

Model FED 260 | Drying and heating chambers with forced convection and enhanced timer functions

BINDER heating chambers of the FED Avantgarde. Line series provide almost unlimited capacity and are particularly adaptable. With advanced timing functions and a controllable fan, temperature and convection conditions are easily controlled.

BENEFITS

- · Best energy efficiency on the market
- Excellent temporal and spatial temperature accuracy
- USB connection for recording data
- Temperature range up to 300 °C



Model 260

MAIN FEATURES

- Temperature range: +10 °C above ambient temperature to +300 °C
- Up to 30% lower energy consumption compared to conventional units on the market
- High temperature accuracy thanks to APT.line™ technology
- Adjustable fan speed
- Controller with LCD display and enhanced time functions
- Electromechanical control of the exhaust air flap

- 2 chrome-plated racks
- Class 2 integrated independent adjustable temperature safety device (DIN 12880) with visual alarm
- Ergonomic handle design
- Ethernet interface
- USB port for recording data

ORDERING INFORMATION

Interior volume [L]	Voltage	Option model	Version	ArtNo.
259	230 V 1~ ph 50/60 Hz	Standard	FED260-230V	9010-0299
	240 V 1~ ph 60 Hz	Standard	FED26oUL-24oV	9010-0300

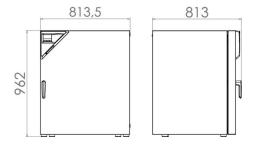


TECHNICAL DATA

### Parametar	Description	FED260-230V1	FED26oUL-24oV ¹
Temperature range +10 °C above ambient temperature (I°C) 300 300 Temperature variation at 150 °C [s K] 1.6 1.6 Temperature fluctuation at 150 °C [s K] 0.4 0.4 Reading up time on 50 °C [min] 39 30 Recovery time after 30 seconds door open at 150 °C [min] 5 5 Tabeller V V 5 Table 18 V 9 9 Tabeller V V 9 Tabeller V 40 0 Red Voltage [V] 50 60 0 Power frequency [V±] 50/60 60 0 Nominal power [Kw] 2,3 5 0 Nominal power [kw] 2,2 5 0 Messe (Nominal voltage) 25 5 5 Now (weight of the unif (empty) [kg] 8 8 0 New weight of the unif (empty) [kg] 60 0 0 Vall clearnee Sidewise [mm] 50 5 0 Vall clearnee Sidewise [mm] 50 </th <th>Article Number</th> <th>9010-0299</th> <th>9010-0300</th>	Article Number	9010-0299	9010-0300
Temperature variation at 150°C[x K] 0.4 0.4 Temperature fluctuation at 150°C[x K] 0.4 0.4 Heating-up time to 150°C[min] 19 19 Recovery time after 30 seconds door open at 150°C[min] 5 5 Tabellen	Performance Data Temperature		
Temperature fluctuation at 150 °C [kr] 0.4 0.4 Heating up time to 150 °C [min] 19 19 Recovery time after 30 sectors door open at 150 °C [min] 5 5 Tabellen """"""""""""""""""""""""""""""""""""	Temperature range +10 °C above ambient temperature to [°C]	300	300
Retaining up time to 150 °C [min] 19 19 Recovery time after 30 seconds door open at 150 °C [min] 5 2 Tabellen Very Carlot (Min) 9 9 Electrical data Very Carlot (Min) 9 9 Electrical data Very Carlot (Min) 20 0 Power frequency [Hz] 30/60 60 0 Nominal power [Wil] 2,3 2.5 0 Will flust [A] 12 0 0 Phase (Nominal voltage) 1- 0 0 Weasures Very Carlot (Min) 1- 0	Temperature variation at 150 °C [± K]	1.6	1.6
Recovery time after 30 seconds door open at 150 °C [min] 5 5 Tabelier Frequency [Archange (approx.) at 100 °C [x/h] 9 9 Electrical data Secondary (approx.) at 100 °C [x/h] 20 40 Power frequency [Hz] 300 40 40 Nominal power [kW] 2.3 2.5 40 Nominal power [kW] 12.5 16 40 Phase (Mornial voltage) 1- 4- 40	Temperature fluctuation at 150 °C [± K]	0.4	0.4
Tabelen Fractionage (approx.) at 100 °C [x/h] 9 Electrical data 230 240 Power frequency [Hz] 50/60 60 Nominal power [kW] 2,3 25 Unit fuse [A] 12.5 60 Phase (kominal vottage) 12.5 60 Measures *** 75 Interior volume [L] 259 259 Net weight of the unit (empty) [kg] 84 84 Permitted load [kg] 270 20 Mall clearance back [mm] 60 40 Wall clearance back [mm] 60 60 Wall clearance sladwise [mm] 60 60 Wall clearance sladwise [mm] 780 780 Wall clearance sladwise [mm] 780 780 Height [mm] 780 780 Height [mm] 1 1 Height [mm] 8 8 House 1 1 Height net [mm] 8 8 Height net [mm] 8 8 <t< td=""><td>Heating-up time to 150 °C [min]</td><td>19</td><td>19</td></t<>	Heating-up time to 150 °C [min]	19	19
Air change (approx.) at 100 °C (k/h) 9 9 Electrical data 230 240 Power frequency [k12] 50/60 60 Nominal power [kW] 2,3 2.5 Unit fuse [A] 12.5 16 Phase (Nominal voltage) 259 259 Measures 259 259 Net weight of the unit (empty) [kg] 84 84 Permitted load [kg] 270 20 Wall clearance back [mm] 60 40 Wall clearance sladwise [mm] 160 40 Wall clearance sladwise [mm] 55 50 Height [mm] 80 65 Height [mm] 80 65 Brown 80 70 Down 10 10 Brown 10 10 Brown 10 10 Wall clearance sladwise [mm] 80 65 Height [mm] 80 70 80 Brown 10 10 10	Recovery time after 30 seconds door open at 150 °C [min]	5	5
Electrical data Frequency [12] 240 Power frequency [12] 50/60 60 Nominal power [14] 2.3 2.5 Init fuse [A] 1-2.5 6 Phase (Nominal voltage) 1-2.5 1-2 Measures	Tabellen		
Rated Voltage [V] 330 40 Power frequency [kt] 50/60 60 Nominal power [kW] 2.3 2.5 Unit fuse [A] 12.5 16 Phase (Nominal voltage) *** 12 Wessures *** 259 Net weight of the unit (empty) [kg] 84 84 Net weight of the unit (empty) [kg] 84 40 Vernitted load [kg] 70 20 Val clearance sidewise [mm] 160 10 Wall clearance sidewise [mm] 160 10 Wall clearance sidewise [mm] 85 50 Width [mm] 80 50 Height [mm] 780 780 Publish [mm] 80 780 Post 75 780 Post 780 780	Air change (approx.) at 100 °C [x/h]	9	9
Power frequency [Hz] 50/60 60 Nominal power [kW] 2.3 2.5 Unit fuse [A] 12-5 16 Phase (Nominal voltage) 1- 2- Measures 359 259 Net weight of the unit (empty) [kg] 84 84 Permitted load [kg] 270 270 Load per rack [kg] 40 40 Wall clearance back [mm] 160 100 Wall clearance sidewise [mm] 650 50 Wildth [mm] 780 50 Height [mm] 780 50 Depth [mm] 15 51 Doors 15 51 Wildth net [mm] 80 80 Hought feet [mm] 90 90 Popth net [mm] 90 90 Popth net [mm] 90 <td>Electrical data</td> <td></td> <td></td>	Electrical data		
Nominal power [kW] 2.3 2.5 Unit fuse [A] 12.5 16 Phase (Nominal voltage) 1- 2- Measures ************************************	Rated Voltage [V]	230	240
Unit fuse [A] 12.5 16 Phase (Nominal voltage) 1~ 1— Measures Uniterior volume [L] 259 259 Net weight of the unit (empty) [kg] 84 84 Permitted load [kg] 270 270 Load per rack [kg] 40 40 Wall clearance back [mm] 160 40 Wall clearance sidewise [mm] 100 100 Internal Dimensions 50 50 Height [mm] 780 780 780 Depth [mm] 15 15 15 Doors 1 2 2 2 2 2 2	Power frequency [Hz]	50/60	60
Phase (Nominal voltage) 1- 4- Measures 259 259 Net weight of the unit (empty) [kg] 84 84 Permitted load [kg] 270 270 Load per rack [kg] 40 40 Wall clearance back [mm] 160 160 Wild tlearance sidewise [mm] 100 100 Internal Dimensions 55 56 Height [mm] 780 780 Depth [mm] 15 55 Doors 10 1 Unit doors 1 1 1 Housing dimensions not incl. fittings and connections 810 810 Width net [mm] 940 940 Depth net [mm] 940 940 Depth net [mm] 660 760 Environment-specific data 50 76 Environment-specific data 3 43 Fixtures 940 940	Nominal power [kW]	2.3	2.5
Measures Interior volume [L] 259 259 Net weight of the unit (empty) [kg] 84 84 Permitted load [kg] 270 270 Load per rack [kg] 40 40 Wall clearance back [mm] 160 160 Wall clearance sidewise [mm] 100 100 Internal Dimensions *** 780 Width [mm] 780 780 Depth [mm] 15 15 Doors *** 1 Unit doors 1 1 Housing dimensions not incl. fittings and connections 810 810 Width net [mm] 940 940 Depth net [mm] 760 760 Environment-specific data 3 4 Sound-pressure level [dB(A)] 43 4	Unit fuse [A]	12.5	16
Interior volume [L] 259 259 Net weight of the unit (empty) [kg] 84 84 Permitted load [kg] 270 270 Load per rack [kg] 40 40 Wall clearance back [mm] 160 160 Wall clearance sidewise [mm] 100 100 Internal Dimensions 550 50 Height [mm] 780 50 Depth [mm] 515 515 Doors 1 1 Unit doors 1 1 Housing dimensions not incl. fittings and connections 810 810 Height net [mm] 940 940 Depth net [mm] 760 760 Environment-specific data 3 43 Fixtures 43 43	Phase (Nominal voltage)	1~	1~
Net weight of the unit (empty) [kg] 84 84 Permitted load [kg] 270 270 Load per rack [kg] 40 40 Wall clearance back [mm] 160 160 Wall clearance sidewise [mm] 100 100 Internal Dimensions 55 56 Height [mm] 780 780 Depth [mm] 515 515 Doors 515 515 Unit doors 1 1 Housing dimensions not incl. fittings and connections 810 810 Width net [mm] 810 810 Height net [mm] 760 760 Epith net [mm] 760 760 Environment-specific data 81 43 Sound-pressure level [dB(A)] 43 43	Measures		
Permitted load [kg] 270 270 Load per rack [kg] 40 40 Wall clearance back [mm] 160 160 Wall clearance sidewise [mm] 100 100 Internal Dimensions ************************************	Interior volume [L]	259	259
Load per rack [kg] 40 40 Wall clearance back [mm] 160 160 Wall clearance sidewise [mm] 100 100 Internal Dimensions ************************************	Net weight of the unit (empty) [kg]	84	84
Wall clearance back [mm] 160 160 Wall clearance sidewise [mm] 100 100 Internal Dimensions ************************************	Permitted load [kg]	270	270
Wall clearance sidewise [mm] 100 100 Internal Dimensions ***********************************	Load per rack [kg]	40	40
Internal Dimensions Width [mm] 650 650 Height [mm] 780 780 Depth [mm] 515 515 Doors Unit doors 1 1 Housing dimensions not incl. fittings and connections 810 810 Width net [mm] 940 940 Depth net [mm] 760 760 Environment-specific data 43 43 Fixtures	Wall clearance back [mm]	160	160
Width [mm] 650 650 Height [mm] 780 780 Depth [mm] 515 515 Doors Unit doors 1 1 Housing dimensions not incl. fittings and connections 810 810 Width net [mm] 940 940 Depth net [mm] 760 760 Environment-specific data 43 43 Fixtures	Wall clearance sidewise [mm]	100	100
Height [mm] 780 780 Depth [mm] 515 515 Doors Unit doors 1 1 Housing dimensions not incl. fittings and connections 810 810 Width net [mm] 810 810 Height net [mm] 940 940 Depth net [mm] 760 760 Environment-specific data 43 43 Fixtures	Internal Dimensions		
Depth [mm] 515 515 Doors 1 1 Housing dimensions not incl. fittings and connections 810 810 Height net [mm] 940 940 Depth net [mm] 760 760 Environment-specific data 43 43 Fixtures	Width [mm]	650	650
Notes and connections Unit doors 1	Height [mm]	780	780
Unit doors 1 1 Housing dimensions not incl. fittings and connections VI Width net [mm] 810 810 Height net [mm] 940 940 Depth net [mm] 760 760 Environment-specific data VI Sound-pressure level [dB(A)] 43 43 Fixtures	Depth [mm]	515	515
Housing dimensions not incl. fittings and connections Width net [mm] 810 810 Height net [mm] 940 940 Depth net [mm] 760 760 Environment-specific data V Sound-pressure level [dB(A)] 43 43 Fixtures	Doors		
Width net [mm] 810 810 Height net [mm] 940 940 Depth net [mm] 760 760 Environment-specific data V Sound-pressure level [dB(A)] 43 43 Fixtures	Unit doors	1	1
Height net [mm] 940 940 Depth net [mm] 760 760 Environment-specific data 3 43 Fixtures 43 43	Housing dimensions not incl. fittings and connections		
Depth net [mm] 760 760 Environment-specific data Sound-pressure level [dB(A)] 43 43 Fixtures	Width net [mm]	810	810
Environment-specific data Sound-pressure level [dB(A)] 43 43 Fixtures	Height net [mm]	940	940
Sound-pressure level [dB(A)] 43 43 Fixtures	Depth net [mm]	760	760
Fixtures	Environment-specific data		
	Sound-pressure level [dB(A)]	43	43
Number of shelves (std./max.) 2/8	Fixtures		
	Number of shelves (std./max.)	2/8	2/8

¹ 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. 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	*	ArtNo.
	left		,
	10 mm	01	8012-1278
	30 mm	01	8012-1655
	50 mm	01	8012-1657
Access port with silicone plug	100 mm	01	8012-1669
	right		
	10 mm	01	8012-1271
	30 mm	01	8012-1654
nus	50 mm	01	8012-1656
	100 mm	01	8012-1670
	top		
	10 mm	01	8012-1264
	30 mm	01	8012-1365
	50 mm	01	8012-1381
	100 mm	01	8012-1672
Alarm function for overheating	Switchable acoustic alarm, with adjustable limit value on the independent temperature safety device	-	8012-1637
nalog output 4-20 mA	for temperature values (output not adjustable)	02	8012-1625
alibration certificate,	for temperature; for extending the measurement in center of chamber to include another test temperature	-	8012-1118
	for temperature, measurement in center of chamber at specified temperature	_	8012-1137
alibration certificate,	temperature measurement incl. certificate and 27 measuring points at specified temperature	_	8012-1596
emperature	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-1575
	temperature measurement incl. certificate, 9 measuring points at specified temperature	_	8012-1554
Class 3.1 independent emperature safety levice	with visual alarm (DIN 12880)	_	8012-1644
Clock	battery-backed	-	8012-1642
Ooor gasket	made of FKM, silicone-free	-	8012-1653
Door lock	lockable door handle	_	8012-1666
Gas-tight option model	Incl. additional measures for the greatest possible impermeability to gas; not in conjunction with access port or interior lighting option	-	8012-1688
IEPA air filter	On fresh air supply for unit; filter classification H14 (acc. to. EN 1822-1:2009, > 99.995% at 0.3 µm)	-	8012-1697
nert 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	-	8012-1694
nner chamber, einforced	max. total load 300 kg	-	8012-1715
	with 15 W light bulb		
nterior lighting	230/240 V option model	_	8012-1629
Measurement of air exchange rate	in accordance with ASTM D5374, definition and protocol according to ambient temperature	-	8012-1197
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	-	8012-1621
	viewing window (triple insulating glass) in door, 370 x 370 mm, and 15 W interior		
			_
/iewing window and nterior lighting	230 V option model	_	8012-1709

^{*} Notes > See last page



ACCESSORIES

Designation	Description	*	ArtNo.
APT-COM™ 4 BASIC-	for simple logging and documentation requirements with up to 5 networked units.		
Edition	version 4, BASIC edition	-	9053-0039
APT-COM™ 4 GLP-	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.		
Edition	version 4, GLP edition	-	9053-004
APT-COM™ 4	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.		
PROFESSIONAL-Edition	version 4, PROFESSIONAL edition	-	9053-004
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016
	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	-	7057-000
Qualification documents	Hard copy inside folder	-	7007-000
	$IQ/OQ/PQ$ 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	-	7057-000
	Hard copy inside folder	-	7007-000
	chrome plated	-	8012-204
Rack	stainless steel	-	6004-015
Rack, heavy load	Stainless steel, max. load per rack 70 kg	-	6004-020
Rubber pads	set anti-slip feet	-	8012-203
Shelf, perforated	Stainless steel	-	6004-018
Table on castors	stable cart, casters with locking brakes, dimensions: W 1,300 x D 800 x H 780 mm	-	9051-0019
* Notes > See last page			

^{*} Notes > See last page

SERVICES

Designation	Description	*	ArtNo.
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)	05	DL10-0100
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming	05	DL10-0500
Maintenance contracts			
Maintenance services			
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	05	DL20-0710
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	05	DL20-0910
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	05	DL20-0200
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	05	DL20-0810
Calibration services			
Calibration certificate, temperature	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate	03, 04, 05	DL30-0101
	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate	03, 04, 05	DL30-0102
Measurement of air exchange rate	including certificate (in accordance with ASTM D5374)	03, 04, 05	DL33-0000
* Notes > See last page			

^{*} Notes > See last page



Designation	Description	*	ArtNo.
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate	03, 04, 05	DL30-0118
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate	03, 04, 05	DL30-0127
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate	03, 04, 05	DL30-0109
Validation services			
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder	05	DL40-0100
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	05	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 > 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.
- 02
- Sensor calibration is performed in an accredited calibration laboratory. 03
- Calibration is performed according to the BINDER factory standard.
- 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).

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

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

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.com

BINDER Inc.

Bohemia, NY, USA TEL +1 631 224 4340 FAX +1 631 224 4354 usa@binder-world.com www.binder-world.us