

Product Carbon Footprint (PCF) Dashboard

Analysis for: pvzhkuqvil

carboncalcpcf.com

18.16 kg CO₂e
Total Illustrative PCF per unit

18.16

kg CO₂e / unit (Total Footprint)

18.16

Carbon Intensity (kg CO₂e per unit)

Use Phase

Primary Emission Hotspot

Scope 3

Predominant Emission Scope

Lifecycle Stage Breakdown (Illustrative)

Materials Acquisition	7.55 kgCO ₂ e
Manufacturing (Scope 2)	0.81 kgCO ₂ e
Logistics	0.39 kgCO ₂ e
Use Phase	15.0 kgCO ₂ e
End-of-Life (Credit)	-5.59 kgCO ₂ e

Key Insights & Hotspots

- **Use Phase** contributes the most significant share, representing approximately 83% of the net positive PCF.
- **Materials Acquisition & Pre-processing** is a substantial factor, contributing roughly 42% of the net positive PCF.
- The **End-of-Life** stage generates a significant net carbon credit, effectively reducing the product's overall carbon footprint.

Top Material Carbon Impact (Illustrative)

Aluminium Casing	5.0 kgCO ₂ e
Circuit Board	1.5 kgCO ₂ e
Plastic Enclosure	0.7 kgCO ₂ e
Copper Wiring	0.2 kgCO ₂ e
Packaging Cardboard	0.15 kgCO ₂ e

Recommendations for GHG Reduction

- ✓ Enhance **Use Phase Efficiency** through product design for lower energy consumption during lifespan.
- ✓ Implement **Sustainable Material Sourcing**, exploring lower carbon alternatives, recycled content, or bio-based materials.
- ✓ Optimize **Manufacturing Energy** by increasing renewable energy usage and improving process efficiency.
- ✓ Further analyze and optimize **Logistics** (modes and routes) to minimize transportation emissions.

