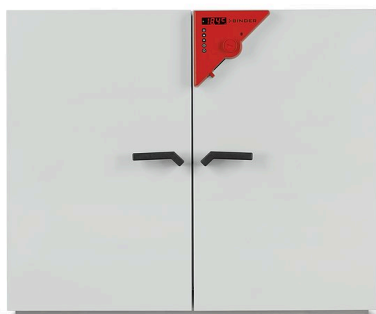


Model ED 400 | Drying and heating chambers with gravity convection

The strengths of a BINDER ED series drying chamber include routine drying and sterilization tasks up to 300 °C. Thanks to the gravity convection, all thermal processes which use this drying chamber are highly efficient. The ED series ensures fast, uniform drying.

BENEFITS

- Uniform drying conditions thanks to APT.line™ technology
- Identical test conditions throughout the chamber interior independent of sample size and quantity
- Outstanding thermal insulation saves operation costs



Model 400

MAIN FEATURES

- Temperature range: room temperature plus 5 °C to 300 °C
- APT.line™ preheating chamber technology
- Gravity convection
- Adjustable exhaust air flap
- Controller with timer functions
- 2 chrome-plated racks
- Class 2 independent adjustable temperature safety device (DIN 12880) with visual alarm

ORDERING INFORMATION

Interior volume [cu.ft.]	Voltage	Option model	Version	Art.-No.
14.1	400 V 3~ 50/60 Hz	with RS 422	ED400-400V-I	9010-0075
	208 V 3~ 60 Hz	with RS 422	ED400UL-208V-I	9010-0168

TECHNICAL DATA

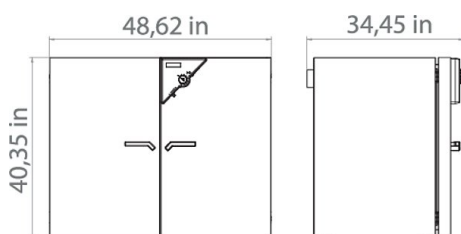
Description	ED400-400V-I ¹	ED400UL-208V-I ¹
Article Number	9010-0075	9010-0168
Performance Data Temperature		
Temperature range +5 °C above ambient temperature to	300 °C	300 °C
Temperature variation at 150 °C [± K]	3	3
Temperature fluctuation at 150 °C [± K]	0.5	0.5
Heating-up time to 150 °C [min]	71	71
Recovery time after 30 seconds door open at 150 °C [min]	31	31

¹ All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±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. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

Description	ED400-400V-I ¹	ED400UL-208V-I ¹
Article Number	9010-0075	9010-0168
Air change data		
Air change (approx.) at 150 °C [x/h]	10	10
Electrical data		
Rated Voltage [V]	400	208
Power frequency [Hz]	50/60	60
Nominal power [kW]	3.4	3.4
Unit fuse [A]	3 x 16	3 x 16
Phase (Nominal voltage)	3~	3~
Measures		
Interior volume [cu.ft.]	14.1	14.1
Net weight of the unit (empty) [lbs]	276	276
Permitted load [lbs]	198	198
Load per rack [lbs]	77	77
Wall clearance back [in]	6.3	6.3
Wall clearance sidewise [in]	3.94	3.94
Internal Dimensions		
Width [in]	39.4	39.4
Height [in]	31.52	31.52
Depth [in]	20.49	20.49
Doors		
Unit doors	2	2
Housing dimensions not incl. fittings and connections		
Width net [in]	48.7	48.7
Height net [in]	40.4	40.4
Depth net [in]	30.14	30.14
Environment-specific data		
Energy consumption at 150 °C [Wh/h]	672	672
Fixtures		
Number of shelves (std./max.)	2/10	2/10

¹ All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±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. 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]



OPTIONS

Designation	Description	*	Art.-No.
Calibration certificate, temperature	temperature measurement incl. certificate and 27 measuring points at specified temperature	-	8012-1593
	additional flexible Pt 100, interior, with external connection incl. LEMO connector (3-pin)	-	8012-1173
	back		
	10 mm	01	8012-1282
	30 mm	01	8012-0540
	50 mm	01	8012-0546
	for temperature values (output not adjustable)	-	8012-0430
	for temperature; for extending the measurement in center of chamber to include another test temperature	-	8012-1115
	in accordance with ASTM D5374, definition and protocol according to ambient temperature	-	8012-0195
	including 2 reinforced racks	-	8012-1730
	left		
	10 mm	01	8012-1275
	30 mm	01	8012-0537
	50 mm	01	8012-0542
	100 mm	01, 11	8012-0722
	lockable door handle	-	8012-1253
	made of FKM, silicone-free	03	8012-0497
	Measurement in center of chamber at specified temperature	-	8012-1134
	right		
	10 mm	01	8012-1268
	30 mm	01	8012-0536
	50 mm	01	8012-0541
	100 mm	01, 11	8012-0721
	Switchable acoustic alarm, with adjustable limit value on the independent temperature safety device		
	120/208 V option model	-	8012-1303
	230/400 V option model	-	8012-1299
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	-	8012-1572
temperature measurement incl. certificate, 9 measuring points at specified temperature	-	8012-1551	
top			
10 mm	01	8012-1262	
30 mm	01	8012-0539	
50 mm	01	8012-0545	
100 mm	01, 10	8012-0547	
viewing window in each door, 290 x 470 mm, and 30 W interior lighting			
208 V option model	-	8012-0271	
400 V option model	-	8012-0269	
with visual alarm (DIN 12880)	04, 12	8012-0032	

* Notes › See last page

ACCESSORIES

Designation	Description	*	Art.-No.
Multi Management Software	Multi Management Software APT-COM™		
	version 4, BASIC edition	19	9053-0039
	version 4, GLP edition	19	9053-0042
	version 4, PROFESSIONAL edition	19	9053-0040

* Notes › See last page

Designation	Description	*	Art.-No.
	chrome plated	-	6004-0005
	Stainless steel	-	6004-0032
	stainless steel	-	6004-0011
	concentrated, for gentle remove of residual contaminants; 1 kg	-	1002-0016
	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, CO ₂ , O ₂ , pressure, depending on unit		
	Digital in PDF format	-	7057-0001
	Hard copy inside folder	-	7007-0001
Options/Accessories	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, CO ₂ , O ₂ – or pressure, depending on unit		
	Digital in PDF format	-	7057-0005
	Hard copy inside folder	-	7007-0005
	LOG ANALYZE software kit, configuration and evaluation software for all BINDER Data Logger Kits (incl. USB data cable)	19	8012-0821
	stable cart, casters with locking brakes, dimensions: W 1,300 x D 800 x H 780 mm	-	9051-0019
	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
	with lid made from 18/8 stainless steel, stackable, dimensions: 230 x 133 x 45 mm	-	4022-0123
	with lid made from 18/8 stainless steel, stackable, dimensions: 315 x 215 x 60 mm	-	4022-0124

* Notes › See last page

SERVICES

Designation	Description	*	Art.-No.
Installation services			
Services	Unit function instructions for operation and programming of the controller	18	DL10-0500
	Unpacking and setting up of unit, connecting to existing connections, and checking function	13, 18	DL10-0100
Preventive maintenance			
Services	Executive of equipment inspection according to maintenance plan	14, 18	DL20-0200
Calibration services			
Services	Expansion – including certificate, each additional measuring point in center of chamber at specified test temperature	14, 16, 17, 18	DL30-0102
	including certificate (in accordance with ASTM D5374)	14, 16, 17, 18	DL33-0000
	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 with 18 measuring points at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0118
	Temperature measurement with 27 measuring points at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0127
	Temperature measurement with 9 measuring points at a specified test temperature, including certificate	14, 16, 17, 18	DL30-0109
Validation services			
Services	Execution of IQ/OQ in accordance with qualification folder	15, 18	DL40-0100
	Execution of IQ/OQ/PQ in accordance with qualification folder	15, 18	DL44-0500
Warranty service			
Services	The warranty is extended from 2 to 3 years from the delivery date, wear parts are excluded	-	DL00-2041
	The warranty is extended from 2 to 5 years from the delivery date, wear parts are excluded	-	DL00-2042

* 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.
- 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.

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

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 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 Inc.

Bohemia, NY, USA
TEL +1 631 224 4340
FAX +1 631 224 4354
usa@binder-world.com
www.binder-world.us