Product Carbon Footprint for pdtroqmhst

45.25 kgCO2e (per 1.0 unit)

Functional Unit

1.0 unit

Product: pdtroqmhst

Carbon Intensity

45.25 kgCO2e/unit

Based on 1.0 unit

Top Material Hotspot

Aluminium Casing

7.39 kgCO2e (62% of materials)

Primary Emission Scope

Scope 3

95.88% of Total Footprint

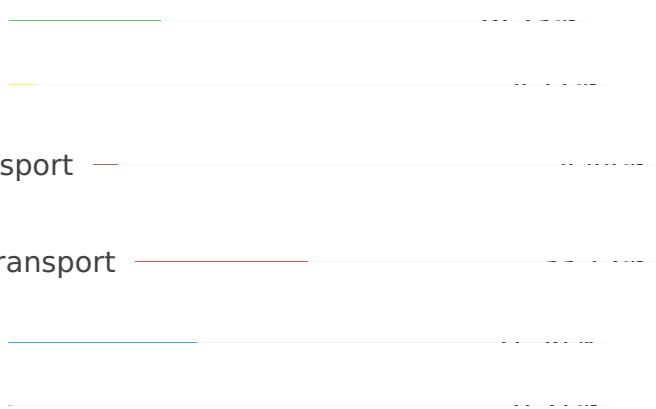
Key Carbon Hotspots & Highlights

- **Downstream Transportation (33.15%):** The largest hotspot, primarily due to last-mile delivery assumptions (100 km per unit by Light Commercial Vehicle).
- **Use Phase (31.56%):** Significant emissions from energy consumption over the product's 3-year lifespan, assuming European grid electricity.
- **Purchased Goods and Services (26.23%):** Materials, especially the Aluminium Casing and Lithium-ion Battery, are major upstream contributors.
- **Production (4.11%):** While lower than other phases, current manufacturing in China (40% renewable energy) still presents an opportunity for reduction.

Decarbonization Action Plan

- **Optimize Logistics:** Implement strategies for consolidating shipments, exploring more efficient transport modes, or localizing distribution centers to reduce last-mile impacts.
- **Enhance Product Efficiency:** Design for improved energy efficiency during the use phase and aim to extend product lifespan to dilute per-year emissions. Promote renewable energy use by end-users.
- **Sustainable Sourcing:** Prioritize sourcing lower-carbon materials, increasing recycled content in components like Aluminium, and actively engaging with suppliers for their decarbonization initiatives.
- **Increase Renewable Energy Use:** Target higher renewable energy procurement at the manufacturing facility in China (beyond the current 40%) to reduce Scope 2 emissions.
- **Improve End-of-Life:** Explore expanded take-back programs and advanced recycling technologies to further minimize landfill contribution and maximize material circularity.

Lifecycle Stage Breakdown



Material Carbon Impact