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Product Carbon Footprint: rpzweegwxg

Company: jegtywhtqr | Date: May 20, 2026

Total PCF (per 1.0 unit)

75.31 kgC
O₂e

FUNCTIONAL UNIT

1.0 unit

rpzweegwxg

PRIMARY EMISSION SCOPE

Scope 3

72.21 kgCO₂e

TOP MATERIAL HOTSPOT

Aluminum Casing

5.60 kgCO₂e

PRODUCTION COUNTRY

China

GHG Protocol Standard

Lifecycle Stage Breakdown

Use Phase	62.50
Materials (S3 C1)	11.47
Production (S1+S2)	3.10
Logistics (S3 C4+C9)	1.12
End-of-Life (Reduction)	-2.88

Material Carbon Impact

Aluminum Casing	5.60 kgCO₂e
Printed Circuit Board (PCB)	2.70 kgCO₂e
Lithium-ion Battery Pack	2.40 kgCO₂e
Recycled Plastic Housing	0.45 kgCO₂e
Copper Wiring	0.20 kgCO₂e
Packaging	0.12 kgCO₂e

Key Emission Highlights

Dominant Use Phase: The product's energy consumption during its 5-year lifespan accounts for ~83% of the total carbon footprint.

Material Impact: Purchased goods and services, particularly aluminum casing and electronic components, contribute ~15% of total emissions.

Manufacturing Footprint: Purchased electricity for manufacturing represents ~4% of the total, indicating opportunities for renewable energy integration.

Recommendations for Reduction

Enhance Product Energy Efficiency: Prioritize design improvements to reduce energy consumption during the product's use phase.

Sustainable Sourcing: Investigate and implement lower-carbon materials and increase recycled content in key components (e.g., aluminum, plastics).

Decarbonize Production: Increase the share of renewable electricity used in the manufacturing facility in China through direct sourcing or renewable energy certificates.

Strengthen Circularity: Expand take-back and recycling programs to maximize material recovery and further reduce End-of-Life emissions.