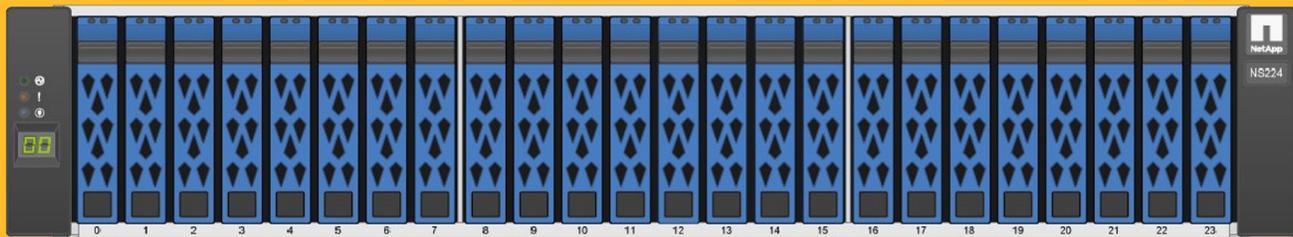


NS224

PRODUCT CARBON FOOTPRINT REPORT



Intelligent Data Infrastructure is Sustainable Data Infrastructure. Sustainability starts with data, and NetApp provides customers with energy efficient and resilient solutions for their data infrastructures.

NetApp® NS224 storage shelves support up to 24 SSDs in a 2U chassis and are used primarily on ONTAP AFF and ASA storage systems. The NS224 features NVMe SSDs and 100GbE connectivity with raw capacity points scaling from 15.2TB to 17.7PB.

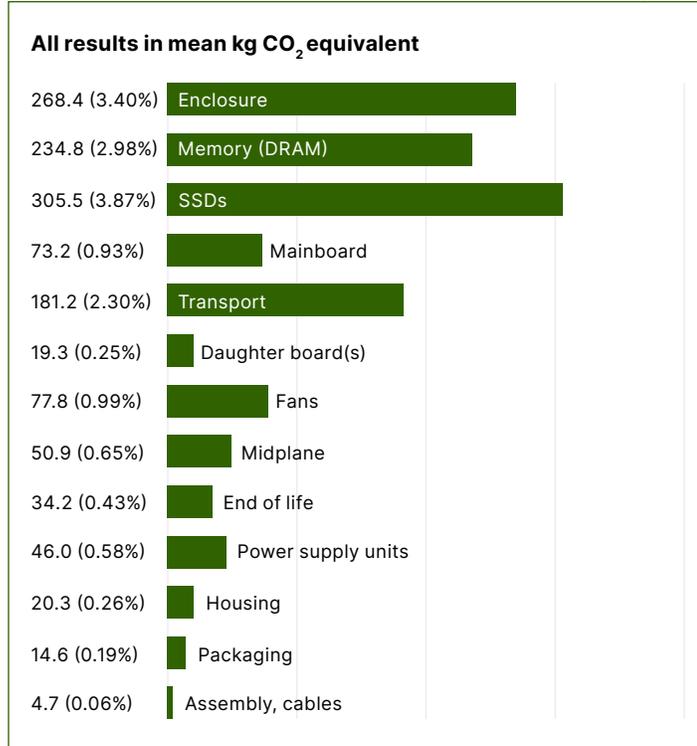
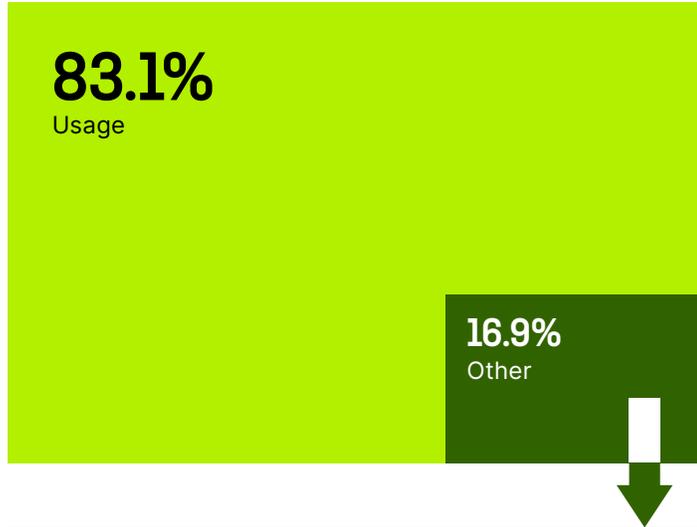
Data centers are significant consumers of electricity and contribute to global greenhouse gas emissions. NetApp provides lifetime carbon footprint estimates for its storage solutions to help customers understand the environmental impacts of these systems.

NetApp uses the Product Attribute to Impact Algorithm (PAIA) to calculate the carbon emissions associated with a product through its lifecycle, encompassing raw material acquisition, manufacturing, distribution, product use, and final disposition. PAIA is a streamlined product carbon footprint methodology developed by the Materials Systems Laboratory at the Massachusetts Institute of Technology (MIT) and is recognized globally for assessing the environmental impacts associated with the entire lifecycle of a product.

PAIA PCF analysis estimates are not intended for comparing products from different suppliers. For more information about PAIA, see this [overview](#).

Estimated lifetime carbon footprint for NS224 systems: 7,884.8 kg CO₂e¹

The majority of a product's lifetime carbon footprint is from its use. "Other" includes activities from upstream manufacturing/supply chain and downstream end of life.



Assumptions used in this analysis are shown below.²



Use location³
EU



Country of origin
Hungary



Usage life
4 years



Memory (HA)
64GB



CPU cores (HA)
8



SSD count
24



Weight
30.2 kg



Transportation
1500 km/air
600 km/truck



Total energy consumption⁴
4,450 kWh/year

Footnotes

- 1 All estimates of environmental impact and/or carbon footprint are uncertain. PAIA analyses provide reasonable estimates of the carbon impact of products, along with a range of uncertainty of the results. Standard deviation for this analysis is +/- 1,539.7 kg CO₂e.
- 2 This analysis used PAIA version 1.4.7. Future results could change as the tool is updated.
- 3 Use location for this PAIA analysis is EU; actual emissions calculations are dependent on where the equipment is used (specific state/country).
- 4 Total energy consumption is based on the fiftieth percentile of power utilization being reported across all customer AFF and ASA systems with NS224 shelves sending AutoSupport information into NetApp. The AFF and ASA systems field population used in our power consumption analysis focuses on the most common configuration used by customers. Power consumption on NS224 shelves varies with environment and workload demand. Concise power consumption and environmental analysis of your NS224 storage shelves are available in the BlueXP Sustainability Dashboard, which uses telemetry from your system in its analysis. Learn about our sustainability initiatives [here](#).



Contact Us

About NetApp

NetApp is the intelligent data infrastructure company, combining unified data storage, integrated data services, and CloudOps solutions to turn a world of disruption into opportunity for every customer. NetApp creates silo-free infrastructure, harnessing observability and AI to enable the industry's best data management. As the only enterprise-grade storage service natively embedded in the world's biggest clouds, our data storage delivers seamless flexibility. In addition, our data services create a data advantage through superior cyber resilience, governance, and application agility. Our CloudOps solutions provide continuous optimization of performance and efficiency through observability and AI. No matter the data type, workload, or environment, with NetApp you can transform your data infrastructure to realize your business possibilities. Learn more at www.netapp.com or follow us on [X](#), [LinkedIn](#), [Facebook](#), and [Instagram](#).

