



Friocell EVO

Cooled Incubators



Temperature range:	0°C – 100°C (<i>-20°C min. temp. option available</i>)
Chamber volume:	2 cu.ft. (55 L) – 43 cu.ft. (1212 L)
Controller:	EVO advanced microprocessor
Housing material:	Galvanized mild steel, painted
Chamber material:	AISI 304 stainless steel
Regulatory labels:	CE, UL, and CSA listed



EVO Controller:

- 5.7" touch display, color, glove-friendly operation
- 100 programs, 100 segments each, unlimited cycles
- Real-time programming with temperature ramp settings
- Fan adjustments in 1% increments
- Graphic cycle display
- Acoustic and visual alarms: temperature and time
- Integrated SD card 30-day data logger with Excel-formatted export
- USB, SD card, RS-232, optional Ethernet connectivity
- Multi-level secure user authentication
- Optional support for FDA 21 CFR Part 11 compliance

Standard Equipment:

- Patented forced air convection system with simultaneous vertical and horizontal airflow for precise temperature uniformity
- EVO advanced microprocessor with Fuzzy Logic for real-time adaptive control
- AISI 304 stainless steel chamber, double-walled: Seamless main chamber with rounded corners and fully removable inner chamber for ease of cleaning
- Five layers of insulation to minimize heat loss and efficiently maintain chamber conditions
- Shelving brackets molded into inner chamber walls
- Patented 4-point door locking system securely seals the door to the chamber
- Inner glass door for viewing samples with minimal disruption to chamber conditions
- 2" (50 mm) stainless steel access port for routing sensors, probes, or external connections

Optional Equipment:

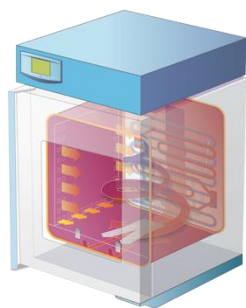
- Stainless steel exterior, AISI 304 or 316
- AISI 316 stainless steel chamber
- -20°C minimum temperature
- 160°C sterilization cycle (except 1212)
- UV / Vis combination shelf lighting
- Single wavelength UV / Vis light shelves
- Fluorescent tube UV shelf lighting
- LED Vis shelf lighting
- Additional 1" (25 mm), 2" (50 mm), 4" (100 mm) stainless steel access port
- Flexible PT100 temperature sensor
- Ethernet communication port
- Automatic key and door lock
- Door sensor and alarm
- Interior electrical socket, 230 V
- Interior light
- Stacking frame: 111 only
- Rolling cart: 111, 222
- BMS contacts (24 V, 1 A)
- IQ/OQ protocols with 9-pt. or 27-pt. temperature mapping
- WarmComm software:
 - 4.0B, data monitoring
 - 4.0P, data monitoring and control
 - 4.0F, supports FDA 21 CFR Part 11 compliance

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	Unit	55	111	222	404	707	1212
Temperature							
Working temperature	°C	0 – 100	0 – 100	0 – 100	0 – 100	0 – 100	0 – 70
Temperature uniformity @ 10°C	±°C	<0.5	<0.5	<0.5	<1	<1	<0.6
Temperature uniformity @ 37°C	±°C	<0.5	<0.5	<0.5	<1	<1	<0.5
Temperature stability	±°C	<0.2	<0.2	<0.2	<0.3	<0.4	<0.2
Time to reach 37°C from ambient	minutes	<11	<11	<11	<13	<13	<30
Cool-down time from 22°C to 10°C	minutes	<21	<21	<17	<19	<21	<21
Recovery from door open 30 sec. (37 / 50°C)	minutes	<5 / <6	<5 / <6	<2 / <3	<2 / <4	<6 / <6	<10 / <10
Heat emission @ 37°C	watts	55	70	63	123	148	200
Chamber							
Capacity	cu.ft. / liters	2 / 55	4 / 111	8 / 222	14.3 / 404	25 / 707	43 / 1212
Doors	#	1	1	1	1	2	3
Shelves (standard / max)	#	2 / 4	2 / 7	2 / 10	2 / 19	2 / 19	6 / 3x19
Shelf distance	in / mm	2.8 / 70	2.8 / 70	2.8 / 70	2.8 / 70	2.8 / 70	2.8 / 70
Usable shelf area (w x d)	in	15 x 13.2	20.5 x 13.2	20.5 x 19.1	20.5 x 19.1	36.2 x 19.1	20.5 x 19.1
Maximum shelf load	lb / kg	44 / 20	44 / 20	66 / 30	66 / 30	44 / 20	66 / 30
Maximum unit load	lb / kg	110 / 50	110 / 50	154 / 70	220 / 100	287 / 130	661 / 300
Overall Dimensions							
Width	in / mm	25.2 / 640	30.7 / 780	30.7 / 780	43.3 / 1100	59.1 / 1500	99.6 / 2530
Depth	in / mm	29.7 / 755	29.7 / 755	34.8 / 885	34.8 / 885	34.8 / 885	35.4 / 898
Height ^[1]	in / mm	37.2 / 945	45.3 / 1150	55.7 / 1415	74.4 / 1890	74.4 / 1890	75.6 / 1921
Weight	lb / kg	209 / 95	243 / 110	315 / 143	507 / 230	595 / 270	1202 / 545
Internal Dimensions							
Width	in / mm	15.7 / 400	21.3 / 540	21.3 / 540	21.3 / 540	37 / 940	3x21.3 / 3x540
Depth	in / mm	15 / 380	15 / 380	20.9 / 530	20.9 / 530	20.9 / 530	20.9 / 530
Height	in / mm	14 / 355	21.1 / 535	30.1 / 765	55.7 / 1415	55.7 / 1415	55.7 / 1415
Electrical							
Voltage	V, Hz	115, 50/60	115, 50/60	115, 50/60	115, 50/60	115, 50/60	230, 50/60
Wattage	watts	700	1000	1150	1700	2000	2500
Amperage	amps	8	10	11	16	18	12
IP code		IP20	IP20	IP20	IP20	IP20	IP20

[1] 55, 111, 222 models' height dimensions measured with adjustable feet. 404, 707, 1212 models' height measured with rolling casters.



Patented Forced Air Convection

Simultaneous vertical and horizontal airflow delivers precise temperature uniformity, while bottom-to-top circulation simulates natural convection, improving temperature