

# Model BF 260 | Standard-Incubators with forced convection

The BINDER incubator of the BF Avantgarde.Line series with forced convection is suitable for all gentle incubation applications, particularly under a full load and large batch throughputs. This incubator is extremely homogeneous and has quick recovery times.

### BENEFITS

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



Model 260

## **IMPORTANT FEATURES**

- Temperature range: +7°C above ambient temperature to +100°C
- High temperature accuracy thanks to APT.line™ technology
- Forced convection
- Controller with LCD display
- Electromechanical control of the exhaust air flap
- Inner door made of tempered safety glass



Model 260

- 2 chrome-plated racks
- 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]	Power supply - unit fuse	Plug*	Version	Model version	ArtNo.
Model BF 260					
	230 V 1~ 50/60 Hz -8,0 A	CEE 7/7	Standard	BF260-230V	9010-0319
257	120 V 1~ 60 Hz -12,5 A	NEMA 5-15	Standard	BF260UL-120V	9010-0320



# TECHNICAL DATA

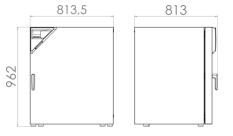
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Option modelStandardStandardAppion modelStandardStandardProfensione Data Temperature->"C Subose ambient temperature to co "C->"C Subose ambient temperature to co "CTemperature conformity at sprCclas Eclas ETemperature uniformity at sprCclas Eclas ETemperature fluctuation at cor"Cclas Eclas EReading up time to cor"C </td <td>Designation</td> <td>BF260-230V</td> <td>BF260UL-120V</td>	Designation	BF260-230V	BF260UL-120V
Performance Data Temperature	Article Number	9010-0319	9010-0320
inequenture range     י, y * c. above ambient temperature to to o * C       imperature uniformity at 3y*C     0.3 k K     0.3 a K       temperature uniformity at 3y*C     0.3 a K     0.3 a K       temperature uniformity at 3y*C     0.3 a K     0.3 a K       temperature fluctuation at 3y*C     0.3 a K     0.3 a K       temperature fluctuation at soo*C     0.3 a K     0.3 a K       temperature fluctuation at soo*C     0.3 a K     0.3 a K       temperature fluctuation at soo*C     0.3 a K     0.3 a K       temperature fluctuation at soo*C     0.3 a K     0.3 a K       temperature fluctuation at soo*C     0.3 a K     0.3 a K       temperature fluctuation at soo*C     0.3 a K     0.3 a K       temperature fluctuation at soo*C     0.3 a K     0.3 a K       temperature fluctuation at soo*C     0.3 a K     0.3 a K       temperature fluctuation at soo*C     0.3 a K     0.3 a K       temperature fluctuation at soo*C     0.3 a K     0.3 a K       temperature fluctuation at soo*C     0.3 a K     0.3 a K       temperature fluctuation at soo*C     0.3 a K     0.3 a K       textent	Option model	Standard	Standard
Temperature uniformity at 37*C   0.2 + K   0.2 + K     Temperature uniformity at 30°C   0.5 ± K   1.2 ± K     Temperature fluctuation at 30°C   0.3 ± K   0.3 ± K     Temperature fluctuation at 30°C   0.3 ± K   0.3 ± K     Reading up time to 100°C   0.3 ± K   0.3 ± K     Reading up time to 100°C   0.3 ± K   0.3 ± K     Reading up time to 100°C   0.3 ± K   0.3 ± K     Reading up time to 20°C   3 min   3 min     Recovery time after door was opened for 30 ± st 37°C   3 min   3 min     Recovery time after door was opened for 30 ± st 37°C   3 min   3 min     Recovery time after door was opened for 30 ± st 37°C   3 min   3 min     Recovery time after door was opened for 30 ± st 37°C   3 min   3 min     Recovery time after door was opened for 30 ± st 37°C   3 min   3 min     Recovery time after door was opened for 30 ± st 37°C   3 min   3 min     Recovery time after door was opened for 30 ± st 37°C   3 min   3 min     Recover door was opened for 30 ± st 37°C   3 min   1 for 30 ± st 37°C     Recover forquery   60 / k2   60 / k2   1 for 30°C     <	Performance Data Temperature		
Temperature uniformity at too*C   1.2 ± K   1.2 ± K     Temperature futuation at too*C   0.3 ± K   0.1 ± K     Temperature fluctuation at too*C   0.3 ± K   0.3 ± K     Heating up time to too*C   0.0 min   30 min     Recovery time after door was opened for so at sy*C   3 min   3 min     Beating up time to gr*C   0.0 min   3 min     Beating up time to gr*C   3 min   3 min     Beating up time to gr*C   3 min   3 min     Beating up time to gr*C   3 min   3 min     Beating up time to gr*C   3 min   3 min     Beating up time to gr*C   3 min   3 min     Beating up time to gr*C   3 min   3 min     Beating up time to gr*C   3 min   3 min     Beating up time to gr*C   3 min   3 min     Beating up time to gr*C   3 min   3 min     Beating up time to gr*C   3 min   3 min     Beating up time to gr*C   3 min   3 min     Beating up time to gr*C   3 gr*C   3 min     Immediate door was opened for so at sy*C   3 min   3 min     Immediate door was opened fo	Temperature range	+7 °C above ambient temperature to 100 °C	+7 °C above ambient temperature to 100 °C
Temperature fluctuation at sp <sup>2</sup> C   o.a + K   o.a + K     Temperature fluctuation at so <sup>2</sup> C   o.g = K   o.g = K     Heating up time to so <sup>2</sup> C   so min   so min     Recovery time after door was opened for go s at ga <sup>2</sup> C   g min   g min     Recovery time after door was opened for go s at ga <sup>2</sup> C   g min   g min     Electrical data   g g V   g o V   g o V     Power frequency   g o / 60 Hz   60 Hz     Nominal power   o.g kW   lkW   lkW     Director was opened for go s at ga <sup>2</sup> C   g g / 60 Hz   60 Hz     Nominal power   o.g kW   lkW   g g A     Director was opened for go s at ga <sup>2</sup> C   g g / 60 Hz   60 Hz     Nominal power   o.g kW   lkW   g g A     Director was opened for go s at ga <sup>2</sup> C   g g / 60 Hz   g g A     Unit fuse   8.a A   g g J A   g g A     Director was opened for go s at ga <sup>2</sup> C   g g g I   g g g J     Unit fuse   8.a A   g g g J   g g g I     Unit fuse   9.g XI   g g g I   g g g J     Lead per rack   40 kg   g m m	Temperature uniformity at 37°C	0.2 ± K	0.2 ± K
Temperatum fluctuation at roo*C0.3 ± K0.3 ± KHeading up time to 30°C30 min30 minHeading up time to 30°C7 min7 minRecovery time after door was opened for 30 s at 30°C3 min3 minElectrical data30 vin30 vinElectrical data120 V120 VPower frequency60 /60 /1260 /12Nominal power0.9 KW60 /12Power frequency60 /60 /121 kWUnit fisse8.0 A1.2,5 APhase (Nominal voltage)1 -1 -Electrical data257 L257 LInterior voltame257 L257 LInterior voltame257 L257 LInterior voltame270 kg270 kgInterior voltame270 kg270 kgInterior voltame100 mm100 mmInterior voltame100 mm100 mmVerifield leatance back100 mm100 mmWall cleatance back100 mm100 mmWall cleatance sidewise100 mm100 mmWall cleatance back100 mm100 mmHeating cleaters sidewise100 mm100 mmHeating cleatersidewise100 mm	Temperature uniformity at 100°C	1.2 ± K	1.2 ± K
Heating up time to tooPCjo minjo minHeating up time to tooPCyminyminHeating up time to syPCyminyminRecovery time after door was opened for go s at syPCyminyminBeter door was opened for go s at syPCyminyminPower frequencyof/60 Hzof VPower frequencyof/60 Hzof VNormal powero,6 kWstyPCNormal powero,6 kWstyPCPose (Normal voltage)1-styPCInterior volume257 LstyPCNeweight of the unit (empty)85 kg85 kgI commyminyminWall clearance sidewideico mmico mmWall clearance sidewideico mmico mmHading telesion sort unit fittings and comedionsiso mmHousing dimensions unit fittings and comedion	Temperature fluctuation at 37°C	0.1 ± K	0.1 ± K
Heating up time to 3/°C7 min7 minRecovery time after door was opened for 30 sat 3/°C3 min3 minBrectrical data230 V120 VPower frequency50/60 Hz60 HzNominal power0,9 kW1 kWUnit fuse8,0 A12,5 APixee (Nominal vottage)1-Dimensions and weights57 LInterfor volume57 LNew teight of the unit (empts)85 kgAge kg16 minPrinted load270 kgValid clearance back160 minWill clearance back100 minMind Learance back100 minMind Learance back100 minMind Learance back100 minMind Learance back80 min<	Temperature fluctuation at 100°C	0.3 ± K	0.3 ± K
Recovery time after door was opened for 30 s at 32°C3 min3 minBeckrical data30 V120 VReted Voltage30 V60 HzPower frequency50/60 Hz60 HzNominal power0.9 kW1 kWUnit fuse8.0 A12.5 APhase (Nominal voltage)1-1-Dimensions and weights57 L597 LItertor volume257 L257 LNew eight of the unit (empty)85 kg85 kgLad per rack40 kg40 kgVall clearance back160 run160 runWall clearance back160 run160 runWidth net85 num160 runHueing dimensions not int. fittings and connections160 runWidth net80 run80 run	Heating up time to 100°C	30 min	30 min
Electrical data     Rated Voltage   30 V   120 V     Power frequency   50/60 Hz   60 Hz     Nominal power   60 HZ   60 HZ     Nominal power   6.9 kW   1kW     Unit fuse   8.0 A   12,5 A     Phase (Nominal voltage)   1-   -     Dimensions and weights   1-   -     Interior volume   257 L   257 L     Netweight of the unit (empty)   85 kg   85 kg     Load per rack   40 kg   40 kg     Wall clearance back   160 mm   160 mm     Wall clearance sidewise   100 nm   100 nm     Wall clearance sidewise   100 nm   100 nm	Heating up time to 37°C	7 min	7 min
Rated Voltage230 V120 VPower frequency50/60 Hz60 HzNominal power0.9 kW1 kWUnit fuse8.0 A12,5 APhase (Nominal voltage)1-1-Dimensions and weights257 L257 LInterfor volume257 L257 LNet weight of the unit (empth)85 kg85 kgLaad per rack40 kg40 kgVall clearance sidewise160 mm160 mmWall clearance sidewise100 mm100 mmHousing dimensions not incl. fittings and connections85 nm85 nm	Recovery time after door was opened for 30 s at 37°C	3 min	3 min
Power frequencysp/6o Hz6o HzNominal power0,9 kW1 kWUnit fuse8,0 A12,5 APhase (Nominal voltage)1~1~Dimensions and weights1~Interior volume257 L257 LNet weight of the unit (empty)85 kg85 kgLoad per rack40 kg40 kgPermitted load170 kg100 mmWall clearance back100 mm100 mmHousing dimensions not incl. fittings and connections100 mm100 mmWidth net80 nm80 nm100 nm	Electrical data		
Nominal power0.9 kW1 kWUnit fuse8.0 A12.5 APhase (Nominal voltage)1-1-Dimensions and weights257 L257 LInterior volume257 L85 kgLoad per rack40 kg40 kgPermitted load270 kg270 kgWall clearance back100 mm160 mmUnit function sout of Liftings and connections100 mmWidth net810 mm810 mm	Rated Voltage	230 V	120 V
Unit fuse8,o A12,5 APhase (Nominal voltage)1~1~Dimensions and weights1~Interior volume257 L257 LNet weight of the unit (empty)85 kg85 kgLoad per rack40 kg40 kgPermitted load270 kg270 kgWall clearance back160 mm160 mmWull clearance sidewise100 mm100 mmWult het810 mm810 mm	Power frequency	50/60 Hz	60 Hz
Phase (Nominal voltage)   1~     Dimensions and weights     Interior volume   257 L     Net weight of the unit (empty)   85 kg     85 kg   85 kg     Load per rack   40 kg     Permitted load   270 kg     Wall clearance back   160 mm     Wall clearance sidewise   100 mm     Wall net   810 mm	Nominal power	0,9 kW	1 kW
Dimensions and weightsInterior volume257 LNet weight of the unit (empty)85 kg85 kg40 kgLoad per rack40 kgPermitted load270 kgVall clearance back160 mmWall clearance sidewise100 mmHousing dimensions not incl. fittings and connectionsWidth net810 mm	Unit fuse	8,0 A	12,5 A
Interior volume257 L257 LNet weight of the unit (empty)85 kg85 kgLoad per rack40 kg40 kgPermitted load270 kg270 kgWall clearance back160 mm160 mmWall clearance sidewise100 mm100 mmHousing dimensions not incl. fittings and connections810 mm810 mm	Phase (Nominal voltage)	1~	1~
Net weight of the unit (empty)85 kg85 kgLoad per rack40 kg40 kgPermitted load270 kg270 kgWall clearance back160 mm160 mmWall clearance sidewise100 mm100 mmHousing dimensions not incl. fittings and connections810 mm810 mm	Dimensions and weights		
Load per rack40 kg40 kgPermitted load270 kg270 kgWall clearance back160 mm160 mmWall clearance sidewise100 mm100 mmHousing dimensions not incl. fittings and connectionsWidth net810 mm810 mm	Interior volume	257 L	257 L
Permitted load270 kg270 kgWall clearance back160 mm160 mmWall clearance sidewise100 mm100 mmHousing dimensions not incl. fittings and connectionsWidth net810 mm810 mm	Net weight of the unit (empty)	85 kg	85 kg
Wall clearance back160 mm160 mmWall clearance sidewise100 mm100 mmHousing dimensions not incl. fittings and connectionsYuidth net810 mm	Load per rack	40 kg	40 kg
Wall clearance sidewise 100 mm   Housing dimensions not incl. fittings and connections 100 mm   Width net 810 mm 810 mm	Permitted load	270 kg	270 kg
Housing dimensions not incl. fittings and connections     Width net   810 mm   810 mm	Wall clearance back	160 mm	160 mm
Width net 810 mm 810 mm	Wall clearance sidewise	100 mm	100 mm
	Housing dimensions not incl. fittings and connections		
Height net 845 mm 845 mm	Width net	810 mm	810 mm
	Height net	845 mm	845 mm



Depth net	760 mm	760 mm
Internal Dimensions		
Interior width	650 mm	650 mm
Interior height	780 mm	780 mm
Interior depth	510 mm	510 mm
Inner doors	1	1
Unit doors	1	1
Environment-specific data		
Sound-pressure level	43 dB(A)	43 dB(A)
Energy consumption at 100°C	275 Wh/h	275 Wh/h
Energy consumption at 37°C	65 Wh/h	65 Wh/h
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 +22 °C ±3 °C and a power supply voltage fluctuation of ±10 %. 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. Technical data refers to 100 % fan speed. 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	BF 260	*	ArtNo.
	left			
	10 mm	•	01	8012-1274
	30 mm	•	01	8012-1156
Access port with silicone plug	50 mm	•	01	8012-1164
	right			
	10 mm	•	01	8012-1267
	30 mm	•	01	8012-1153

#### BINDER Best conditions for your success

Designation	Description	BF 260	*	ArtNo.
	50 mm	•	01	8012-1162
	top			
	10 mm	•	01	8012-1261
	30 mm	•	01	8012-1150
	50 mm	•	01	8012-1159
	100 mm	•	01	8012-1166
Alarm function for overheating	Switchable acoustic alarm, with adjustable limit value on the independent temperature safety device	•	-	8012-1634
Analog output 4-20 mA	for temperature values (output not adjustable)	•	02	8012-1622
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	•	-	8012-1111
	for temperature, measurement in center of chamber at specified temperature	•	-	8012-1130
Calibration certificate,	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	-	8012-1548
temperature	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	-	8012-1569
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	-	8012-1590
Clock	battery-backed	•	-	8012-1639
Door lock	lockable door handle	•	-	8012-1663
Ethernet interface	for Multi Management Software APT-COM™	•	-	8012-0990
Gas-tight option model	Incl. additional measures for the greatest possible impermeability to gas; not in conjunction with access port or interior lighting option	•	-	8012-1046
Inert gas connection	With gas inlet and outlet, Ø 10 mm, incl. additional measures for the greatest possible impermeability to gas; not in conjunction with access port or interior lighting option	•	-	8012-1049
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	•	-	8012-1618

# ACCESSORIES

Designation	Description	BF 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

#### BINDER Best conditions for your success

Designation	Description	BF 260	*	ArtNo.
APT-COM™ 4 PROFESSIONAL- Edition	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.			
Lution	version 4, PROFESSIONAL edition	•	-	9053-0040
oH-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 <sub>2</sub> , O <sub>2</sub> , pressure, depending on unit			
	Digital in PDF format	•	-	7057-0001
	- Hard copy inside folder	•	-	7007-0001
	max. load per rack 40 kg			
Rack	chrome plated	•	-	8012-2042
	stainless steel	•	-	8012-2169
Pack heavy load	max. load per rack 70 kg			
Rack, heavy load	Stainless steel	•	-	8012-2184
Rubber pads	set anti-slip feet	•	-	8012-2030
	max. load per rack 40 kg			
Shelf, perforated	Stainless steel	•	-	8012-2177
able on castors	stable cart, casters with locking brakes, dimensions: W 1,300 x D 800 x H 780 mm	•	-	9051-0019

#### SERVICES

Designation	Description	*	ArtNo.
Calibration services			
Calibration certificate, temperature	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate	-	DL30-0120
	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

#### BINDER Best conditions for your success

Designation	Description	*	ArtNo.
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
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming	_	DL10-0500
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	_	DL20-0720
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 test temperature specified by the user in the center of the usable space, including certificate	_	DL20-0910
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	_	DL20-0810
Maintenance services			
Maintenance	One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Calibration of a test temperature specified by the user in center of usable space without certificate	_	DL20-0602
Validation services			
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder	_	DL40-0100
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	_	DL50-0010

# NOTES

- 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.

# BINDER GmbH

Tuttlingen, Germany TEL +49 7462 2005 0 info@binder-world.com www.binder-world.com

# BINDER Asia Pacific (Hong Kong) Ltd.

Kowloon, Hong Kong, P.R. China TEL +852 39070500 asia@binder-world.com www.binder-world.com

## **BINDER Inc.**

Bohemia, NY, USA TEL +1 631 224 4340 usa@binder-world.com www.binder-world.us



Helago-CZ s.r.o. Kladská 1082 500 03 Hradec Králové Tel.: 495 220 229, 495 220 394 Fax: 495 220 154 <u>http://www.helago-cz.cz</u> E-mail: info@helago-cz.cz

# **BINDER Environmental Testing**

Equipment (Shanghai) Co., Ltd. Shanghai, P.R. China TEL +86 21 685 808 25 china@binder-world.com www.binder-world.com