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Product Carbon Footprint: nqnhyphrkp

Report by carboncalcpcf.com for hixhjrzuq

Total PCF (1 unit)
16.25 kg CO₂e

Total Footprint

16.25 kg CO2e

Per 1.0 unit of nqnhyphrkp

Carbon Intensity

16.25 kg CO2e/unit

Based on functional unit

Top Material Hotspot

Plastic Casing

1.75 kg CO2e (49.3% of raw materials)

Primary Emission Scope

Scope 3

9.75 kg CO2e (59.9% of total)

Detailed Emission Breakdown

Emissions by Lifecycle Stage

Raw Materials	3.55 kg CO2e (21.85%)
Manufacturing	6.50 kg CO2e (40.00%)
Transport	0.18 kg CO2e (1.11%)
Use Phase	6.00 kg CO2e (36.92%)
End-of-Life	0.02 kg CO2e (0.12%)

Raw Material Carbon Impact

(Based on 3.55 kg CO2e subtotal)

Plastic Casing	1.75 kg CO2e (49.3%)
Circuit Board Assembly	1.50 kg CO2e (42.3%)
Packaging (Cardboard)	0.20 kg CO2e (5.6%)
Steel Fasteners	0.10 kg CO2e (2.8%)

Key Emission Highlights

- **Manufacturing Dominates:** The production phase contributes 40% of the total PCF (6.50 kg CO₂e), primarily due to electricity consumption in China despite 60% renewable energy use.
- **Significant Use Phase Impact:** The product's operational lifespan adds 36.92% (6.00 kg CO₂e) to the footprint, highlighting the importance of energy efficiency during customer use.
- **Material Hotspots Identified:** Raw material acquisition accounts for 21.85% (3.55 kg CO₂e), with Plastic Casing (1.75 kg CO₂e) and Circuit Board Assembly (1.50 kg CO₂e) being the largest contributors.

Action Plan: How to Reduce Carbon Footprint

- **Enhance Manufacturing Decarbonization:** Invest further in renewable energy sources or high-quality renewable energy credits for China-based manufacturing facilities, aiming beyond the current 60% clean energy share.
- **Optimize Product Energy Efficiency:** Implement design improvements to reduce the energy consumption of nqnhyphrpk during its 3-year operational lifespan, potentially through more efficient components or power management.
- **Engage Supply Chain for Materials:** Collaborate with suppliers of Plastic Casing and Circuit Board Assembly to identify and source lower-carbon alternatives or encourage more sustainable production practices.
- **Strengthen Circular Economy:** Expand the company's existing take-back program to maximize material recovery and explore increasing the recyclability rate beyond 75% for all components.

Report Generated: May 28, 2026 | Prepared by Senior Sustainability Consultant jqsfxdqjq

Standard: GHG Protocol (including 2026 LSR update consideration)