

Section 7 Specifications

* Specifications are based on nominal voltages of 115V or 230V in ambient of 22°C to 25°C.

Temperature

Control	±0.1°C Microprocessor PID Control
Setpoint	Digital - Touch pad, 0.1°C
Range	+5C above ambient to +55C (models 310, 311)
.....	+5C above ambient to +50C (models 320, 321)
.....	+5C above ambient to +45C (models 330, 331, 340, 341)
Uniformity	±0.3°C @ +37°C
Tracking alarm	User programmable (low) indicator
Overtemp	Tracking, user programmable, action, indicator
Display	Digital, LED, 0.1°C increments

Overtemperature Safety

Type	Extreme temperature safety, action, and indicator
Sensor . . .	Thermostat, independent of temperature control system
Indicator	Message center, audible and visual alarms

Relative Humidity

Control	Humidity pan - natural vaporization
Humidity with pan	95% RH at 37°C
Optional display	1% increments
Alarm	Low RH with optional RH monitor

$$\text{CO}_2$$

Control	±0.1% microprocessor PID control
Sensor	T/C or IR
Readability	0.1%
Range	0 to 20%
Inlet pressure	15 psig, ±5 psig
Display	Digital LED, 0.1% increments

Shelves

Dimensions 18.5" x 18.5" (47cm x 47cm)
Construction . . Stainless steel (belt sanded, both sides)
Surface area 2.4 sq. ft. (0.22 sq. m) per shelf
Max. per chamber 38.4 sq ft (3.6 sq. m)
Loading35 lbs (16kg) slide in and out, 50 lbs (23kg) stationary
Standard # 4 (shipped with unit)
Maximum # 16

Construction

Interior volume 6.5 cu. ft.
Interior Type 304 stainless steel shiny finish
Exterior 18 gauge cold roll steel
Outer door gasket . . Four-sided molded, magnetic vinyl
Inner door gasket Feather-edge, removable
Insulation Fiberglass

Fittings

Access port 1-1/4 inch removable silicone plug
CO₂ inlet 1/4" barbed
Sample port Front mounted barbed

Electrical

115 Volt models -
115VAC, 50/60 Hz, 1PH, 2.4 FLA (3.0 FLA, using 75W accessory outlet)
230 Volt models -
230VAC, 50/60 Hz, 1 PH, 2.0 FLA
Power switch/circuit breaker 2 Pole, 6.0 Amp
Accessory outlet . . Voltage equal to the cabinet input, 75 Watts maximum, 0.6A maximum, 0.5ma leakage current
Remote alarm contacts . . Overtemperature deviation of temp, CO₂, power, NO and NC

Unit BTU Output (typical @ +27°C)

115/230V 344 BTUH (100 watt)
(597 BTUH, using 75W accessory outlet)

Dimensions

Exterior . 26.0" W x 38.5" H x 25.0" F-B (66.0cm x 97.8cm x 63.5cm)
Interior . 21.4" W x 26.8" H x 20.0" F-B (54.1cm x 68.1cm x 50.8cm)

Weight

Net Weight Stainless Steel 205 lbs (93kg)
Net Weight Copper 230 lbs. (104.3kg)

Options/Accessories

HEPA filter, Factory installed: Stock no. 190858
Battery back-up, Free Standing:
Stock # 270078, 120VAC, 60Hz, Stock # 270082, 220VAC, 50Hz
Humidity, Factory installed:
. . Stock no. 190463 - provides humidity readout and low alarm
Inner door kit, Customer installed:
. . . . Stock no. 190650 - independent eight separate glass doors
Built-in Gas Guard, Factory installed:
Stock no. 190640-CO₂ only, automatically switches supply tanks
Recorders, Customer installed:
. Standard recorders used on water-jacket incubators
Decontamination kits
HEPA filter, blower assembly, inner door gasket, etc. -
Stock # 190868 (w/ HEPA filter), Stock # 190869 (w/o HEPA filter)

Copper Options

Interior ductwork Solid copper: Stock no. 190725
Perforated shelf, Customer Installed: . . . Stock no. 224166 - solid copper
Humidity Pan, Customer Installed: . . . Stock no. 237015 - solid copper
Copper interior kit, Factory installed: . . Stock no. 190870 - Replace stainless steel duct work, shelves, and . humidity pan with solid copper

Optional Data Outputs

Analog Factory installed: Stock no. 190544 - 0-1 volt
Analog Factory installed: Stock no. 190543 - 0-5 volt
Analog Factory installed: Stock no. 190512 - 4-20mA
Digital Factory installed: Stock no. 190523 - RS-485

..... (Compatible with Model 1535 Alarm Monitor only)

Certifications

CE Declarations are available upon request from the factory.

Safety Specifications

Indoor Use Only

Altitude - Up to 2,000 meters

Temperature - 5°C to 40°C

Humidity - Maximum 80% RH for temperatures up to 31°C, decreasing linearly to 50% RH at 40°C (non condensing)

Mains Supply Fluctuations - Not to exceed $\pm 10\%$ of nominal voltage

Installation Category II ¹

Pollution Degree 2 ²

Class of Equipment 1

¹ Installation Category (overvoltage category) defines the level of transient overvoltage which the instrument is designed to withstand safely. It depends on the nature of the electricity supply and its overvoltage protection means. For example, in CAT II which is the category used for instruments in installations supplied from a supply comparable to public mains such as hospital and research laboratories and most industrial laboratories, the expected transient overvoltage is 2500V for a 230V supply and 1500V for a 120V supply.

² Pollution Degree describes the amount of conductive pollution present in the operating environment. Pollution Degree 2 assumes that normally only non-conductive pollution

Fluorinated Greenhouse Gases

Compliant with REGULATION (EU) No 517/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on fluorinated greenhouse gases.

This product contains foam blown with fluorinated greenhouse gas, R-245fa.