



RESET

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AIR

BINDER

Safety drying

FDL | MDL series

Unconditionally good: BINDER Safety drying ovens

- ▶ Unconditionally accurate
 - ▶ Fast, uniform drying
 - ▶ Wide temperature range up to 350 °C
 - ▶ Low heat dissipation due to 60 mm insulation
 - ▶ Specimen temperature display with temperature sensor
- ▶ Unconditionally safe
 - ▶ Meets EN 1539: Fresh air monitoring with automatic switchoff
 - ▶ Safety class IP 33
 - ▶ Hermetic door with 2-points door closure
- ▶ Unconditionally versatile
 - ▶ Extension for coil coating test available for MDL series
 - ▶ Digital multi-program controller
 - ▶ Communication interface



For the perfect finish to your solvent-based paints and coating materials, we offer you two series. Absolute temperature accuracy with a high air exchange rate and thus the basis for the best results qualitatively and reproducible tests. You can work safely at all times thanks to replaceable fresh air cartridges and electronic monitoring.



Paint industry



Seal manufacturers



Chemical industry

Safety drying ovens

FDL series

This series provides the perfect environment for all specimens containing solvents: the high efficiency filter cartridge and symmetric airflow provide a silicone free and dust-free inner chamber. The FDL meets all EN 1539 requirements and also ensures maximum work safety with the intelligent fresh air monitoring program.



► FDL 115 model



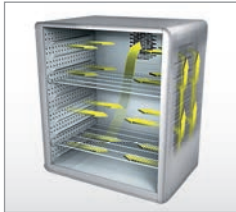
115

Available size (liters)

► EQUIPMENT

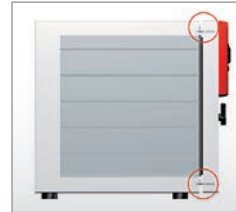
- All safety features compliant with EN 1539
- Temperature range from 5 °C above ambient temperature to 300 °C
- MP controller with 2 programs with 10 sections each, or alternatively one program with 20 sections
- The time of an individual program step can be set to max. 999 hours and 59 minutes
- Integrated weekly program timer with real-time function
- Digital temperature setting with an accuracy of one or a tenth of a degree
- Elapsed time indicator
- Door gasket made of FKM (up to max. 200 °C)
- Replaceable fresh-air filter cartridge, class F6 (EU6 fine particle filter for particle sizes between 1 µm and 10 µm)
- Independent adjustable temperature safety device class 2 (DIN 12880), with audible and visual alarm
- Fresh-air monitoring with audible and visual alarm and automatic deactivation of heating
- Rear exhaust connector Ø 100 mm
- RS 422 interface for APT-COM™ DataControlSystem communication software
- Two chrome-plated racks included

► FDL SERIES | BEST TEST RESULTS:



Uniform test conditions

- ▶ APT.line™ preheating chamber
 - Homogeneous temperature distribution
 - Identical test conditions throughout the chamber interior independent of sample size and quantity



Convenient work environment

- ▶ Hermetic door closure with 2-points door closure
- ▶ Low heat dissipation due to 60 mm insulation
- ▶ Rack with tilt protection
- ▶ Complete stainless steel inner chamber
- ▶ No permanent fixtures
- ▶ Silicone free

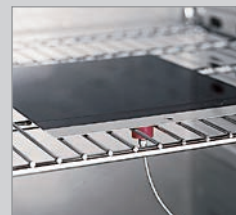


Maximum work safety

- ▶ Defined solvent quantity meets drying safety standards
- ▶ EN 1539 compliant: Fresh air monitoring with automatic switchoff
- ▶ Safety class IP 33
- ▶ Easy to replace fresh air filter

► OPTIONS

- Access ports, Ø 10 mm, Ø 30 mm, right, left
- Racks, chrome-plated or stainless steel
- Perforated shelf, stainless steel
- Specimen temperature display with temperature sensor and analog output 4 – 20 mA
- Replacement air filter (class F6/EU6 for particle sizes between 1 µm and 10 µm)
- Door lock
- Door gasket made of silicone for applications > 200 °C
- Calibration certificate, measurement in center
- Extension to factory calibration certificate (additional measuring point)
- Temperature measurement according to DIN 12880



Temperature measurement of the specimen



Calibrations and validations



Various access ports



Safety drying oven with UV lamp for testing UV resistance

► **BINDER
INDIVIDUAL**
More information
from page 90

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Technical data for your planning and installation

FDL series

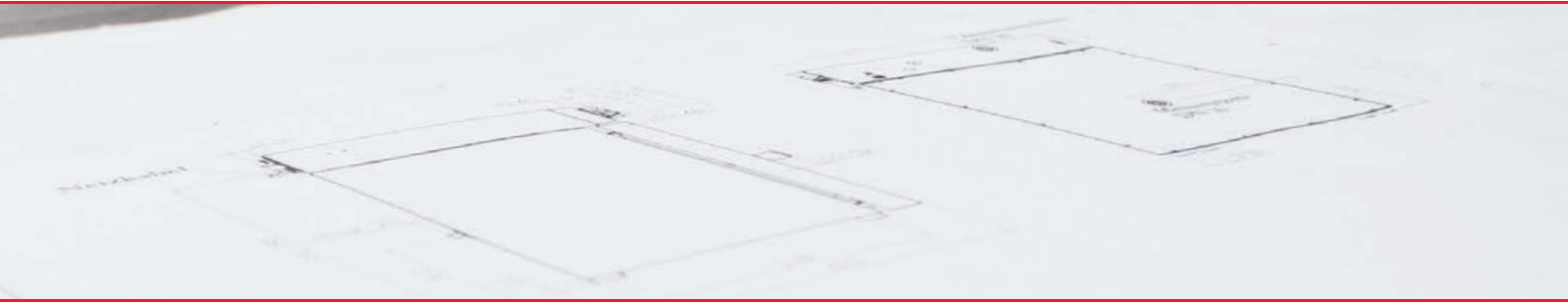


FDL 115	
Exterior dimensions	
Width (mm)	835
Height (inclusive feet) (mm)	800
Depth (mm)	685
Plus door handle, I-panel and exhaust duct (mm)	50
Interior dimensions	
Width (mm)	600
Height (mm)	435
Depth (mm)	435
Interior volume (l)	115
Quantity of racks (standard/max.)	2 / 5
Load per rack (kg)	20
Permitted total load (kg)	50
Weight of the unit (empty) (kg)	90
Temperature data	
Temperature range, 5 °C above ambient up to (°C)	300
Temperature uniformity at 150 °C (± K)	2.5
Temperature fluctuation at 150 °C (± K)	0.3
Heating-up time at 150 °C (min.) ¹⁾	17
Recovery time after door was opened for 30 sec. at 150 °C (min.) ¹⁾	3
Air change (approx. x/min.)	3
Air circulation (approx. x/min.)	40
Exhaust air volume flow (approx. l/Min. m ³ /h)	400 (24,0)
Air flow velocity (m/sec)	0.8 – 1.2
Highest permitted solvent quantity (g) (at T-180 °C, M-100 g/mol, U-40 g/m ³ , K=0,5)	6.65
Electrical data	
Housing protection acc. to EN 60529	IP 33
Nominal voltage (±10%) 50/60 Hz (V)	230
Nominal power (kW)	2.9
Energy consumption at 150 °C (W)	1098
Model no.	9010-0269

¹⁾ to 98 % of the set value /// All technical data are specified for units with standard equipment at an ambient temperature of 25 °C and a voltage fluctuation of ±10 %. The temperature data are determined in accordance with factory standard following DIN 12880 respecting the recommended wall clearances of 10 % of the height, width and depth of the inner chamber. All values have been specified at a fan speed of 100%. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

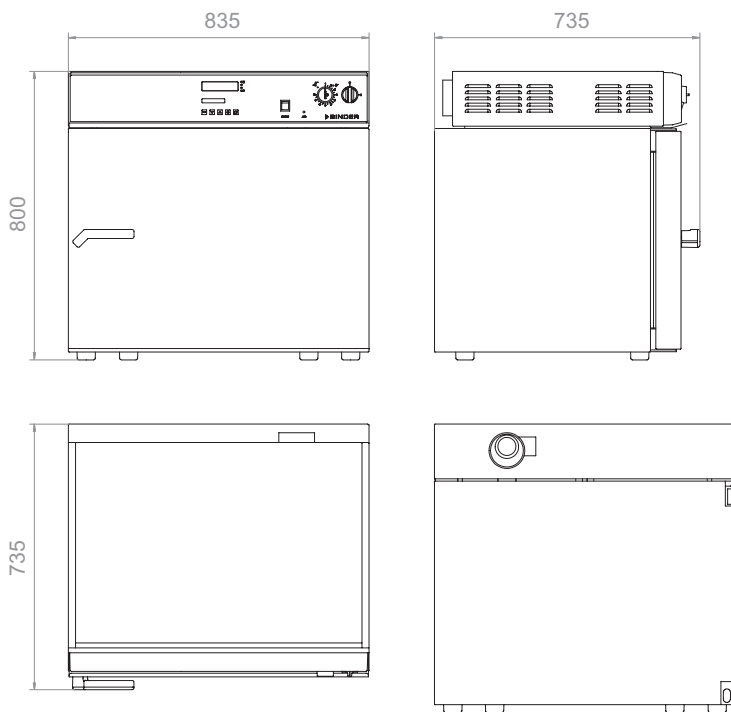


Current information and values are available at:
www.binder-world.com



► DIMENSIONS

FDL 115



- 1
- 2
- 3
- 4
- 5

► INSTALLATION REQUIREMENTS

	FDL 115
Nominal voltage (+10 %) 50/60 Hz (V)	230
Nominal power (kW)	2.9