

# Life Science Innovator Since 1966

TSU-4RW-N6\*



TSU-4RW-N6

#### **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).

# 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.

#### 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-touse 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**

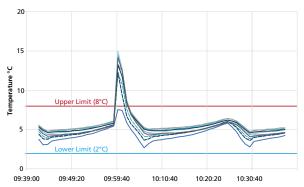
This Energy Star certified undercounter provides energy efficiency and sustainability, without compromising performance. Traditional HFC refrigerants have been replaced with environmentally friendly HC refrigerants to meet Significant New Alternatives Policy (SNAP) guidelines for low global warming and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



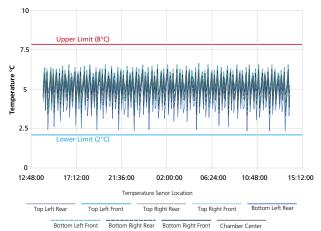
# **High Performance Undercounter Refrigerator**

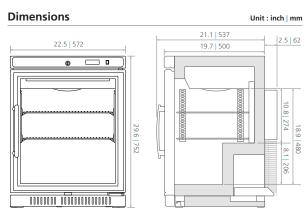
# TSU-4RW-N6\*

## **Door Opening Recovery, 1 Minute**



#### Uniformity, Steady State, 5°C





	Unit :		: inch   mm	
	21.1   537 19.7   500		2.5 62	
			18.9   480 10.8   274   8.1   206	

Model Number		TSU-4RW-N6	
Exterior Dimensions (W $\times$ D $\times$ H) $^{\scriptscriptstyle 1)}$	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 2)		2 years parts / labor	
Cooling Performance 3)	°C	3 to 7	
Temperature Setting Range	°C	3 to 7 in 0.1° increments	
Temperature Control Range 3)	°C	2 to 8 in 0.1° 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)			
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		MTR420MAL	
Options 4-20mA Analog Output	_	MTR420MAL	
4-20mA Analog Output	_		
4-20mA Analog Output Blackout Panel		BPANELTSU	
4-20mA Analog Output Blackout Panel Stacking Kit			
4-20mA Analog Output Blackout Panel		BPANELTSU	

<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 <sup>3)</sup> Air temperature measured at refrigerator center, ambient temperature +24°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.





PHC Corporation of North America 1300 Michael Drive, Suite A, Wood Dale, IL 60191 Toll Free USA (800) 858-8442, Fax (630) 238-0074 www.phchd.com/us/biomedical