

IncuSafe

CO₂ Incubators

230 L



MCO-230AIC-PE



Optimising cell culture outcomes and reproducibility

IncuSafe CO₂ Incubators provide precise control of CO₂ concentration and accurate, uniform, and highly responsive temperature control within the chamber. During cell culturing the inCu-saFe germicidal interior and SafeCell UV lamp work continuously to prevent contamination.

Precise & Regulated Environment

InCu-saFe and SafeCell UV both function to actively prevent contamination. The Direct Heat and Air Jacket System regulates the temperature whilst the Dual IR sensor controls the CO₂ level.

Time-Saving Decontamination

The high-speed decontamination system uses vaporised hydrogen peroxide and UV light. It cleans the chamber of the incubator safely in less than three hours, achieving a minimal 6 log reduction of major contaminants.

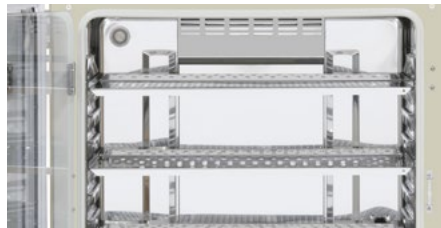
Ease of Use & Increased Capacity

A full colour LCD touch-screen allows full control even with gloved hands. Transfer of data is easy via a USB port. The easy-to-clean interior features fully rounded corners and integrated shelf supports.



Optimum Cell Growth

Outstanding quality and performance for successful cell growth, optimal results and reproducibility. Perfect fit for the strictest and most sensitive protocols.



Efficient Workflows

Complete laboratory procedures and experiments more efficiently with less incubator downtime. Ideal for commercial applications.



Scale-up experiments

The increased capacity offers the possibility to utilise the incubator from R&D to clinical trials and manufacturing.

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Direct Heat and Air Jacket System

Achieves accurate, uniform, and highly responsive temperature control within the chamber, providing exceptional uniformity and rapid recovery after door-openings.

Dual IR CO₂ Sensor

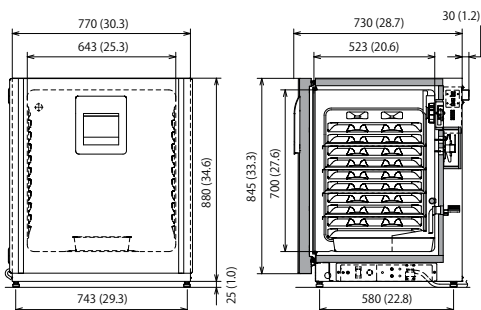
The incubator's Dual IR sensor and P.I.D control enables ultra-fast CO₂ recovery, without overshoot, even following multiple door-openings.

Active Background Decontamination

The exclusive inCu-saFe copper-enriched stainless steel alloy interior offers the germicidal properties of copper and the durability of stainless steel. The optional, isolated, SafeCell UV lamp decontaminates circulating air and water in the humidifying pan, without harming cultured cells.

Condensation Management

With a unique antibacterial coating, the 'dew stick'—controlled by Peltier technology—condenses water on its surface, which then drips into the humidifying pan, preventing unwanted condensation in the chamber and possible contamination.



The MCO-230AIC series are certified as a Class IIa Medical Device (93/42/EEC and 2007/47/EC) for medical purposes of culturing cells, tissues, organs and embryos.



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Model Number	MCO-230AIC-PE	MCO-230AICUV-PE	MCO-230AICUVH-PE
External Dimensions (W x D x H) ¹⁾	mm	770 x 730 x 905	
Internal Dimensions (W x D x H)	mm	643 x 523 x 700	
Volume	liters	230	
Net Weight	kg	90	
Performance			
Temperature Control Range & Fluctuation	°C	AT +5 ~ +50, ±0.1	
Temperature Uniformity ²⁾	°C	±0.25	
CO ₂ Control Range & Fluctuation	%	0 ~ 20, ±0.15	
Humidity Level & Fluctuation	%RH	95, ±5	
Sterilisation Method		H ₂ O ₂ Decontamination	
Control			
Temperature Sensor		Thermistor	
CO ₂ Sensor		Dual IR	
Display		LCD Touch Screen	
Construction			
Exterior Material		Painted Steel (rear cover not painted)	
Interior Material		Stainless Steel Copper-Enriched Alloy	
Insulation Material		Extruded polystyrene	
Heating Method		Direct Heat & Air Jacket System	
Outer Door	qty	1	
Outer Door Lock		Optional	Optional Standard
Field Reversible Door		Included	
Inner Door	qty	1 gastight - made of tempered glass	
Shelves	qty	4 x Stainless Steel Copper-enriched Alloy	
Shelf Dimensions (W x D x H)	mm	620 x 450 x 12	
Max. Load per Shelf	kg	7	
Max. Shelf Capacity	qty	10	
Access Port	qty	1	
Access Port Position		Rear	
Access Port Diameter	∅ mm	30	
Alarms (R = Remote Alarm, V = Visual Alarm, B = Buzzer Alarm)			
Power Failure		R	
Out of Temperature Setting		V-B-R	
High Temperature		V-B-R	
Out of CO ₂ Setting		V-B-R	
Door open		V-B	
Electrical and Noise Level			
Power Supply	V	230	
Frequency	Hz	50	
Noise Level ³⁾	dB	25	
Options			
SafeCell UV® System		MCO-170UVS-PE ⁴⁾	Standard
H ₂ O ₂ Decontamination Board		MCO-170HB-PE ⁴⁾	Standard
Electric Door Lock with Password		MCO-170EL-PW ⁴⁾	Standard
H ₂ O ₂ Vapor Generator		MCO-HP-PW ⁴⁾	
H ₂ O ₂ Reagent, pack of 6 bottles		MCO-H202-PE	
CO ₂ Gas Pressure Regulator		MCO-100L-PW	
Automatic CO ₂ Cylinder Changeover System		MCO-21GC-PW	
Semi-automatic one point Gas Calibration Kit		MCO-SG-PW	
InCu-saFe® Shelf		MCO-230ST-PW	
InCu-saFe® Half Tray System		MCO-35ST-PW	
Double Stacking Bracket*		MCO-170PS-PW	
Stacking Plate*		MCO-230SB-PW	
Roller Base		MCO-230RB-PW	
Optional communication systems⁵⁾			
Ethernet interface (LAN)		MTR-L03-PW	
Digital interface (RS232C/RS485)		MTR-480-PW	
Analogue interface (4-20mA)		MCO-420MA-PW	

¹⁾ Exterior dimensions of main cabinet only, excluding handle and other external projections

²⁾ Ambient temp 23°C, setting 37°C, CO₂ 5%, no load

³⁾ Nominal value

⁴⁾ MCO-230AIC series requires MCO-170HB-PE, MCO-170EL-PW, MCO-HP-PW and SafeCell UV option for H₂O₂ decontamination

⁵⁾ MCO-230AIC series can only be fitted with one communications interface.

* If stacking two incubators, make sure the double-stacking dedicated securing hardware and spacer are used.