Temperature range*	10°C to 50 C
%RH (optional)*	50% to 80%
Temperature uniformity	± 2°C
% RH control (optional)	± 3%
Temperature control at sensor	± 0.2°C
Control resolution	± 0.1°C
Cooling/Heating type	Thermoelectric/Peltier driven-for heating/Cooling
Chamber Volume in Cu. Ft	Section 1--16 cu.ft Section 2--16 cu.ft----net- 32 cu.ft
External Dimension-LXWXH	49″×31.625″×79.25″ (refer to drawing)
Internal Dimension-LXWXH	21"x24.75"x51" (refer to drawing)- each section
Shelf dimension	21” x 20”
Cabinet specs	Stainless interior and exterior construction
Lights	Refer to light section for details below- Chamber has no lights option as well.
Electrical requirement	115V/60hz/1ph/10a, Unit plugs into standard wall outlet.
Shelf quantity, type	6 per chamber/ additional shelves available, wire shelf- PVC coated with 4 installation clips. Shelf capacity- 100 lbs distributed load.
Weight specs	Chamber weight- 400 lbs Shipping weight- 550 lbs

*Specifications are based on 20°C ambient and standard voltage. Specifications are subject to change without notice.

Chamber options:

- Chart recorder
- Additional shelving
- Outlets
- Extended temperature ranges
- RO/DI water filtration system
- Water carboy
- Dehumidifier

Chamber features:

Dual environment chamber is used for many different controlled environmental application chamber. This model has 2 sections. Each section has its own temperature control conditioning system, humidity control system and light control system. Each section operates independent of each other. Each section can be programmed to run its own experiment, independent of each other. Temperature control is standard. Humidity control system and light control system can be optioned. Typical application includes insect growth, plant growth application. This chamber is used for plant growth applications including seed germination, tissue culture, small plant and large plant growth. All of the Canden chambers interior are made out of premium stainless steel. Chamber has 2” thick CFC free insulation providing good thermal gradient. Door locks are standard in doors. Chambers comes with optional 2” access port with insulation plug. Chamber also includes pre-installed casters capable of supporting 150-200lbs per caster. Chamber comes with 6 adjustable shelves.

Temperature control:
Chamber uses thermoelectric -peltier cooling and heating technology. Chamber has 2 sections that are divided by a common wall. This unique design enables users to use the chamber by setting 2 different temperature set points. Each section has its own temperature controller/sensor, thermoelectric unit.

Lights
Each section of the chamber has its own set of LED lights and independently controlled by its own light controller. Chamber has 4-3' led lights Natural 5500k,1080 lumens each,3.4 watts per ft for insect growth chamber.For plant growth application- LED lights are mounted horizontally- each bank has light intensity of 100-300 micro moles/m2/sec. Refer to CP2000 and CP1000 light specs

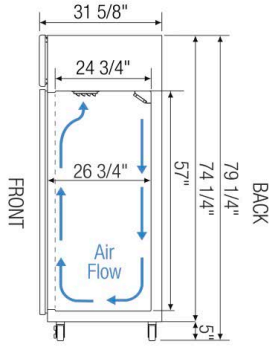
Humidity system:
Humidity control is optional. Chamber has 2 sections that are divided by a common wall. This unique design enables users to use the chamber by setting 2 different humidity set points. Humidity range is achieved via additive ultrasonic humidification, a controller with with factory calibrated %RH sensor. Humidifier is installed typically in the rear of the chamber and can be easily serviced or replaced. RO/DI system is recommended but not required as long as the water quality specification is met. Tap water should be fine. The humidifier comes with a 15’ ¼” polytube, shut off valve and quick disconnect fittings as well as a fitting to connect to water faucet.

Water quality specification:
Water conductivity greater then 0.1 µS,TDS of < 10 ppm and works in operating pressure range from 10psi to 80 psi"

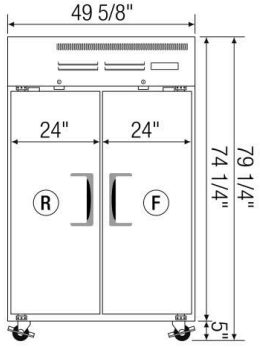
Dual Environment Chamber

Model No: DEC3

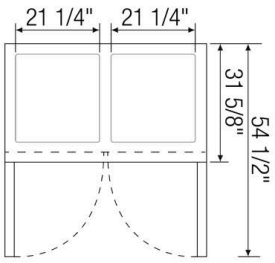
PLAN VIEW



FRONT



SIDE



TOP

Each section is independent of each other, divided by a wall.

Each section has its own temperature, humidity and light controller.

Temperature control is standard.
Humidity and light are optional and configurable to your needs.

Canden Products
St. Louis, Mo

Email: sales@candenproducts.com

Light configuration based on application

Chamber to have vertical LED lights that are controlled by light timer for Insect growth applications -as shown here

Plenum optional--not standard--picture shown as example plenum --actual plenum may vary

Chamber to have Horizontal LED lights that are controlled by light timer for plant growth applications-as shown here