

# Model FD-S 115 | Drying and heating chambers with forced convection

The new products in the Solid.Line impress with their tried-and-tested BINDER quality and reliability. They are suited to drying and heating. The attributes of the Solid.Line are geared towards the application in question and therefore used in research and quality assurance.

## BENEFITS

- Easy handling
- Accurate temperature control
- Simple and ergonomic door opening



Model 115

## MAIN FEATURES

- Temperature range: ambient temperature +10 °C to 250 °C
- APT.line™ preheating chamber technology
- Forced convection
- Adjustable exhaust air flap
- Controller with timer function
- 1 chrome-plated rack
- Class 2 integrated independent adjustable temperature safety device (DIN 12880) with visual alarm

## ORDERING INFORMATION

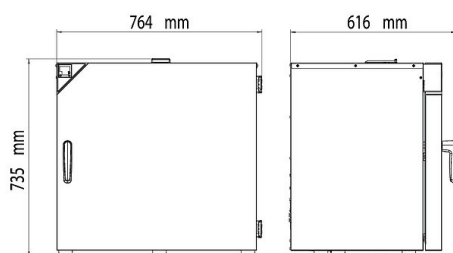
| Interior volume [L] | Voltage              | Option model | Version       | Art.-No.  |
|---------------------|----------------------|--------------|---------------|-----------|
| Model FD-S 115      |                      |              |               |           |
| 106                 | 230 V 1~ ph 50/60 Hz | Standard     | FDS115-230V   | 9090-0024 |
|                     | 120 V 1~ ph 60 Hz    | Standard     | FDS115UL-120V | 9090-0025 |

## TECHNICAL DATA

| Description   | FDS115-230V | FDS115UL-120V |
|---|-------------|---------------|
| Article Number  | 9090-0024   | 9090-0025     |
| Performance Data Temperature                              |             |               |
| Temperature range 10 °C above ambient temperature to [°C] | 250         | 250           |
| Temperature variation at 150 °C [± K]                     | 2.4         | 2.4           |
| Temperature fluctuation at 150 °C [± K]                   | 0.5         | 0.5           |
| Heating-up time to 150 °C [min]                           | 22          | 22            |

| Description                          | FDS115-230V | FDS115UL-120V |
|--------------------------------------|-------------|---------------|
| Article Number                       | 9090-0024   | 9090-0025     |
| <b>Air change data</b>               |             |               |
| Air change (approx.) at 100 °C [x/h] | 32          | 32            |
| <b>Electrical data</b>               |             |               |
| Rated Voltage [V]                    | 230         | 120           |
| Power frequency [Hz]                 | 50/60       | 60            |
| Nominal power [kW]                   | 1.3         | 1.3           |
| Unit fuse [A]                        | 6.3         | 6.3           |
| Phase (Nominal voltage)              | 1~          | 1~            |
| <b>Outer dimensions</b>              |             |               |
| Width net [mm]                       | 764         | 764           |
| Height net [mm]                      | 735         | 735           |
| Depth net [mm]                       | 616         | 616           |
| Wall clearance back [mm]             | 160         | 160           |
| Wall clearance sidewise [mm]         | 100         | 100           |
| <b>Doors</b>                         |             |               |
| Unit doors                           | 1           | 1             |
| <b>Internal Dimensions</b>           |             |               |
| Width [mm]                           | 550         | 550           |
| Height [mm]                          | 550         | 550           |
| Depth [mm]                           | 350         | 350           |
| <b>Measures</b>                      |             |               |
| Interior volume [L]                  | 106         | 106           |
| Net weight of the unit (empty) [kg]  | 52.5        | 52.5          |
| permitted load [kg]                  | 75          | 75            |
| Load per rack [kg]                   | 20          | 20            |
| <b>Environment-specific data</b>     |             |               |
| Energy consumption at 150 °C [Wh/h]  | 340         | 340           |
| Sound-pressure level [dB(A)]         | 43          | 43            |
| <b>Fixtures</b>                      |             |               |
| Number of shelves (std./max.)        | 1/5         | 1/5           |

### DIMENSIONS incl. fittings and connections [mm]



## OPTIONS AND ACCESSORIES

| Designation            | Description  | *  | Art.-No.  |
|------------------------|--|----|-----------|
| chrome-plated          | chrome-plated  | -  | 6004-0210 |
| Data Logger Kit        | T 350: For continuous temperature logging from 0 °C to 350 °C; kit includes 1 data logger, Pt 100 sensor with 2 m extension cable and 1 magnetic fixture for mounting to the BINDER unit | 19 | 8012-0714 |
| Data Logger Software   | LOG ANALYZE software kit, configuration and evaluation software for all BINDER Data Logger Kits (incl. USB data cable)   | 19 | 8012-0821 |
| pH-neutral detergent   | concentrated, for gentle remove of residual contaminants; 1 kg   | -  | 1002-0016 |
| Rubber pads            | set of 5 anti-slip feet, for safe stacking of units  | -  | 8012-1887 |
| Shelf support 4 pieces | for a rack   | -  | 8012-1886 |

\* Notes › See last page

## SERVICES

| Designation                                 | Description  | *              | Art.-No.  |
|---|--|----------------|-----------|
| <b>Installation services</b>                |  |                |           |
| 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 |
| <b>Preventive maintenance</b>               |  |                |           |
| Preventive maintenance                      | Executive of equipment inspection according to maintenance plan                          | 14, 18         | DL20-0200 |
| <b>Calibration services</b>                 |  |                |           |
| 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 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 |
| <b>Warranty service</b>                     |  |                |           |
| Extension of the warranty from 2 to 3 years | beginning with the date of delivery, wearing parts are not included                      | -              | DL00-3041 |

\* Notes › See last page

## NOTES

- 01 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.
- 03 Heat resistant only to max. 200 °C.
- 04 Only available on units rated for 230 V.
- 06 Heating-up time may increase as a result of the lower heat conductivity.
- 07 The additional heat input may affect the temperature behavior.
- 09 Not in conjunction with the optional access port, door with window and interior lighting.
- 10 Not available on 23-liter units.
- 11 Not available on 23- or 53-liter units.
- 12 Only available on units rated for 230 V or 400 V.
- 13 Installation and connections take place at unit location; transport within the company only upon consultation.
- 14 We recommend a BINDER service contract to cover unit inspections, calibrations and validations.
- 15 OQ according to Yellow Paper = completed factory validation documentation of all OQ checklists.
- 16 Sensor calibration is performed in an accredited calibration laboratory.
- 17 Calibration is performed according to the BINDER factory standard.
- 18 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).
- 19 For additional accessories, refer to the Process documentation chapter.
- 20 When ordering IQ/OQ qualification folders and associated IQ/OQ execution on one order, we offer a 15 % discount for the item of the IQ/OQ folder.  
When ordering IQ/OQ/PQ qualification folders and associated IQ/OQ/PQ execution on one order, we offer a 15 % discount for the item of the IQ/OQ/PQ folder.