

# Incucell • Incucell V

## Microbiological Incubators

Natural Gravity Convection • Patented Forced Air Convection



### Temperature:

Incucell: ambient + 5°C up to 100°C

Incucell V: ambient + 10°C up to 100°C

### Chamber:

- AISI 304 stainless steel (AISI 316 SS option available).
- Double wall, seamless main chamber with removable inner chamber for easier cleaning and sterilization.
- Patented 4-point door locking system securely seals the door to the chamber.

### Electrical:

115V 50/60Hz: 22, 55, 111, 222, 404, 707

230V 50/60Hz: 1212

### Optional Equipment:

- Stainless steel exterior: AISI 304 or 316.
- ECO plus: add 6 program segments for a total of 8 segments and 9 programs.
- 1" (25mm) / 2" (50mm) / 4" (100mm) access port.
- Flexible PT 100 temperature sensor.
- Heavy load chamber.
- Ethernet communication port
- Automatic key and door lock.
- Door sensor and alarm.
- Interior electrical socket: 115V.
- Rolling cart for 22, 55, 111, 222.
- BMS contacts (24V, 1A)
- 4-20mA contacts.
- IQ/OQ protocols with 9pt. or 27pt. temperature mapping.
- USB drive, 30-day data logging: 22, 55, 111.
- Warmcomm software:
  - 4.0B - data monitoring.
  - 4.0P - data monitoring and control.
  - 4.0F - FDA 21 CFR part 11 compliance.

Incucell microbiological incubators utilize a natural gravity convection system that provides noiseless operation and gentle airflow with exceptional temperature uniformity. The lack of a fan greatly reduces particle movement, making the Incucell an ideal solution for cell culturing applications, BOD testing, and QA/QC of food and beverage products.

Incucell V incubators utilize the BMT patented forced air convection system with simultaneous vertical and horizontal airflow for precise temperature uniformity and rapid heating and cooling times.

### Key Benefits:

- Pharmaceutical-grade stainless steel chamber for easier cleaning and sterilization. (5) layers of insulation efficiently maintains set parameters.
- Natural gravity convection system (Incucell) provides gentle airflow with precise temperature uniformity.
- Patented forced air convection system (Incucell V) with simultaneous vertical and horizontal airflow for precise temperature uniformity and rapid heating and cooling times.



### ECO Controller:

- 3" LCD display.
- Fuzzy Logic algorithm constantly monitors chamber conditions and continuously optimizes parameters.
- (9) programs with (2) segments each for varying loads and parameters.
- Real-time programming and cycling.
- Programmable audible & visual alarms - temperature, time & humidity.
- USB device, RS232 & optional Ethernet port.
- Integrated USB 30-day data logger for temperature measurement & recording.
- Keypad lock against unauthorized access.
- Optional FDA CFR 21 part 11 compliance.



### EVO Controller:

- 5.7" LCD touch display.
- Fuzzy Logic algorithm constantly monitors chamber conditions and continuously optimizes parameters.
- (100) programs with (100) segments each for varying loads and parameters.
- Real-time programming and cycling with settings for temperature ramping.
- Fan adjustments in 1% increments.
- Programmable audible & visual alarms - temperature, time & humidity.
- Service programs for quick error diagnostics.
- USB device, RS232 & optional Ethernet port.
- Integrated SD card 30-day data logger & multi-level secure user authentication.
- Optional FDA CFR 21 part 11 compliance.

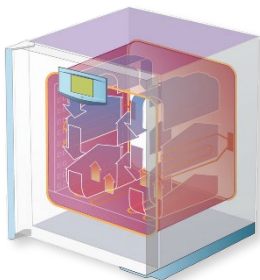
Incucell/Incucell V Technical Data		Model	22	55	111	222	404	707	1212
Interior Dimensions	Volume	ft <sup>3</sup>	0.8	2	4	8	14.3	25	43
		liters	22	55	111	222	404	707	1212
	Width	inches	9.4	15.7	21.3	21.3	21.3	37	3x21.3
		mm	240	400	540	540	540	940	3x540
	Depth	inches	13.8/12.6	14.6	14.6	20.5	20.5	20.5	20.5
		mm	350/320	370	370	520	520	520	520
Height	inches	11.8	13.8	20.9	29.9	55.5	55.5	55.5	
	mm	300	350	530	760	1410	1410	1410	
Exterior Dimensions (Including Door, Handle, Leg L, or Caster C)	Width	inches	16	24.4	29.9	29.9	29.9	45.7	85.6
		mm	406	620	760	760	760	1160	2175
	Depth	inches	22	26.8	26.8	32.7	31.1	31.1	33.3
		mm	560	680	680	830	790	790	845
	Height	inches	24L	26.8L	33.9L	42.9C	75.2C	75.2C	75.2
		mm	610L	680L	860L	1090C	1910C	1910C	1910
Shelves (Stainless steel)	Number of shelf positions		4	4	7	10	19	19	3x19
	Number of included shelves		2	2	2	2	2	2	6
Shelf Distance	Minimum shelf spacing	inches	2.4	2.8	2.8	2.8	2.8	2.8	2.8
		mm	60	70	70	70	70	70	70
Useable Shelf Area	Width x Depth	inches	7.3x10.4	15x13.2	20.5x13.2	20.5x19.1	20.5x19.1	36.2x19.1	20.5x19.1
		mm	185x265	380x335	520x335	520x485	520x485	920x485	520x485
Maximum Shelf Load	One Shelf	lbs	22	44.1	44.1	66.1	66.1	110.2	66.1
		kg	10	20	20	30	30	50	30
	Total Per Unit	lbs	55.1	110.2	110.2	154.3	220.5	286.6	661.4
		kg	25	50	50	70	100	130	300
Number of Outer Metal Doors			1	1	1	1	1	2	3
Operation Temperature	From 5°C/10°C***) above ambient Temperature	up to °C	100	100	100	100	100	100	100
Variations From Operation Temperature with Flap Closed and Door (DIN 12880 part 2)	Space	± % temperature	1.1/0.4	0.5/0.3	0.5/0.3	1/0.3	1/0.8	1.5/1.5	3.4/2.3
		± @ 37°C	0.4/0.2	0.3/0.2	0.3/0.2	0.3/0.3	0.4/0.3	0.6/0.3	1.3/0.8
	Time	± °C	0.4/0.1	0.2	0.2	0.2	0.2	0.2	0.4/0.3
Heating Time to 37°C with Closed Flap & 230V		minutes	70/80	49/41	57/51	79/66	41/38	59/51	68/54
Heat Emission	@ 37°C	W	20/70	30/80	45/95	45/95	65/115	85/135	180/310
Number of Air Exchanges @ 37°C		per hour	4/45	5/45	5/49	5/24	5/18	5/12	5/16
Noise Level of Complete Device		dB	0/55	0/55	0/55	0/55	0/55	0/55	0/60
Electrical Data – Mains 50/60 Hz	Max. Input	kW	0.24/0.96	0.3/0.7	0.3/0.7	0.5/0.7	0.9/1.3	0.9/1.3	2.4/3.6
	Standby Mode	W	5	5	5	5	5	5	5
	Current **)	A	2.2/8.4	2.6/6	2.6/6	4/6	7.8/11.3	7.8/11.3	-
	Nominal Voltage	V	115	115	115	115	115	115	230
IP Code			IP20	IP20	IP20	IP20	IP20	IP20	IP20
Weight	Net	lbs	68.3	121.3	165.3	220.5	330.7	474	1047.2
		kg	31	55	75	100	150	215	475
	Gross	lbs	79.4	145.5	191.8	255.7	385.8	529.1	1157.4
		kg	36	66	87	116	175	240	525

All technical data refers to a 22 °C ambient temperature and 230 V supply voltage.

\*) The trays may be covered to approximately 50% of their surface to ensure uniform airflow inside the chamber

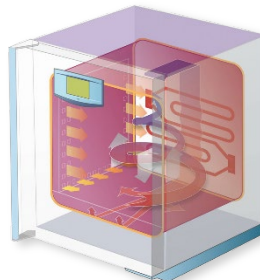
\*\*) Mains voltage is specified on type label of the device.

\*\*\*) Without fan/with fan



#### Natural Gravity Convection System

With nearly undetectable noise and vibration, the natural gravity convection system produces gentle airflow with even temperature uniformity throughout the chamber. Fanless operation reduces particle movement, preventing sample contamination, and significantly reduces power consumption.



#### Patented Forced Air Convection

Our patented force air convection system produces simultaneous vertical and horizontal airflow for precise temperature uniformity and rapid heating and cooling times. The process of heating from the bottom of the chamber to the top simulates natural airflow, allowing for a more accurate replication of climate conditions.