



MIR-254-PE

## MIR

Cooled Incubators

123 L / 238 L

### All-round performance

MIR Cooled Incubators are suitable for a wide range of applications. These incubators offer precise, repeatable control of programmable temperatures and lighting patterns, which are essential to biological research and environmental studies.

### Repetitive Operation & Operability

Precise, repeatable control of programmable temperatures and lighting patterns. A program can be set to repeat for a minimum of one time to a maximum of 98 times or continuous repeat.

### High-precision Temperature Control

Precise temperature control with a high precision microprocessor combined with a heater PID and compressor on/off system. The temperature control ranges from  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ .

### Intuitive Operation

A LCD control panel with touch keyboard displays temperature and time, and allows easy setting of parameters. Operation data can be auto-recorded and graphically displayed.



### Diverse experiments

Ideal for experimentation during night time and holidays, experimentation that requires settings to be changed, micro-organism culture and preservation.



### Medium desiccation prevention

A DC fan is designed to be aimed obliquely upward to prevent direct air flow contacting samples. This reduces medium drying.



### Wide temperature control range from $-10^{\circ}\text{C}$ to $+60^{\circ}\text{C}$

With a wide temperature range from  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ , MIR Cooled Incubators allow a full range of precise experiments including environmental tests to micro-organism cultures and plant germination tests.

# MIR Cooled Incubators



MIR-154-PE

## Improved experimentation of repetitive operation and operability

### Programmable operation function with microprocessor control

Combining flexible temperature (H), light on/off (L) and time control (T), a maximum 12-step plus constant operation or max. 12-step repeating operation can be programmed according to the experimentation requirements. A program can be set to repeat for a minimum of one time to a maximum of 98 times or continuous repeat. The Cooled Incubators also offer the choice of timer mode, 24-hour clock mode and timer mode to suit user experiments. Up to 10 programs can be stored for convenient retrieval and set-up of frequently run experiments. Individual programs can be combined using the join function. Constant operation mode without step operation is also available.

## Energy savings

In addition to a microprocessor-controlled high efficient heater output and compressor on/off, an updated control program and low heat-emission inner chamber fan have been incorporated to allow high energy saving operation over a wider range of ambient environments.

## Light timer control

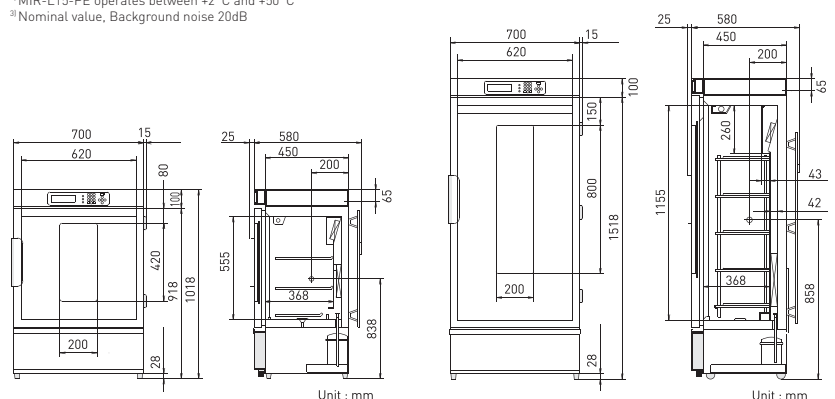
On/off programmed timer control for standard equipped fluorescent light (15W x 1pc) is available. Optional light addition kit (MIR-L15) can add three more fluorescent lights into the chamber ceiling, giving approx. 3000 lux at 30cm below from the light sources.

Model Number		MIR-154-PE	MIR-254-PE
<b>Dimensions</b>			
External dimensions (W x D x H) <sup>1)</sup>	mm	700 x 580 x 1018	700 x 580 x 1618
Internal dimensions (W x D x H)	mm	620 x 368 x 555	620 x 368 x 1088
Volume	liters	123	238
Net weight	kg	78	108
<b>Performance</b>			
Temperature control range & fluctuation	°C	-10 ~ +60 (AT; +5 ~ +35, no load), ±0.2 with Heater PID control (SV 50), ±1.5 with Compressor control (SV 5) PID control: 7°C above AT	
Temperature uniformity	°C	±0.5 SV (35)	
Performance ambient temperature	°C	20, no load	
<b>Control</b>			
Temperature sensor		Thermistor	
<b>Refrigeration</b>			
Compressor		150	250
Refrigerant*		R-513A	R-513A
Refrigerant weight	g	90	125
Refrigerant GWP		631	631
Total Refrigerant weight (CO <sub>2</sub> equivalent)	t	0.057	0.079
Cooling method		Forced air circulation	
Insulation material		PUF	
Insulation thickness	mm	40	40
<b>Construction</b>			
Exterior material		Painted steel	
Interior material		SS SUS-304	
Outer door	qty	1	
Outer door lock		-	MIR-LP option
Reversible door		Y	
Shelves	qty	3	5
Max. load per shelf	kg	20	
Max. total load	kg	61	100
Access port	qty	1	
- position		Left side	
- diameter	∅ mm	40	
Interior fluorescent lamp		1, 15, with MIR-L15-PE <sup>2)</sup> option	
<b>Alarms</b> (R = Remote Alarm, V = Visual Alarm, B = Buzzer Alarm)			
High temperature		V-B-R	
Low temperature		V-B-R	
Door open		V-B	
<b>Electrical and Noise Level</b>			
Power supply	V	230	
Frequency	Hz	50	
Noise level <sup>3)</sup>	dB(A)	41	44
<b>Options</b>			
Stacking kit		MIR-S154SB-PW	-
Door padlock bracket		MIR-LP-PW	
Additional illumination kit		MIR-L15-PE	
Door window blanking plate		MIR-154BP-PW	MIR-254BP-PW

Appearance and specifications are subject to change without notice.

<sup>1)</sup> Exterior dimensions of main cabinet only, excluding handle and other external projections  
<sup>2)</sup> MIR-L15-PE operates between +2°C and +50°C  
<sup>3)</sup> Nominal value, Background noise 20dB

\* Complies with Art. 11, Annex III of F-Gas Regulation (EU) No 517/2014. Contains fluorinated greenhouse gases.



MIR-154-PE - 123 liters

MIR-254-PE - 238 liters



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