

Model CB 260 | CO₂ incubators with hot air sterilization and heat sterilizable CO₂ sensor

The BINDER CB series CO₂ incubator is the premium class among the CO₂ incubators. It is suitable for all sensitive incubation applications and ensures optimal cell growth. A BINDER CB series CO₂ incubator can perform complex cultivation experiments as well as specific environmental conditions.

BENEFITS

- Maximum usable space with minimal footprint and excellent ease of use
- Minimum risk of contamination thanks to uncompromising hot-air sterilization
- Fanless, easy-to-clean hygienic interior without fixtures
- Stable pH values thanks to drift-free CO₂ IR sensor technology
- Low evaporation of the medium due to high levels of humidity and quick recovery time



Model 260



Model 260

MAIN FEATURES

- Temperature range: from +4 °C above ambient temperature up to +60 °C
- Humidity range: up to 95% RH
- O₂ control range: 0.2 to 20 vol.% O₂ for versions with O₂ control
- Auto-sterilization with hot air at +180 °C
- Double-pan humidification system with condensation protection
- CO₂ gas mixing jet with Venturi effect
- Hot air sterilizable CO₂ sensor with infrared technology
- Intuitive touchscreen controller
- Internal data logger, measured values can be read out in open format via USB
- Lockable door handle
- Tightly sealed inner door made of tempered safety glass
- Seamless stainless steel inner chamber
- 3 perforated stainless steel shelves
- Units are stackable with stacking adapter
- Troubleshooting system with visual and acoustic alarms
- Computer interface: Ethernet
- Zero-voltage alarm contact

OPTIONAL EQUIPMENT

- Versions with O₂ control range: 0.2 to 20 vol.% O₂ or 10 to 95 vol.% O₂
- Versions with humidity control range: 50 to 95% RH due to active humidification
- Convenient water supply with reusable tubular bags, pre-filled single-liter water bottle, or water container set with magnetic holder, for versions with active humidification
- Multi-sectional glass doors with special shelves for dividing up the space to accommodate different experiments
- Stacking adapter for secure, space-saving installation
- CO₂ gas tank changer for connecting two gas tanks to one or two incubators
- CO₂ shaker with corrosion-resistant components in a stainless-steel housing
- APT-COM Multi Management Software – for managing, recording, and documenting unit parameters
- Services – wide range of services to ensure that the unit functions correctly

ORDERING INFORMATION

Interior volume [L]	Voltage	Option model	Version	Art.-No.
267	200...230 V 1~ ph 50/60 Hz	Standard	CB260-230V	9040-0147
		with O ₂ control	CB260-230V-O	9040-0148
		with active humidification	CB260-230V-F	9040-0149
		with O ₂ control 0.2–20% and active humidification	CB260-230V-OF	9040-0150
	100...120 V 1~ ph 50/60 Hz	Standard	CB260UL-120V	9040-0152
		with O ₂ control	CB260UL-120V-O	9040-0153
		with active humidification	CB260UL-120V-F	9040-0154
		with O ₂ control 0.2–20% and active humidification	CB260UL-120V-OF	9040-0155

TECHNICAL DATA (Version 1-4 from 8)

Description	CB260-230V ¹	CB260-230V-O ¹	CB260-230V-F ¹	CB260-230V-OF ¹
Article Number	9040-0147	9040-0148	9040-0149	9040-0150
Performance Data Temperature				
Temperature range +5 °C above ambient temperature to	60	60	60	60
Temperature variation at 37 °C [± K]	0.4	0.4	0.4	0.4
Temperature fluctuation at 37 °C [± K]	0.1	0.1	0.1	0.1
Recovery time after 30 seconds door open at 37 °C [min]	6	6	6	6
Performance Data Climate				
Humidity range [% RH]	90...95	90...95	90...95	90...95
CO₂-Data				
CO ₂ range [Vol.-% CO ₂]	0...20	0...20	0...20	0...20
CO ₂ measurement	IR	IR	IR	IR
CO ₂ Recovery time after 30 seconds door open at 5 Vol.-% CO ₂ [min]	5	5	5	5
O₂-Data				
Standard O ₂ control ranges: O ₂ range [Vol.-% O ₂]		0.2...20		0.2...20
O ₂ control ranges with option: O ₂ range [Vol.-% O ₂]		10...95		10...95
O ₂ Recovery time after 30 seconds door open at 5 Vol.-% O ₂ [min]		15		15
Electrical data				
Rated Voltage [V]	200...230	200...230	200...230	200...230
Power frequency [Hz]	50/60	50/60	50/60	50/60
Nominal power [kW]	1.5	1.5	1.5	1.5
Unit fuse [A]	10	10	10	10
Phase (Nominal voltage)	1~	1~	1~	1~
Measures				
Interior volume [L]	267	267	267	267
Net weight of the unit (empty) [kg]	125	125	125	125
Permitted load [kg]	40	40	40	40
Load per rack [kg]	10	10	10	10
Wall clearance back [mm]	100	100	100	100
Wall clearance sidewise [mm]	50	50	50	50

1 All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10%. The temperature data is determined to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

Description	CB260-230V ¹	CB260-230V-0 ¹	CB260-230V-F ¹	CB260-230V-OF ¹
Article Number	9040-0147	9040-0148	9040-0149	9040-0150
Internal Dimensions				
Width [mm]	620	620	620	620
Height [mm]	750	750	750	750
Depth [mm]	575	575	575	575
Doors				
Inner doors	1	1	6	6
Unit doors	1	1	1	1
Housing dimensions not incl. fittings and connections				
Width net [mm]	740	740	740	740
Height net [mm]	1020	1020	1020	1020
Depth net [mm]	785	785	785	785
Environment-specific data				
Energy consumption at 37 °C [Wh/h]	65	65	65	65
Sound-pressure level [dB(A)]	41	41	41	41
Fixtures				
Number of shelves (std./max.)	3/8	3/8	3/8	3/8

- 1 All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10%. The temperature data is determined to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

TECHNICAL DATA (Version 5-8 from 8)

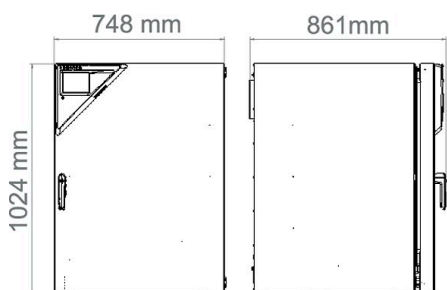
Description	CB260UL-120V ¹	CB260UL-120V-0 ¹	CB260UL-120V-F ¹	CB260UL-120V-OF ¹
Article Number	9040-0152	9040-0153	9040-0154	9040-0155
Performance Data Temperature				
Temperature range +5 °C above ambient temperature to	60	60	60	60
Temperature variation at 37 °C [± K]	0.4	0.4	0.4	0.4
Temperature fluctuation at 37 °C [± K]	0.1	0.1	0.1	0.1
Recovery time after 30 seconds door open at 37 °C [min]	6	6	6	6
Performance Data Climate				
Humidity range [% RH]	90...95	90...95	90...95	90...95
CO ₂ -Data				
CO ₂ range [Vol.-% CO ₂]	0...20	0...20	0...20	0...20
CO ₂ measurement	IR	IR	IR	IR
CO ₂ Recovery time after 30 seconds door open at 5 Vol.-% CO ₂ [min]	5	5	5	5
O ₂ -Data				
Standard O ₂ control ranges: O ₂ range [Vol.-% O ₂]		0.2...20		0.2...20
O ₂ control ranges with option: O ₂ range [Vol.-% O ₂]		10...95		10...95
O ₂ Recovery time after 30 seconds door open at 5 Vol.-% O ₂ [min]		15		15

- 1 All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10%. The temperature data is determined to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

Description	CB260UL-120V ¹	CB260UL-120V-0 ¹	CB260UL-120V-F ¹	CB260UL-120V-OF ¹
Article Number	9040-0152	9040-0153	9040-0154	9040-0155
Electrical data				
Rated Voltage [V]	100...120	100...120	100...120	100...120
Power frequency [Hz]	50/60	50/60	50/60	50/60
Nominal power [kW]	1.5	1.5	1.5	1.5
Unit fuse [A]	16	16	16	16
Phase (Nominal voltage)	1~	1~	1~	1~
Measures				
Interior volume [L]	267	267	267	267
Net weight of the unit (empty) [kg]	125	125	125	125
Permitted load [kg]	40	40	40	40
Load per rack [kg]	10	10	10	10
Wall clearance back [mm]	100	100	100	100
Wall clearance sidewise [mm]	50	50	50	50
Internal Dimensions				
Width [mm]	620	620	620	620
Height [mm]	750	750	750	750
Depth [mm]	575	575	575	575
Doors				
Inner doors	1	1	6	6
Unit doors	1	1	1	1
Housing dimensions not incl. fittings and connections				
Width net [mm]	740	740	740	740
Height net [mm]	1020	1020	1020	1020
Depth net [mm]	785	785	785	785
Environment-specific data				
Energy consumption at 37 °C [Wh/h]	65	65	65	65
Sound-pressure level [dB(A)]	41	41	41	41
Fixtures				
Number of shelves (std./max.)	3/8	3/8	3/8	3/8

1 All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10%. The temperature data is determined to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

DIMENSIONS incl. fittings and connections [mm]



OPTIONS

Designation	Description	*	Art.-No.
Access port with silicone plug	back 30 mm	01	8012-1390
	left 30 mm	01	8012-1391
	right 30 mm	01	8012-1392
Analog output 4-20 mA	for temperature and CO ₂ values (outputs not adjustable)	02	8012-1839
	for temperature and CO ₂ values (outputs not adjustable), for versions with O ₂ control	02	8012-1840
Calibration certificate O ₂	for versions with O ₂ control; a measuring point in center of chamber at a specified O ₂ percentage value	-	8012-0229
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	-	8012-1113
Calibration certificate, temperature	for temperature, measurement in center of chamber at specified temperature	-	8012-1132
	temperature measurement incl. certificate and 27 measuring points at specified temperature	-	8012-1592
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-1571
	temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-1550
Calibration certificate, temperature and CO ₂	for temperature and CO ₂ , temperature measurement in center of chamber, CO ₂ measurement performed using test gas at 37 °C and 5 % CO ₂	-	8012-1235
CELLROLL Set	modular, expandable roller bottle system for cell cultivation, 6 roller bottles	-	8012-0572
Door hinged on the left	Unit door and standard glass inner door with door hinged on the left	-	8012-1915
Electric access port	8-pin, for low voltage with LEMO socket (coverable) and LEMO plug (max. 24 V – 2 A)	-	8012-1848
Inner door, divided	Internal door divided into 8 parts		
	door hinged on the left (incl. option door hinged on the left)	-	8012-1926
	door hinged on the right	-	8012-1845
O ₂ control range	alternative to the standard range, for controlling O ₂ concentrations between 10 and 95 vol. %, only in conjunction with option models with O ₂ control	-	9419-0134
Quick sample access	viewing window (13 x 25 cm) in the inner door for quick access		
	door hinged on the left (incl. option door hinged on the left)	-	8012-1925
	door hinged on the right	-	8012-1923

* Notes › See last page

ACCESSORIES

Designation	Description	*	Art.-No.
APT-COM™ 4 BASIC-Edition	for simple logging and documentation requirements with up to 5 networked units. version 4, BASIC edition	19	9053-0039
APT-COM™ 4 GLP-Edition	for working under GLP-compliant conditions. Measured values are documented in a tamper-proof way in line with the requirements of FDA Regulation 21 CFR 11. version 4, GLP edition	19	9053-0042
APT-COM™ 4 PROFESSIONAL-Edition	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units. version 4, PROFESSIONAL edition	19	9053-0040
Base	the base equipped with casters is used for the secure positioning and leveling of a BINDER CO ₂ incubator	-	9051-0044
Convenient water supply	Set consisting of 10 liter water container with magnetic holder, hose adapter with practical quick coupling and water stop function, flexible positioning, enables water to be supplied to multiple CB units simultaneously via a water container, not pre-filled.		
	External, with magnetic holder	-	8009-1128
Gas cylinder connection set	for CO ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	-	8012-0014
	for N ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	-	8012-0016
	for O ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	-	8012-0015
Gas tank changer	external, BINDER Gas Supply Service, for connecting 2 gas tanks (CO ₂ , N ₂ or O ₂), with audible and visual alarms, as well as zero-voltage alarm output	-	8012-0408
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016

* Notes › See last page

Designation	Description	*	Art.-No.
Qualification documents	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, CO ₂ , O ₂ , pressure, depending on unit		
	Digital in PDF format	–	7057-0001
	Hard copy inside folder	–	7007-0001
	IQ/OQ/PQ documents – supporting documents for validation performed by customers, according to customer requirements, PQ section added to qualification folder IQ/OQ; parameters: temperature, CO ₂ , O ₂ – or pressure, depending on unit		
	Digital in PDF format	–	7057-0005
	Hard copy inside folder	–	7007-0005
Rubber pads	set anti-slip feet	–	8012-0702
Shaker „Professional“	Shaker and controller equipped with LEMO connectors, exclusively for CB with electric access port, 100 – 240 V, 50/60 Hz	–	8012-1772
Shaker „Universal“	Shaker and controller connected via ribbon cable, universally applicable, 100 – 240 V, 50/60 Hz	–	8012-1771
	Stainless steel	–	6004-0197
Shelf, perforated	for divided inner door		
	Stainless steel, divided	–	8012-1996
Stacking adapter	for the thermally isolated stacking of two BINDER CO ₂ incubators	–	9051-0039
Stacking frame	stable, vibration-free stacking frame on casters with stop brake for safe stacking of two CB series units	–	9051-0041
Water supply	Set consisting of 10 bottles, each with 1,000 ml of sterile humidification water, including peristaltic tubing, connectors, and fine gas filters		
	For versions with active humidification	–	8009-1104
	Set consisting of 12 empty, refillable tubular bags including peristaltic tubing, connectors, and fine gas filters		
	For versions with active humidification	–	8009-1058
	Set consisting of 3 empty, refillable tubular bags including peristaltic tubing, connectors, and fine gas filters		
	For versions with active humidification	–	8009-1083

* Notes › See last page

SERVICES

Designation	Description	*	Art.-No.
Installation services			
Unit installation	Unpacking and setting up of unit, connecting to existing connections, and checking function	13, 18	DL10-0100
Unit instructions	Unit function instructions for operation and programming of the controller	18	DL10-0500
Preventive maintenance			
Maintenance	Functional testing of all electrical and mechanical components, short calibration, documentation in the maintenance schedule	14, 18	DL20-0400
Calibration services			
CO ₂ calibration	CO ₂ calibration at a specified value, measurements are taken with analyzed test gas at 5%, including certificate	14, 16, 17, 18	DL30-0401
O ₂ calibration	O ₂ calibration with 1 measuring point in center of chamber at a specified O ₂ percentage value, including certificate	14, 16, 17, 18	DL30-0402
Temperature calibration	Expansion – including certificate, each additional measuring point in center of chamber at specified test temperature	14, 16, 17, 18	DL30-0102
	Temperature calibration with 1 measuring point in center of chamber at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0101
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0118
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0127
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0109
Validation services			
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder	15, 18	DL41-0200

* Notes › See last page

Designation	Description	*	Art.-No.
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	15, 18	DL44-0500
Warranty service			
Warranty extension from 2 to 3 years	The warranty is extended from 2 to 3 years from the delivery date, wear parts are excluded	-	DL02-1041
Warranty extension from 2 to 5 years	The warranty is extended from 2 to 5 years from the delivery date, wear parts are excluded	-	DL02-1042

* Notes › See last page

NOTES

- 01 Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge.
- 02 UL mark is not granted when this option is used.
- 03 Heat resistant only to max. 200 °C.
- 04 Only available on units rated for 230 V.
- 07 The additional heat input may affect the temperature behavior.
- 09 Not in conjunction with the optional access port, door with window and interior lighting.
- 10 Not available on 23-liter units.
- 11 Not available on 23- or 53-liter units.
- 12 Only available on units rated for 230 V or 400 V.
- 13 Installation and connections take place at unit location; transport within the company only upon consultation.
- 14 We recommend a BINDER service contract to cover unit inspections, calibrations and validations.
- 15 OQ according to Yellow Paper = completed factory validation documentation of all OQ checklists.
- 16 Sensor calibration is performed in an accredited calibration laboratory.
- 17 Calibration is performed according to the BINDER factory standard.
- 18 Quoted prices do not include travel costs. Please refer to the chapter on BINDER Service for travel costs for your region. Quoted prices for services performed in Switzerland do not include a country-specific added fee (available on request).
- 19 For additional accessories, refer to the Process documentation chapter.

BINDER GmbH

Tuttlingen, Germany
TEL +49 7462 2005 0
FAX +49 7462 2005 100
info@binder-world.com
www.binder-world.com

BINDER Asia Pacific (Hong Kong) Ltd.

Kowloon, Hong Kong, P.R. China
TEL +852 39070500
FAX +852 39070507
asia@binder-world.com
www.binder-world.com

Representative Office for CIS

Moscow, Russia
TEL +7 495 988 15 16
FAX +7 495 988 15 17
russia@binder-world.com
www.binder-world.com

**BINDER Environmental Testing
Equipment (Shanghai) Co., Ltd.**

Shanghai, P.R. China
TEL +86 21 685 808 25
FAX +86 21 685 808 29
china@binder-world.com
www.binder-world.com

BINDER Inc.

Bohemia, NY, USA
TEL +1 631 224 4340
FAX +1 631 224 4354
usa@binder-world.com
www.binder-world.us