



### Temperature

(Ambient temperature 20°C)

Ambient temperature **+5°C to 80°C**

### Effective capacity

**93 liters/3.3 cu.ft.** (MIR-162)

**153 liters/5.4 cu.ft.** (MIR-262)

### Microprocessor PID Control + Air Jacket

#### Heated Incubators provide a precise and stable incubation environment

- A wide range of applications including biological cultures and environmental studies
- Accurate temperature control by Microprocessor PID control system and Air Jacket system
- Operation timer function
- Alarms and self diagnostic function secure safe operation.



MIR-162

MIR-262

# MIR-162/262

## Features

### Microprocessor PID control + Air Jacket system

Microprocessor PID control and Air jacket system give precise temperature control within the chamber. Temperature accuracy is within  $\pm 0.2^{\circ}\text{C}$  (at setting temperature  $37^{\circ}\text{C}$ ) and temperature uniformity is within  $\pm 1.0^{\circ}\text{C}$  (at setting temperature  $37^{\circ}\text{C}$ ).

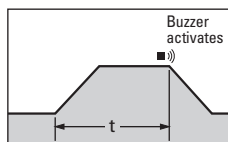
### Microprocessor timer function

An accurate microprocessor timer is fitted to allow experiments up to 99 hours and 59 minutes. Desired start time is set by an automatic start (delay function). An information function activates a buzzer when a set time is over and keeps a set temperature after an operation finishes. Various operation patterns can be set by utilizing these functions.

### Timer set patterns

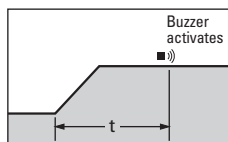
#### Automatic stop function

Heater will be off after a set operation is over.



#### Information function

Continues operating after a set operation is over.



### Temperature control range – Ambient temperature $+5^{\circ}\text{C}$ to $80^{\circ}\text{C}$ (AT $20^{\circ}\text{C}$ )

Panasonic heated incubators allow incubation at normal temperature to high temperature.

### User-friendly design

Control panel uses a touch keyboard and an easy-to-read green LED display. Temperature and time are shown respectively by digital displays. Durable stainless steel for interior cabinet.



## Specifications

|  | MIR-162   | MIR-262  |
|--|---|--|
| <b>External dimensions (W x D x H)</b> | 580 x 595 x 820 (mm) / 22.8 x 23.4 x 32.3 (inch)  | 730 x 645 x 870 (mm) / 28.7 x 25.4 x 34.3 (inch) |
| <b>Internal dimensions (W x D x H)</b> | 450 x 460 x 450 (mm) / 17.7 x 18.1 x 17.7 (inch)  | 600 x 510 x 500 (mm) / 23.6 x 20.1 x 19.7 (inch) |
| <b>Effective capacity</b>              | 93 liters (3.3 cu.ft.)  | 153 liters (5.4 cu.ft.)                          |
| <b>Shelves</b>                         | 2<br>Stainless steel, Stainless wire  | 3  |
| <b>Circulation system</b>              | Natural convection (Air Jacket system)  |  |
| <b>Temperature control system</b>      | Microprocessor PID system   |  |
| <b>Timer</b>                           | Automatic timer with delay function 00:00 – 99:59   |  |
| <b>Heater</b>                          | Sheathed heater 200 W   | Sheathed heater 300 W                            |
| <b>Sensor</b>                          | Thermistor  |  |
| <b>Temperature range</b>               | Ambient temperature $+5^{\circ}\text{C}$ to $80^{\circ}\text{C}$ (AT $20^{\circ}\text{C}$ )                                       |  |
| <b>Temperature control accuracy</b>    | $\pm 0.2^{\circ}\text{C}$ (to $+60^{\circ}\text{C}$ ) $\pm 0.5^{\circ}\text{C}$ ( $+60^{\circ}\text{C}$ to $80^{\circ}\text{C}$ ) |  |
| <b>Temperature uniformity</b>          | $\pm 1.0^{\circ}\text{C}$ (AT $20^{\circ}\text{C}$ , Setting temperature $37^{\circ}\text{C}$ )                                   |  |
| <b>Net weight</b>                      | 44kg (97 lbs.)  | 61kg (134 lbs.)                                  |

### Voltage specification by destination

| Representative destination | Voltage | Frequency | Model No.  |
|----------------------------|---------|-----------|------------|
| Europe                     | 230V    | 50Hz (CE) | MIR-162-PE |
| Korea                      | 220V    | 60Hz      | MIR-162-PK |
| Thailand                   | 220V    | 50Hz      | MIR-162-PB |
| Australia                  | 240V    | 50Hz      | MIR-162-PU |
| Taiwan                     | 110V    | 60Hz      | MIR-162-PT |

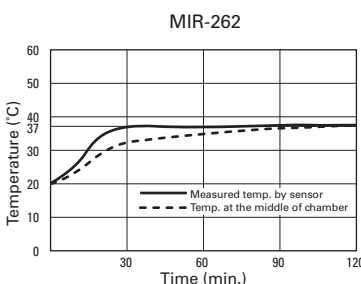
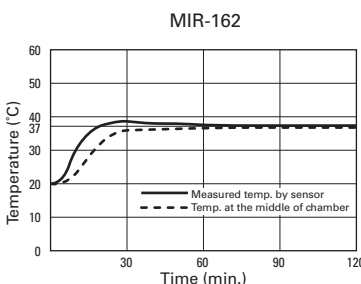
### Various alarm functions

Various alarm functions and a diagnostic function are equipped to protect specimens.

| Alarm system  | Condition for action                                     | Actions   |
|---|--|---|
| <b>Temperature alarm</b>                              | $\pm 2.5^{\circ}\text{C}$ deviation from set temperature | Lamp, LED, Buzzer   |
| <b>Independent temperature rise prevention system</b> | When temperature rises over limited temperature          | Out of operation: Buzzer<br>In operation: Lamp, LED, Buzzer<br>Heater will be turned off by an independent system |
| <b>Key-lock switch</b>                                | When key-lock is on                                      | Does not accept key entry (except a buzzer call key)  |
| <b>Memory back-up</b>                                 | When power failure occurs and power plug is off          | Memorises the pattern of set temperature & time   |
| <b>Self diagnostic system (problem monitor)</b>       | When faults occur  | Fail-safes and displays E01 - E05   |

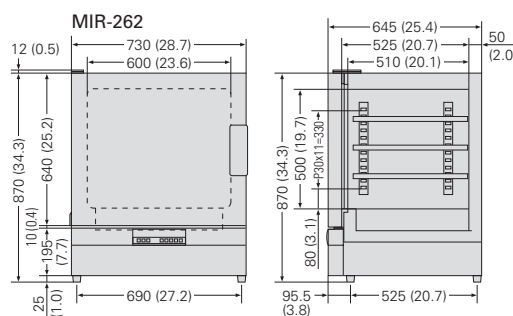
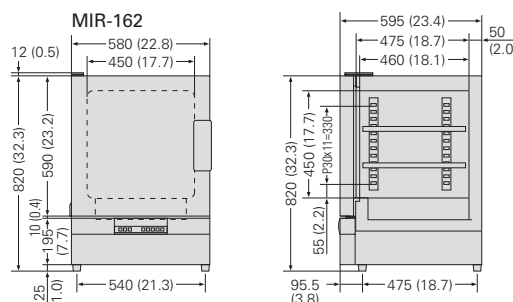
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• Appearance and specifications are subject to change without notice.

### Temperature uniformity data



### Dimensions

Unit: mm (inch)



Panasonic Healthcare Co., Ltd., Biomedical Business Unit is certified for:  
**Quality management system: ISO9001**  
**Medical devices quality management system: ISO13485**



Panasonic Healthcare Co., Ltd., Biomedical Business Unit is certified for:  
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