

VACUCELL®

Laboratory Ovens with Vacuum



Drying in vacuum with the possibility of air displacement using inert gas is offered by the VACUCELL® line, usable for temperature-unstable and oxidation-sensitive substances (powders, granulates, ...) as well as for shape-complicated parts with hardly accessible holes and threads. It is ideal for drying of samples so as to reach constant weight. Special application of the device is possible mainly in the field of plastics processing, in pharmaceutical, chemical, electro-technical and other industries.

- » Volume: 22, 55, 111 litres
- » Temperature range VU ECO: from 5°C above the ambient temperature up to 200°
- » Temperature range VU EVO: from 5°C above the ambient temperature up to 250/300°C
- » Door window
- » Integrated duct for sensors etc. (Ø 40 mm)
- » Inert gas connection
- » Needle valve for fine dosing
- » Pressure resistant inner chamber
- » Safety valve-door VENTIFLEX
- » Interior: stainless steel, mat. No. 1.4571 (AISI 316Ti)



ECO line

- » Intuitive control
- » Microprocessor process control Fuzzy logic
- » Multi-lingual communication
- » Acoustic and visual alarm
- » LED indicator of device functionality
- » 3-inch (7.6 cm) LCD display
- » Transflective brilliant FSTN display, uses COG technology (it is backlit and uses the reflection of external light - higher intensity of external light increases the readability of the display)
- » Adjustable display contrast depending on the location of the device
- » Extra wide viewing angle
- » Large, remotely visible characters on the display
- » Current information (e.g. temperature, relative humidity on the CLIMACELL® instrument, pressure on the VACUCCELL® instrument) is increased during the program run for better readability
- » Durable, foil keyboard using a pleasant SoftTouch surface
- » Mechanical button response
- » Backlit symbols integrated directly into the foil keyboard
- » Keypad lock to protect against unauthorized access – by adjustable multi-press
- » Real time programming and cycling (ramps as optional equipment)
- » 9 programs, 2 segments in each program, up to 99 cycles
- » RS232 and USB Device interface
- » Ethernet (RJ 45) and USB Host (optional)



EVO line

- » Intuitive control
- » Microprocessor process control Fuzzy logic
- » Multi-lingual communication
- » Acoustic and visual alarm
- » LED indicator of device functionality
- » 5.7-inch (14.5 cm) LCD colour touch display
- » Graphic representation of a new program
- » Control via coloured icons
- » Touch screen lock to protect against unauthorized access by password
- » Multi-level user management (FDA 21 Part 11 compliant)
- » Data encryption and non-manipulation (according to FDA 21 Part 11)
- » Up to 100 programs and up to 100 segments for each program, a maximum of 500 segments in the device in total
- » Programming of temperature ramps, real time and cycling
- » Annual data recording in graphical and numerical form
- » Export data in online and offline mode
- » Preset service programs for quick fault diagnosis
- » SD memory card, USB Device and RS232 interface
- » USB Host and Ethernet (RJ 45) as a part of the communication module (optional equipment)

Technical data					
Inner space	volume	l	22	55	111
	width	mm	340	400	540
	depth	mm	260	320	410
	height	mm	300	430	480
External dimensions (including door, handle, legs)	width	max. mm	560	620	760
	depth	max. mm	500	560	650
	height	max. mm	780	910	960
Package – basic package	width	approx. mm	720	760	910
	depth	approx. mm	660	730	830
only ECO	height (including palette)	approx. mm	920	1050	1100
Package – case	width	approx. mm	720	760	910
	depth	approx. mm	660	730	830
	height (including palette)	approx. mm	960	1095	1150
Trays	maximal number	pc	5	7	8
	standard equipment	pc	2	2	2
	minimal distance between trays/shelves	mm	36	43	43
	usable area	mm	280x236	340x296	480x386
Maximal allowed loading of trays	per 1 tray	kg	20	25	25
	inside the device – in total	kg	35	45	65
Weight	net	approx. kg	65/68	98/101	130/133
	brut (cartoon)	approx. kg	76/91	111/186	145/218
Electric data – mains 50/60 Hz	max. input	kW	0,8	1,2	1,8
	stand by input	W	5/11	5/11	5/11
	current for voltage 230 V *)	A	3,5	5,2	7,8
	current for voltage 115 V *)	A	7	10,4	15,6
IP Code			IP20	IP20	IP20
Temperature data					
Operation temperature	from 5°C above ambient temperature	to °C	200/250 (300)	200/250 (300)	200/250 (300)
Temp. deviations acc. to DIN 12 880 from working temperature (Al racks, pressure 5-10 mbar **)	in space at 100°C	± °C	2	2	3
	in space at 200°C	± °C	5	6	7
	in time	± °C	0,4	0,4	0,4
Temp. deviations acc. to DIN 12 880 from working temperature (stainless racks, pressure 5-10 mbar **)	in space at 100°C	± °C	10	10	11
	in space at 200°C	± °C	18	23	26
	in time	± °C	0,5	1	1
Time of rise onto 98% voltage 230 V – Al racks, pressure 5-10 mbar	onto temp. 100°C	min	60	65	110
	onto temp. 200°C	min	80	85	130
Time of rise onto 98% voltage 230 V – stainless racks, press 5-10 mbar	onto temp. 100°C	min	130	140	170
	onto temp. 200°C	min	170	180	220
Heat emission	at 100°C	W	150	260	370
	at 200°C	W	300	520	750
Device noise level (without air pump)		dB	0	0	0
Inert gas or air connection	Needle valve ECO	Ø mm	8	8	8
	Programmable filling EVO	Ø mm	8	8	8
Vacuum connection	vacuum connection	DN mm	16	16	16
	measuring feedthrough	DN mm	40	40	40
	max. attainable vacuum	mbar	5.10 ⁻⁴	5.10 ⁻⁴	5.10 ⁻⁴
	chamber untightness	mbar.Ls ⁻¹	<5.10 ⁻³	<5.10 ⁻³	<5.10 ⁻³

Note:

VACUCELL® ECO Line/VACUCELL® EVO Line

All the technical data refer to 22°C ambient temperature and 230 V supply voltage.

The stated deviations of temperature are valid for the device in standard version without options, measured according to DIN 12880 in a steady state with an empty chamber.

The other parameters may also vary depending on the optional options added and the media used. The standard design of ECO Line is up to 200°C and of EVO Line up to 250°C.

*) Mains voltage is specified on type label of the device.

**) Transport of heat to materials on the shelves is – in vacuum – performed by leads in the shelves and that is why the specified temperature variations apply to temperatures on shelves surface. The measuring temperature sensors must have perfect conductive contact with the shelf surface. Objects placed on shelves must also be in perfect contact with shelves, the temperature of objects depends mainly on their physical characteristics and on contact with the shelf. Changes in the design and make reserved.