

Model CB 60 | CO_2 incubators with hot air sterilization and heat sterilizable CO_2 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
- 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 60

MAIN FEATURES

- Temperature range: room temperature plus 7 °C to 60 °C
- · Humidity range: up to 95% RH
- O₂ control range: 0.2 to 20 vol% O₂ for versions with O₂ control
- Alternative O_2 control range: 10 to 95 vol% $O_2,$ option for versions with O_2 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
- · Display via color LCD monitor
- · Lockable door handle

- Tightly-sealed inner door made of tempered safety glass
- Seamless, deep-drawn inner stainless steel chamber
- 2 perforated stainless steel shelves
- · Units are stackable with stacking adapter
- · Troubleshooting system with visual and audible alarms
- · Computer interface: Ethernet
- · Internal data recording and USB interface
- · Zero-voltage alarm contact

Voltage	Option model	Version	ArtNo.
	Standard	CB060-230V	9040-0088
200240 V 1~ ph 50/60	with O ₂ control	CB060-230V-O	9040-0090
Hz	with 4x divided inner door	CB060-230V-G	9040-0104
	with O2 control and with 4x divided inner door	CB060-230V-GO	9040-0106
	Standard	CB060UL-120V	9040-0089
100…120 V 1~ ph 50/60	with O ₂ control	CB060UL-120V-O	9040-0091
Hz	with 4x divided inner door	CB060UL-120V-G	9040-0105
	with O ₂ control and with 4x divided inner door	CB060UL-120V-GO	9040-0107
	200240 V 1~ ph 50/60 Hz 100120 V 1~ ph 50/60	200240 V 1~ ph 50/60 Standard Hz with O ₂ control with Ax divided inner door with O ₂ control and with 4x divided inner door 100120 V 1~ ph 50/60 Standard with O ₂ control with O ₂ control with Ax divided inner door Standard with Ax divided inner door with Ax divided inner door	Standard CB060-230V 200240 V 1~ ph 50/60 with O ₂ control CB060-230V-O Hz with O ₂ control CB060-230V-O with O ₂ control and with 4x divided inner door CB060-230V-G with O ₂ control and with 4x divided inner door CB060-230V-GO 100120 V 1~ ph 50/60 Standard CB060UL-120V with O ₂ control CB060UL-120V-O with O ₂ control 100120 V 1~ ph 50/60 with Ax divided inner door CB060UL-120V-O

ORDERING INFORMATION





TECHNICAL DATA (Version 1-4 from 8)

Description	CB060-230V1	CB060-230V-O1	CB060-230V-G1	CB060-230V-GO1
Article Number	9040-0088	9040-0090	9040-0104	9040-0106
Performance Data Temperature				
Temperature range 7 °C above ambient temperature to [°C]	60	60	60	60
Temperature variation at 37 °C [± K]	0.3	0.3	0.3	0.3
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]	4	4	4	4
Performance Data Climate				
Humidity range [% RH]	9095	9095	9095	9095
CO ₂ -Data				
CO ₂ range [Vol% CO ₂]	020	020	020	020
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]		0.220		0.220
O_2 control ranges with option: O_2 range [Vol% O_2]		1095		1095
O ₂ Recovery time after 30 seconds door open at 5 Vol% O ₂ [min]		8		8
Electrical data				
Rated Voltage [V]	200240	200240	200240	200240
Power frequency [Hz]	50/60	50/60	50/60	50/60
Nominal power [kW]	0	1.0	1.0	1.0
Unit fuse [A]	10	10	10	10
Phase (Nominal voltage)	1~	1~	1~	1~
Internal Dimensions				
Depth [mm]	330	330	330	330
Height [mm]	400	400	400	400
Width [mm]	400	400	400	400
Housing dimensions not incl. fittings and	d connections			
Width net [mm]	580	580	580	580
Height net [mm]	720	720	720	720
Depth net [mm]	545	545	545	545
Measures				
Wall clearance back [mm]	100	100	100	100
Wall clearance sidewise [mm]	50	50	50	50
Interior volume [L]	53	53	53	53
Net weight of the unit (empty) [kg]	60	63	65	68
permitted load [kg]	30	30	30	30
Load per rack [kg]	10	10	10	10
Doors				
Inner doors	1	1	4	4
Unit doors	1	1	1	1
Environment-specific data				
Energy consumption at 37 °C [Wh/h]	80	80	80	80

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.

Data Sheet Model CB 60

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Description	CB060-230V ¹	CB060-230V-O ¹	CB060-230V-G ¹	CB060-230V-GO1
Article Number	9040-0088	9040-0090	9040-0104	9040-0106
Fixtures				
Number of shelves (std./max.)	2/3	2/3	2/3	2/3

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	CB060UL-120V1	CB060UL-120V-O1	CB060UL-120V-G1	CB060UL-120V-GO1
Article Number	9040-0089	9040-0091	9040-0105	9040-0107
Performance Data Temperature				
Temperature range 7 °C above ambient temperature to [°C]	60	60	60	60
Temperature variation at 37 °C [± K]	0.3	0.3	0.3	0.3
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]	4	4	4	4
Performance Data Climate				
Humidity range [% RH]	9095	9095	9095	9095
CO ₂ -Data				
CO ₂ range [Vol% CO ₂]	020	020	020	020
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]		0.220		0.220
O ₂ control ranges with option: O ₂ range [Vol% O ₂]		1095		1095
O_2 Recovery time after 30 seconds door open at 5 Vol% O_2 [min]		8		8
Electrical data				
Rated Voltage [V]	100120	100120	100120	100120
Power frequency [Hz]	50/60	50/60	50/60	50/60
Nominal power [kW]	0	1.0	1.0	0
Unit fuse [A]	16	16	16	16
Phase (Nominal voltage)	1~	1~	1~	1~
Internal Dimensions				
Depth [mm]	330	330	330	330
Height [mm]	400	400	400	400
Width [mm]	400	400	400	400
Housing dimensions not incl. fittings and	d connections			
Width net [mm]	580	580	580	580
Height net [mm]	720	720	720	720
Depth net [mm]	545	545	545	545

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.

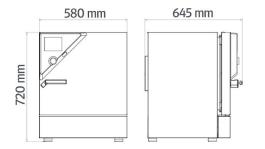
Data Sheet Model CB 60



Description	CB060UL-120V1	CB060UL-120V-O1	CB060UL-120V-G1	CB060UL-120V-GO1
Article Number	9040-0089	9040-0091	9040-0105	9040-0107
Measures				
Wall clearance back [mm]	100	100	100	100
Wall clearance sidewise [mm]	50	50	50	50
Interior volume [L]	53	53	53	53
Net weight of the unit (empty) [kg]	60	63	65	68
permitted load [kg]	30	30	30	30
Load per rack [kg]	10	10	10	10
Doors				
Inner doors	1	1	4	4
Unit doors	1	1	1	1
Environment-specific data				
Energy consumption at 37 °C [Wh/h]	80	80	80	80
Fixtures				
Number of shelves (std./max.)	2/3	2/3	2/3	2/3

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 AND ACCESSORIES

Designation	Description	*	ArtNo.
	back		
	30 mm	01	8012-1390
Access port with silicone	left		
plug	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	8012-0822
APT-COM™ 4 BASIC-	for simple logging and documentation requirements with up to 5 networked units.		
Edition	version 4, BASIC edition	19	9053-0039
APT-COM™ 4 GLP-	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.		
Edition	version 4, GLP edition	19	9053-0042
APT-COM™ 4	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.		
PROFESSIONAL- Edition	version 4, PROFESSIONAL edition	19	9053-0040
Base	with casters, height-adjustable, with unit feet retainer	-	9051-0031
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
Notes > See last page			



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Designation	Description	*	ArtNo.
	for temperature, measurement in center of chamber at specified temperature	-	8012-1132
Calibration certificate,	temperature measurement incl. certificate and 27 measuring points at specified temperature	-	8012-1592
temperature	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 $^\circ$ C and 5 $\%$ CO ₂	-	8012-1235
Electric access port	8-pin, for low voltage with LEMO socket (coverable) and LEMO plug (max. 24 V – 2 A)	-	8012-0826
	for CO ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	-	8012-0014
Gas cylinder connection set	for N_2 , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	-	8012-0016
361	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
Interior socket	waterproof, switched flush-mounting box (LEMO) for nominal voltage in unit interior, coverable, with corresponding plug (nominal voltage; max. 3 A; protection class IP65)	07	8012-0823
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	-	8012-1106
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016
Rubber pads	set anti-slip feet	-	8012-0702
	Stainless steel	-	6004-0136
Shelf, perforated	stainless steel, for divided inner door		
	stainless steel	-	6004-0140
Stacking adapter, flat	for thermally decoupled stacking of two identical units	-	9051-0037

* Notes > See last page

SERVICES

Designation	Description	*	ArtNo.
Installation services			
Installation	and set up of unit at operating location, connect to existing connections	13, 18	DL10-0100
Instruction	unit function instructions for operation and programming of the controller	18	DL10-0500
Preventive maintenance			
Preventive maintenance	Executive of equipment inspection according to maintenance plan	14, 18	DL20-0400
Calibration services			
Calibration CO ₂	including certificate, CO_2 measurement with analyzed test gas at 5 % or at specified value	14, 16, 17, 18	DL30-0401
Calibration O ₂	calibration of O_2 , including certificate (one measuring point in center of chamber at specified O_2 percentage)	14, 16, 17, 18	DL30-0402
Calibration temperature incl. certificate	including certificate, one measuring point in center of chamber at specified temperature	14, 16, 17, 18	DL30-010 ⁻
Temperature measurement 18 measuring points	including certificate, 18 measuring points at specified temperature	14, 16, 17, 18	DL30-0118
Temperature measurement 27 measuring points	including certificate, 27 measuring points at specified temperature	14, 16, 17, 18	DL30-012
Temperature measurement 9 measuring points	including certificate, 9 measuring points at specified temperature	14, 16, 17, 18	DL30-0109
Validation services			
Execution of IQ/OQ	in accordance with qualification folder	15, 18, 20	DL41-0200
Execution of IQ/OQ/PQ	in accordance with customer's requirement, price: on request	15, 18	DL44-0500
Qualification folder IQ/OQ	supporting documents for validation performed by customer, consisting of: IQ/OQ checklists, unit schematics, QM certificate in accordance with ISO 9001	15, 18, 20	8012-0876

* Notes > See last page



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Designation	Description	*	ArtNo.
Qualification folder IQ/OQ/PQ	supporting documents for validation performed by customer, in accordance with customer's requirement, extension of Qualification folder IQ/OQ by chapter PQ	15, 18	8012-0963
Warranty service			
Extension of the warranty from 2 to 3 years	beginning with the date of delivery, wearing parts are not included	-	DL02-1041
Extension of the warranty from 2 to 5 years	beginning with the date of delivery, wearing parts are not included	-	DL02-1042

* Notes > See last page





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