# Carbon Footprint Dashboard

carboncalcpcf.com

Product PCF for ydfynqsfnh

**17.98 kgCO2e**

Total Product Footprint

## 17.98 kgCO2e

Carbon Intensity

## 17.98 kgCO2e/unit

For 1.0 unit of ydfynqsfnh

Top Emission Hotspot

## Use Phase

69.5% of total PCF

Primary Emission Scope

## Scope 3

17.55 kgCO2e (97.6% of PCF)

## Lifecycle Stage Breakdown

| | |
|---|---|
| Use Phase (Scope 3, Cat 11) | 12.50 kgCO2e (69.5%) |
| Materials (Scope 3, Cat 1) | 4.47 kgCO2e (24.9%) |
| Manufacturing Energy (Scope 2) | 0.43 kgCO2e (2.4%) |
| Downstream Transport (Scope 3, Cat 9) | 0.34 kgCO2e (1.9%) |
| End-of-Life (Scope 3, Cat 12) | 0.13 kgCO2e (0.7%) |
| Upstream Transport (Scope 3, Cat 4) | 0.11 kgCO2e (0.6%) |
| Direct Emissions (Scope 1) | 0.00 kgCO2e (0.0%) |

## Material Carbon Impact

| | |
|---|---|
| Plastic Casing | 1.75 kgCO2e (39.1%) |
| Metal Component | 1.60 kgCO2e (35.8%) |
| Electronic Board | 1.00 kgCO2e (22.4%) |
| Packaging Material | 0.12 kgCO2e (2.7%) |

*Percentages are relative to Total Material Emissions (4.47 kgCO2e) and do not include transportation impacts.

## Highlights & Key Findings

- **Use Phase Dominance:** The product's energy consumption over its 5-year lifespan is the most significant contributor, accounting for approximately 69.5% of the total carbon footprint.
- **Material Hotspot:** Purchased goods and services, particularly raw materials, represent a substantial 24.9% of the PCF. Within materials, **Plastic Casing** is the top hotspot at 1.75 kgCO2e (39.1% of material emissions).
- **Manufacturing Efficiency:** Emissions from manufacturing energy (Scope 2) are relatively low at 2.4%, indicating good operational efficiency or a high percentage of renewable energy usage (assumed 50%).

## Recommended Actions for Reduction

1. **Use Phase Optimization:** Investigate opportunities for more energy-efficient product designs and components to extend product lifespan.
2. **Sustainable Sourcing:** Collaborate with suppliers to procure lower-carbon materials, increase recycled content, and gather primary emission data.
3. **Renewable Energy Integration:** Further increase renewable energy usage at manufacturing facilities and influence adoption throughout the supply chain.
4. **Circular Economy Initiatives:** Enhance the existing product take-back program to maximize recycling rates beyond 60% and explore material closed-loop systems.
5. **Data Enhancement:** Systematically collect primary data across all lifecycle stages for improved PCF accuracy and compliance with GHG Protocol's 95% Scope 3 coverage rule.