

# Model FD-S 56 | 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 56

#### MAIN FEATURES

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

### ORDERING INFORMATION

Interior volume [L]	Voltage	Option model	Version	ArtNo.
55	230 V 1~ ph 50/60 Hz	Standard	FDS056-230V	9090-0018
	120 V 1~ ph 60 Hz	Standard	FDS056UL-120V	9090-0019

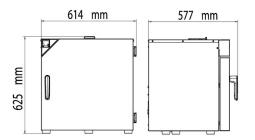
### TECHNICAL DATA

Description	FDS056-230V	FDS056UL-120V	
Article Number	9090-0018	9090-0019	
Performance Data Temperature			
Temperature range 10 °C above ambient temperature to [°C]	250	250	
Temperature variation at 150 °C [± K]	2.6	2.6	
Temperature fluctuation at 150 °C [± K]	0.5	0.5	
Heating-up time to 150 °C [min]	20	20	
Air change data			
Air change (approx.) at 100 °C [x/h]	80	80	



nber ata ge [V]	9090-0018	9090-0019
	230	
ao N/I	230	
96 [v]		120
iency [Hz]	50/60	60
wer [kW]	1.1	1.1
]	6.3	6.3
ninal voltage)	1~	1~
me [L]	55	55
of the unit (empty) [kg]	36	34
pad [kg]	30	30
ck [kg]	15	15
nce back [mm]	160	160
nce sidewise [mm]	100	100
nensions		
	400	400
]	440	440
	310	310
	1	1
nensions not incl. fittings and connections		
nm]	614	614
mm]	625	625
nm]	577	577
t-specific data		
sumption at 150 °C [Wh/h]	290	290
sure level [dB(A)]	43	43
shelves (std./max.)	1/3	1/3

## DIMENSIONS incl. fittings and connections [mm]



#### ACCESSORIES

Designation	Description	*	ArtNo.
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
Grid shelf	Incl. shelf supports		
	chrome plated	-	8012-1807
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016
Rubber pads	set anti-slip feet	_	8012-1887

\* Notes > See last page



### SERVICES

Designation	Description	*	ArtNo.
Installation services			
Unit installation	Unpacking and setting up of unit, connecting to existing connections, and checking function	13, 18	DL10-0100
Unit instructions	Unit function instructions for operation and programming of the controller	18	DL10-0500
Preventive maintenance			
Maintenance	Functional testing of all electrical and mechanical components, short calibration, documentation in the maintenance schedule	14, 18	DL20-0200
Calibration services			
Measurement of air exchange rate	including certificate (in accordance with ASTM D5374)	14, 16, 17, 18	DL33-0000
	Expansion – including certificate, each additional measuring point in center of chamber at specified test temperature	14, 16, 17, 18	DL30-0102
Temperature calibration	Temperature calibration with 1 measuring point in center of chamber at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0101
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0127
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0109
Warranty service			
Warranty extension from 2 to 3 years	The warranty is extended from 2 to 3 years from the delivery date, wear parts are excluded	-	DL00-3041

\* Notes > See last page



#### NOTES

- Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge. 01
- 02 UL mark is not granted when this option is used.
- Heat resistant only to max. 200 °C. 03
- Only available on units rated for 230 V. 04
- 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.
- Not available on 23- or 53-liter units. Only available on units rated for 230 V or 400 V. 11 12
- 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. Calibration is performed according to the BINDER factory standard. 17
- 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 18 include a country-specific added fee (available on request).
- For additional accessories, refer to the Process documentation chapter. 19

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

**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

Representative Office for CIS Moscow. Russia TEL +7 495 988 15 16 FAX +7 495 988 15 17 russia@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