

# VREF12 Upright

laboratory refrigerators



Solid door

Glass door



## Features

Powerful refrigeration system with low GWP refrigerant for high performance and reduced total cost of ownership

- exclusive top-mounted modular Complete Refrigeration System (CRS)
- all refrigeration components external to storage compartment for greater usable capacity
- high volume airflow design for faster temperature recovery and uniform temperature

## Protection for your valuable products

- audible and visual high/low temperature and door open alarms
- dry contacts for remote alarming
- access port for third party monitoring
- key door lock
- rear mounted on/off power switch

## Precise temperature control

- microprocessor control with digital temperature display
- factory preset at 4 C (adjustable from 1 C to 12 C)

## Laboratory-grade cabinet construction

- full steel interior and exterior provide resistance to rust and corrosion
- internal rounded corners
- heavy-duty dual casters roll easily and lock securely
- 2.36" (5.99 cm) of CARB compliant non-HFC foam throughout
- four epoxy-coated shelves standard

## Heavy-duty door for ease of use and energy savings

- self-closing hinges lock open at 105° for easy product loading
- energy efficient low-E glass coating to reduce energy loss
- glass remains condensation-free to 27 C (80 F) at 60% RH

## Engineered for sustainability

- R290 low GWP refrigerant
- high density foamed in place insulation (Kyoto Protocol compliant)
- energy-efficient LED lights
- ENERGY STAR® certified
- SNAP compliant
- cULus Listed and UL Energy Verified

## Warranty

- 2 years parts and labor, 3 year compressor parts only

Model configurations			
Hinging	Heated door	Door style	Item number
right	yes	glass	VREF12-LB-RGD
left	yes	glass	VREF12-LB-LGD
right	no	solid	VREF12-LB-RSD

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## Factory-installed options

Left-hinged door, facing unit (right-hinged door standard)

Solid stainless steel door with 2.60" (6.60 cm) thick insulation and pocket style handle

NOTE: Factory-installed options must be specified at time of order – for details contact factory or your local sales representative.

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## Accessories

Replacement CRS (Complete Refrigeration System) module (item# 01394477)

Additional shelf (1) (item# 01394048)

NOTE: Accessories ship separately.

## Specification

Nominal capacity	11.8 cu ft (334 L)
Ventilation clearance	15.00" (38.1 cm) top, 2.00" (5.08 cm) back

## Exterior

<b>W1</b> Width	23.62" (60.0 cm)
<b>D1</b> Depth with handle	glass door – 25.35" (64.4 cm) solid door – 23.62" (60.0 cm)
<b>H1</b> Height with casters	74.80" (190.0 cm)
Casters	(4) swiveling dual wheel casters (2) with toe locks
<b>D2</b> Door swing	55.91" (142.0 cm)
Wall bracket, seismic anchoring	standard, factory installed

## Interior

Height	51.50" (130.8 cm)
Lighting	glass door – full length LED light on handle side of door solid door – (1) LED light from top of cabinet
Storage system	(4) full, epoxy-coated shelves
Shelf dimensions	18.00" W x 19.00" D (45.7 x 48.3 cm)
Max. load rating per shelf	66 lb (30 kg)

## Door configurations

Door	dual-pane glass door or solid powder coated steel (non-field reversible)
Door lock	cylinder type with key
Door handle	glass door – bar type solid door – pocket style
Door hinges	torsion rod self-closing with 105° hold open feature
Gasket	magnetic dart style (replaceable)

## Electrical

<b>C1</b> Electrical 115 V/60/1 (103 - 132 V)	3 run load amps, hospital-grade NEMA 5-15P plug, 118" (3.0 m) cord
Maximum size of branch circuit overcurrent device	15 amps dedicated circuit

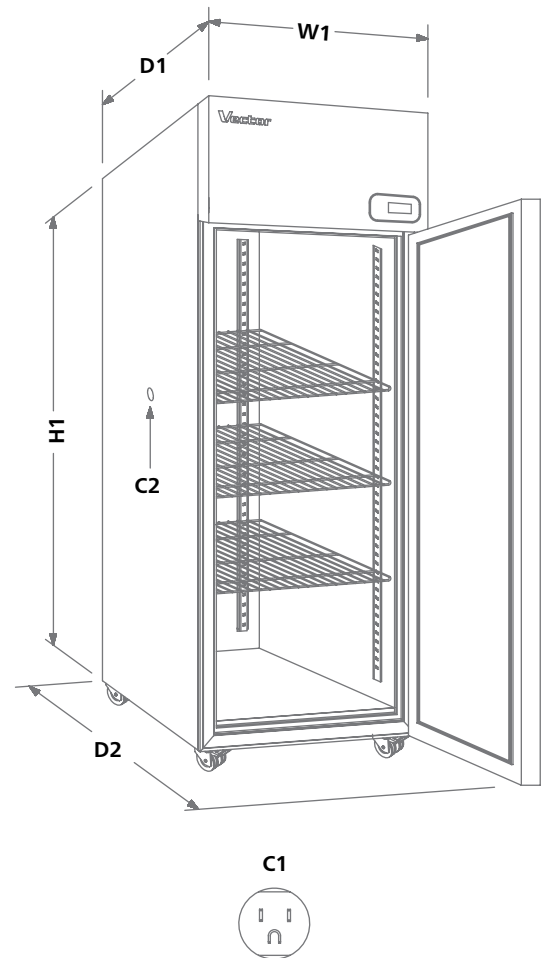
## Controls

Temperature display	standard 7 segment LED
<b>C2</b> 3rd party probe access	soft access port on left side of cabinet
Temperature probe calibration	top probe calibration in 0.1° increments
Refrigeration and defrost probes	NTC thermistor type ( $\pm 1.0$ C, $\pm 1.8$ F)
Programmable operating range	1 to 12 C (34 to 54 F)
Factory preset	4 C

## Alarming

High and low product temperature alarm	audible and visual (preprogrammed)
Door ajar alarm	audible and visual
Probe error alarm	audible and visual
Alarm mute	with press of key
Remote contacts	NO/NC standard, located on back of unit

## Dimensional drawing



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## System performance

Refrigeration system	integral top-mounted module with 1/5 hp compressor and air-cooled condenser
Refrigerant and charge	low GWP R290 refrigerant, 2.5 oz
Air circulation system	evaporator with air-forced ventilation
Energy consumption	2.91 kWh/day (auto-off defrost)

## Shipping

Shipping size	25.51" W x 26.69" D x 78.74" H (64.8 x 67.8 x 200.0 cm)
Approximate refrigeration module net weight	55 lb (25 kg)
Approximate net weight	solid door models – 209 lb (95 kg) glass door models – 243 lb (110 kg)
Approximate ship weight	solid door models – 243 lb (110 kg) glass door models – 287 lb (130 kg)

NOTE: For indoor use only

SHORT FORM SPECIFICATION: ENERGY STAR certified 11.8 cu ft (334 L) upright 4 C refrigerator with (4) adjustable epoxy coated wire shelves. Low GWP R290 refrigeration system includes an integral top-mounted module with 1/5 hp compressor and air-cooled condenser. Microprocessor control with digital display in degrees C. High density foamed in place insulation (Kyoto Protocol compliant). Full suite of audible and visual alarms. 118" (3.0 m) power cord with NEMA 5-15P hospital-grade plug.

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