



MCO-230AICUVL-PA

8.1 cu.ft. | 230 L













MCO-230AICUVL-PA

Enhance the production of your cell culture experiments with our large capacity  $CO_2$  incubator. Ideal for high throughput culturing or protocols that may require the use of experimental apparatus.

## Precise and Repeatable Environment

The patented Direct Heat and Air Jacket system works with the IR2 sensor to provide precise temperature and CO₂ levels, respectively. InCu-saFe® and SafeCell™ UV function together to prevent contamination.

## Time-Saving Decontamination

The optional high speed decontamination system uses hydrogen peroxide ( $H_2O_2$ ) vapor to safely clean the chamber in less than three hours while providing a kill rate with at least a six log reduction of major contaminants.

# Improved Use and Maintenance

A color LCD touchscreen panel delivers full control, even with gloved hands, while a standard USB port makes log data transfer to PC convenient. Integrated shelf channels make cleaning easy within the large interior and allow more capacity for cell culture containers and apparatus.



### **Germicidal Interior**

InCu-saFe copper enriched, stainless steel alloy offers germicidal properties of elemental copper without corrosion or discoloration.



#### **Contamination Control**

The isolated UV lamp decontaminates circulated air and the humidity water reservoir without harming the cultured cells.



#### **Intuitive Control**

The control panel interface allows for easy programming of temperature, CO<sub>2</sub> and other internal conditions of your incubator.

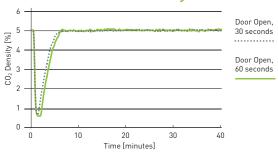


Model MCO-230AICUVL-PA

## **Direct Heat and Air Jacket System**

Accurate temperature levels are regulated by the Direct Heat and Air Jacket system which functions under microprocessor control.

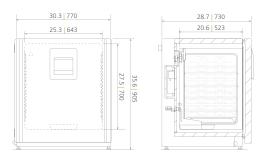
## **Direct Heat and Air Jacket System**



Proprietary IR2 sensor achieves ultrafast CO2 recovery without overshoot, even following multiple door openings.

### **Dimensions**

Unit: inch | mm





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Model Number		MCO-230AICUVL-PA	With Optional H₂O₂ Decontamination
External Dimensions (W × D × H) <sup>1)</sup>	inches mm	30.3 × 28.7 × 35.6	
Internal Dimensions (W × D × H)	inches mm	25.3 × 20.6 × 27.6   643 × 523 × 700	
Volume	cu.ft. liters	8.1   230	
Net Weight	lbs kg	198   90	
	tb3   kg	150	50
Performance			
Warranty <sup>2)</sup>		3 years parts and labor, 5 years CO <sub>2</sub> sensor	
Temperature Control Range and Fluctuation 3)	°C	+5 above ambient to +50, ± 0.1	
Temperature Uniformity 3)	°C	± 0.25	
CO <sub>2</sub> Control Range and Fluctuation <sup>3)</sup>	%	0 to 20, ± 0.15	
Humidity Level & Fluctuation	% RH	95 at 37°C, ± 5	
Control			
Controller		Microprocessor	
Temperature Sensor		Thermistor	
Display		Color LCD touchscreen readable in 0.1 increments	
Sensor	CO <sub>2</sub>	Dual filter IR	
Exterior Material		Painted steel (rear	cover coated steel)
nterior Material		Stainless steel copper enriched alloy	
Outer Door	qty	Starriess steer copper enriched alloy	
Field Reversible Door	4-7	Included	
nner Door	qty	1 (sealing tempered glass with positive latch)	
Humidity Pan	qty	1 (stainless steel)	
Shelves	qty	4 (stainless steel copper enriched alloy)	
Shelf Dimension (W × D × H)	inches   mm	24.4 × 17.7 × 0.5   620 × 450 × 12	
Max. Load per Shelf	lbs kg		
Max. Total Load	lbs kg	15   7 60   28	
Max. Shelf Capacity	qty	10	
Access Port / Position	qty	1; rear upper left	
Access Port Diameter	inches mm	1.2   30 (with silicone (non-VOC) stopper)	
Leveling Feet	qty	4	
-	qıy		
Decontamination Control			
InCu-saFe Chamber, Plenum, Shelves	passive	Included (stainless steel copper enriched alloy)	
SafeCell UV Light System	passive/active	Included	
Hydrogen Peroxide (H <sub>2</sub> O <sub>2</sub> ) Vapor	active	Optional Included	
Power Failure		R	
Temperature Deviation	high	V-B-R	
Gas Deviation	CO <sub>2</sub>	V-B-R	
Supply Empty	CO <sub>2</sub>	V-B-R	
Door Open		V-B	
Electrical and Noise Level			
Power Supply	(i) (d)	115V, 1Ø, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle	
Noise Level 4)	dB(A)	25	
Options			
Hydrogen Peroxide (H₂O₂) Vapor Board		MCO-170HB-PA <sup>5)</sup>	Included
Outer Door – Password Access Electronic Lock		MCO-170HB-PA <sup>3</sup>	Included
H <sub>2</sub> O <sub>2</sub> Vapor Generator			
H <sub>2</sub> O <sub>2</sub> vapor Generator	package of 6	MCO-HP-PW 5) MCO-H2O2-PV	
H <sub>2</sub> O₂ Keagent CO₂ Gas Pressure Regulator			
LO <sub>2</sub> Gas Pressure Regulator Automatic CO <sub>2</sub> Cylinder Changeover System	psi	0 – 15; MCO-100L MCO-21GC-PW	
nCu-saFe Shelf			
nCu-saFe Shelf–Reinforced		MCO-230ST-PW	
		MCO-230RT-PW	
Double Stacking Bracket ® Roller Base		MCO-170PS-PW MCO-230RB-PW	
4-20mA Analog Output		MCO-230RB-PW MCO-420MA-PW	
		IVICU-421	OIVINT VV
Optional Communication System			
Wireless, Cloud-based, Automatic Data Management		LabAlert® Mon	itoring System
atomatic Data Management			

- 1) Exterior dimensions of main cabinet only, excluding handle and other external projections
- <sup>2)</sup> Current warranty offered at time of printing and may be subject to change; US and Canada only <sup>3)</sup> Ambient temperature 23°C, setting 37°C, CO<sub>2</sub> 5%, no load
- 4) Nominal value, background noise 20 dB[A]
- $^{9)}$  MCO-230AIC series requires MCO-170HB-PA, MCO-170EL-PW and MCO-HP-PW for  $\rm H_2O_2$  Decontamination  $^{9}$  If stacking two incubators, make sure the double stacking dedicated secure hardware and spacer are used Note: Additional options available.

### Specifications are subject to change without notice.

For latest specification information contact PHC Corporation of North America at info@us.phchd.com. Performance data herein is based on independent testing at time of publication.