



MCO-170AC-PE

IncuSafe

CO₂ Incubators

165 L



Optimising cell culture outcomes and reproducibility

PHCbi 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 optional SafeCell UV lamp continuously prevent contamination.

Effortless cleaning and maintenance

The interior of the incubator is easy to clean and has more space for dishes on the shelves due to the new integrated shelf supports. The number of interior parts have been reduced by approx. 80% compared to the previous model.



MCO-18AC (24 parts) MCO-170AC (5 parts)

Precise Control & Intelligent Monitoring

An OLED alphanumeric keypad allows convenient but secure user control. It can display internal conditions, such as CO₂ level and temperature. Transfer of data is easy via a USB port.

Precise & Regulated Environment

InCu-saFe and optional SafeCell UV lamp both function to prevent contamination. The Direct Heat and Air Jacket System regulate the temperature while the TC sensor controls the CO₂ level.

Efficient workflows

The cleaning of the inner chamber is much easier with the interior featuring fully rounded corners and without the need to remove many interior parts. Therefore laboratory process are more efficient with less incubator downtime.

Easy to Use

Adjustable audible and visual alarms are standard, along with integrated system diagnostics and predictive performance supervision. The password-protected control panel provides security and minimizes risk of accidental changes in setpoint.

Optimum cell growth

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



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Active Background Decontamination

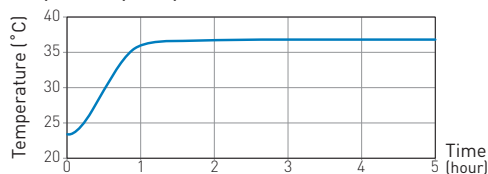
The inCu-saFe copper-enriched stainless steel alloy interior offers the germicidal properties of copper as well as the corrosion resistance of stainless steel. The optional, isolated SafeCell UV lamp decontaminates circulating air and water in the humidifying pan without harming cultured cells.

Condensation Management

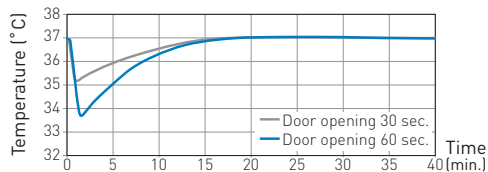
With a unique antibacterial coating, the 'dew stick'—controlled by Peltier technology—condenses water on its surface, which then drips into the humidifying pan, preventing unwanted condensation in the chamber and possible contamination.

Performance data

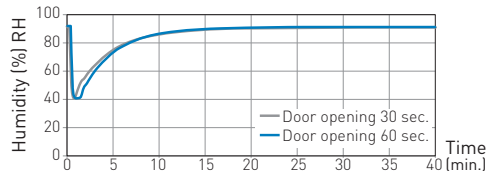
Temperature pull-up characteristics



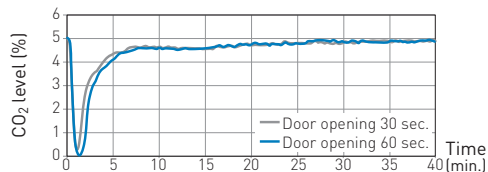
Temperature recovery characteristics



Humidity recovery characteristics



CO₂ level recovery characteristics



Model Number		MCO-170AC-PE
External Dimensions (W x D x H) ¹⁾	mm	620 x 730 x 905
Internal Dimensions (W x D x H)	mm	490 x 523 x 665
Volume	liters	165
Net Weight	kg	74
Performance		
Temperature Control Range & Fluctuation	°C	AT +5 to +50 ²⁾ , ±0.1
Temperature Uniformity ²⁾	°C	±0.25
CO ₂ Control Range & Fluctuation ³⁾	%	0 to 20, ±0.15
Humidity Level & Fluctuation	%RH	95±5
Control		
Temperature Sensor		Thermistor
CO ₂ Sensor		TC
Display		Digital (White graphic Organic LED)
Construction		
Exterior Material		Digital (White graphic Organic LED)
Interior Material		Stainless steel copper-enriched alloy
Insulation Material		Styrene AcryloNitrile copolymer
Heating Method		Direct Heat & Air Jacket System
Outer Door	qty	1
Field Reversible Door		Included
Inner Door	qty	1 (tempered glass)
Shelves	qty	3 x Stainless steel copper-enriched alloy
Shelf Dimensions (W x D x H)	mm	470 x 450 x 12
Max. Load per Shelf	kg	7
Access Port	qty	1
Access Port Position		Rear Upper Left
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 ⁴⁾	dB	29
Options		
SafeCell UV [®] System		MCO-170UVS-PE
CO ₂ Gas Pressure Regulator		MCO-010R-PW
Automatic CO ₂ Cylinder Changeover System		MCO-21GC-PW
Small door		MCO-170ID
InCu-saFe shelf		MCO-170ST-PW
InCu-saFe half tray system		MCO-25ST-PW
Double stacking bracket		MCO-170PS-PW
Stacking plate		MCO-170SB-PW
Roller base		MCO-170RB-PW
Optional communication systems ⁵⁾		
Analogue interface (4-20mA)		MCO-420MA-PW

Appearance and specifications are subject to change without notice.

¹⁾ Exterior dimensions of main cabinet only, excluding handle and other external projections.
²⁾ When set temperature is 37°C, ambient temperature must be 32°C or less. Regardless of ambient temperature, the maximum of temperature control range is always 50°C.

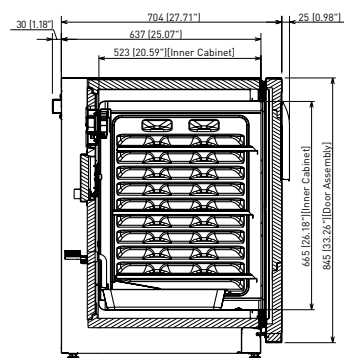
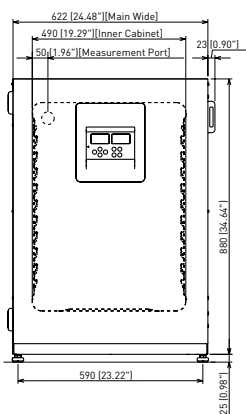
³⁾ The measurement condition complies with PHCbi specified measuring method.

⁴⁾ Nominal value.

⁵⁾ The optimum performance may not be obtained if the ambient temperature is not above 15°C

⁶⁾ Can only be fitted with one communications interface.

Dimensions



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The MCO-170AC series is certified as a Class IIa Medical Device (93/42/EEC and 2007/47/EC) for medical purposes of culturing cells, tissues, organs and embryos.