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Product Carbon Footprint Dashboard

Detailed analysis for **redkvxhyje**

35.73 kg CO2e / unit

carboncalcpcf.com

Total Footprint

35.73 kg CO2e

Carbon Intensity

29.78 kg CO2e/kg

Top Material Hotspot

Aluminium (4.0 kg CO2e)

Primary Emission Scope

Scope 3 (~89.7% of total)

Lifecycle Stage Breakdown (Positive Contributions)

Raw Materials	7.84 kg CO2e (19.33%)
Production (Scope 1 & 2)	3.69 kg CO2e (9.09%)
Logistics	0.19 kg CO2e (0.46%)
Use Phase	28.85 kg CO2e (71.11%)
End-of-Life (Net Credit)	-4.84 kg CO2e (Reduces total by 13.53%)

Material Carbon Impact (from BOM)

Aluminium Casing	4.0 kg CO2e (51.02%)
Circuit Board (PCB)	2.5 kg CO2e (31.89%)
Plastic Enclosure (ABS)	0.7 kg CO2e (8.93%)
Copper Wiring	0.4 kg CO2e (5.10%)
Packaging (Cardboard)	0.24 kg CO2e (3.06%)

Key Highlights & Hotspots

- The **Use Phase accounts for the largest share (71.11%)** of positive emissions, totaling 28.85 kg CO2e. This is the primary hotspot.
- **Raw Material Acquisition is the second major contributor** (7.84 kg CO2e), with Aluminium Casing being the single largest material hotspot.
- The product benefits from a significant **net End-of-Life credit of -4.84 kg CO2e**, reducing the total footprint by 13.53% due to high recyclability (80%) and take-back programs.

Recommendations for Reduction

- **Energy Efficiency in Use Phase:**

  Investigate opportunities to reduce the product's energy consumption during its use, through design improvements or promoting efficient user behavior.

- **Material Optimization:**

  Explore alternative, lower-carbon materials or increase the recycled content in the product's design.

- **Renewable Energy Transition:**

  Continue to increase the share of renewable energy used in manufacturing operations at yrrisnxgqr's facilities in China.

- **Supply Chain Engagement:**

  Collaborate with suppliers to identify and reduce embodied emissions in raw materials and components, especially for high-impact items.

- **Enhance Circularity:**

  Further expand and promote take-back and recycling programs (lxyymxgten) to maximize material recovery and minimize waste.