html

carboncalcpcf.com

Product Carbon Footprint Dashboard

for **jfijpgysgo**

37.815 kg CO2e

Generated: May 21, 2026 | Standard: GHG Protocol | System Boundary: Cradle-to-Grave

Total Footprint

37.815 kg CO2e

Carbon Intensity

37.815 kg CO2e / unit

(for 1.0 unit)

Top Material Hotspot

Aluminum Alloy Casing

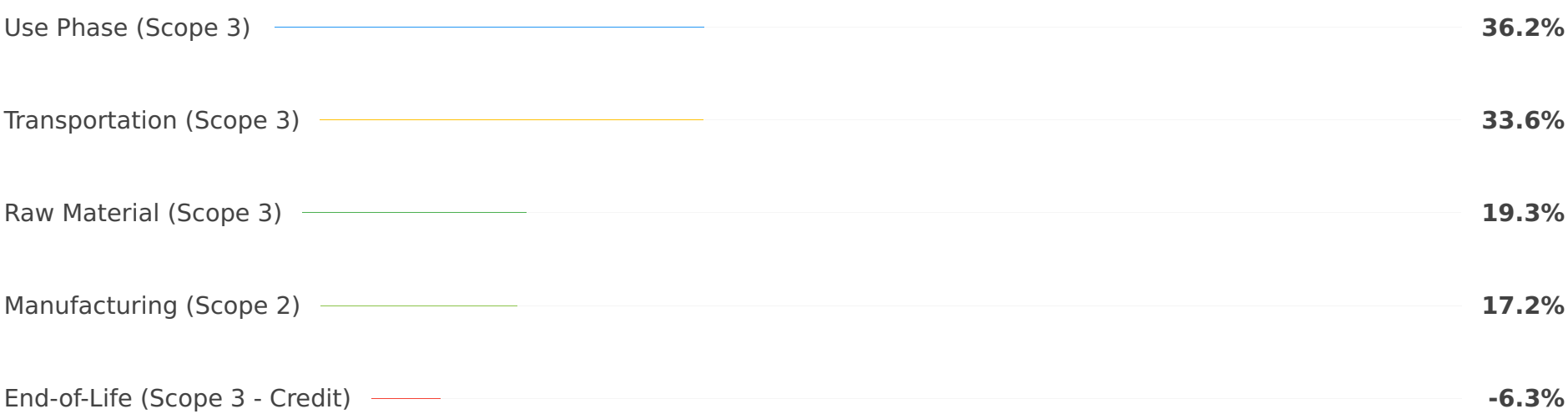
(3.00 kg CO2e)

Primary Emission Scope

Scope 3

(Upstream & Downstream)

Lifecycle Stage Breakdown



Material Carbon Impact

Aluminum Alloy Casing	**3.00 kg CO2e**
Electronic Components (PCB)	**3.00 kg CO2e**
ABS Plastic Housing	**0.93 kg CO2e**
Copper Wiring	**0.35 kg CO2e**

Key Highlights

- The **Use Phase** is the largest contributor, accounting for 36.2% of the total carbon footprint, emphasizing the need for energy-efficient product design.
- **Transportation & Distribution** is a significant hotspot at 33.6%, driven primarily by the last-mile delivery segment.
- **Raw Material Acquisition** contributes 19.3%, with Aluminum Alloy Casing and Electronic Components being major material-related impacts.
- **End-of-Life Treatment** provides a net carbon credit of -6.3% due to high recyclability and active circular programs, showcasing effective circular economy strategies.

Recommendations for GHG Reduction

1. **Product Design for Energy Efficiency:** Prioritize design improvements to significantly reduce energy consumption during the product's 5-year use phase.
2. **Sustainable Sourcing:** Actively explore and implement opportunities to source lower-carbon materials, including recycled content and materials from suppliers with certified low-carbon production processes.
3. **Renewable Energy Procurement:** Increase the percentage of renewable energy utilized in manufacturing operations in China, leveraging green power purchasing agreements or on-site solutions.
4. **Optimized Logistics:** Enhance efficiency by consolidating shipments, exploring alternative low-emission transport modes (e.g., rail), and optimizing last-mile delivery routes with electric vehicle fleets.
5. **Enhance Circularity:** Further develop and robustly promote circular economy initiatives, including comprehensive take-back programs, repair services, and advanced recycling infrastructure.