To include "Inter" and "Roboto" fonts, the `@import` rule can be used at the top of the `

Product Carbon Footprint: qopghenowz

carboncalcpcf.com

Total Product PCF

61.82 kg CO2e

Total Footprint

61.82 kg CO2e

Per 1.0 unit of qopghenowz

Carbon Intensity

61.82 kg CO2e/unit

Aligned with GHG Protocol

Top Emission Hotspot

Use Phase

~59.4% of total PCF

Primary Emission Scope

Scope 3

Covers vast majority of indirect emissions

Lifecycle Stage Breakdown

Raw Materials	**17.85 kg CO2e (28.87%)**
Production Energy	**2.88 kg CO2e (4.66%)**
Logistics	**4.30 kg CO2e (6.96%)**
Use Phase	**36.75 kg CO2e (59.45%)**
End-of-Life	**0.04 kg CO2e (0.06%)**

Material Composition Carbon Impact

Aluminum Casing	**7.50 kg CO2e**
Lithium-ion Battery	**4.50 kg CO2e**
PCB	**3.20 kg CO2e**
Copper Wiring	**1.20 kg CO2e**
Recycled Plastic	**1.00 kg CO2e**
Packaging	**0.45 kg CO2e**

Key Insights & Highlights

- The **Use Phase** is the single largest contributor to the product's carbon footprint, accounting for approximately 59.4% of total emissions.
- **Raw Material Acquisition** (particularly Aluminum Casing and Lithium-ion Battery) is the second most significant hotspot, representing around 28.9% of the total PCF.
- **Last-Mile Transport** within logistics shows a disproportionately high impact, indicating optimization potential in local distribution networks.

Action Plan for Carbon Reduction

- **Energy Efficiency in Use:** Prioritize design improvements to reduce energy consumption during the product's operational lifespan.
- **Sustainable Material Sourcing:** Explore alternative lower-carbon materials and increase recycled content, especially for high-impact components.
- **Optimized Logistics:** Investigate more efficient transport modes and distribution channels to reduce last-mile emissions.
- **Circular Economy Enhancement:** Leverage take-back programs to further boost recyclability and explore repair/refurbishment models.
- **Renewable Energy Adoption:** Increase the use of renewable energy at manufacturing facilities to reduce Scope 2 emissions.