

CLIMACELL®

Laboratory Incubators with Circulation by Cooling and with Controlled Humidity



MMM Group

NEW



Conditioned chambers of the CLIMACELL® line provide complex conditions for precise and reproducible simulation of various climatic conditions. E.g. for tests of stability of parts, food products or chemical packages. Research of germs, plant or tissue cultures and insects. The devices offer an interesting alternative to expensive testing chambers and testing rooms. Microprocessor-controlled system of moisturizing and de-moisturizing together with high-performance lighting system allows excellent homogenous parameters for tests and growth conditions.

Internal volume: 111, 222, 404, 707, 1 212 litres
Temperature range: no humidity: from 0,0°C to 99,9°C, with humidity: from 10°C to 95°C
Range up to 70°C for the volume of 1 212 litres
CLC EVO as optional equipment up to -20°C
CLC EVO as optional equipment of chamber decontamination up to 160°C (except for the volume of 1 212 litres)
Cooling medium: R 134a (R449a)
Input medium for humidity development: demi water
Range of humidity: 10% – 98% RH
Microprocessor-controlled humidity
CO₂ concentration: 0,2% up to 20%
Internal glass door
Internal chamber: stainless steel DIN 1.4301 (AISI 304)

Eco line



- Intuitive control
- Microprocessor process control Fuzzy logic
- Multi-lingual communication
- Acoustic and visual alarm
- LED indicator of device functionality
- LCD display – 3 inches (7,6 cm)
- Transflective brilliant FSTN display, using COG technology (it is backlit and it uses external lighting reflection – higher intensity of external light increases the display readability)
- Adjustable display contrast depending on device placement
- Exceptionally wide vision angle
- Large signs on the display visible from afar
- Current values (e.g. temperature, humidity) during the device operation are enlarged for easy legibility
- Resistant foil keyboard with SoftTouch surface (pleasant to touch)
- Mechanic response of keys
- Lit symbols integrated directly in the foil keyboard
- Keyboard lock to block unauthorised access – adjustable by multiple pressing
- Real time programming and cycling (ramps as optional equipment)
- Integrated datalogger for temperature and relative humidity measuring and recording, with LCD display (optional equipment)

Evo line



- Intuitive control
- Microprocessor process control Fuzzy logic
- Multi-lingual communication
- Acoustic and visual alarm
- LED indicator of device functionality
- LCD display – 5,7 inches (14,5 cm)
- Graphic displaying of a new program
- Control through colour icons
- Touch display lock – protection from unauthorised access by a password
- Multi-level administration of users (corresponding to FDA 21 Part 11)
- Data coding and no-manipulability (according to FDA 21 Part 11)
- Up to 100 programs and up to 100 segments for each program
- Programming of temperature ramps, real time and cycling
- Annual data recording in graphic and numeric form
- Data export in online and offline mode
- Pre-set service programs for prompt diagnostics of failures
- Easy service diagnostics including remote access
- SD memory card, USB Host and interface RS 232 – included as a standard
- Connection: WiFi, USB Device or Ethernet interface with proper IP address for remote data transfer, control and diagnostics (optional equipment)

Technical data							
Inner space	volume	l	111	222	404	707	1212
	width	mm	540	540	540	940	3x540 (1905)
	depth	mm	370/380	520/530	520/530	520/530	520/530
	height	mm	530/535	760/765	1415	1415	1415
External dimensions (including door, handle, legs N or casters K)	width	max. mm	760/780	760/780	1060/1100	1460/1500	2435/2530
	depth	max. mm	750/755	900/885	860/885	860/885	870/898
	height	max. mm	1140K/1215K	1370K/1450K	1905K/1890K	1905K/1890K	1905/1921K
Package – basic package – case ECO (mimo 1212) – wooden crate EVO + ECO 1212	width	approx mm	830/992	830/1120	1130/1332	1530/1682	2742
	depth	approx mm	830/954	970/952	900/1062	900/1064	1137
	height (including palette)	approx mm	1320/1650	1550/1746	2090/2200	209/2190	2240
Volume of the steam space		cca l	163/167	299/305	524/530	876/878	1753
Trays / shelves	maximal number	pc	7	10	19	19	3x19
	standard equipment	pc	2	2	2	2	6
	minimal distance between trays/shelves	mm	70	70	70	70	70
	usable area	mm	520x335	520x485	520x485	920x485	520x485
Maximal allowed loading of trays *)	per 1 tray	kg	20	30	30	50	30
	per 1 shelf	kg	20	30	30	20	30
	inside the device - in total	kg	50	70	100	130	300
Number of external metal door		pc	1	1	1	2	3
Number of inner glass doors		ks	1	1	1	2	3
Weight	net	approx kg	104/110	135/147	236/240	272/280	541/567
	gross (cartoon)	approx kg	146/220	184/263	285/390	331/500	861/887
Electric data – mains 50/60 Hz	max. input **)	kW	1,7/2	1,85/2,2	2,7	3	3,5
	stand by input	W	5/11	5/11	5/11	5/11	5/11
	current for voltage ***)	A	7,4/8,7	8,1/9,5	12	13,8	15,7
	current for voltage ***)	A	15,8/18,4	16,8/19,6	23,9	25,9	31,2
Degree of coverage			IP20	IP20	IP20	IP20	IP20
Temperature data							
Operation temperature	from 0°C (-10°C) / 0°C(-20°C)	to°C	100	100	100	100	70
Temperature accuracy	in space at 10°C	±°C	<0,5	<0,5	<1	<1	<0,9
	in space at 37°C	±°C	<0,5	<0,5	<1	<1	<0,5
	in time	±°C	<0,2	<0,2	<0,3	<0,4	<0,2
Heating up time to 37°C from the ambient temperature		min	<11	<11	<22	<13	<30
Cooling down time from 22°C to 10°C		min	<21	<17	<19	<21	<21
Recovery time after door opened for 30 s according to DIN 12880	at 37°C	min	<4	<3	<3	<6	<10
	at 50°C	min	<5	<6	<7	<6	<10
Relative humidity	range	%	10–98	10–98	10–98	10–98	10–98
Accuracy RH (T _{CHAMBER} ≥ 21°C)	in time	%	< 2	< 2	< 2	< 2	<2
Heat emission	at 37°C	W	70	63	123	148	200
Noise level of complete device		db	46	50	56	58	60

Note:

CLIMACELL® ECO Line/CLIMACELL® EVO Line

All the technical data apply to 22°C of ambient temperature and ± 10% voltage oscillation (unless stated otherwise).

*) The trays may be covered to approximately 50% of their surface and if possibly in such a way so as the air may evenly flow inside the chamber space.

**) Automatics + compressor + condenser + electromagnetic valves + ventilator (s) + 1/2 heating of the chamber + steam generator heating.

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

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

Changes in the design and make reserved.



MMM Medcenter Einrichtungen GmbH,
Sammelweisstrasse 6, D-82152 Planegg / München
Tel.: +49 89 8992 2620, Fax.: +49 89 8992 2630,
E-mail: medcenter@mmm-medcenter.de,
www.mmm-medcenter.de