

# Model CB-S 260 | CO2 incubators with hot air sterilization

The durable and affordable CB-S series incubators are suitable for routine cell cultivation applications in the field of cell production, particularly in academic settings. They are contamination-proof due to 180°C hot air sterilization and reliably pH-stable thanks to the drift-free infrared CO<sub>2</sub> measurements conducted in real time.

#### **BENEFITS**

- Safe cell cultures receive maximum protection against contamination
- Reliable constant well-being conditions for the cells
- Smart simple routine cleaning and convenient operation
- Economical efficient operation without consumables



Model 260



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#### IMPORTANT FEATURES

- Temperature range: +6°C above ambient temperature to +50°C
- Humidity range: 90 to 95% RH
- CO<sub>2</sub> control range: o to 20 vol.% CO<sub>2</sub>
- Tried-and-tested anti-contamination concept with 180°C hot air sterilization
- Humidification system with condensation protection
- CO2 gas mixing jet with Venturi effect
- CO2 sensor with infrared technology
- LCD to display temperature and CO<sub>2</sub> along with additional information and alarms
- Internal data logger, measured values can be read out in open format via USB
- Tightly fitted inner door made of safety glass
- Seamless stainless steel inner chamber
- Perforated shelves, stainless steel
- · Troubleshooting system with visual and acoustic alarms
- · Interfaces: Ethernet, USB, zero-voltage alarm contact
- · Units can be stacked with stacking adapters; the CB-S is suitable for stacking with CB and CBF models of the same size

#### OPTIONAL EQUIPMENT

- Copper interior fittings consisting of copper shelves and copper-plated water CO<sub>2</sub> shaker with corrosion-resistant components in a stainless-steel housing
- Stacking adapter for secure, space-saving installation

- APT-COM Multi Management Software for managing, recording, and documenting unit parameters
- CO<sub>2</sub> gas tank changer for connecting two gas tanks to one or two incubators Services wide range of services to ensure that the unit functions correctly

#### ORDERING INFORMATION

Interior volume [L]	Power supply - unit fuse	Plug*	Version	Model version	ArtNo.
Model CB-S 260					
	200230 V 1~ 50/60 Hz -10,0 A	CEE 7/7	Standard	CBS260-230V	9640-0003
267	100120 V 1~ 50/60 Hz -16,0 A	NEMA 5-20	Standard	CBS260UL-120V	9640-0004



# TECHNICAL DATA

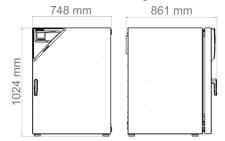
Data		
Data		
Designation	CBS260-230V	CBS260UL-120V
Article Number	9640-0003	9640-0004
Option model	Standard	Standard
Performance Data Temperature		
Temperature range	+6 °C above ambient temperature to 50 °C	+6 °C above ambient temperature to 50 °C
Temperature uniformity at 37°C	0.4 ± K	0.4 ± K
Temperature fluctuation at 37°C	0.1 ± K	0.1 ± K
Recovery time after door was opened for 30 s at 37°C	8 min	8 min
Performance Data Climate		
Humidity range	9095 % RH	9095 % RH
Gas Data		
CO <sub>2</sub> range	o20 Vol% CO <sub>2</sub>	o20 Vol% CO <sub>2</sub>
CO <sub>2</sub> measuring technology	IR	IR
$\mathrm{CO_2}$ recovery time after door was opened for 30 s at 5 vol. % $\mathrm{CO_2}$	5 min	5 min
Electrical data		
Rated Voltage	200230 V	100120 V
Power frequency	50/60 Hz	50/60 Hz
Nominal power	1,5 kW	1,5 kW
Unit fuse	10,0 A	16,0 A
Phase (Nominal voltage)	1~	1~
Measures		
Interior volume	267 L	267 L
Net weight of the unit (empty)	116 kg	116 kg
Load per rack	10 kg	10 kg
Permitted load	40 kg	40 kg
Wall clearance back	100 mm	100 mm
Wall clearance sidewise	50 mm	50 mm
Housing dimensions not incl. fittings and connections		



Width net         740 mm         740 mm           Height net         1,020 mm         1,020 mm           Depth net         785 mm         785 mm           Interior width         620 mm           Interior height         750 mm         750 mm           Interior depth         575 mm         575 mm           Inner doors         1         1           Unit doors         1         1           Environment-specific data         55 Wh/h         55 Wh/h           Fixtures         55 Wh/h         55 Wh/h           Number of shelves (std./max)         2/8         2/8			
Depth net         785 mm         785 mm           Internal Dimensions         Interior width         620 mm         620 mm           Interior height         750 mm         750 mm         750 mm           Interior depth         575 mm         575 mm         1           Inner doors         1         1         1           Unit doors         1         1         1           Environment-specific data         55 Wh/h         41 dB(A)         41 dB(A)           Energy consumption at 37°C         55 Wh/h         55 Wh/h         55 Wh/h	Width net	740 mm	740 mm
Internal Dimensions           Interior width         620 mm         620 mm           Interior height         750 mm         750 mm           Interior depth         575 mm         575 mm           Inner doors         1         1           Unit doors         1         1           Environment-specific data         55 wh/h         55 wh/h           Fixtures         55 Wh/h         55 Wh/h	Height net	1,020 mm	1,020 mm
Interior width         620 mm         620 mm           Interior height         750 mm         750 mm           Interior depth         575 mm         575 mm           Inner doors         1         1           Unit doors         1         1           Environment-specific data         55 Wh/h         41 dB(A)           Energy consumption at 37°C         55 Wh/h         55 Wh/h           Fixtures         55 Wh/h         55 Wh/h	Depth net	785 mm	785 mm
Interior height 750 mm 750 mm  Interior depth 575 mm 575 mm  Inner doors 1 1 1  Unit doors 1 1  Environment-specific data  Sound-pressure level 41 dB(A) 41 dB(A)  Energy consumption at 37°C 55 Wh/h 55 Wh/h	Internal Dimensions		
Interior depth         575 mm         575 mm           Inner doors         1         1           Unit doors         1         1           Environment-specific data         41 dB(A)         41 dB(A)           Energy consumption at 37°C         55 Wh/h         55 Wh/h           Fixtures         55 Wh/h         55 Wh/h	Interior width	620 mm	620 mm
Inner doors       1       1         Unit doors       1       1         Environment-specific data       41 dB(A)       41 dB(A)         Sound-pressure level       41 dB(A)       41 dB(A)         Energy consumption at 37°C       55 Wh/h       55 Wh/h	Interior height	750 mm	750 mm
Unit doors 1 1 1  Environment-specific data  Sound-pressure level 41 dB(A) 41 dB(A)  Energy consumption at 37°C 55 Wh/h 55 Wh/h  Fixtures	Interior depth	575 mm	575 mm
Environment-specific data  Sound-pressure level 41 dB(A) 41 dB(A)  Energy consumption at 37°C 55 Wh/h 55 Wh/h  Fixtures	Inner doors	1	1
Sound-pressure level 41 dB(A) 41 dB(A)  Energy consumption at 37°C 55 Wh/h 55 Wh/h  Fixtures	Unit doors	1	1
Energy consumption at 37°C 55 Wh/h 55 Wh/h  Fixtures	Environment-specific data		
Fixtures	Sound-pressure level	41 dB(A)	41 dB(A)
	Energy consumption at 37°C	55 Wh/h	55 Wh/h
Number of shelves (std./max.) 2/8 2/8	Fixtures		
	Number of shelves (std./max.)	2/8	2/8

All technical data is specified for unloaded units with standard equipment at an ambient temperature of  $\pm 2^{\circ}$  C  $\pm 3^{\circ}$  C and a power supply voltage fluctuation of  $\pm 10^{\circ}$ . The temperature data is determined in accordance 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	CB-S 260	*	ArtNo.
	back			
	30 mm	•	01	8612-0017
	left			
Access port with silicone plug	30 mm	•	01	8612-0018
	right			
	30 mm	•	01	8612-0019



Designation	Description	CB-S 260	*	ArtNo.
Analog output 4-20 mA	for temperature and CO <sub>2</sub> values (outputs not adjustable)	•	02	8612-0016
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	•	-	8012-1112
	for temperature, measurement in center of chamber at specified temperature	•	-	8012-1131
Calibration certificate,	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	-	8012-1549
temperature	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	-	8012-1570
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	-	8012-1591
Calibration certificate, temperature and CO <sub>2</sub>	for temperature and $\rm CO_2$ , temperature measurement in center of chamber, $\rm CO_2$ measurement performed using test gas at 37 °C and 5 % $\rm CO_2$	•	-	8012-0228
Door hinged on the left	Unit door and standard glass inner door with door hinged on the left	•	-	8612-0020
Door lock	lockable door handle	•	-	8612-0021

# ACCESSORIES

Designation	Description	CB-S 260	*	ArtNo.
	for simple logging and documentation requirements with up to 5 networked units.			
APT-COM™ 4 BASIC-Edition	version 4, BASIC edition	•	-	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	•	-	9053-0042
APT-COM™ 4 PROFESSIONAL-	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.			
Edition	version 4, PROFESSIONAL edition	•	-	9053-0040
Base	the base equipped with casters is used for the secure positioning and leveling of a $BINDERCO_2$ incubator	•	-	9051-0044
Cleaning kit	for equipment maintenance and disinfection, consisting of pH-neutral detergent (1000 g, concentrate), spray disinfectant (500 ml, ready-to-use solution), lint-free cleansing tissues, protective gloves, and protective glasses	•	-	8012-0503
Gas cylinder connection set	for CO <sub>2</sub> , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	•	-	8012-0014
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	•	-	8012-2344
Qualification documents	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, $\mathrm{CO_2}$ , $\mathrm{O_2}$ – or pressure, depending on unit			
	Digital in PDF format	•	-	7057-0005



Designation	Description	CB-S 260	*	ArtNo.
	Hard copy inside folder	•	-	7007-0005
	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, ${\rm CO_2}$ , ${\rm O_2}$ , pressure, depending on unit			
	Digital in PDF format	•	-	7057-0001
	Hard copy inside folder	•	-	7007-0001
Rubber pads	set anti-slip feet	•	-	8012-0702
Shaker "Universal"	Shaker and controller connected via ribbon cable, universally applicable, 100 – 240 V, 50/60 Hz	•	-	8012-1771
Shelf, perforated	Stainless steel	•	-	8012-2183
Stacking adapter	for the thermally isolated stacking of two BINDER CO <sub>2</sub> 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
WLAN kit	The kit contains a client bridge that establishes a wireless connection between BINDER units and APT-COM4, LIMS, or customer-specific software via an Ethernet interface. It provides an alternative solution in situations where units need to be positioned in locations without an onsite Ethernet connection. In secured networks, installation and configuration must be performed by the customer's IT service.	•	-	8012-2262
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	•	-	8012-2250

# **SERVICES**

Designation	Description	*	ArtNo.
Calibration services			
CO <sub>2</sub> calibration	$\mathrm{CO_2}$ calibration at a specified value, measurements are taken with analyzed test gas at 5%, including certificate	-	DL30-0401
C. Phasting artificity to the supervision	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate	-	DL30-0101
Calibration certificate, temperature	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate	-	DL30-0102
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate	-	DL30-0109
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate	-	DL30-0118
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate	-	DL30-0127
Installation services			
Unit commissioning	Connect the unit to the customer-side connections (electricity, water, wastewater, gas), basic functions check, brief operating instructions. (excl.: unpacking, setup, controller instructions, programming, installation work)	_	DL10-0100
one commissioning		_	DL10-0110



Designation	Description	*	ArtNo.
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation	-	DL10-0500
Unit instructions	of the control electronics including programming	-	DL10-0510
Maintenance contracts			
BRONZE 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts	-	DL20-0710
GOLD 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, replacement of wear parts, calibration of one temperature and $\mathrm{CO}_2$ value, including certificate	_	DL20-0940
SILVER 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, calibration of one test temperature specified by the user in the center of the usable space, without certificate	-	DL20-0820
Maintenance services			
One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions	-	DL20-0400	
	Calibration of a test temperature specified by the user in center of usable space without certificate	_	DL20-0440
Validation services			
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder	_	DL41-0200
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	-	DL44-0500
Warranty service			
1-year warranty extension	The warranty is extended by 1 year from the delivery date, wear parts are excluded	_	DL50-0020



#### **NOTES**

O1 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.

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