

## CB series: CO<sub>2</sub>-incubators with hot air sterilization

Precision equipment for cell cultivation of the future. It has a drift-free infrared CO<sub>2</sub> measuring system to ensure stable pH values, condensation-free Permadyr™ interior chamber with integrated shelf supports, easy to clean, where the surface area is kept to a minimum in order to reduce potential sites for germs to establish; an effective sterilization program that operates at 180 °C (356 °F) in compliance with standards, for cultivation without any contamination. All of these features along with the absolutely precise temperature accuracy, which you have come to expect from us.



### ► Performance features and equipment:

- Electronically controlled APT.line™ preheating chamber technology
- Temperature range of 7 °C (13 °F) above ambient temperature up to 60 °C (140 °F)
- MCS controller for temperature and CO<sub>2</sub> concentration
- User-friendly LCD screen
- Easy-to-read menu guide
- Integrated electronic chart recorder
- Variety of options for the graphic display of process parameters
- Real-time clock
- Standard-compliant hot-air sterilization at 180 °C (356 °F) (DIN 58947)
- VENTAIR jacket system™
- Drift free infrared CO<sub>2</sub> measurement system
- Gas mixing head
- Weldless deep-drawn inner chamber made of stainless steel Mat. No. 1.4301 (V2A) / AISI 316 Ti with integrated shelf support system.
- Permadyr™ system, condensation-free double-pan humidification system
- Electronic self-diagnostic system for errors with optical and acoustic alarm, as well as relay contact for central monitoring
- Independent adjustable temperature safety device, Class 3.1 (DIN 12880) with visual and acoustic temperature alarm
- Tightly closing inner glass door
- RS 422 interface for communication software APT-COM™ DataControlSystem
- 3 perforated shelves made of stainless steel Mat. No. 1.4301 (V2A) / AISI 316 Ti (in standard and O<sub>2</sub>-control versions)
- BINDER test certificate





	CB 150	CB 210
<b>▶ Exterior dimensions</b>		
Width (mm/inch)	680 / 26.8	740 / 29.1
Height (incl. feet/roller) (mm/inch)	919 / 36.2	1069 / 42.1
Depth (plus 54 mm (2.13 in.) for instrument panel) (mm/in.)	715 / 28.2	715 / 28.2
Wall clearance (mm/inch)	50 / 2.0	50 / 2.0
Wall clearance rear (mm/inch)	100 / 3.94	100 / 3.94
<b>▶ Interior dimensions</b>		
Width (mm/inch)	500 / 19.7	560 / 22.1
Height (mm/inch)	600 / 23.6	750 / 29.5
Depth (mm/inch)	500 / 19.7	500 / 19.7
Interior volume (l/cu.ft.)	150 / 5.4	210 / 7.5
Perforated shelves, stainless steel (number standard/max.)	3 / 6	3 / 8
Dimensions of perforated shelves, Width (mm/inch)	473 / 18.6	533 / 21
Load per rack (kg/lbs.)	10 / 22	10 / 22
Permitted total load (kg/lbs.)	30 / 66.1	30 / 66.1
Depth (mm/inch)	448 / 17.6	448 / 17.6
Weight (empty) (kg/lbs.)	107 / 236	121 / 267
<b>▶ Temperature data</b>		
Temperature range		
7 °C (13 °F) above ambient up to °C/°F	60 / 140	60 / 140
Temperature variation at 37 °C (98.6 °F) (± °C)	0.3	0.4
Temperature fluctuation (± °C)	0.1	0.1
Recovery time after door was opened for 30 sec. <sup>1)</sup>		
at 37 °C (98.6 °F) (Min.)	3	3
CO <sub>2</sub> -range (Vol.-% CO <sub>2</sub> )	0–20	0–20
Setting accuracy (Vol.-% CO <sub>2</sub> )	0.1	0.1
Recovery time after door was opened for 30 sec. <sup>1)</sup>		
up to 5 vol. % (min)	6	6
CO <sub>2</sub> -measurement	IR	IR
Hose connectors for CO <sub>2</sub> (mm/inch)	6 / 0.24	6 / 0.24
Humidity (average values) (% RH)	95	95
<b>▶ Electrical data</b>		
Housing protection acc. to EN 60529	IP 20	IP 20
Nominal voltage (±10 %) 50/60 Hz (V)	230 / 115	230 / 115
Nominal power (W)	1300	1500
Energy consumption at 37 °C (98.6 °F) (W)	140	140
O <sub>2</sub> -range (Vol.-% O <sub>2</sub> )	0.2–95	0.2–95
Setting accuracy (Vol.-% O <sub>2</sub> )	0.1	0.1
Recovery time <sup>1)</sup>		
from 20 vol % up to 0.2 vol % O <sub>2</sub> (Min.)	120	120
from 20 vol % up to 5 vol % O <sub>2</sub> (Min.)	64	64
from 20 vol % up to 10 vol % O <sub>2</sub> (Min.)	31	31
from 20 vol % up to 15 vol % O <sub>2</sub> (Min.)	14	14
from 20 vol % up to 30 vol % O <sub>2</sub> (Min.)	7	7
from 20 vol % up to 50 vol % O <sub>2</sub> (Min.)	25	25
from 20 vol % up to 80 vol % O <sub>2</sub> (Min.)	75	75

<sup>1)</sup> up to 98 % of the set value

Specified ambient temperature range 18 °C (64 °F) to 30 °C (86 °F). All technical specification are specified for units with standard equipment at an ambient temperature of 25 °C (77 °F) and a voltage fluctuation of ±10 %. The temperature data are determined in accordance to factory standard following DIN 12880, respecting 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 alter technical specifications at all times.