5 liters)</b>   |                         |                          |       |                                          |                                             |                      |
| BF51728C                          | Digital/OTP             | 208/240V, 50/60 Hz       | 5600  | 12" (304.8) x 18" (457.2) x 12" (304.8)  | 28" (711.2) x 30" (762) x 24" (609.6)       | 185 (84)             |
| BF51828C                          | Multiple Seg/1 Prog/OTP | 208/240V, 50/60 Hz       | 5600  | 12" (304.8) x 18" (457.2) x 12" (304.8)  | 28" (711.2) x 30" (762) x 24" (609.6)       | 185 (84)             |

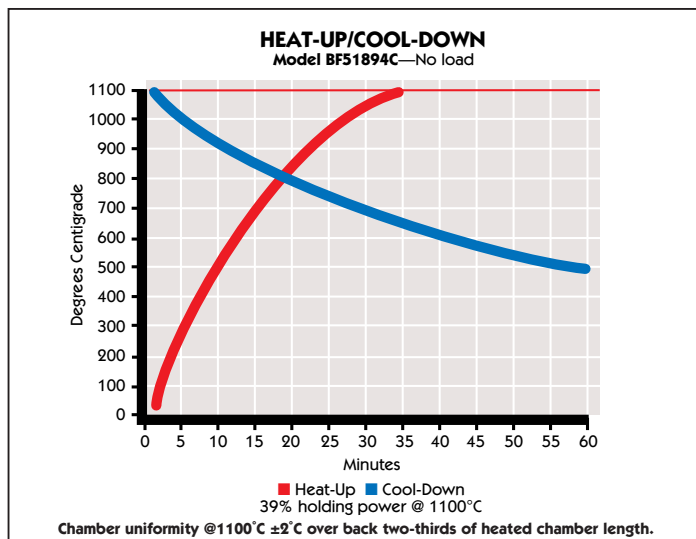
**Note:** All models include 10' power cord except 1.5 cu. ft. models which require customer supplied power cord or hard wiring. Contact your sales representative for CE Models.

**Note:** Use with inert atmosphere will exhibit some leakage.

5



Model BF51848A  
Heat-Up/Cool-Down, No Load



Model BF51894C  
Heat-Up/Cool-Down, No Load

Actual performance may vary depending on load, chamber size, sample placement, ambient temperature and environmental conditions.