



TSU-4RW-N6\*

# **High Performance** Undercounter Refrigerator

+2 to +8°C Undercounter Refrigerator

3.0 cu.ft. | 85 L



TSU-4RW-N6 high performance undercounter refrigerators are designed to meet current and evolving CDC, NSF, and ANSI guidelines for vaccine storage. The TSU-4RW-N6 is ENERGY STAR® Certified and capable of maintaining the 5°C setpoint standard for storing vaccines with a +/- uniformity of 3°C to better reduce the risk of freezing vital vaccines and biologics. Built with accessibility in mind, this unit is ADA compliant and engineered with a glass door for easy visibility of stored contents.

### **Meeting Regulatory Standards**

Current and emerging guidelines from the CDC, NSF, and ANSI involve strict storage requirements for vaccines and biologics. The TSU-4RW-N6 is purpose-designed to meet these evolving guidelines as they pertain to temperature control, uniformity, and recovery. This unit is UL 471 listed, and meets all electrical standards required by most equivalent Nationally Recognized Testing Laboratories (NRTL).

### **Ease of Use and Accessibility**

With a compact footprint, the TSU-4RW-N6 is designed to be incorporated in ADA compliant workspaces, and fits under most tables, cabinets, and lab benches. A convenient glass door provides visibility into the interior of the unit to avoid unnecessary door openings. In the event an open door is forgotten, the self-closing door will mitigate scenarios that could result in lost product. An optional stacking accessory is available to maximize storage capacity when space constraints become an issue.

#### Temperature Uniformity Ensures Product Safety

Strict temperature control keeps stored product within the CDC recommended 2-8°C temperature range for optimal vaccine storage. Many vaccines risk inactivation if allowed to freeze. The TSU-4RW-N6 is designed to prevent interior temperature from dropping below 2°C at any location within the cabinet, even if the unit is empty. By contrast, interior temperatures are engineered to cool back to setpoint temperatures within 15 minutes of a 3 minute door opening.



#### **Display and Monitoring**

An unweighted temperature probe and temperature display in 0.1°C increments give users the most accurate temperature readings—all in real time. Easy-to-use touchpad display, and microprocessor controller provide dependable control of interior setpoints, while an electronic key lock prevents accidental setpoint changes.



### **Security and Alarm Notification**

High and low temperature alarms notify users when temperature excursion events are occurring. Alarm delay time is adjustable to meet different user needs and working conditions. A physical key lock at the top of the unit makes it possible to store important samples and controlled substances.

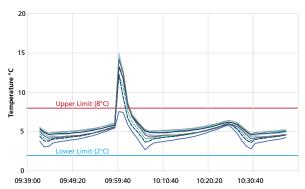


### **Energy and Sustainability**

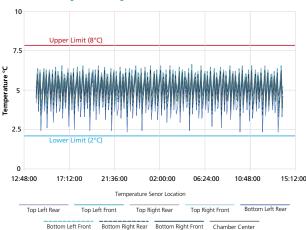
This Energy Star certified undercounter provides energy efficiency and sustainability, without compromising performance. Traditional HFC refrigerants have been replaced with environmentally friendly HC refrigerants to meet Significant New Alternatives Policy (SNAP) guidelines for low global warming and ozone depleting substances.



# **Door Opening Recovery, 1 Minute**



## **Uniformity, Steady State, 5°C**



Dimensions			ι	Jnit : inch   mm
22.5   572		·	21.1   537 19.7   500	2.5   62
	29.6   752		000000000000000000000000000000000000000	18.9   480

Model Number		TSU-4RW-N6		
Exterior Dimensions (W × D × H) 1)	inches   mm	22.5 × 22.1 × 29.6   572 × 562 × 751		
Interior Dimensions (W $\times$ D $\times$ H)	inches   mm	18.5 × 14.6 × 18.9   471 × 370 × 480		
Volume	cu.ft.   liters	3.0   85		
Net Weight	lbs   kg	114   52		
Performance				
Warranty <sup>2)</sup>		2 years parts / labor		
Cooling Performance 3)	°C	3 to 7		
Temperature Setting Range	°C	3 to 7 in 0.1°C increments		
Temperature Control Range 3)	°C	3 to 7 in 0.1°C increments		
Control				
Controller		Microprocessor (one control probe and one monitor probe)		
Display		LED		
Temperature Set Method		Touchpad		
Temperature Sensor		Thermistor		
Refrigeration				
Refrigeration System		Single reciprocal type compressor		
Compressor	W	(1) 174		
Refrigerant		R-600a		
Defrost		Automatic cycle		
Insulation Material, SNAP Compliant		Rigid polyurethane, foamed-in-place, low GWP (cyclopentane)		
Insulation Thickness	inches   mm	Right, left, back, top: 2.0   50 Bottom: 2.2   55		
Construction				
Exterior Material		Painted steel		
Interior Material		Painted steel with stainless steel floor		
Outer Door	qty	1 (glass, self closing)		
Key Lock	qty	Standard door lock		
Wire Shelves, Vinyl Coated	qty	2 (adjustable)		
Shelf Dimension (W × D)	inches   mm	17.3 × 14.0   440 × 355		
Max. Load Per Shelf	lbs   kg	26.5   12		
Access Port	qty	1 (standard)		
Access Port Position		Bottom of back of product		
Access Port Diameter	inches   mm	0.6   16		
Leveling Feet	qty	4		
Alarms (V=Visual, B=Buzzer)				
Power Failure		B (Momentary)		
High Temperature		V-B		
Low Temperature		V-B		
Door Alarm		V-B		
Diagnostics		V		
Electrical and Noise Level				
Power Supply		115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptacle		
Options				
Blackout Panel		BPANELTSU		
Stacking Kit		TSU-4RW STKBRACKET		
Optional Communication System				
Wireless, Cloud-Based,		LabAlert® Monitoring System		
Automatic Data Management				

- <sup>1)</sup> External dimensions of main cabinet only. Depth is 23.6" (600 mm) including the door handle <sup>2)</sup> Current warranty offered at time of printing and may be subject to change; US and Canada only
- 3) Air temperature measured at freezer center, ambient temperature +23°C, no load

Specifications are subject to change without notice.
For latest specification information contact PHC Corporation of North America at info@us.phchd.com.
Performance data herein is based on independent testing at time of publication

\*TSU-4RW-N6 is manufactured by Turbo Air Inc. and distributed by PHC Corporation of North America.



