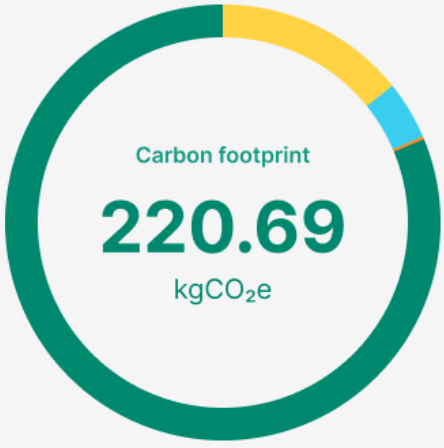
Synology

Product Carbon Footprint Report

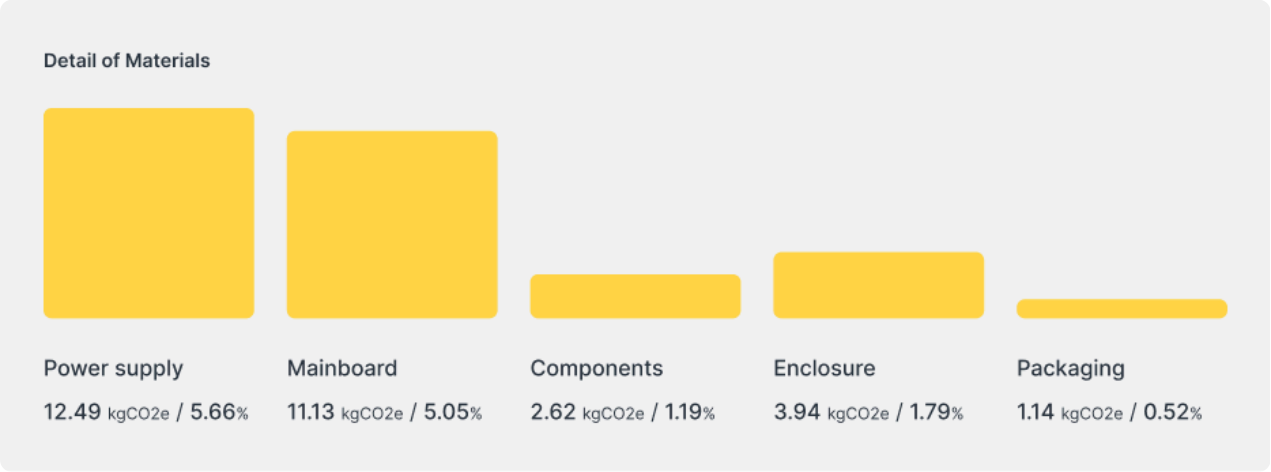
DiskStation DS425+

Synology is dedicated to improving the environmental impact of its products. As part of this commitment, carbon impacts are meticulously assessed across product life cycles. This evaluation encompasses factors such as material sourcing, manufacturing processes, transportation logistics, and end-of-life product management.

Estimated carbon footprint and impact by life cycle stage



Materials	31.33 kgCO2e / 14.20%
Manufacturing	9.58 kgCO2e / 4.34%
Transportation	0.48 kgCO2e / 0.22%
Product use	179.30 kgCO2e / 81.24%



Assumptions used for calculating carbon footprint

Country of origin	Taiwan
Usage life	3 years
Memory capacity	2 GB
HDD/SSD quantity	3.5" HDD x 4
Product weight	5.83 kg
Yearly total energy consumption	118 kWh

About the data

Synology's life cycle assessment methodology adheres to ISO 14040/14044 standards. Data from SimaPro and the Ecoinvent database is used to estimate emissions throughout the product life cycle. Greenhouse gas emissions are quantified as CO2-equivalent (GtCO2-eq) emissions using weightings based on GWP100-AR6 from the 2022 IPCC Sixth Assessment Report.

Uncertainty

Calculating a product's carbon footprint requires a comprehensive assessment of its entire life cycle. This involves estimating and quantifying the impacts of greenhouse gas emissions at each stage, including raw material production, transportation, product manufacturing, consumer use, and product disposal. The process utilizes actual audit data from first-tier suppliers and assembly plants, as well as information on the raw materials used by suppliers. However, the life cycle coefficients for the raw materials are primarily derived from the life cycle analysis database SimaPro, rather than from primary data.

SYNOLOGY INC.