

Product Carbon Footprint:
ousnpvghtn

20.49 kg
CO2e
Total PCF per unit

Total Footprint

20.49

kg CO2e / unit

Carbon Intensity

20.49

kg CO2e / unit

Top Material Hotspot

Aluminum Casing

3.50 kg CO2e

Primary Emission Scope

Scope 3

Highlights & Emission Hotspots

- **Use Phase Dominance:** The product's operational lifespan contributes the most, accounting for **12.50 kg CO2e**, emphasizing the need for energy efficiency.
- **Upstream Materials Impact:** Raw material acquisition and processing are significant hotspots at **6.53 kg CO2e**, with Aluminum Casing being the primary contributor.
- **Net Positive End-of-Life:** Strong recyclability (**80%**) and take-back programs result in a net credit of **-1.56 kg CO2e**, showcasing circular economy benefits.

Recommendations for Reduction

1. **Enhance Use Phase Efficiency:** Optimize hardware, software, and user education to reduce energy consumption during product operation.
2. **Material Optimization:** Explore lower-carbon alternatives (e.g., recycled content, bio-based plastics) and collaborate with suppliers.
3. **Increase Renewable Energy:** Further boost renewable energy penetration at manufacturing facilities, beyond the current 70%.
4. **Optimize Logistics:** Streamline transport routes, explore lower-emission modes (rail/sea), and consolidate shipments.
5. **Strengthen Circularity:** Investigate increasing recyclability, repairability, and remanufacturing options for extended product life.

