FED 240 - Heating chamber with forced convection

The FED series is a true all-rounder. It has a virtually unlimited capacity and is at the same time particularly adaptable to the specific requirements of a large variety of testing applications. The enhanced time functions and the digitally controlled air turbine can be used to adjust ideal temperature parameters and recirculation air conditions.

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)
- MS controller with serveral timer functions
  - Controller timer functions: delayed ON, delayed OFF, temperature dependent delayed OFF
- Digital temperature setting with an accuracy of one degree
- Adjustable fan speed
- Front ventilation flap slide and rear exhaust duct Ø 50 mm (1.97 inch)
- Independent adjustable temperature safety device class 2 (DIN 12880), with visual temperature alarm
- RS 422 interface for communication software APT-COM™ DataControlSystem, or switch over to printer output with RS 232 / RS 422 interface converter
- Units up to 115 liters are stackable
- 2 chrome-plated racks included
- BINDER test certificate

Technical specification FED 240

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	FED 240
Exterior dimensions	
Width (mm/inch)	1034 / 40.7
Height (inclusive feet/castors) (mm/inch)	822 / 32.4
Depth (mm/inch)	745 / 29.3
Plus door handle, I-panel and exhaust duct (mm/inch)	105 / 4.1
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.)	308 / 10.9
Number of doors	2
Interior dimensions	
Width (mm/inch)	800 / 31.5
Height (mm/inch)	600 / 23.6
Depth (mm/inch)	500 / 19.7
Interior volume (l/cu.ft.)	240 / 8.6
Racks, chrome-plated (number standard/max.)	2 / 7
Load per rack (kg/lbs.)	30 / 66
Permitted total load (kg/lbs.)	70 / 155
Weight of the unit (empty) (kg/lbs.)	96 / 212
Temperature data	
Temperature range, 5 °C (41 °F) above ambient up to (°C / °F)	300 / 572
Temperature variation 1)	
at 70 °C (± °C)	0.8
at 150 °C (± °C)	2
at 300 °C (± °C)	4.3
Temperature fluctuation (± °C)	0.3
Heating up time 2)	
to 70 °C (Min.)	12
to 150 °C (Min.)	27
to 250 °C (Min.)	50
Recov. time after door was opened for 30 sec. 2)	
at 70 °C (Min.)	2
at 150 °C (Min.)	10
at 300 °C (Min.)	16
Air change data	
Air change	
at 70 °C (x/h)	19
at 150 °C (x/h)	20
at 300 °C (x/h)	18
Electrical data	
Housing protection acc. to EN 60529	IP 20
Nominal voltage (±10 %) 50 / 60 Hz (V)	230
Nominal power (kW)	2.7
Energy consumption	
at 70 °C (W)	370
at 150 °C (W)	850
at 300 °C (W)	1400

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 and 100 mm (0.4, 1.2, 2, 3.9 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 (470 x 290 mm / 18.50 x 11.42 inch) and interior lighting, 30 W.

Lockable door

Prevents unauthorized access and interference with processes in the chamber.

Calibration certificates

Measurement in the center at specified values. Additional measuring points or test values according to your specification.

Options and accessories FED series

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	FED 240
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
HEPA fresh - air filter, Class EU14 (according to EN 1822; min. 99.999% for 0.3 µm particles)	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
Anti - slip rubber pads for safe stacking (4 pieces)	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
Over temperature alarm, acoustic, can be switched off. Temperature limit can be set at the independent, adjustable temperature safety device class 2	O
Measurement of air change rate according to ASTM D5374, with definition and protocol	O
Rack, chrome - plated or stainless steel	O
Reinforced rack, stainless steel, with 1 set of securing elements (4 pieces) (max. load 70 kg / 154 lbs.)	O
Shelf, perforated, stainless steel	O
Lockable door	O
FKM door gasket	O
Reinforced inner chamber, including 2 Reinforced racks, maximum total load 250 kg (552 lbs.), max. load per rack 70 kg (154 lbs.)	O
2 doors with 1 window each (350 x 240 mm / 13.78 x 9.45 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)1245 600560
Fax: +44 (0)1245 600030
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.