

html

carboncalcpcf.com

Carbon Footprint Dashboard

Product: **mrevulehdx** | Company: **tueexqeqst**

Total Carbon Footprint 21.66 kgCO₂e/unit

21.66

Total PCF (kgCO₂e/unit)

Scope 3

Primary Emission Scope

Use Phase

Top Emission Hotspot

China

Production Country

Lifecycle Stage Breakdown

- Materials (43.5%)
- Manufacturing (8.0%)
- Upstream Transport (0.6%)
- Downstream Transport (0.2%)
- Use Phase (47.7%)

End-of-Life provides a net credit of -3.30 kgCO₂e.

Material Carbon Impact

Aluminum Casing

7.5 kgCO₂e

Circuit Board

2.0 kgCO₂e

Plastic Housing

0.7 kgCO₂e

Copper Wiring

0.5 kgCO₂e

Packaging (Cardboard)

0.15 kgCO₂e

Key Highlights

- The product's **Use Phase** (electricity consumption by end-users) is the dominant emission hotspot, accounting for approximately 55% of the total footprint.
- **Materials Acquisition & Pre-processing**, particularly the Aluminum Casing, contributes significantly to upstream emissions, representing roughly 50% of the gross upstream impact.
- **Manufacturing emissions (Scope 2)** are a notable contributor at nearly 9%, highlighting opportunities for increased renewable energy adoption at the China production facility.

Recommendations: How to Reduce Carbon Footprint

1. **Energy Efficiency & Renewables in Use Phase:** Investigate ways to reduce the product's energy consumption during its lifespan and encourage end-users to utilize renewable energy sources.
2. **Material Decarbonization:** Explore lower-carbon material alternatives, increase recycled content, and engage with suppliers to reduce the embodied emissions of components, especially for aluminum.
3. **Circular Economy Integration:** Strengthen and expand take-back and recycling programs to maximize end-of-life benefits and material recovery rates.
4. **Supplier Engagement for Data:** Prioritize collecting primary, specific supplier data for Bill of Materials and transport to enhance accuracy and identify further reduction opportunities.