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Model FDL 115 | Safety drying chambers for limited quantities of solvent

The BINDER FDL 115 with silicone and dust-free inner chamber, as well as symmetric airflow dries specimens containing solvents and thus this safety drying oven meets all EN 1539 requirements.

BENEFITS

- Safety concept meets the DIN EN 1539-2010-08 standard
- Short drying time with high temperature accuracy and defined ventilation
- Silicone free and dust-free inner chamber
- Replaceable fresh air cartridges are easy to change and ensure constant fresh air quality

Model 115

MAIN FEATURES

- Temperature range: room temperature plus 10 °C to 300 °C
- APT.line™ preheating chamber technology
- Controller with time-segment and real-time programming
- 2 chrome-plated racks
- Fresh-air monitoring with audible and visual alarm and automatic deactivation of heating
- Replaceable filter cartridge, Class M6
- Class 2 independent adjustable temperature safety device (DIN 12880) with visual alarm
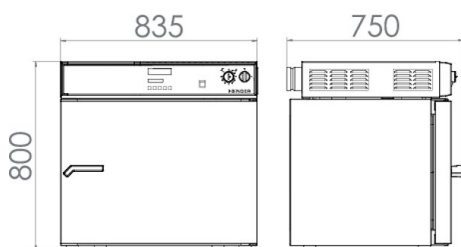- Computer interface: RS 422

ORDERING INFORMATION

Interior volume [L]	Voltage	Option model	Version	Art.-No.
Model FDL 115				
115	230 V 1~ ph 50/60 Hz	Standard	FDL115-230V	9010-0292

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Technical specifications are subject to change.

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TECHNICAL DATA

Description	FDL115-230V[1]
Article Number	9010-0292
Performance Data Temperature	
Temperature range 10 °C above ambient temperature to [°C]	300
Temperature variation at 150 °C [± K]	2.5
Temperature fluctuation [± K]	0.8
Heating-up time to 150 °C [min]	20
Recovery time after 30 seconds door open at 150 °C [min]	12
Air change data	
Air circulation (approx.) [x/min]	20
Volumetric flow rate of exhaust air acc. to EN 1539 at 50 °C [ca. L/min]	400
solvent quantity	
Highest permitted solvent quantity (at T-180 °C, M-100g/mol, U-40g/m3, K=0,5) [g]	7
Electrical data	
Rated Voltage [V]	230
Power frequency [Hz]	50/60
Nominal power [kW]	2.9
Phase (Nominal voltage)	1~
Internal Dimensions	
Depth [mm]	435
Height [mm]	435
Width [mm]	600
Housing dimensions not incl. fittings and connections	
Width net [mm]	830
Height net [mm]	805
Depth net [mm]	685
Measures	
Wall clearance back [mm]	160
Wall clearance sidewise [mm]	100
Interior volume [L]	115
Net weight of the unit (empty) [kg]	90
permitted load [kg]	60
Load per rack [kg]	30
Environment-specific data	
Energy consumption at 150 °C [Wh/h]	1200
Sound-pressure level [dB(A)]	57
Fixtures	
Number of shelves (std./max.)	2/5

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 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.

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DIMENSIONS incl. fittings and connections [mm]

835 | 750 | 800

OPTIONS AND ACCESSORIES

Designation	Description	*	Art.-No.
Access port with silicone plug	back		
	10 mm	01	8012-1284
	left		
	10 mm	01	8012-1277
	30 mm	01	8012-1360
	right		
	10 mm	01	8012-1270
	30 mm	01	8012-1355
APT-COM™ 4 BASIC-Edition	for simple logging and documentation requirements with up to 5 networked units.		
	version 4, BASIC edition	19	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	19	9053-0042
APT-COM™ 4 PROFESSIONAL-Edition	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.		
	version 4, PROFESSIONAL edition	19	9053-0040
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	–	8012-1117
Calibration certificate, temperature	for temperature, measurement in center of chamber at specified temperature	–	8012-1136
	temperature measurement incl. certificate and 27 measuring points at specified temperature	–	8012-1595
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	–	8012-1574
	temperature measurement incl. certificate, 9 measuring points at specified temperature	–	8012-1553
Coil coating door flap	door flap for coil coating tests	–	8012-0179
Door gasket	made from silicone, resistant to high temperatures for operating temperatures above 200 °C. Note: The gasket wears out more quickly in temperatures above 250 °C	–	8012-0499
Door lock	lockable door handle	–	8012-1248
Measurement of air exchange rate	in accordance with ASTM D5374, definition and protocol according to ambient temperature	–	8012-1196
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	–	1002-0016
Rack	chrome plated	–	6004-0003
	stainless steel	–	6004-0008
Shelf, perforated	Stainless steel	–	6004-0030
Specimen temperature display	with clip temperature sensor and 4–20 mA analog output (e.g., for chart recorder connection), accessible via 6-pin DIN socket	–	8012-0602
Table on castors	stable cart, casters with locking brakes, dimensions: W 1,000 x D 800 x H 780 mm	–	9051-0018

* Notes › See last page

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SERVICES

Designation	Description	*	Art.-No.
Installation services			
Installation	and set up of unit at operating location, connect to existing connections	13, 18	DL10-0100
Instruction	unit function instructions for operation and programming of the controller	18	DL10-0500
Preventive maintenance			
Preventive maintenance	Executive of equipment inspection according to maintenance plan	14, 18	DL20-0200
Calibration services			
Calibration temperature incl. certificate	including certificate, one measuring point in center of chamber at specified temperature	14, 16, 17, 18	DL30-0101
Measurement of air exchange rate	including certificate (in accordance with ASTM D5374)	14, 16, 17, 18	DL33-0000
Temperature measurement 18 measuring points	including certificate, 18 measuring points at specified temperature	14, 16, 17, 18	DL30-0118
Temperature measurement 27 measuring points	including certificate, 27 measuring points at specified temperature	14, 16, 17, 18	DL30-0127
Temperature measurement 9 measuring points	including certificate, 9 measuring points at specified temperature	14, 16, 17, 18	DL30-0109
Validation services			
Execution of IQ/OQ	in accordance with qualification folder	15, 18, 20	DL40-0100
Execution of IQ/OQ/PQ	in accordance with customer's requirement, price: on request	15, 18	DL44-0500
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	8012-0857
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	8012-0946
Warranty service			
Extension of the warranty from 2 to 3 years	beginning with the date of delivery, wearing parts are not included	–	DL00-6041
Extension of the warranty from 2 to 5 years	beginning with the date of delivery, wearing parts are not included	–	DL00-6042

* Notes › See last page

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Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct.
If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.