



MCO-230AICUVHL-PA

8.1 cu.ft. | 230 L





cell/Q[™] CO₂ Incubator with H₂O₃ Decontamination









Enhance the production of your cell culture experiments with our large capacity CO₂ incubator. Ideal for high throughput culturing or protocols that may require the use of experimental apparatus.

Dual IR CO, Sensor

The patented Direct Heat and Air sor to provide precise temperature and CO₂ levels, respectively, without being affected by changes in

Time-Saving Decontamination

The optional high speed decontamiide (H₂O₂) vapor to safely clean the chamber in less than three hours while This allows for a quick turnaround compared to high heat decontamihours of runtime and limit overall

Improved Use and Data Accquisition

A color LCD touchscreen panel delivhands, while a standard USB port makes log data transfer to PC contemperature and CO₃ levels via a lab



Germicidal Interior

InCu-saFe copper enriched, stainless steel alloy offers germicidal properties of elemental copper without corrosion or discoloration. Integrated shelf channels make cleaning easy and allow for more capacity for cell culture containers and apparatus.



Contamination Control

The isolated SafeCell UV lamp decontaminates circulated air and the humidity water reservoir without harming the cells during regular cell culture incubation.



Intuitive Control

The control panel interface allows for easy programming of temperature, CO₂ and other internal conditions of your incubator with its built in security features, changes to the parameter controls of the incubator are prevented using password protection.

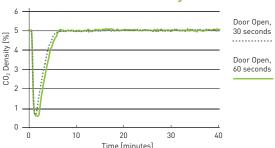


Model MCO-230AICUVHL-PA

Direct Heat and Air Jacket System

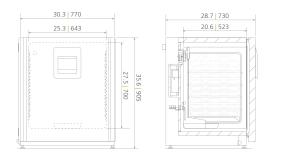
Accurate temperature levels are regulated by the Direct Heat and Air Jacket system which functions under microprocessor control.

Direct Heat and Air Jacket System



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

Dimensions Unit: inch | mm





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	MCO-230AICUVHL-PA	
Model Number		MCO-230AICUVHL-PA
External Dimensions (W \times D \times H) $^{1)}$	inches mm	30.3 × 28.7 × 35.6 770 × 730 × 905
Internal Dimensions (W \times D \times 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
Warranty 2)		3 years parts and labor, 5 years CO ₂ sensor
Temperature Control Range and Fluctuation 3)	°C	+5 above ambient to +50, ± 0.1
Temperature Uniformity 3)	°C	± 0.25
CO ₂ Control Range and Fluctuation ³⁾	%	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 ₂	Dual filter IR
Construction		0.1111/
Exterior Material		Painted steel (rear cover coated steel)
Interior Material		Stainless steel copper enriched alloy
Outer Door	qty	1
Field Reversible Door	at:	Included
Inner Door Humidity Pan	qty	1 (sealing tempered glass with positive latch) 1 (stainless steel)
· · · · · · · · · · · · · · · · · · ·	qty	
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 Max. Total Load	lbs kg	15.4 7
	lbs kg	61.6 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
Decontamination Control		
InCu-saFe Chamber, Plenum, Shelves	passive	Included (stainless steel copper enriched alloy)
SafeCell UV Light System	passive/active	MCO-170UVS-PA (included)
Hydrogen Peroxide (H ₂ O ₂) Vapor	active	Included 6
		medaca
	('	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm)
Alarms Power Failure	C	
	high	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm)
Power Failure		V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R
Power Failure Temperature Deviation	high	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R
Power Failure Temperature Deviation Gas Deviation	high CO ₂	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R
Power Failure Temperature Deviation Gas Deviation Supply Empty	high CO ₂	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open	high CO ₂	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level	high CO ₂	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B 115V, 109, 60Hz, NEMA 5-15P
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 40	high CO ₂ CO ₃	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B 115V, 10, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 40 Options	high CO ₂ CO ₃	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B 115V, 10, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 40 Options Hydrogen Peroxide (H ₂ O ₂) Vapor Board	high CO ₂ CO ₃	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B 115V, 10/, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle 25 Included
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 40 Options Hydrogen Peroxide (H ₂ O ₂) Vapor Board Outer Door – Password Access Electronic Lock	high CO ₂ CO ₃	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B 115V, 1Ø, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle 25 Included Included
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 40 Options Hydrogen Peroxide (H ₂ O ₂) Vapor Board Outer Door — Password Access Electronic Lock H ₂ O ₂ Vapor Generator	high CO ₂ CO ₂ dB(A)	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B V-B 115V, 10, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle 25 Included Included MCO-HP-PW
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 4 Options Hydrogen Peroxide (H ₂ O ₂) Vapor Board Outer Door — Password Access Electronic Lock H ₂ O ₂ Vapor Generator H ₃ O ₃ Reagent	high CO ₂ CO ₂ dB(A)	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B 115V, 1Ø, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle 25 Included Included MCO-HP-PW MCO-H2O2-PV
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 4 Options Hydrogen Peroxide (H ₂ O ₂) Vapor Board Outer Door – Password Access Electronic Lock H ₂ O ₂ Vapor Generator H ₂ O ₂ Reagent CO ₂ Gas Pressure Regulator	high CO ₂ CO ₂ dB(A)	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B V-B 115V, 10, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle 25 Included Included MCO-HP-PW
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 4 Options Hydrogen Peroxide (H ₂ O ₂) Vapor Board Outer Door – Password Access Electronic Lock H ₂ O ₂ Vapor Generator H ₂ O ₂ Reagent CO ₂ Gas Pressure Regulator Automatic CO ₂ Cylinder Changeover System	high CO ₂ CO ₂ dB(A)	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B 115V, 1Ø, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle 25 Included Included MCO-HP-PW MCO-H2O2-PV 0 – 15; MCO-100L MCO-21GC-PW
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 4 Options Hydrogen Peroxide (H ₂ O ₂) Vapor Board Outer Door – Password Access Electronic Lock H ₂ O ₂ Vapor Generator H ₂ O ₂ Reagent CO ₂ Gas Pressure Regulator	high CO ₂ CO ₂ dB(A)	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B 115V, 1Ø, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle 25 Included Included MCO-HP-PW MCO-H2O2-PV 0 – 15; MCO-100L MCO-21GC-PW MCO-230ST-PW
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 4 Options Hydrogen Peroxide (H ₂ O ₂) Vapor Board Outer Door – Password Access Electronic Lock H ₂ O ₂ Vapor Generator H ₂ O ₂ Reagent CO ₂ Gas Pressure Regulator Automatic CO ₂ Cylinder Changeover System InCu-safe Shelf	high CO ₂ CO ₂ dB(A)	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B 115V, 1Ø, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle 25 Included Included MCO-HP-PW MCO-H2O2-PV 0 – 15; MCO-100L MCO-21GC-PW
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 4 Options Hydrogen Peroxide (H ₂ O ₂) Vapor Board Outer Door – Password Access Electronic Lock H ₂ O ₂ Vapor Generator H ₂ O ₃ Reagent CO ₂ Gas Pressure Regulator Automatic CO ₂ Cylinder Changeover System InCu-saFe Shelf InCu-saFe Shelf	high CO ₂ CO ₂ dB(A)	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B 115V, 1Ø, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle 25 Included Included MCO-HP-PW MCO-H2O2-PV 0 -15; MCO-100L MCO-21GC-PW MCO-230ST-PW 66 30 MCO-230RT-PW
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 4 Options Hydrogen Peroxide (H ₂ O ₂) Vapor Board Outer Door – Password Access Electronic Lock H ₂ O ₂ Vapor Generator H ₂ O ₃ Reagent CO ₂ Gas Pressure Regulator Automatic CO ₂ Cylinder Changeover System InCu-safe Shelf InCu-safe Shelf InCu-safe Shelf-Reinforced Double Stacking Bracket 9 Roller Base	high CO ₂ CO ₂ dB(A)	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B-R V-B 115V, 10, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle 25 Included Included MCO-HP-PW MCO-H2O2-PV 0 - 15; MCO-100L MCO-21GC-PW MCO-230ST-PW 66 30 MCO-230RT-PW MCO-230SB-PW
Power Failure Temperature Deviation Gas Deviation Supply Empty Door Open Electrical and Noise Level Power Supply Noise Level 4 Options Hydrogen Peroxide (H ₂ O ₂) Vapor Board Outer Door – Password Access Electronic Lock H ₂ O ₂ Vapor Generator H ₃ O ₂ Reagent CO ₂ Gas Pressure Regulator Automatic CO ₂ Cylinder Changeover System InCu-saFe Shelf InCu-saFe Shelf-Reinforced Double Stacking Bracket 6	high CO ₂ CO ₂ dB(A)	V=Visual Alarm, Buzzer Alarm, R=Remote Alarm) R V-B-R V-B-R V-B-R V-B-R V-B 115V, 10, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle 25 Included Included MCO-HP-PW MCO-H2O2-PV 0 - 15; MCO-100L MCO-21GC-PW MCO-230ST-PW 66 30 MCO-230RT-PW MCO-230SB-PW

- 9 Exterior dimensions of main cabinet only, excluding handle and other external projections 29 Current warranty offered at time of printing and may be subject to change; US and Canada only
- $^{3)}$ Ambient temperature 23°C, setting 37°C, CO $_{\!2}$ 5%, no load
- 4) Nominal value, background noise 20 dB(A)
- 5) If stacking two incubators, make sure the double stacking dedicated secure hardware and spacer are used
- 6 The purchase of the vapor generator and H2O2 reagent is still required for decontamination. $^{7)}$ Must be purchased with MTR-480 or other LabSVIFT probes.
- * Manufactured by others

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.