

yimqrmkg Carbon Footprint

carboncalcpcf.com

Total Product Carbon
Footprint:

23.79
kgCO₂e

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23.79 kgCO₂e

Carbon Intensity (per unit)

23.79 kgCO₂e/unit

Top Material Hotspot

Aluminum Casing (4.00 kgCO₂e)

Primary Emission Scope

Scope 3 (93.45%)

Lifecycle Stage Breakdown

Materials Acquisition (Scope 3, Cat 1)		8.95 kg
Use Phase (Scope 3, Cat 11)		12.50 kg
Manufacturing (Scope 1 & 2)		1.56 kg
Transportation (Scope 3, Cat 4 & 9)		0.55 kg
End-of-Life (Scope 3, Cat 12)		0.23 kg

Material Composition Carbon Impact

Aluminum Casing		4.00 kg
Battery (Lithium-ion)		2.00 kg
Electronic Circuit Board (PCB)		1.50 kg
Plastic Enclosure (ABS)		1.05 kg

Highlights & Hotspots

- The **Use Phase** is the largest contributor, accounting for approximately 52.5% of the total PCF.
- **Materials Acquisition** accounts for about 37.6% of the total PCF, with aluminum and batteries being significant contributors.
- **Manufacturing Energy (Scope 2)** contributes around 6.5% to the total footprint, indicating reliance on grid electricity.

Action Plan to Reduce Footprint

- ✓ **Enhance Product Energy Efficiency:** Focus on design improvements to reduce energy consumption during the use phase.
- ✓ **Sustainable Material Sourcing:** Explore lower-carbon materials and optimize material usage, especially for aluminum and batteries.
- ✓ **Boost Renewable Energy Use:** Increase procurement of renewable electricity for manufacturing operations in China.
- ✓ **Promote Circularity:** Implement robust take-back and recycling programs to reduce end-of-life emissions.