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# CLIMACELL ECO - Pharma



## ICH Stability Q1A & FDA CFR 21 part 11 Secure Data Storage



**Pharmaceutical & Bio Tech**  
ICH Stability & Photostability



**Cosmetics**  
ICH Stability, Photostability & durability testing

Pharmaceutical grade U.S. & European components



222 (8 ft3) on optional rolling cart

The **CLIMACELL** was developed to create exact reproducible simulation of a wide range of environmental conditions for the testing of pharmaceutical products, plant growth, insect rearing, shelf life testing of food, materials & components. This includes ICH Q1A stability & secure data storage Warmcomm Software conforming to **FDA 21 CFR part 11**.

The Climacells' stainless steel pharmaceutical graded (AISI 304) double-wall chamber design (main & inner chamber) allows for long life expectancy and facilitates the easy cleaning & sterilization of the chamber.

Combine these features with BMT's patented air-flow system, humidification and dehumidification, the Climacell will create precise controllable chamber conditions.



Back (L to R): Climacell ECO 404, 707, 1212  
Front (L to R) 111, 222

**Forced Air Convection:** Patented Air flow system: vertical & horizontal

**Chamber Sizes:** 111 (4), 222 (8), 404 (14.3), 707 (25), 1212 (43) ft3 / liters

**Working Temperature Range:** 0°C up to 100°C with humidity 10 °C up to 95°C

**Programmable Temperature Control** in 0.1°C increments

**Humidity Range:** 10 to 95%, controlled in 1% increments. RH uniformity up to 2.5%

**Power:** 230V 50 / 60Hz

### ECO LCD Control Panel



- 3" LCD COG display
- 9 programs with 8 segments, for varying loads and parameters
- constant monitoring of chamber conditions
- fuzzy logic enabled microprocessor
- USB Flash port for 30-day data logging
- USB & RS232 device ports
- delayed heating start & stop function
- digital safety thermostat
- acoustic and visual alarms
- keyboard security against unauthorized use
- inner glass door to view into chamber
- 50mm (2") port



707 (25 ft3)

### Options

- temperature down to - 10°C
- access ports 25 (1"), 50 (2"), 100 (4") mm
- Ethernet communication port
- rolling carts for 111 & 222 models
- Door sensor and alarm
- automatic and key door lock
- WarmComm data acquisition Software...
- ✓ 4.OB – Receive data
- ✓ 4.OP – Receive data and control the device
- ✓ 4.OF – FDA 21 CFR part 111 compliant
- BMS – Building monitoring alarm contact
- Flexible PT 100 sensor
- stainless steel exterior
- interior light
- water-proof socket 230V
- IQ / OQ protocols with 9pt temperature mapping

Climacell ECO Technical Data		Model	111	222	404	707	1212	
Interior dimensions  Chamber: stainless steel	volume	ft3	3.9	7.8	14.3	25	43	
		liters	111	222	404	707	1212	
	width	inches	21.2	21.2	21.2	37	3 x 21.25	
		mm	540	540	540	940	3 x 540	
	depth	inches	14.6	20.5	20.5	20.5	20.5	
		mm	370	520	520	520	520	
	height	inches	20.9	29.9	55.7	55.7	55.6	
	mm	530	760	1415	1415	1410		
Volume of the steam space		ft3	5.8	10.6	18.5	31	62.9	
		liters	163	299	524	876	1781	
Shelves: stainless steel	# of shelf guides in chamber side walls	max. number	7	10	19	19	3 x 19	
		standard #	2	2	2	2	6	
Shelf distance	min. distance	inches	2.8	2.8	2.8	2.8	2.8	
	between trays	mm	70	70	70	70	70	
Useable shelf area	width x depth	inches	20.5x13.3	20.5x19.1	20.5x19.1	36.3x19.1	20.5x19.1x3	
		mm	520x338	520x485	520x485	920x485	520x485x3	
Outer metal doors		No.	1	1	1	2	3	
Inner glass doors		No.	1	1	1	2	3	
Maximum shelf load	one shelf	lbs	44	66.1	66.1	110.2	66.1	
		kg	20	30	30	50	30	
	total per unit	lbs	110.2	154.3	220.5	286.6	661	
		kg	50	70	100	130	300	
Electric parameters	max consumption	W	50	70	100	130	3,500	
	Protective system	50/60 Hz	V	230	230	230	230	230
				IP 20	IP 20	IP 20	IP 20	15.2
Working temperature	range °C		0 -- 99.9	0 -- 99.9	0 -- 99.9	0 -- 99.9	0 -- 100	
	Temperature accuracy in the chamber Distribution	at 10°C	± °C	<0.5	<0.5	<1	<1	<1.5
		at 37°C	± °C	<0.5	<0.5	<1	<1	<1.5
	Uniformity		± °C	<0.2	<0.2	<0.3	<0.4	<0.8
		Heating up time from ambient temp., Cooling down time	to 37°C	min.	24	25	26	27
		from 22°C - 10°C	min.	<21	<21	<21	<21	<21
	Recovery time after 1 min. door open	at 37°C	min.	4	4	4	4	4
	at 50°C	min	4	4	4	4	4	
Relative Humidity	range	%	10%-95%	10%-95%	10%-95%	10%-95%	10%-95%	
Heat Emission	at 37°C	W	70	97	123	148	200	
External dimensions  (including door/Handle, feet / casters)	width	inches	29.9	30	41.7	57.5	103.5	
		mm	760	760	1060	1460	2360	
	depth	inches	29.5	35.4	33.9	33.9	34.8	
		mm	750	900	860	860	885	
	height	inches	44.9	54.2	75	75	75.2	
		mm	1140	1370	1905	1905	1910	
Weight	net	lbs	222.7	291	507	595.2	1,193	
		kg	101	132	230	270	541	
	gross	lbs	288.8	372.6	696.2	696.7	1,898	
		kg	131	169	270	316	861	