

CLIMACELL

with forced air convection, cooling
and controlled humidity 99,9 °C



Laboratory incubators



MMM-Group

The CLIMACELL series was specially developed for applications, in which as far as possible exact and reproducible simulation of various environmental conditions is important, e.g. stability testing of components, packaging materials, food or chemicals, germination studies, plant cell or tissue cultures, insect cultures.

Volume:

111, 222, 404, 707 litres

Working temperature:

without humidity 0.0 °C up to 99.9 °C,

with humidity: 10 °C up to 90.0 °C

Refrigerant: R 134a

Cooling medium for generating the humidity:

distilled water, drinking water (max. 50 mg Ca/l)

Controlled humidity: 10 %-90 % RH

Microprocessor controlled humidifying and dehumidifying system

Inner glass door

Interior:

stainless steel, mat. No. 1.4301 (AISI 304)

The high-tech comfort line with multi-functional microprocessor control unit

- 6 programs
- chip card system for individual program storage
- RS 232- interface for printer or PC-communication
- delayed heating start and stop function
- acoustic alarm
- time range 0-16 years with 1 min-intervals
- digital safety thermostat class 3
- real time
- programming temperature ramps
- heating sequences
- programme cycles
- adjustable ventilation rate 10 to 100 %



Options

- interior lighting
- access ports Ø 25, 50, 100 mm
- door lock
- left door versions (excluded volume 404 and 707 liters)
- timer programmable water protected inner socket
- exposure/stimulating lighting (white/day light) 6 000-13 000 Lx (according to volume) with digitally adjustable light 10-100 %
- potential-free alarm contact
- independent temperature measuring through PT 100 sensor (with indication on LCD display or PC)
- communication software for PC (Windows)
- HEPA-filter

...comfort line

Technical data		Model	111	222	404	707
Inter dimensions Chamber, stainless steel	volume	l	111	222	404	707
	width	mm	540	540	540	940
	depth	mm	370	520	520	520
	height	mm	530	760	1410	1410
Volume of the steam space		cca l	163	299	524	876
Trays, stainless steel *)	number	max./usual	7/2	10/2	19/2	19/2
Min. distance between trays		cm	7	7	7	7
Number of outer metal doors		No.	1	1	1	2
Number of inner glass doors		No.	1	1	1	2
Admissible weight of trays	together inside the oven per 1 tray	kg	50	70	100	130
		kg	20	30	30	50
Electricity data	max. power consumption	W	2740	2740	3340	3440
Protective system	mains 50/60 Hz	V	230	230	230	230
			IP 20	IP 20	IP 20	IP 20
Temperature data						
Working temperature	from 0.0 °C	to °C	99,9	99,9	99,9	99,9
Temperature accuracy space deviation	at 10 °C at 37 °C	± °C	< 0,5	< 0,5	< 1	< 1
		± °C	< 0,5	< 0,5	< 1	< 1
		± °C	< 0,2	< 0,3	< 0,3	< 0,4
space variation		± °C	< 0,2	< 0,3	< 0,3	< 0,4
Heating/up time to 37 °C from the ambient temperature		min	24	25	26	27
Cooling/down time from 22 °C to 10 °C		min	< 21	< 21	< 21	< 21
Recovery time after 1 min. door open	at 37 °C	min	4	4	4	4
	at 50 °C	min	4	4	4	4
Relative humidity	range	%	10-90	10-90	10-90	10-90
Heat emission	at 37 °C	W	70	97	123	148
Outer dimensions (incl. door and handle, and Rollers)	width	max. mm	760	760	1010	1460
	depth	max. mm	640	790	790	790
	height	max. mm	1100R	1330R	1910R	1910R
Weight	net	cca kg	101	132	230	270
	gross	cca kg	131	169	270	316

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

Note: All technical data are related to 22 °C of ambient temperature and ±10 % voltage swing

Changes in the design and make reserved.



MMM
Medcenter
Einrichtungen GmbH

MMM-Group

MMM Medcenter
Einrichtungen GmbH
Schulstrasse 29
D-82166 Gräfelfing / München

tel.: +49 89 89 92 26 20
fax: +49 89 89 92 26 30
e-mail: medcenter@mmmgroup.com
<http://www.mmm-medcenter.com>