

Model BD 56 | Standard-Incubators with gravity convection

The BD Avantgarde.Line series is specially designed for gentle incubation of organisms, as well as conditioning of heat-sensitive media. The new design of the units and the homogeneous temperature distribution ensure the very best results.

BENEFITS

- Excellent temporal and spatial temperature accuracy
- High process reliability
- 100°C disinfection routine



Model 56



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IMPORTANT FEATURES

- Temperature range: ambient temperature plus 5 °C to 100 °C
- High temperature accuracy thanks to APT.line™ technology
- Gravity convection
- Controller with LCD display
- Electromechanical control of the exhaust air flap
- Inner door made of tempered safety glass
- 2 chrome-plated racks
- Units up to 115 L are stackable
- Class 3.1 integrated independent temperature safety device (DIN 12880) with visual alarm
- Ergonomic handle design
- USB port for recording data

ORDERING INFORMATION

Interior volume		Power supply - unit fuse	Plug*	Version	Model version	Art.-No.
[L]	[L]					
Model BD 56						
		230 V 1~ 50/60 Hz -6,3 A	CEE 7/7	Standard	BD056-230V	9010-0323
57	57	120 V 1~ 60 Hz -12,5 A	NEMA 5-15	Standard	BD056UL-120V	9010-0324

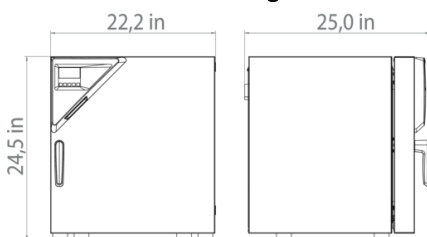
TECHNICAL DATA

Data		
Designation	BD056-230V	BD056UL-120V
Article Number	9010-0323	9010-0324
Option model	Standard	Standard
Performance Data Temperature		
Temperature range	+5 °C above ambient temperature to 100 °C	+5 °C above ambient temperature to 100 °C
Temperature uniformity at 37°C	0.3 ± K	0.3 ± K
Temperature uniformity at 100°C	1.1 ± K	1.1 ± K
Temperature fluctuation at 37°C	0.1 ± K	0.1 ± K
Temperature fluctuation at 100°C	0.3 ± K	0.3 ± K
Heating up time to 100°C	75 min	75 min
Heating up time to 37°C	52 min	52 min
Recovery time after door was opened for 30 s at 37°C	15 min	15 min
Electrical data		
Rated Voltage	230 V	120 V
Power frequency	50/60 Hz	60 Hz
Nominal power	0,3 kW	0,3 kW
Unit fuse	6,3 A	12,5 A
Phase (Nominal voltage)	1~	1~
Dimensions and weights		
Interior volume	57 L	57 L
Net weight of the unit (empty)	39 kg	39 kg
Load per rack	30 kg	30 kg
Permitted load	70 kg	70 kg
Wall clearance back	160 mm	160 mm
Wall clearance sidewise	100 mm	100 mm
Housing dimensions not incl. fittings and connections		
Width net	560 mm	560 mm
Height net	625 mm	625 mm

Depth net	565 mm	565 mm
Internal Dimensions		
Interior width	360 mm	360 mm
Interior height	420 mm	420 mm
Interior depth	380 mm	380 mm
Inner doors	1	1
Unit doors	1	1
Environment-specific data		
Energy consumption at 100°C	110 Wh/h	110 Wh/h
Energy consumption at 37°C	25 Wh/h	25 Wh/h
Fixtures		
Number of shelves (std./max.)	2/4	2/4

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	BD 56	*	Art.-No.
	back			
	10 mm	•	01	8012-0390
	30 mm	•	01	8012-0397
	50 mm	•	01	8012-0399
Access port with silicone plug	left			
	10 mm	•	01	8012-0388
	30 mm	•	01	8012-0047
	50 mm	•	01	8012-0051

Designation	Description	BD 56	*	Art.-No.
	right			
	10 mm	•	01	8012-0387
	30 mm	•	01	8012-0046
	50 mm	•	01	8012-0050
	top			
	10 mm	•	01	8012-0386
	30 mm	•	01	8012-0045
	50 mm	•	01	8012-0049
	100 mm	•	01	8012-0053
Alarm function for overheating	Switchable acoustic alarm, with adjustable limit value on the independent temperature safety device	•	-	8012-0979
Analog output 4-20 mA	for temperature values (output not adjustable)	•	02	8012-0941
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	•	-	8012-1110
	for temperature, measurement in center of chamber at specified temperature	•	-	8012-1129
Calibration certificate, temperature	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	-	8012-0915
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	-	8012-0918
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	-	8012-0921
Clock	battery-backed	•	-	8012-0981
Door lock	lockable door handle	•	-	8012-1025
Ethernet interface	for Multi Management Software APT-COM™	•	-	8012-0986
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	•	-	8012-0940

ACCESSORIES

Designation	Description	BD 56	*	Art.-No.
	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.			
APT-COM™ 4	version 4, PROFESSIONAL edition	•	-	9053-0040
	for simple logging and documentation requirements with up to 5 networked units.			
	version 4, BASIC edition	•	-	9053-0039

Designation	Description	BD 56	*	Art.-No.
	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
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	•	-	8012-2250
	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
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
	max. load per rack 30 kg			
Rack	chrome plated	•	-	8012-2039
	stainless steel	•	-	8012-2171
Rubber pads	set anti-slip feet	•	-	8012-2030
	max. load per rack 30 kg			
Shelf, perforated	Stainless steel	•	-	8012-2179
Table on castors	stable cart, casters with locking brakes, dimensions: W 1,000 x D 800 x H 780 mm	•	-	9051-0018

SERVICES

Designation	Description	*	Art.-No.
Calibration services			
Temperature calibration	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate Travel to be quoted separate.	–	DL30-0110
	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate Travel to be quoted separate.	–	DL30-0102
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate. Travel to be quoted separate. A total of 3 shelves are required.	–	DL30-0109
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate. Travel to be quoted separate. A total of 2 shelves are required.	–	DL30-0118

Designation	Description	*	Art.-No.
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate. Travel to be quoted separate. A total of 3 shelves are required.	–	DL30-0127
Installation services			
Unit installation	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) Travel to be quoted as separate.	–	DL10-0100
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming. Travel to be quoted as separate Limited to 3 hours.	–	DL10-0500
Maintenance services			
BRONZE 3-year maintenance contract	Annual Device Inspection Includes Preventive Maintenance with Calibration Certificate. 10% Discount on Spare Parts and Labor for any additional Services needed Wear + tear parts to be purchased or billed to customer. Travel to be quoted as separate.	–	DL20-0720
GOLD 3-year maintenance contract	Annual Device Inspection Includes Preventive Maintenance with Calibration Certificate of Temperature. 25% Discount on Spare Parts and Labor for any additional Services needed. One additional courtesy visit per year can be used for service visit or operator. Wear + tear parts to be purchased or billed to customer. Travel to be quoted separate.	–	DL20-0915
Preventive maintenance	One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Checking a test temperature specified by the user in center of usable space without certificate. Wear + tear parts need to be purchased or billed to customer. Travel to be quoted as separate.	–	DL20-0601
SILVER 3-year maintenance contract	Annual Device Inspection Includes Preventive Maintenance with Calibration Certificate 15% Discount on Spare Parts and Labor for any additional Services needed One additional courtesy visit per year can be used for service visit or operator training. Wear + tear parts to be purchased or billed to customer. Travel to be quoted separate.	–	DL20-0815
Validation services			
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder. Travel to be quoted separate.	–	DL40-0100
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder. Travel to be quoted separate.	–	DL44-0500
Warranty service			
1-year warranty extension	The warranty is extended by 1 year from the delivery date, wear parts are excluded	–	DL50-0010

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.

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