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Product Carbon Footprint for gznhizhgex

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47.4 kg CO₂e per unit

Total Footprint

47.4 kg CO₂e

Carbon Intensity

47.4 kg CO₂e/unit

Top Material Hotspot

Steel

Primary Emission Scope

Scope 3 (Materials)

Lifecycle Stage Breakdown

Materials Acquisition	58.6% (27.76 kg CO ₂ e)
Production Energy (Scope 2)	9.7% (4.62 kg CO ₂ e)
Logistics (Up/Downstream)	1.3% (0.60 kg CO ₂ e)
Use Phase	30.4% (14.43 kg CO ₂ e)
End-of-Life (EoL)	Potential for Reduction

Material Composition vs. Carbon Impact

Steel	25.0 kg
Plastic Casing	1.6 kg
Circuit Board	1.0 kg
Packaging Cardboard	0.16 kg

Key Highlights

- **Materials Acquisition (58.6%)** represents the largest emission hotspot, driven significantly by high-impact materials like Steel.
- The **Use Phase (30.4%)** is a critical contributor, indicating energy consumption during the product's lifespan is substantial.
- **Production Energy (9.7%)** from manufacturing in China contributes to the footprint, highlighting the importance of renewable energy adoption.
- Upstream and Downstream **Logistics (1.3%)** currently represent a smaller portion but are still areas for optimization due to long-distance supply chains.

How to Reduce Footprint

1. **Optimize Materials:** Explore lower-carbon alternatives for components like steel, increase recycled content, and refine design for material efficiency.
2. **Boost Renewable Energy:** Accelerate the transition to 100% renewable energy for manufacturing operations in China to significantly cut Scope 2 emissions.
3. **Enhance Product Efficiency:** Design gznhzhgex for maximum energy efficiency during its use phase and extend its lifespan to reduce use-phase emissions.
4. **Streamline Logistics:** Optimize transport routes and modes (e.g., shift to sea/rail from air freight for European supply chain) and localize suppliers where feasible.

