

# Model BD 56 | Incubators Avantgarde.Line with natural convection

## BENEFITS

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



Model 56

## MAIN FEATURES

- Temperature range: ambient temperature plus 5 °C to 100 °C
- High temperature accuracy thanks to APT.line™ technology
- Natural convection
- Controller with LCD display
- Electromechanical control of the exhaust air flap
- Inner door made of tempered safety glass
- 2 chrome-plated racks
- 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 [L]	Voltage	Option model	Version	Art.-No.
Model BD 56				
57	230 V 1~ 50/60 Hz	Standard	BD056-230V	9010-0323
	120 V 1~ 60 Hz	Standard	BD056UL-120V	9010-0324

## TECHNICAL DATA

Description	BD056-230V	BD056UL-120V
<b>Article Number</b>	<b>9010-0323</b>	<b>9010-0324</b>
<b>Performance Data Temperature</b>		
Temperature range 5 °C above ambient temperature to [°C]	100	100
Temperature uniformity at 37 °C [± K]	0.5	0.5
Temperature fluctuation at 37 °C [± K]	0.2	0.2
Heating-up time to 37 °C [min]	45	45
Recovery time after 30 seconds door open at 37 °C [min]	14	14
<b>Electrical data</b>		
Rated Voltage [V]	230	120
Power frequency [Hz]	50/60	60

## Data Sheet Model BD 56

Description	BD056-230V	BD056UL-120V
<b>Article Number</b>	<b>9010-0323</b>	<b>9010-0324</b>
Nominal power [kW]	0.3	0.3
Unit fuse [A]	6.3	12.5
Phase (Nominal voltage)	1~	1~
<b>Measures - Outer dimensions</b>		
Width net [mm]	560	560
Height net [mm]	625	625
Depth net [mm]	565	565
Wall clearance back [mm]	160	160
Wall clearance sidewise [mm]	100	100
<b>Measures - Doors</b>		
Unit doors	1	1
<b>Measures - Internal Dimensions</b>		
Width [mm]	360	360
Height [mm]	420	420
Depth [mm]	380	380
<b>Measures</b>		
Interior volume [L]	57	57
Net weight of the unit (empty) [kg]	37	37
Load per rack [kg]	15	15
<b>Environment-specific data</b>		
Energy consumption at 37 °C	20 Wh/h	20 Wh/h

## OPTIONS AND ACCESSORIES

Designation	Description	*	Art.-No.
<b>Access port with silicone plug</b>	10 mm, back	01	8012-0390
	10 mm, left	01	8012-0388
	10 mm, right	01	8012-0387
	10 mm, top	01	8012-0386
	30 mm, back	01	8012-0397
	30 mm, left	01	8012-0047
	30 mm, right	01	8012-0046
	30 mm, top	01	8012-0045
	50 mm, back	01	8012-0399
	50 mm, left	01	8012-0051
	50 mm, right	01	8012-0050
	50 mm, top	01	8012-0049
	100 mm, top	01, 10	8012-0053
<b>Calibration certificate, expanded</b>	each measurement at additional measuring point or testing temperature	-	8012-0022
<b>Calibration certificate, temperature</b>	for temperature, measurement in center of chamber at specified temperature	-	8012-0030
	temperature measurement incl. certificate and 27 measuring points at specified temperature	-	8012-0921
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-0918
	temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-0915
<b>Cart</b>	stable cart, casters with locking brakes	-	9051-0018
<b>Clock, battery-backed</b>	Real-time clock	-	8012-0981
<b>Data Logger Kit</b>	T 220: temperature logging from -90 °C to 220 °C	19	8012-0715
<b>Data Logger Kit, software</b>	LOG ANALYZE software kit, configuration and evaluation software for all BINDER Data Logger Kits (incl. USB data cable)	19	8012-0821

\* Notes › See last page

## Data Sheet Model BD 56

Designation	Description	*	Art.-No.
Door lock	lockable door handle	-	8012-1025
Ethernet interface	for communication software	-	8012-0986
Interior lighting	with 1x 15 W (not available in combination with interior socket)		
	120 V option model	-	8012-0971
	230 V option model	-	8012-0969
Interior socket	coverable, with associated LEMO connector (nominal voltage, max. 500 W, max. 90 °C, protection class IP67, not available in combination with interior lighting)	07	8012-0980
Overheating alarm	audible, can be switched off, adjustable limit on the independent temperature safety device	-	8012-0979
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016
Rack	chrome plated	-	6004-0174
	stainless steel	-	6004-0158
Rubber pads	set of 4 anti-slip feet, for safe stacking of unit	10	8012-0001
Shelf, perforated	stainless steel	-	6004-0190
Software	APT-COM™ communications software		
	version 2 to 3, GLP edition	19	9053-0016
	version 3, BASIC edition	19	9053-0014
	version 3, GLP edition	19	9053-0015
	version 3, STANDARD edition	19	9053-0013
	APT-COM™ communications software, price: for free		
	version 3, GLP DEMO Edition	19	9053-0008

\* Notes › See last page

## SERVICES

Designation	Description	*	Art.-No.
<b>Installation services</b>			
Installation	and set up of unit at operating location, connect to existing connections	13, 18	DL100100
Instruction	unit function instructions for operation and programming of the controller	18	DL100400
<b>Preventive maintenance</b>			
Preventive maintenance	Executive of equipment inspection according to maintenance plan	14, 18	DL200200
<b>Calibration services</b>			
Calibration temperature	including certificate, one measuring point in center of chamber at specified temperature	14, 16, 17, 18	DL300101
Temperature measurement 18 measuring points	including certificate, 18 measuring points at specified temperature	14, 16, 17, 18	DL300118
Temperature measurement 27 measuring points	including certificate, 27 measuring points at specified temperature	14, 16, 17, 18	DL300127
Temperature measurement 9 measuring points	including certificate, 9 measuring points at specified temperature	14, 16, 17, 18	DL300109
<b>Validation services</b>			
Execution of IQ/OQ	in accordance with qualification folder	15, 18, 20	DL400100
Execution of IQ/OQ/PQ	in accordance with customer's requirement, price: on request	15, 18	DL440500
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	8012-0870
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	8012-0958
<b>Warranty service</b>			
Extension of the warranty from 2 to 3 years	beginning with the date of delivery, wearing parts are not included	-	DL016041
Extension of the warranty from 2 to 5 years	beginning with the date of delivery, wearing parts are not included	-	DL016042

\* 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.
- 05 Attention: The pump is delivered separately. The electric connection for the pump (230 V/1~/50 Hz) must be carried out by an authorized electrician.
- 06 Heating-up time may increase as a result of the lower heat conductivity.
- 07 The additional heat input may affect the temperature behavior.
- 08 The pump (packaged separately) is ready for connection.
- 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 (see the chapter on BINDER Service) 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.
- 20 When ordering IQ/OQ qualification folders and associated IQ/OQ execution on one order, we offer a 15 % discount for both items.  
When ordering IQ/OQ/PQ qualification folders and associated IQ/OQ/PQ execution on one order, we offer a 15 % discount for the item of the IQ/OQ/PQ folder.
- 21 ATEX conformity:  
Pumping chamber (pumped gases): II 2G IIC T3 X  
Environment with inert purge gas: II 2G IIB T4 X  
Environment without inert purge gas: II 3G IIB T4 X  
Motor: II 2G Ex d IIB T4 Gb

**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.ru

**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