CONVIRON®

PLANT GROWTH CHAMBER

SPECIFICATIONS
& OPTIONS

KEY PRODUCT SPECIFICATIONS

Additional specifications available, contact Conviron

	model	application	Exterior Dimensions W x D x H			volume	growth area	growth height	no. of tiers	temp (°C) lights ON / OFF	light intensity at 25°C (µ)	refrigeration	airflow
REACH-IN CHAMBERS	GEN1000 TA	Plant Growth	41″ 1040 mm	32.5″ 825 mm	77″ 1955 mm	27.6 ft³ 781 L	6.3 ft² 0.6 m²	43.5″ 1105 mm	1	10 - 45 4 - 40	1000	Air Cooled	↑
	GEN1000 SH	Plant Growth/ Short Plant	41″ 1040 mm	32.5″ 825 mm	77″ 1955 mm	27.6 ft³ 781 L	11.3 ft² 1.1 m²	20″ 510 mm	2 - 3	10 - 45 4 - 40	450	Air Cooled	→
	GEN1000 TC	Tissue Culture	41″ 1040 mm	32.5″ 825 mm	77″ 1955 mm	27.6 ft³ 781 L	22.6 ft² 2.1 m²	6.5″ 165 mm	4	10 - 45 4 - 40	300	Air Cooled	↑
	GEN1000 IN	Incubation	41″ 1040 mm	32.5″ 825 mm	77″ 1955 mm	27.6 ft³ 781 L	22.6 ft² 2.1 m²	8.5″ 216 mm	4	10 - 45 4 - 40	300	Air Cooled	→
	GEN1000 GE	Germination/ Incubation	41″ 2540 mm	32.5″ 750 mm	77″ 1955 mm	27.6 ft³ 781 L	4.98 ft² 0.5 m²	2.5″ 64 mm	up to 15	10 - 40 4 - 40	11-22	Air Cooled	→
	E7/2	Plant Growth / Short Plant	72″ 1830 mm	29.5″ 750 mm	78.5″ 2000 mm	17 ft³ 480 L	8.2 ft² 0.76 m²	23.5″ 605 mm	2	10 - 45 4 - 45	400	Air Cooled	↑
	E8	Plant Growth	71.24″ 1810 mm	29.5″ 750 mm	76.25″ 1935 mm	32 ft³ 900 L	8 ft² 0.7 m²	46″ 1180 mm	1	10 - 45 4 - 45	575	Air Cooled	↑
	PGR15	Plant Growth	104″ 2640 mm	35″ 890 mm	78″ 1980 mm	78 ft³ 2220 L	16.1 ft² 1.5 m²	57″ 1450	1	10 - 45 4 - 45	875	Water Cooled	↑
	PGC Flex 1 tier	Plant Growth	100″ 2540 mm	35.5″ 900 mm	101″ 2565 mm	111 ft³ 3145 L	19 ft² 1.8 m²	59.75″ 1520 mm	1	10 - 40 4 - 40	1125	Water Cooled	↑
	PGC Flex 2 tier	Plant Growth	100″ 2540 mm	35.5″ 900 mm	101″ 2565 mm	111 ft³ 3145 L	38 ft² 3.6 m²	25″ 635 mm	2	10 - 40 4 - 40	500	Water Cooled	→
	PGC Flex 3 tier	Plant Growth	100″ 2540 mm	35.5″ 900 mm	101″ 2565 mm	111 ft³ 3145 L	57 ft² 5.2 m²	14″ 355 mm	3	10 - 40 4 - 40	500	Water Cooled	→
	BDR16	Plant Growth	105″ 2675 mm	36″ 915 mm	89″ 2260 mm	88.5 ft³ 2500 L	16.2 ft² 1.5 m²	65″ 1650 mm	1	10 - 40 4 - 40	800	Water Cooled	↓
	MTR30	Plant Growth / Short Plant	104″ 2640 mm	35″ 890 mm	78″ 1980 mm	31 ft³ 940 L	30 ft² 2.8 m²	25″ 635 mm	2	10 - 45 4 - 45	550	Water Cooled	↑←
WALK-IN CHAMBERS	PGW40	Plant Growth	140″ 3556 mm	70″ 1780 mm	102″ 2600 mm	263 ft³ 744 L	41.5 ft² 3.86 m²	76″ 1930 mm	1	10 - 45 4 - 40	1400	Water Cooled	↑
	BDW40	Plant Growth	120″ 3050 mm	70″ 1780 mm	114.25″ 2900 mm	316 ft³ 8920 L	40 ft 3.7 m²	95″ 2415 mm	1	10 - 40 4 - 40	1100	Water Cooled	↓
	BDW80	Plant Growth	120″ 3050 mm	133.25″ 3385 mm	114.25″ 2900 mm	640 ft³ 18120 L	80.9 ft² 7.5 m²	95″ 2415 mm	1	10 - 40 4 - 40	1100	Water Cooled	↓
	BDW120	Plant Growth	120″ 3050 mm	196.25″ 4991 mm	114.25″ 2900 mm	964 f³ 27130 L	121.7 ft² 11.3 m²	95″ 2415 mm	1	10 - 40 4 - 40	1100	Water Cooled	↓
	BDW160	Plant Growth	120″ 3050 mm	259.75″ 6595 mm	114.25″ 2900 mm	1285 ft³ 36385 L	162.2 ft² 15.1 m²	95″ 2415 mm	1	10 - 40 4 - 40	1100	Water Cooled	↓
	GR48	Plant Growth	116″ 2950 mm	116″ 2950 mm	102″ 2600 mm	320 ft³ 9130 L	48 ft² 4.5 m²	80″ 2030 mm	1	15 - 35 5 - 25	600	Water Cooled	↙↘
	GR64	Plant Growth	139″ 3530 mm	116″ 2950 mm	102″ 2600 mm	420 ft³ 11980 L	64 ft² 5.9 m²	80″ 2030 mm	1	15 - 35 5 - 25	600	Water Cooled	↙↘
	GR96	Plant Growth	116″ 2950 mm	208″ 5285 mm	102″ 2600 mm	640 ft³ 18120 L	96 ft² 8.9 m²	80″ 2030 mm	1	15 - 35 5 - 25	600	Water Cooled	↙↘
	GR128	Plant Growth	139″ 3530 mm	208″ 5285 mm	102″ 2600 mm	850 ft³ 23960 L	128 ft² 11.9 m²	80″ 2030 mm	1	15 - 35 5 - 25	600	Water Cooled	↙↘
	GR144	Plant Growth	116″ 2950 mm	300″ 7620 mm	102″ 2600 mm	960 ft³ 26800 L	144 ft² 13.5 m²	80″ 2030 mm	1	15 - 35 5 - 25	600	Water Cooled	↙↘
	GR192	Plant Growth	139″ 3530 mm	300″ 7620 mm	102″ 2600 mm	1280 ft³ 36000 L	192 ft² 17.8 m²	80″ 2030 mm	1	15 - 35 5 - 25	600	Water Cooled	↙↘
	TCR60	Tissue Culture	128″ 3240 mm	70″ 1780 mm	110″ 2800 mm	99 ft³ 2803 L	60 ft² 5.6 m²	20″ 510 mm	3	15 - 40 5 - 40	200	Water Cooled	↑
	TCR120	Tissue Culture	128″ 3240 mm	128″ 3240 mm	110″ 2800 mm	190 ft³ 5640 L	120 ft² 11.2 m²	20″ 510 mm	3	15 - 40 5 - 40	200	Water Cooled	↑
	TCR180	Tissue Culture	128″ 3240 mm	185″ 4700	110″ 2800 mm	290 ft³ 8460 L	180 ft² 16.7 m²	20″ 510 mm	3	15 - 40 5 - 40	200	Water Cooled	↑
	MTPS72	Plant Growth / Short Plant	139″ 3530 mm	70″ 1780 mm	110″ 2800 mm	366 ft³ 10364 L	72 ft² 6.7 m²	22″ 560 mm	3	15 - 35 10 - 35	275	Water Cooled	←
	MTPS144	Plant Growth / Short Plant	139″ 3530 mm	127.5″ 3240 mm	110″ 2800 mm	706 ft³ 19992 L	144 ft² 13.4 m²	20″ 510 mm	3	15 - 35 10 - 35	275	Water Cooled	←
	MTPS216	Plant Growth / Short Plant	139″ 3530 mm	185″ 5285 mm	110″ 2800 mm	1045 ft³ 29590 L	216 ft² 20.1 m²	22″ 560 mm	3	15 - 35 10 - 35	275	Water Cooled	←
	MTPS288	Plant Growth / Short Plant	139″ 3530 mm	242.5″ 6160 mm	110″ 2800 mm	1317 ft³ 37293 L	288 ft² 26.8 m²	20″ 560 mm	3	15 - 35 10 - 35	275	Chilled Water	←
	MTPS360	Plant Growth / Short Plant	139″ 3530 mm	288.5″ 7328 mm	110″ 2800 mm	1850 ft³ 52387 L	360 ft² 33.4 m²	20″ 560 mm	3	15 - 35 10 - 35	275	Chilled Water	←
	MTPS432	Plant Growth / Short Plant	139″ 3530 mm	346″ 8800 mm	110″ 2800 mm	1996 ft³ 56520 L	432 ft² 40.1 m²	22″ 560 mm	3	15 - 35 10 - 35	275	Chilled Water	←
	MTPS Flex	Plant Growth / Short Plant	See MTPS72 to MTPS288 series above						1,2,3	15-35 10-35	500-1000	Water Cooled	←

COMMON OPTIONS

Additional accessories and customization available, contact Conviron

			GEN1000 TA	GEN1000 SH	GEN1000 TC	GEN1000 IN	GEN1000 GE	E7/2	E8	PGR15	PGC Flex	BDR16	MTR30	PGW40	BDW Series	GR Series	TCR Series	MTPS Series	MTPS Flex
PROGRAMMING	ADIAL	Automatic Telephone Dialing System						•	•	•	•	•	•	•	•	•	•	•	•
	ARGUS	Titan Control System						•	•	•	•	•	•	•	•	•	•	•	•
	AUTOW	Auto Watering System						•	•	•	•	•	•	•	•	•	•	•	•
	AUX	Auxiliary Circuits						•	•	•	•	•	•	•	•	•	•	•	•
	CMPLink	Enables Full Argus Interaction	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	SEN	Temperature Sensor(s)						•	•	•	•	•	•	•	•	•	•	•	•
	UPS	Controller UPS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CONSTRUCTION	CAST	Swivel Casters	S	S	S	S	S	•	•	•			•						
	EFIS	Ebb & Flow Irrigation System									•								
	GH	Growth Height Increases							•	•	•	•		•	•	•			
	OW	Observation Window	•	•	•	•	•	S	S	S	S	S		•	S	S	S	S	S
	RECP	Electrical Receptacles, Type & location						•	S	S	•	•	•	•	•	•	•	•	•
	SMC	Split machine compartment							•	•		•	•						
LIGHTING	CMH	Ceramic Metal Halide Lighting							•	•				•		•			
	HL	High Light Intensity						•						S			•	•	S
	M10T5	M10 High Light Intensity							•	•									
	LED	Light Emitting Diode	•	•	•	•	•			•									
	LMMCL	Lamps Incorporate Dimming Ballasts	•	•	•	•		•	•	S	•	•	•	•	•	•	•	•	•
TEMPERATURE	FSC	Circulation Fan Speed Control	S	S	S	S					S			•	S	S		S	S
	LT	Low Temperature Operation	•	•	•	•			•	•	•	•	•	•	•	•		•	•
	ULT	Ultra Low Temperature Operation								•		•		•	•				
	SDF	Sequential Defrost												•					
REFRIGERATION	ACSC	Air-Cooled Self-Contained Condensing	S	S	S	S	S	S	S	•	•	•	•						
	RAC	Remote Outdoor Air-Cooled Condenser							•	•	•	•	•	•	•	•	•	•	•
	OACU	Outdoor Air-Cooled Condensing Unit								•	•	•		•	•	•	•	•	•
	WC	Water-Cooled Condensing Unit	•	•	•	•	•	•	•	S	S	S	S	S	S	S	S	S	S
	GLY	Chilled Water/Glycol Heating/Cooling							•	•	•	•	•	•	•	•	•	•	•
	CPC	Phenolic Coated Refrigeration Coil	•	•	•	•	•												
	DXLL	Refrigerant Cooled Lamp Loft													•				
HUMIDITY	ASNH	Assisted Spray Nozzle Humidification										•			•		•	•	•
	CAH	Centrifugal Atomizing Humidification														•			
	SNH	Spray Nozzle Humidification						•	•	•	•		•	•					
	USH	Ultrasonic Humidification	•	•	•	•						•				•			
	BDH	Bypass Dehumidification	•	•	•	•			•	•	•	•	•		•				
	CD	Dehumidification by Chemical Dryer								•	•			•		•	•	•	•
	SCD	Separate coil Dehumidification																•	•
CO_2	CO2	Carbon Dioxide Additive Control	•	•	•	•		•		•	•	•	•	•	•	•	•	•	•
	SCRUB	Carbon Dioxide Scrubber								•	•	•	•	•	•	•	•	•	•

OPTIONS

PROGRAMMING

ARGUS
Argus Titan control system: designed to provide comprehensive monitoring and equipment automation throughout your facility.

AUTOW
Auto Watering System: hose bib connection controlled by programmable solenoid.

AUX
Auxiliary Circuits: programmable on/off output, provides an auxiliary switch, terminated in the control panel, for timed control of automatic watering, nutrient dosing, etc. Up to four switches available.

UPS
Controller UPS: surge protection and uninterrupted power supply, on controller only, for continuous operation of the controller during power interruptions.

CONSTRUCTION

EFIS
Ebb & Flow Irrigation System: automatic control of irrigation system controlled through the control system.

EC
Exhaust collar: allows connection to central exhaust system, measuring 4" (100mm).

FA
Fresh Air: filtered inlet G3 type, washable, 100 cfm (48 l/s) providing a constant 4x air changes per hour.

GH
Extended growth and exterior heights.

RECP
Electrical Receptacles, Type & Location: wall mounted convenience electrical receptacle within growth area (2 amp allowance).

HEPA (call for availability)
Exhaust HEPA filter: installed to the exhaust outlets made easily accessible for removal.

LIGHTING

HID
High Intensity Discharge: using metal halide and high pressure sodium lamps.

HL
High light Intensity: using fluorescent and halogen incandescent lamps.

LED
Various LED spectrum available allowing for a wide range of intensities. Dimming optional.

LMMCL
Lamps Incorporate Dimming Ballasts: programmable or manual adjustment of light intensity within the programmed range (as low as 5% with fluorescent, 25% with Metal Halide, 30% with High Pressure Sodium and 40% with Ceramic Metal Halide), to maximum intensity. Incandescent lamps are controlled in light levels.

Manual Dimmable Lighting System: manual adjustment of light intensity within the programmed range as low as 5% with fluorescent lamps, to maximum intensity. (call for availability)

Multi-Tier Operation: multi-tier shelving assemblies provide a maximum light intensity of 500 micromoles/m^2/s each. (call for availability)

WCLL
Water-Cooled Lamp Loft: lamp heat removed by a dedicated water cooling coil.

TEMPERATURE

FSC
Circulation Fan Speed Control: programmable or manual fan speed control on conditioning unit, from 50% to maximum.

LT
Low Temperature Operation: enables the chamber to be operated with lights ON to +2°C (No fresh air below 4°C.) A defrost cycle will occur resulting in a temperature increase (spike) for temperatures set below +8°C lights ON/OFF.

ULT
Ultra Low Temperature Operation: enables the chamber to be operated with lights ON to -10°C (No fresh air below 4°C.) A defrost cycle will occur resulting in a temperature increase (spike) for temperatures set below +8°C lights ON/OFF.

SDF
Sequential Defrost: multiple cooling coils with a sequenced defrost cycle to eliminate the temperature spike experienced with the standard defrost method.

REFRIGERATION

ACSC
Air-Cooled Self-Contained Condensing Unit: cabinet is supplied with an air-cooled, self-contained condensing unit with hot gas bypass system for continuous compressor operation and close temperature control. Condensing unit is located in the machine compartment.

RAC
Remote Outdoor Air-Cooled Condenser: comes complete with all-weather housing, low ambient operation controls and low noise level operation.

OACU
Outdoor Air-Cooled Condensing Unit: containing condenser, compressor, receiver, suction accumulator, control and pressure regulating valves and electrical disconnect.

WC
Water-Cooled Condensing Unit: cabinet is supplied with a water-cooled condensing unit with hot gas bypass system for continuous compressor operation, extended compressor life and close temperature control.

GLY
Chilled Water/Glycol Heating/ Cooling: cooling system designed to work with a central chiller refrigeration system.

CPC
Phenolic Coated Refrigeration Coil: the evaporator coil is protected by a phenolic coating that is resistive to the corrosive effects of insect rearing.

DXLL
Refrigerant Cooled Lamp Loft: lamp heat removed by dedicated refrigeration cooling coil.

HUMIDITY

ASNH
Assisted Spray Nozzle Humidification: additive humidity provided by siphon fed, air assisted atomizing spray nozzles. System requires reverse osmosis water.

SNH
Spray Nozzle Humidification: additive humidity through use of spray nozzles.

USH
Ultrasonic Humidification: uses an ultrasonic frequency to turn water into an airborne mist that is forced out into the air to raise humidity.

BDH
Bypass Dehumidification: a precisely controlled volume of chamber air bypasses the heat exchanger by means of a proportionally controlled air damper.

CD
Dehumidification by Chemical Dryer: chamber air is passed over a desiccant to remove moisture.

SCD
Separate Coil Dehumidification: mounted externally, draws air from the growth area through a cooling coil to remove the moisture by condensation.

CARBON DIOXIDE

CO2
CO_2 Additive Control: package includes gas analyzer, CO_2 regulator (NA only), control valve and injection system. CO_2 tank not included.

CO2-BP
CO_2 Additive Back Pack: portable system is mounted on the side of the chamber as a standalone device complete with its own CO_2 process controller.

SCRUB
CO_2 Scrubber: allows for controlling CO_2 concentration levels below resultant conditions. Stand-alone device (floor or roof mounted).

CONVIRON®

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Specs & Options MK0109 May 2019 Rev.:05 |