ED 400 - Drying oven with natural convection

Routine drying and sterilization applications up to 300 °C (572 °F) and storage at precisely controlled elevated temperatures are the strengths of ED drying ovens. Because of the natural convection with a high rate of air exchange, thermal processes run with significantly increased efficiency.

Performance features and equipment :

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range 5 °C (32 ºF) above ambient temperature up to 300 °C (572 °F)
- Digital temperature setting with an accuracy of one degree
- DS controller with integrated timer 0 to 99 h
- Independent adjustable temperature safety device class 2 (DIN 12880), with visual temperature alarm
- Adjustable front ventilation flap slide and rear exhaust ø 50 mm (1.97 inch)
- With or without RS 422 Interface for use with optional GMP/GLP and FDA guideline 21 CFR Part 11 compliant APT-COM™ DataControlSystem software
- Units up to 115 liters are stackable
- 2 chrome-plated racks included
- BINDER test certificate

Technical specification ED 400

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	ED 400
Exterior dimensions	
Width (mm/inch)	1234 / 48.6
Height (inclusive feet/castors) (mm/inch)	1022 / 40.2
Depth (mm/inch)	765 / 30.1
plus door handle, I-panel and exhaust duct (mm/inch)	85 / 3.4
Wall clearance rear (mm/inch)	100 / 3.9
Wall clearance side (mm/inch)	160 / 6.3
Exhaust duct outer-Ø (mm/inch)	52 / 2.1
Steam space volume (l/cu.ft.)	457 / 16.2
Number of doors	2
Interior dimensions	
Width (mm/inch)	1000 / 39.4
Height (mm/inch)	800 / 31.5
Depth (mm/inch)	500 / 19.7
Interior volume (l/cu.ft.)	400 / 14.3
Racks, chrome-plated (number standard/max.)	2 / 10
Load per rack (kg/lbs.)	35 / 77
Permitted total load (kg/lbs.)	90 / 199
Weight of the unit (empty) (kg/lbs.)	125/276
Temperature data	
Temperature range, 5 °C (41 °F) above ambient up to (°C / °F)	300 / 572
Temperature variation 1)	
at 70 °C (± °C)	1.7
at 150 °C (± °C)	3
at 300 °C (± °C)	5,0
Temperature fluctuation at 70 °C (± °C)	0.3
Heating up time 2)	
to 70 °C (Min.)	49
to 150 °C (Min.)	62
to 250 °C (Min.)	74
Recov. time after door was opened for 30 sec. 2)	
at 70 °C (Min.)	4
at 150 °C (Min.)	20
at 300 °C (Min.)	24
Air change data	
Air change	
at 70 °C (x/h)	11
at 150 °C (x/h)	10
at 300 °C (x/h)	9
Electrical data	
Housing protection acc. to EN 60529	IP 20
Nominal voltage (±10 %) 50 / 60 Hz (V)	400 / 208 (3N)
Nominal power (W)	3400
Energy consumption	
at 70 °C (W)	201
at 150 °C (W)	672
at 300 °C (W)	1000

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 and a voltage fluctuation of ±10 %. The temperature data are determinated in accordance to factory standard following DIN 12880 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.

Access ports

With silicon plugs for inserting external measuring devices into the chamber. Access ports with 10, 30, 50, 100 mm (0.4, 1.2, 2, 3.94 inch) diameter.

Door with window and interior lighting

For optimum process control in the interior, available for all equipment sizes. 2 doors with 1 window each (350 x 240 mm / 13.78 x 9.45 inch) and interior lighting, 30 W .

Lockable door

Prevents unauthorized access and interference with processes in the chamber.

Calibration certificates and validation

BINDER can significantly reduce the time and effort needed for equipment qualification. We draw on unparalleled knowledge of our equipment applications and years of experience in certification.

Options and accessories ED series

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	ED 400
Access port with silicone plugs, 10 mm (0.39 inch), 30 mm (1.18 inch), 50 mm (1.97 inch), 100 mm (3.94 inch)	O
Anti - slip rubber pads for safe stacking (4 pieces)	O
Over temperature alarm, acoustic, can be switched off. Temperature limit can be set at the independent, adjustable temperature safety device class 2	O
Independent adjustable temperature safety device, Class 3.1 (DIN 12880)	O
Analog temperature output, 4 - 20 mA, with 6 - pin DIN socket (output not adjustable)	O
Temperature measurement acc. to DIN 12880 (27 measuring points) at 150 °C (302 °F) or at specified temperature with measuring protocol and certificate	O
Factory calibration certificate. Measurement in center of chamber at 150 °C (302 °F) or at specified testing temperature	O
Extension to factory calibration certificate. Each additional measurement at an additional measuring point or temperature	O
Rack, chrome - plated or stainless steel	O
Shelf, perforated, stainless steel	O
Lockable door	O
FKM door gasket	O
2 doors with 1 window each (470 x 290 mm / 18.50 x 11.42 inch) and interior lighting, 30 W	O

Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

UK Office
Keison Products,
P.O. Box 2124, Chelmsford, Essex, CM1 3UP, England.
Tel: +44 (0)330 088 0560
Fax: +44 (0)1245 808399
Email: sales@keison.co.uk

Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.