

## Model KBF-S 115 | Constant climate chambers with large temperature / humidity range

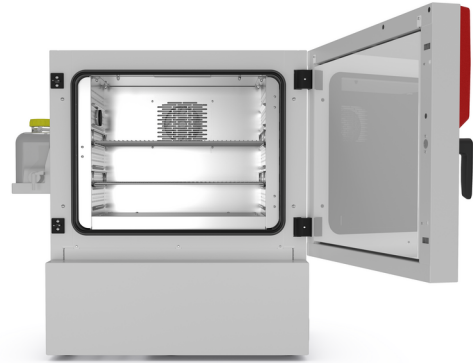
The Solid.Line KBF-S climate chamber is a custom-made solution for long-term testing and accelerated stability testing of pharmaceutical products in accordance with the ICH Q1A guideline. The corrosion-free and condensation-free interior also ensures exceptionally stable temperature and moisture levels, even when fully loaded.

### BENEFITS

- Safe thanks to climatic homogeneity that far exceeds the accuracy required by ICH guidelines, even with a fully loaded unit.
- Reliable thanks to failsafe operation without compromise. The interior and Longlife evaporator plate are made entirely from stainless steel.
- Smart, as a wide range of accessories makes it highly compatible for adaptation to specific customer requirements.
- Economical thanks to maximum effective volume which allows for 30% larger load compared to the competition.



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### IMPORTANT FEATURES

- Temperature range: 0 °C to +70 °C
- Humidity range: 20% to 80% RH
- APT.line™ preheating chamber technology
- Humidity regulation with capacitive humidity sensor and steam humidification
- LCD to display temperature and humidity along with additional information and alarms
- Internal data logger, measured values can be read out in open format via USB
- Unit self-test for comprehensive status analysis
- Inner chamber made completely of stainless steel
- 2 stainless steel racks, incl. shelf supports
- Access port with silicone plug, 30 mm, left
- Robust twin casters with brakes, from 240 L
- Class 3.1 independent temperature safety device (DIN 12880) with visual and audible temperature alarm
- Computer interface: Ethernet
- Independent water supply via tank

### ORDERING INFORMATION

| Interior volume [L]    | Power supply - unit fuse        | Plug*     | Version  | Model version  | Art.-No.  |
|------------------------|---------------------------------|-----------|----------|----------------|-----------|
| <b>Model KBF-S 115</b> |                                 |           |          |                |           |
| 102                    | 200...230 V 1~ 50/60 Hz -16,0 A | CEE 7/7   | Standard | KBFS115-230V   | 9020-0370 |
|                        | 200...240 V 1~ 50/60 Hz -16,0 A | NEMA 6-20 | Standard | KBFS115UL-240V | 9020-0371 |

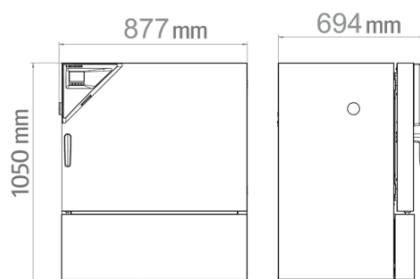
## TECHNICAL DATA

| Data  |              |                |
|---|--------------|----------------|
| Designation   | KBFS115-230V | KBFS115UL-240V |
| Article Number  | 9020-0370    | 9020-0371      |
| Option model  | Standard     | Standard       |
| Performance Data Temperature                                    |              |                |
| Temperature range   | 0...70 °C    | 0...70 °C      |
| Max. heat compensation at 40°C                                  | 200 W        | 200 W          |
| Performance Data Climate  |              |                |
| Temperature range with humidity                                 | 10...70 °C   | 10...70 °C     |
| Humidity range  | 20...80 % RH | 20...80 % RH   |
| Temperature uniformity at 25°C and 60% RH                       | 0.3 ± K      | 0.3 ± K        |
| Temperature uniformity at 40°C and 75% RH                       | 0.3 ± K      | 0.3 ± K        |
| Temperature fluctuation at 25°C and 60% RH                      | 0.1 ± K      | 0.1 ± K        |
| Temperature fluctuation at 40°C and 75% RH                      | 0.1 ± K      | 0.1 ± K        |
| Recovery time after door was opened for 30 s at 25°C and 60% RH | 6 min        | 6 min          |
| Recovery time after door was opened for 30 s at 40°C and 75% RH | 7 min        | 7 min          |
| Electrical data   |              |                |
| Rated Voltage   | 200...230 V  | 200...240 V    |
| Power frequency   | 50/60 Hz     | 50/60 Hz       |
| Nominal power   | 1,4 kW       | 1,4 kW         |
| Unit fuse   | 16,0 A       | 16,0 A         |
| Phase (Nominal voltage)   | 1~           | 1~             |
| Measures  |              |                |
| Interior volume   | 102 L        | 102 L          |
| Net weight of the unit (empty)                                  | 128 kg       | 128 kg         |
| Load per rack   | 30 kg        | 30 kg          |
| Permitted load  | 100 kg       | 100 kg         |
| Wall clearance back   | 100 mm       | 100 mm         |

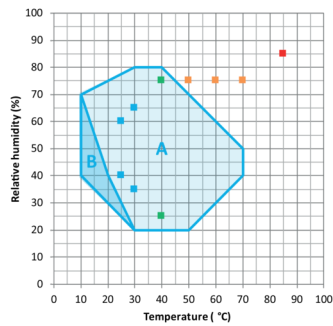
|  |          |          |
|--|----------|----------|
| Wall clearance sidewise                                      | 100 mm   | 100 mm   |
| <b>Housing dimensions not incl. fittings and connections</b> |          |          |
| Width net  | 880 mm   | 880 mm   |
| Height net   | 1,050 mm | 1,050 mm |
| Depth net  | 650 mm   | 650 mm   |
| <b>Internal Dimensions</b>                                   |          |          |
| Interior width   | 600 mm   | 600 mm   |
| Interior height  | 483 mm   | 483 mm   |
| Interior depth   | 351 mm   | 351 mm   |
| Unit doors   | 1        | 1        |
| <b>Environment-specific data</b>                             |          |          |
| Sound-pressure level   | 52 dB(A) | 52 dB(A) |
| Energy consumption at 40°C and 75% RH                        | 400 Wh/h | 400 Wh/h |
| <b>Fixtures</b>  |          |          |
| Number of shelves (std./max.)                                | 2/5      | 2/5      |

All technical data is specified for unloaded units with standard equipment at an ambient temperature of  $+22\text{ °C} \pm 3\text{ °C}$  and a power supply voltage fluctuation of  $\pm 10\%$ . 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.

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



## DIAGRAMS



■ ICH Long term stability testing  
■ Accelerated stability testing  
■ ICH Stress testing  
■ Industrial THB testing (85/85)

A: Guaranteed condensation-free range  
 B: Time-limited operation (max. 24 hours)

## Climate chart

## OPTIONS

| Designation                                       | Description  | KBF-S 115 | *  | Art.-No.  |
|---|--|-----------|----|-----------|
|   | left   |           |    |           |
|   | 30 mm  | •         | 01 | 8012-2072 |
|   | 50 mm  | •         | 01 | 8012-2079 |
|   | 100 mm   | •         | 01 | 8012-2077 |
|   | right  |           |    |           |
|   | 30 mm  | •         | 01 | 8012-2071 |
| Access port with silicone plug                    | 50 mm  | •         | 01 | 8012-2078 |
|   | 100 mm   | •         | 01 | 8012-2076 |
|   | top  |           |    |           |
|   | 30 mm  | •         | 01 | 8012-2073 |
|   | 50 mm  | •         | 01 | 8012-2074 |
|   | 100 mm   | •         | 01 | 8012-2075 |
| Calibration certificate, expanded                 | for temperature and humidity; for extending the measurement in center of chamber to include another test value | •         | -  | 8012-2066 |
|   | temperature measurement incl. certificate, 9 measuring points at specified temperature                         | •         | -  | 8012-2067 |
| Calibration certificate, temperature              | temperature measurement incl. certificate, 15- 18 measuring points at specified temperature                    | •         | -  | 8012-2068 |
|   | temperature measurement incl. certificate and 27 measuring points at specified temperature                     | •         | -  | 8012-2069 |
| Calibration certificate, temperature and humidity | Measurement in center of chamber at 25°C / 60% RH or at specified test values                                  | •         | -  | 8012-2065 |

| Designation | Description   | KBF-S 115 | * | Art.-No.  |
|-------------|---|-----------|---|-----------|
|             | temperature (according to DIN12880) and humidity measurement incl. certificate, 27 temperature measuring points and 1 humidity measuring point, at 25 °C / 60 % RH or at specified values | •         | - | 8012-2070 |
| Door lock   | lockable door handle  | •         | - | 8012-2086 |

## ACCESSORIES

| Designation                           | Description   | KBF-S 115 | * | Art.-No.  |
|---------------------------------------|---|-----------|---|-----------|
| APT-COM™ 4 BASIC-Edition              | for simple logging and documentation requirements with up to 5 networked units.<br>version 4, BASIC edition   | •         | - | 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.<br>version 4, GLP edition   | •         | - | 9053-0042 |
| APT-COM™ 4 PROFESSIONAL-Edition       | convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.<br>version 4, PROFESSIONAL edition   | •         | - | 9053-0040 |
| BINDER PURE AQUA SERVICE              | System for preparation or complete desalination of tap water, complete set containing PURE AQUA 300 single-use cartridge, measuring device, and all necessary connecting parts  | •         | - | 8012-0759 |
| BINDER PURE AQUA SERVICE, accessories | Single-use, replacement cartridge for BINDER PURE AQUA System   | •         | - | 6011-0165 |
| Convenient water supply               | Flexible positioning of the water container with magnetic holder, hose adapter for water container with practical quick coupling, and water stop function<br>External, with magnetic holder   | •         | - | 8012-1847 |
| LED light bars                        | Basic set consisting of 2 pieces, attachment material, control unit for max. 4 light strips, 100-240 V, 50/60 Hz<br>Basic set 300, length 30 cm   | •         | - | 8012-1107 |
|                                       | Basic set 500, length 50 cm   | •         | - | 8012-1108 |
|                                       | Expansion set consisting of 2 pieces, attachment material: clips. For expanding the basic set of light bars<br>Expansion set 300, length 30 cm  | •         | - | 8012-1716 |
|                                       | Expansion set 500, length 50 cm   | •         | - | 8012-1717 |
| Qualification documents               | 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 and humidity values<br>Digital in PDF format | •         | - | 7057-0006 |
|                                       | Hard copy inside folder   | •         | - | 7007-0006 |

| Designation          | Description   | KBF-S 115 | * | Art.-No.  |
|----------------------|---|-----------|---|-----------|
|                      | IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature and humidity values |           |   |           |
|                      | Digital in PDF format   | •         | - | 7057-0002 |
|                      | Hard copy inside folder   | •         | - | 7007-0002 |
| Rack                 | stainless steel   | •         | - | 8012-2049 |
| Rack, reinforced     | stainless steel, with fasteners (1 set of 4)  | •         | - | 8012-0700 |
| Rack accessories     | fasteners (1 set of 4) for additional security of racks   | •         | - | 8012-2280 |
| Shelf, perforated    | Stainless steel   | •         | - | 8012-2165 |
| pH-neutral detergent | concentrated, for gentle remove of residual contaminants; 1 kg  | •         | - | 8012-2250 |

## SERVICES

| Designation   | Description  | * | Art.-No.  |
|---|--|---|-----------|
| <b>Calibration services</b>                                 |  |   |           |
| Temperature and humidity calibration                        | Expansion –Temperature and humidity calibration with 1 measuring point in center of chamber with 1 specified pair of values, including certificate   | – | DL30-0302 |
|   | Temperature and humidity calibration with 1 measuring point in center of chamber with 1 specified pair of values, including certificate  | – | DL30-0301 |
| Temperature and humidity measurement, 9-1 measuring points  | Temperature measurement with 9 temperature measuring points and 1 humidity measuring point in center of chamber with a pair of values specified by the user, including certificate   | – | DL30-0309 |
| Temperature and humidity measurement, 18-1 measuring points | Temperature measurement with 18 temperature measuring points and 1 humidity measuring point in center of chamber with a pair of values specified by the user, including certificate  | – | DL30-0318 |
| Temperature and humidity measurement, 27-1 measuring points | Temperature measurement with 27 temperature measuring points and 1 humidity measuring point in center of chamber with a pair of values specified by the user, including certificate  | – | DL30-0327 |
| Temperature and humidity measurement according to DIN12880  | Temperature measurement in accordance with DIN 12880 with 27 temperature measuring points and 1 humidity measuring point in center of chamber with a pair of values specified by the user, including certificate                 | – | DL30-0427 |
| <b>Installation services</b>                                |  |   |           |
| 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) | – | DL10-0300 |
| Unit instructions   | Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming  | – | DL10-0700 |
| <b>Maintenance contracts</b>                                |  |   |           |
| 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   | – | DL20-0710 |

| Designation                        | Description  | * | Art.-No.  |
|------------------------------------|--|---|-----------|
| 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 temperature/humidity value, including certificate                  | – | DL20-0920 |
| 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 | – | DL20-0820 |
| <b>Maintenance services</b>        |  |   |           |
| 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  | – | DL20-0400 |
| <b>Validation services</b>         |  |   |           |
| Execution of IQ/OQ                 | Execution of IQ/OQ in accordance with qualification folder   | – | DL42-0300 |
| Execution of IQ/OQ/PQ              | Execution of IQ/OQ/PQ in accordance with qualification folder  | – | DL44-0500 |
| <b>Warranty service</b>            |  |   |           |
| 1-year warranty extension          | The warranty is extended by 1 year from the delivery date, wear parts are excluded   | – | DL50-0030 |

**NOTES**

01      Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge.

**BINDER GmbH**

Tuttlingen, Germany  
TEL +49 7462 2005 0  
FAX +49 7462 2005 100  
info@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

**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

**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