



MTPS Series

MULTI-TIER WALK-IN

PLANT GROWTH

MTPS SERIES

MULTI-TIER WALK-IN

PLANT PRODUCTION

Product Overview/Applications

Convion's MTPS provides a multi-tier chamber based on a modular platform and available in increments of 72ft² (6.6m²). This chamber configuration is often used for research involving C3 and similar low light, short plants. This makes the chamber ideal for use in mass-screening projects and for sizeable plant propagation programs. Pressurized and perforated side-wall plenums deliver air across each of three independently lit tiers integrated into fixed shelving banks on either side of a center aisle way.

Lighting

Our standard lighting package for the MTPS generates low to moderate level light intensity and incorporates both T8 fluorescent and halogen incandescent lamps for a broad based light spectrum ideally suited for plant growth. Lamp canopies are secured to stationary plant shelves within the chamber while an option is provided for lamp canopies to be cantilevered from the wall to allow for rolling plant carts that can roll into place between the canopies. Multiple lighting levels can be programmed with the CMP6050 control system while higher light intensities are available as an option.

Airflow

Uniform airflow is introduced to the growth area through precisely manufactured perforated sidewall plenums with a center return to the conditioning coil. The resultant horizontal airflow accommodates the use of multiple plant trays without concern for impeding airflow. Filtered and adjustable fresh air intake and exhaust openings enable researchers to manage exchange air to the chamber.

Refrigeration

Cooling for the MTPS series is provided by a self-contained water-cooled condensing unit with hot gas bypass for continuous compressor operation. An electronic modulating valve provides tight temperature control while ensuring quiet

operation. Pressure transducers are included for monitoring the status of the refrigeration system. Alternative refrigeration methods are available depending on site-specific and/or user-defined requirements. Consult the factory for heat rejection information and other refrigeration options.

Experiment Protection

User programmable "set and forget" alarms track the chamber's operation versus user-defined set points. This allows for exceptionally accurate monitoring without the need for adjustment every time the set point is redefined. Backup "high/low" alarms provide a further level of protection while visual and audible notification is provided when any alarm is activated. Contacts for connection to a building management system are also included.

Key Product Attributes

- Modular design that easily accommodates variable sizes
- Multi-tier application to maximize plant growth area
- Horizontal airflow to enable use of flats without impeding airflow
- Product certifications/markings; cCSA_{US} (NRTL), CE



Performance Data

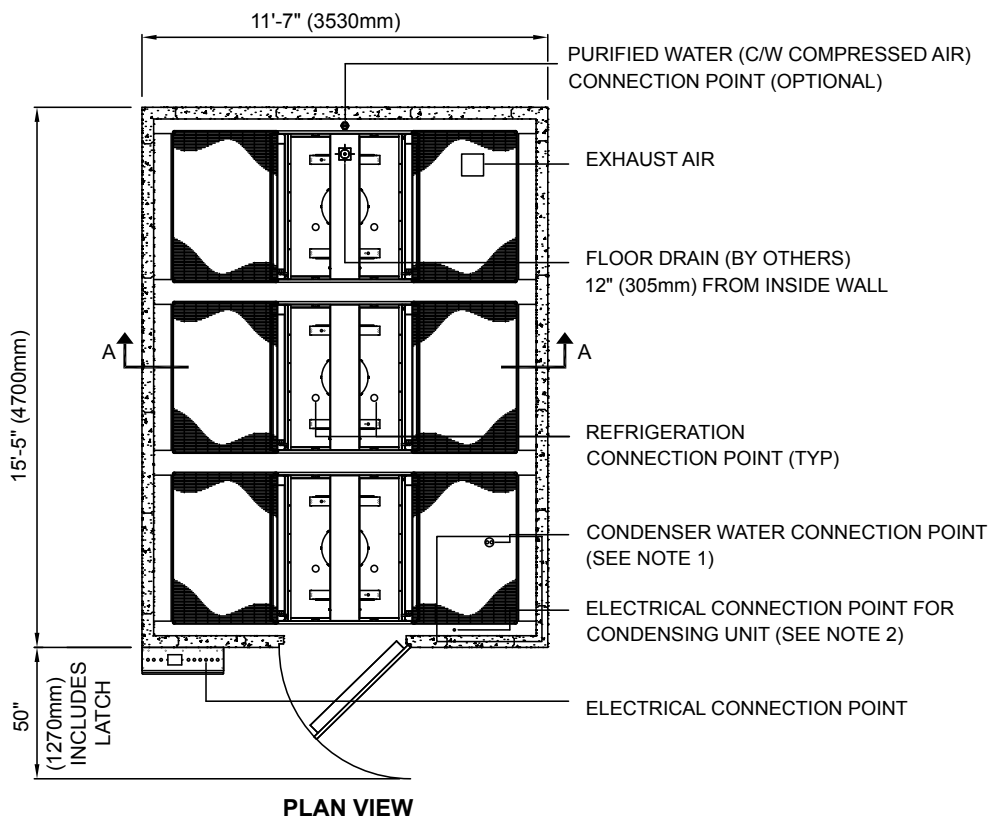
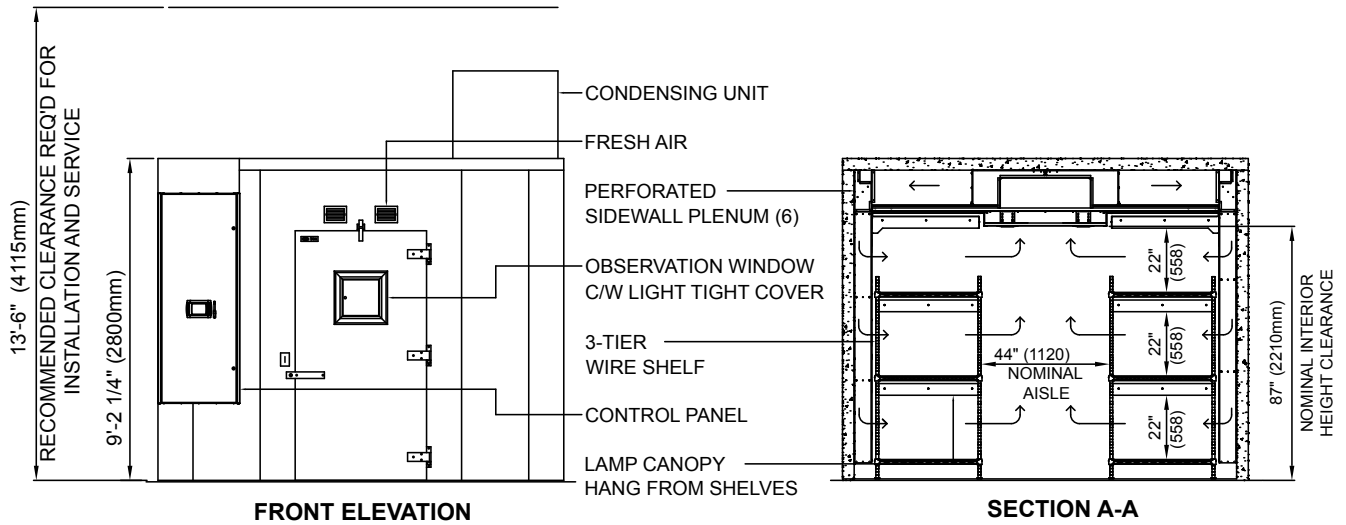
	Temperature Range (°C)	Interior Capacity	Growth Area	Growth Height	Exterior Dimensions (WxDxH)	Light Intensities (6in. from lamp)	Electrical Service
MTPS72	15 –35 lights ON	366ft ³	72ft ²	22"	11'7" x 5'10" x 9'2.25"	275 µmoles/m ² /s	120/208-3Ø-60Hz
	10 –35 lights OFF	(10364l)	(6.6m ²)	(560mm)	3530 x 1780 x 2800 (mm)	@ 25°C	230/400-3Ø-50Hz
MTPS144	15 –35 lights ON	706ft ³	144ft ²	22"	11'7" x 10'7½" x 9'2.25"	275 µmoles/m ² /s	120/208-3Ø-60Hz
	10 –35 lights OFF	(19992l)	(13.2m ²)	(560mm)	3530 x 3240 x 2800 (mm)	@ 25°C	230/400-3Ø-50Hz
MTPS216	15 –35 lights ON	1045ft ³	216ft ²	22"	11'7" x 15'5" x 9'2.25"	275 µmoles/m ² /s	120/208-3Ø-60Hz
	10 –35 lights OFF	(29590l)	(19.9m ²)	(560mm)	3530 x 4700 x 2800 (mm)	@ 25°C	230/400-3Ø-50Hz
MTPS288	15 –35 lights ON	1317ft ³	288ft ²	22"	11'7" x 20'2.5" x 9'2.25"	275 µmoles/m ² /s	120/208-3Ø-60Hz
	10 –35 lights OFF	(37293l)	(26.5m ²)	(560mm)	3530 x 6160 x 2800 (mm)	@ 25°C	230/400-3Ø-50Hz
MTPS360	15 –35 lights ON	1317ft ³	288ft ²	22"	11'7" x 19'3" x 9'2.25"	275 µmoles/m ² /s	120/208-3Ø-60Hz
	10 –35 lights OFF	(37293l)	(26.5m ²)	(560mm)	3530 x 7328 x 2800 (mm)	@ 25°C	230/400-3Ø-50Hz
MTPS432	15 –35 lights ON	1996ft ³	432ft ²	22"	11'7" x 28'10" x 9'2.25"	275 µmoles/m ² /s	120/208-3Ø-60Hz
	10 –35 lights OFF	(56520l)	(39.7m ²)	(560mm)	3530 x 8800 x 2800 (mm)	@ 25°C	230/400-3Ø-50Hz

CONVIRON MODEL MTPS SERIES

PLANT PRODUCTION CHAMBER

NOTES:

1. STANDARD REFRIGERATION SYSTEM IS WATER COOLED.
2. CONDENSING UNIT REQUIRES SEPERATE ELECTRICAL SERVICE (60HZ APPLICATION ONLY).
3. DEPTH DIMENSION IS CHAMBER SIZE ONLY. DIMENSION DOES NOT INCLUDE DOOR LATCH.
4. LENGTH AND WIDTH DIMENSIONS $\pm 1/4$ (6mm). HEIGHT DIMENSION ± 1 " (25mm).



MTPS216 PLANT PRODUCTION CHAMBER

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