# Model BD 115 | Incubators Avantgarde.Line with natural convection

#### **BENEFITS**

- Safe and reproducible incubation even under high batch throughputs in long-term operation
- Disinfection routine at 100 °C
- Stable atmosphere by inner glass door



Model 115

#### **MAIN FEATURES**

- Temperature range: ambient temperature plus 5 °C to 100 °C
- High temperature accuracy thanks to APT.line<sup>™</sup> 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	ArtNo.
Model BD 115				
112	230 V 1~ 50/60 Hz	Standard	BD115-230V	9010-0325
	120 V 1~ 60 Hz	Standard	BD115UL-120V	9010-0326

### **TECHNICAL DATA**

Description	BD115-230V	BD115UL-120V
Article Number	9010-0325	9010-0326
Performance Data Temperature		
Temperature range 5 °C above ambient temperature to [°C]	100	100
Temperature uniformity at 37 °C [± K]	0.4	0.4
Temperature fluctuation at 37 °C [± K]	0.1	0.1
Heating-up time to 37 °C [min]	55	55
Electrical data		
Rated Voltage [V]	230	120
Power frequency [Hz]	50/60	60
Nominal power [kW]	0.35	0.35

Description	BD115-230V	BD115UL-120V	
Article Number	9010-0325	9010-0326	
Unit fuse [A]	6.3	12.5	
Phase (Nominal voltage)	1~	1~	
Measures - Outer dimensions			
Width net [mm]	710	710	
Height net [mm]	735	735	
Depth net [mm]	605	605	
Wall clearance back [mm]	160	160	
Wall clearance sidewise [mm]	100	100	
Measures - Doors			
Unit doors	1	1	
Measures - Internal Dimensions			
Width [mm]	510	510	
Height [mm]	530	530	
Depth [mm]	420	420	
Measures			
Interior volume [L]	112	112	
Net weight of the unit (empty) [kg]	53	53	
Load per rack [kg]	20	20	
Environment-specific data			
Energy consumption at 37 °C	25 Wh/h	25 Wh/h	

# **OPTIONS AND ACCESSORIES**

Designation	Description	*	ArtNo.
	10 mm, back	01	8012-0390
	10 mm, left	01	8012-038
	10 mm, right	01	8012-038
	10 mm, top	01	8012-038
	30 mm, back	01	8012-039
	30 mm, left	01	8012-004
Access port with silicone olug	30 mm, right	01	8012-004
3	30 mm, top	01	8012-004
	50 mm, back	01	8012-039
	50 mm, left	01	8012-005
	50 mm, right	01	8012-005
	50 mm, top	01	8012-004
	100 mm, top	01, 10	8012-005
Calibration certificate, expanded	each measurement at additional measuring point or testing temperature	=	8012-002
	for temperature, measurement in center of chamber at specified temperature	=	8012-003
Calibration certificate,	temperature measurement incl. Certificate and 27 measuring points at specified temperature	-	8012-092
emperature	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	=	8012-091
	temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-091
Cart	stable cart, casters with locking brakes	-	9051-001
Clock, battery-backed	Real-time clock	-	8012-098
Data Logger Kit	T 220: temperature logging from -90 °C to 220 °C	19	8012-071
Oata Logger Kit, software	LOG ANALYZE software kit, configuration and evaluation software for all BINDER Data Logger Kits (incl. USB data cable)	19	8012-082
Door lock	lockable door handle	_	8012-102

<sup>\*</sup> Notes > See last page

Designation	Description	*	ArtNo.
Ethernet interface	for communication software	_	8012-0986
	with 1x 15 W (not available in combiantion with interior socket)		
Interior lighting	120 V option model	-	8012-0971
	230 V option model	-	8012-0969
nterior 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
H-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016
Rack	chrome plated	-	6004-0175
	stainless steel	-	6004-0159
Rubber pads	set of 4 anti-slip feet, for safe stacking of unit	10	8012-0001
helf, perforated	stainless steel	-	6004-0191
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

<sup>\*</sup> 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	DL100100
Instruction	unit function instructions for operation and programming of the controller	18	DL100400
Preventive maintenance			
Preventive maintenance	Executive of equipment inspection according to maintenance plan	14, 18	DL200200
Calibration services			
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
Validation services			
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
Warranty service			
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

<sup>\*</sup> Notes > See last page

#### **NOTES**

- Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge.
- UL mark is not granted when this option is used.
- Heat resistant only to max. 200 °C. 03
- Only available on units rated for 230 V. 04
- 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. 05
- Heating-up time may increase as a result of the lower heat conductivity.
- The additional heat input may affect the temperature behavior.
- 08
- The pump (packaged separately) is ready for connection.

  Not in conjunction with the optional access port, door with window and interior lighting. 09
- Not available on 23-liter units. 10
- Not available on 23- or 53-liter units. 11
- 12 Only available on units rated for 230 V or 400 V.
- Installation and connections take place at unit location; transport within the company only upon consultation.
- We recommend a BINDER service contract (see the chapter on BINDER Service) to cover unit inspections, calibrations and validations.
- OQ according to Yellow Paper = completed factory validation documentation of all OQ checklists. Sensor calibration is performed in an accredited calibration laboratory. 15
- 16
- Calibration is performed according to the BINDER factory standard. 17
- 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).
- For additional accessories, refer to the Process documentation chapter.
- 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.
- ATEX conformity: 21

Pumping chamber (pumped gases): Il 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

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