

html

# Product Carbon Footprint Dashboard

for dlxppjuyiw

**30.438** kgCO<sub>2</sub>e/  
unit

Total Product Footprint

**30.438**

kgCO<sub>2</sub>e per unit

System Boundary

**Cradle-to-Grave**

Extended PCF

Top Material Hotspot

**ABS Casing**

1.25 kgCO<sub>2</sub>e (47.8%)

Primary Emission Scope

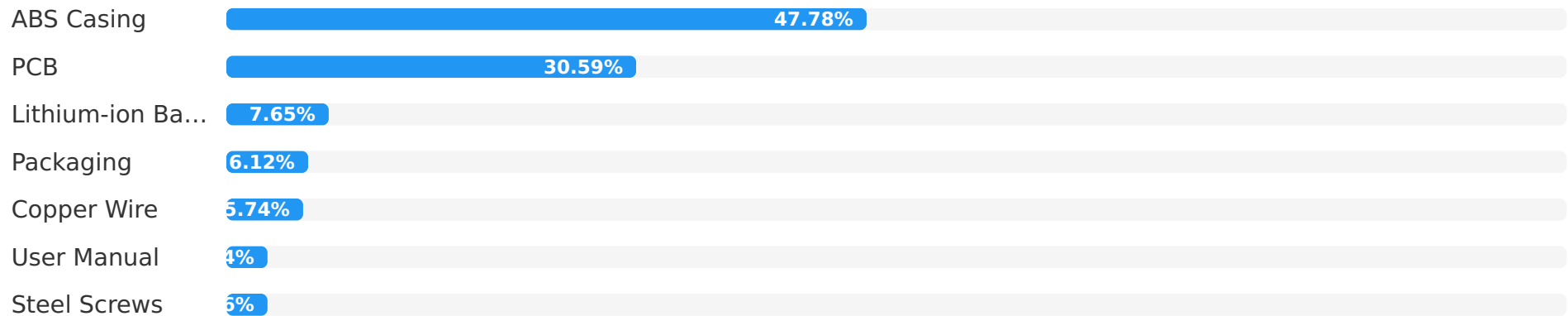
**Scope 3**

Downstream Transport (65.7%)

## Lifecycle Stage Breakdown (kgCO2e)



## Material Carbon Impact (Relative to Materials Total)



## Key Emission Highlights

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- **Downstream Transportation (Last-Mile Delivery)** is the most significant hotspot, contributing approximately 65.7% (20.0 kgCO<sub>2</sub>e/unit) of the total PCF, indicating a critical area for intervention.
- The **Use Phase** accounts for a substantial 24.6% (7.5 kgCO<sub>2</sub>e/unit) of emissions, emphasizing the importance of product energy efficiency over its 3-year lifespan.
- **Material Acquisition & Production** represents 8.6% (2.615 kgCO<sub>2</sub>e/unit), with the ABS Casing and Printed Circuit Board (PCB) being the largest contributors within this category.
- The high recyclability (75%) results in a **net carbon benefit at End-of-Life**, demonstrating the positive impact of circular economy initiatives.

## Recommendations for Carbon Reduction

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- ✓ **Optimize Last-Mile Logistics:** Implement route optimization, transition to electric delivery vehicles, and collaborate with low-carbon logistics providers to drastically cut transportation emissions.
- ✓ **Enhance Product Energy Efficiency:** Focus R&D on designs that minimize energy consumption during the product's use phase and explore integrating renewable energy charging solutions.
- ✓ **Sustainable Material Sourcing:** Prioritize suppliers with lower-carbon production processes, increase the use of recycled content, and actively explore innovative, low-impact materials.
- ✓ **Strengthen Circular Economy Initiatives:** Actively promote and expand take-back and recycling programs to maximize material recovery and avoid virgin material production, further leveraging EoL benefits.
- ✓ **Supplier Engagement:** Collaborate closely with upstream suppliers to gather primary emission data and support their decarbonization efforts, which is crucial for improving Scope 3 accuracy.