

FDL series: Safety drying ovens with first class safety features

This series presents the perfect environment for solvent-based samples. The interior chamber has a symmetrical airflow with defined flow velocities, free of silicone and dust, safeguarded by a high-efficiency filter cartridge. FDL thus complies with all EN 1539 and ISO 3251 requirements and its program with the intelligent fresh air monitoring feature offers maximum occupational safety.



► Performance features and equipment:

- Electronically controlled APT.line™ preheating chamber technology
- In compliance with all safety requirements according to the standards EN 1539 and VBG 24
- Temperature range of 5 °C (9 °F) above ambient temperature up to 300 °C (572 °F)
- MP controller with 2 programs with 10 sections each, alternatively switchable to 1 program with 20 sections
- The time interval of single program sections can be adjusted up to a maximum of 99:59 hours or 999:59 hours. This adjustment applies to all program sections.
- Adjustable ramp function via program editor
- Integrated week program timer with real time function
- Digital temperature setting with an accuracy of one or tenth of a degree
- Adjustable fan speed (0 to 100 %)
- Elapsed time indicator
- Viton door gasket (for max. temp. of 200 °C / 392 °F)
- 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 optical and acoustic alarm
- Fresh-air monitoring with acoustic alarm and automatic shut-off of heating
- Rear exhaust duct Ø 100 mm (3.9 inch)
- RS 232 printer and communication interface for communication software APT-COM™ DataControlSystem
- 2 chrome-plated shelves
- BINDER test certificate





FDL 115

► Exterior dimensions	
Width (mm/inch)	834 / 32.8
Height (inclusive feet/castors) (mm/inch)	800 / 31.5
Depth (mm/inch)	685 / 27.0
Plus door handle (mm/inch)	50 / 2.0
Wall clearance (mm/inch)	100 / 3.9
Wall clearance with open door (mm/inch)	160 / 6.3
Exhaust duct outer-Ø (mm/inch)	100 / 3.9
Steam space volume (l/cu.ft.)	156 / 5.5
► Interior dimensions	
Width (mm/inch)	600 / 23.6
Height (mm/inch)	435 / 17.1
Depth (mm/inch)	435 / 17.1
Interior volume (l/cu.ft.)	115 / 4.1
Shelves, chrome-plated (number standard/max.)	2 / 5
Load per shelf (kg/lbs.)	20 / 44
Permitted total load (kg/lbs.)	50 / 110
Weight of the unit (empty) (kg/lbs.)	90 / 199
► Temperature data	
Temperature range, 5 °C/9 °F above ambient up to °C/°F	300 / 572
Temperature variation	
at 70 °C (158 °F) (± °C)	1.5
at 150 °C (302 °F) (± °C)	2.5
at 300 °C (572 °F) (± °C)	4
Temperature fluctuation (± °C)	0.3
Heating-up time ²⁾	
at 70 °C (158 °F) (Min.)	7
at 150 °C (302 °F) (Min.)	17
at 300 °C (572 °F) (Min.)	44
Recov. time after door was opened for 30 sec. ²⁾	
at 70 °C (158 °F) (Min.)	1
at 150 °C (302 °F) (Min.)	3
at 150 °C (302 °F) (Min.)	6
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)	6.65
(at T-180 °C, M-100 g/mol, U-40 g/m ³ , K = 0.5)	
► Electrical data	
Housing protection acc. to EN 50529	IP 33
Nominal voltage (± 10 %) 50 / 60 Hz (V)	230
Nominal power (W)	2900
Energy consumption	
at 70 °C (158 °F) (W)	388
at 150 °C (302 °F) (W)	1098
at 300 °C (572 °F) (W)	2023

1) value without window 2) up to 98 % of the set value

All technical data are specified for units with standard equipment at an ambient temperature of 25 °C (77 °F) and a voltage fluctuation of ± 10 %. The temperature data are determined in accordance to factory standard following DIN 12880, part 2 respecting the recommended wall clearances of 10 % of the height, width and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to alter technical specifications at all times.