

carboncalcpcf.com

Product Carbon Footprint Dashboard

Product: mlmjvyiofm

Company: qxzqrelnnf

30.881 kg CO2e / unit

Calculated as of May 20, 2026 | Standard: GHG Protocol

Key Metrics

Total Carbon Footprint

30.881 kg CO₂e

Carbon Intensity

30.881 kg CO₂e / unit

Top Material Hotspot

Aluminum Casing (3.75 kg CO₂e)

Primary Emission Scope

Scope 3 (>99% of total)

Lifecycle Stage Breakdown

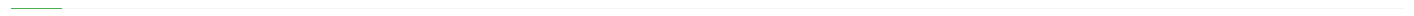
Use Phase:



Materials Acq. & Pre-proc.:



Manufacturing (Scope 1+2):



Upstream Transport:



Downstream Transport:



End-of-Life Credit:



Material Carbon Impact

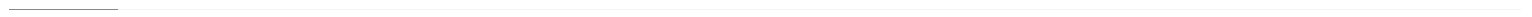
Aluminum Casing:



PCB Assembly:



Plastic Components:



Packaging (Cardboard):



Key Insights

□ **Use Phase Dominance:** The product's energy consumption during its 5-year lifespan accounts for nearly 81% of the total carbon footprint, making it the primary hotspot.

□ **Material Impact:** Raw material acquisition, particularly for aluminum casing (64% of material emissions) and PCB assembly, contributes significantly to upstream Scope 3 emissions.

□ **Renewable Energy Benefit:** The 75% renewable energy usage in manufacturing significantly mitigates Scope 2 emissions, demonstrating effective decarbonization efforts in production.

Recommendations for Emission Reduction

- **Optimize Use Phase:** Invest in R&D for more energy-efficient product designs and educate end-users on renewable energy use to drastically cut down use-phase emissions.
- ♻️ **Sustainable Material Sourcing:** Increase recycled content for aluminum and plastics, explore lower-impact alternatives, and engage with suppliers for emission transparency.
- ⚡ **Renewable Energy Expansion:** Further increase renewable energy procurement or implement on-site generation at manufacturing facilities to reduce remaining Scope 2 impacts.
- **Circular Economy Integration:** Strengthen the existing "Product Take-back Program" to maximize collection and ensure high-quality recycling or remanufacturing pathways.
- **Supply Chain Engagement:** Collaborate with key suppliers for improved data and joint reduction opportunities, especially for upstream transport and material processing.

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Senior Sustainability Consultant: ieptojhvvgp

Production Country: China | System Boundary: Factory-Gate (with extended lifecycle view)