

VENTICELL®

Forced Air Convection



Laboratory drying ovens

- Due to a patented ventilation system the air within the VENTICELL® chamber is ventilated in a regular spiral way. This leads to a homogenous temperature profile throughout the chamber and short heating times.
- Operating economy is ensured by higher rate and precision of heating in laboratories.
- Especially suitable for very moist goods.

Volume: 22, 55, 111, 222, 404, 707 litres
Working temperature: 10°C above ambient temperature up to 250°C/300°C
Interior: stainless steel, mat. No. 1.4301 (AISI 304)

The Versatile Standard Line with Microprocessor Control Unit

- 3 adjustable programs
- RS 232 – interface for printer or PC-communication
- delayed heating start and stop function
- acoustic and visual alarm in error state
- time range 99 hours 59 minutes
- digital safety thermostat
- manual control of the air exhaust flap programme cycles
- adjustable ventilation rate 50–100%



Options

- door window and interior lighting (excluded volume 22 litres)
- access ports Ø 25, 50, 100 mm (Ø 50, 100 mm is not available for 22 litres volume)
- door lock
- left door versions (excluded volume 22 and 707 litres)
- HEPA-filter for installation in air inlet
- temperature range enlargement up to 300°C
- two-door (pass through) version (possible only by types with volume 55, 222, 404, and 707 l)
- special software WarmComm 4.0
- separate PT 100 sensor
- stainless steel casing of the devices

... standard line

The High-Tech Comfort Line with Multi-Functional Microprocessor Control Unit

- 6 adjustable programs
- chip card system for individual program storage
- RS 232 – interface for printer or PC-communication
- delayed heating start and stop function
- acoustic and visual alarm in error state
- time range 0–40 years with 1 min intervals
- digital safety thermostat
- real time
- selectable rate of temperature increase or decrease – "RAMPS"
- programming of program time segments – "SEGMENTS"
- programme cycles
- adjustable ventilation rate 10 to 100%
- manual control of the air exhaust flap
- keyboard blocking
- door opening control



Options

- door window and interior lighting (excluded volume 22 litres)
- access ports Ø 25, 50, 100 mm (Ø 50, 100 mm is not available for 22 litres volume)
- door lock
- left door versions (excluded volume 22 and 707 litres)
- HEPA-filter for installation in air inlet
- temperature range enlargement up to 300°C
- two-door (pass through) version (possible only by types with volume 222, 404, and 707 l)
- BMS relay alarm contact
- special software WarmComm 4.0
- separate PT 100 sensor
- stainless steel casing of the devices

... comfort line



| Technical data | | | | | | | | | | | |
|---|---------------------------------|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Inter dimensions – chamber, stainless steel DIN No. 1.4301 | volume | l | 22 | 55 | 111 | 222 | 222/2 +) | 404 | 404/2 +) | 707 | 707/2 +) |
| | width | mm | 240 | 400 | 540 | 540 | 540 | 540 | 540 | 940 | 940 |
| | depth | mm | 320 | 390 | 390 | 540 | 540 | 540 | 540 | 540 | 540 |
| | height | mm | 295 | 350 | 530 | 760 | 760 | 1410 | 1410 | 1410 | 1410 |
| External dimensions (including door and handle, feet F or caster C) | width | max. mm | 406 | 620 | 760 | 760 | 760 | 760 | 760 | 1160 | 1160 |
| | depth | max. mm | 580 | 640 | 640 | 790 | 806 | 790 | 806 | 790 | 806 |
| | height | max. mm | 604F | 680F | 860F | 1090F | 1110F | 1910C | 1910C | 1910C | 1910C |
| | Ø of the air branch outer/inner | mm | 52/49 | 52/49 | 52/49 | 52/49 | 52/49 | 52/49 | 52/49 | 52/49 | 52/49 |
| Package – dimensions (three-layers carton) | width | cca mm | 465 | 700 | 830 | 830 | 830 | 830 | 830 | 1230 | 1230 |
| | depth | cca mm | 665 | 730 | 730 | 860 | 860 | 860 | 860 | 860 | 860 |
| | height (incl. palette) | cca mm | 655 | 880 | 1050 | 1280 | 1280 | 2070 | 2070 | 2080 | 2080 |
| Screens/shelves | max. No | psc. | 4 | 4 | 7 | 10 | 10 | 19 | 19 | 19 | 19 |
| | standard equipment | psc. | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | min. distance between screens | mm | 60 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| | storage area | mm | 185 x 265 | 380 x 335 | 520 x 335 | 520 x 485 | 520 x 485 | 520 x 485 | 520 x 485 | 920 x 485 | 920 x 485 |
| Maximal load *) | per 1 screen | kg/screen | 10 | 20 | 20 | 30 | 30 | 30 | 30 | 50 | 50 |
| | for a shelf | kg/shelf | 10 | 20 | 20 | 30 | 30 | 30 | 30 | 20 | 20 |
| | total inside of device | kg/case | 25 | 50 | 50 | 70 | 70 | 100 | 100 | 130 | 130 |
| Number of outer metal doors | | psc. | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 4 |
| Weight | nett | cca kg | 31 | 55 | 75 | 100 | 105 | 150 | 160 | 215 | 230 |
| | brutt (carton) | cca kg | 36 | 66 | 87 | 116 | 121 | 175 | 185 | 240 | 255 |
| Electrical data – mains 50/60 Hz | max. power | kW | 0,96 | 1,3 | 1,9 | 1,9 | 3,7 | 3,7 | 5,5 | 4,9 | 7,3 |
| | power input [stand by] | W | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | current voltage ***) | A | 4,2 | 5,6 | 8,3 | 8,3 | 5,6 | 5,6 | 8,3 | 7,8 | 15,6 |
| | | V | 230 | 230 | 230 | 230 | 400/3NPE | 400/3NPE | 400/3NPE | 400/3NPE | 400/3NPE |
| | current voltage ***) | A | 8,4 | 11,3 | 16,6 | 16,6 | 19 | 19 | 28 | 28 | 42 |
| V | | 115 | 115 | 115 | 115 | 115/3PE | 115/3PE | 115/3PE | 115/3PE | 115/3PE | |
| Protective system | | | IP20 | IP20 | IP20 | IP20 | IP20 | IP20 | IP20 | IP20 | IP20 |
| Temperature data | | | | | | | | | | | |
| Working temperature **) | from 10°C above ambient temp. | to °C | 250/300 | 250/300 | 250/300 | 250/300 | 250/300 | 250/300 | 250/300 | 250/300 | 250/300 |
| The temperature deviations from the working temperature when the ventilation flap and doors are closed (DIN 12 880 section 2) ****) | in space | % temp. | 1,1 | 1 | 1 | 1 | 1,2 | 1,5 | 1,8 | 2,5 | 2,5 |
| | in time | ± °C | 0,3 | 0,3 | 0,4 | 0,4 | 0,4 | 0,4 | 0,4 | 0,4 | 0,74 |
| Temperature rise time 250°C with closed air flap and at the voltage of 230 V | | min | 28 | 49 | 53 | 70 | 33 | 58 | 43 | 64 | 50 |
| Air exchange rate | at 250°C | h ⁻¹ | 45 | 45 | 49 | 24 | 24 | 18 | 18 | 12 | 12 |
| Heat emission | at 250°C | W | 420 | 590 | 760 | 990 | 990 | 1940 | 1940 | 2550 | 2550 |

Note:

All technical data are related to 22°C ambient temperature and ± 10% voltage swing (if not specified). For other parameters see section 5.1 – Electric connections.

*) Approx. 50% of the tray area can be filled in a way a uniform air circulation is enabled inside the chamber.

**) Standard type is up to 250°C, optional type is up to 300°C.

***) Supply voltage is indicated on the type label of the unit.

****) Temperature deviations were measured in accordance with DIN 12 880, section 2

+) Two-door open-through model.

The values may differ depending on specific charge and media parameters.

Changes in the design and make reserved.

