Technical Data Sheet

Intelligent Actively-Cooled Tote

A comprehensive solution for portable, active cooling and freezing, delivering unmatched cold chain integrity as well as strong ROI and labor savings across the entire Cold Chain Fulfillment Ecosystem.™

Phononic's patented solid-state cooling technology offers unprecedented performance and value not achievable with compressor-based systems or other thermoelectric solutions.

Benefits

- Delivers portable chilled and frozen capacity throughout the cold chain
- Increases the flexibility to scale on demand with operational needs
- Improves customer experience by ensuring order freshness
- Reduces fulfillment complexity and labor cost
- Eliminates the need for tri-temp storage capital expense, in both fixed and mobile implementations
- Low carbon footprint – eliminates dry ice and gel pack consumables costs

Features

- Lightweight and portable
- Refrigerator and freezer versions
- Ultra-low, non-toxic and nonflammable GWP refrigerants
- IoT ready
- Wireless contact charging
- Shock and flame resistant
- Minimal [<2°C] rise in exhaust air temperature
- Low power consumption

Applications

- Chilled/Frozen storage in fulfillment centers
- Order staging and storage for curbside or locker pickup
- Transport and delivery

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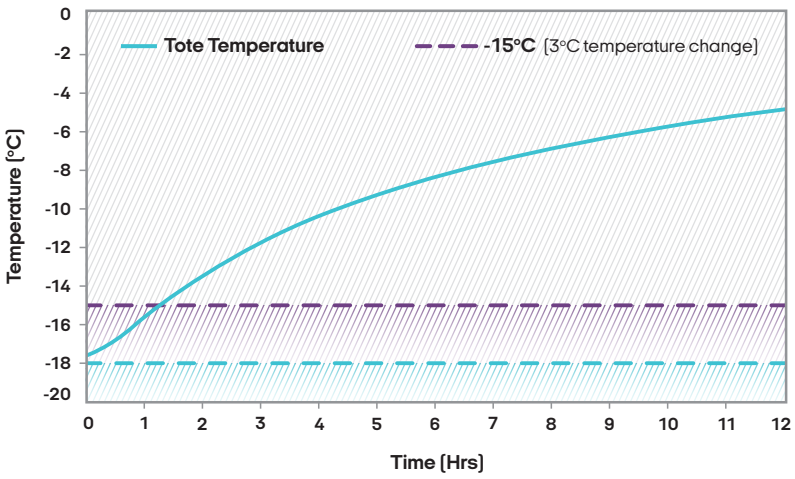
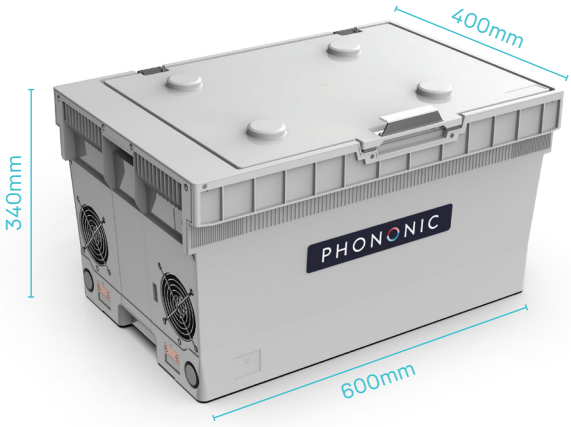
Superior Cold Chain Protection

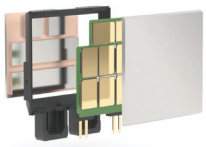
Even when not on power, Phononic's totes are able to keep products fresh and frozen for extended periods of time, ensuring cold chain custody is maintained throughout the grocery distribution, pickup and delivery process.

**Data for freezer tote shown for "full" totes using standardized test pack-out, representing food temperature*



Requirement	Refrigerator	Freezer
Weight	31.5 lbs	31.5 lbs
External Dimensions	600 x 400 x 340mm	600 x 400 x 340mm
Internal Dimensions	430 x 305 x 240mm	430 x 305 x 240mm
Internal Volume	28L	28L
Pull down time @ 24°C [75.2°F]	< 1hr	< 2hr
Power Requirements	24v DC	24v DC
Stability and Set Point	3.3°C setpoint, 0.5°C stability	-18°C setpoint, 0.42°C stability
Pull Down Energy Consumption	135W @ 25°C	270W @ 25°C
Steady State Energy Consumption	30W @ 25°C	120W @ 25°C
Environmental Conditions	Short periods of rain/snow	Short periods of rain/snow





Solid-State Heat Pump

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