The Cisco NX-OS Network operating system’s key capabilities include the following:

**Extensive programmability:**
- Day-zero automation through Power On Auto Provisioning, drastically reducing provisioning time
- Industry-leading integrations for leading DevOps configuration-management applications, including Ansible, Chef, Puppet, and SaltStack
- Extensive Native YANG and industry-standard OpenConfig model support through RESTCONF/NETCONF and gRPC
- Pervasive APIs for all-switch CLI functions with NX-API (JSON-based RPC over HTTP/HTTPs)
- Comprehensive software development kit for custom Cisco NX-OS applications with NX-SDK on Python, Go, and C++
- Modular and secure application integration architecture, with support for Secure LXC and Docker application hosting options natively in Cisco NX-OS

**Pervasive visibility:**
- Network-software state is exposed through a comprehensive publish/subscribe centralized database (DME) accessible through gRPC/Protobufs, http/JSON, and YANG-state streaming
- Cloud-scale ASICs enable flow-state awareness and granular subsecond access to utilization metrics for microburst awareness and queue occupancy for large-scale RDMA over Converged Ethernet (RoCE) storage environments
- Advanced buffer monitoring reports real-time buffer use per port and per queue, which allows organizations to monitor traffic bursts and application traffic patterns
- Network traffic monitoring with Cisco Nexus® Data Broker builds simple, scalable, and cost-effective network Test Access Points (TAPs) and Cisco® Switched Port Analyzer (SPAN) aggregation for network traffic monitoring and analysis
Cisco NX-OS: Industry Leading Data Center Operating System

Highly available:
- Enables network high availability through a network operating system with support for hitless zero-packet-loss upgrade of Cisco NX-OS (ISSU) architected using seamless switchover between Cisco NX-OS LXC containers
- Fast reload of network platforms for upgrade, with stateless process restart with minimal impact to the control and data plane
- Graceful insertion and removal allows devices to be seamlessly removed from and reinserted into the network during maintenance operations
- All processes support stateful process restart and are patchable through RPMs or software maintenance upgrade packages through Cisco NX-OS CLI or Linux workflows

Architectural flexibility:
- Industry-leading support for standards-based VXLAN EVPN fabrics, inclusive of hierarchical multisite support
- Three-tier BGP architectures, enabling horizontal, nonblocking IPv6 network fabrics at webscale
- Segment routing allows the network to forward Multiprotocol Label Switching (MPLS) packets and engineer traffic without Resource Reservation Protocol (RSVP) Traffic Engineering (TE). It provides a control-plane alternative for increased network scalability and virtualization
- Comprehensive protocol support for Layer 3 (v4/v6) unicast and multicast routing protocol suites, including BGP, Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP), Routing Information Protocol Version 2 (RIPv2), Protocol Independent Multicast Sparse Mode (PIM-SM), Source-Specific Multicast (SSM), and Multicast Source Discovery Protocol (MSDP)

Network modeling:
- N9Kv (Virtual NX-OS) extends automation and operational models for DevOps and NetOps integration, with images based on VMware, KVM, and Fusion
- Extensive support for N9Kv is available through Virtual Internet and Routing Lab (Cisco VIRL) and Cisco Modeling Labs (CML). Not available on Azure at this time

Closed-loop automation:
- Data Center Network Manager (DCNM) 11 is the network management platform for all Cisco NX-OS–enabled deployments, spanning new fabric architectures, IP Fabric for media, and storage networking deployments for the Cisco Nexus–powered data center
- Accelerate provisioning from days to minutes and simplify deployments from day zero through day N
- Reduce troubleshooting cycles with graphical operational visibility for topology, network fabric, and infrastructure
- Eliminate configuration errors and automate ongoing changes in a closed loop, with templated deployment models and configuration compliance alerting with automatic remediation
- Real-time health summary for fabric, devices, and topology
- Correlated visibility for fabric (underlay and overlay, and virtual and physical endpoints), including compute visualization with VMware

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Cloud-scale platform-enhanced buffering, forwarding, security and scale:

- Wire-rate Layer 2 and 3 switching on all ports
- Flexible forwarding tables support up to 1 million shared entries on FX2 models and up to 2 million shared entries on FX models. Flexible use of TCAM space and profiles allows for customized definition of scale profiles depending on your deployment needs
- IEEE 802.1ae MAC Security (MACsec) support with speeds greater than or equal to 10 Gbps allows traffic encryption at the physical layer and provides secure server, border leaf, and leaf-to-spine connectivity
- Platform offers lossless transport for RDMA over Converged Ethernet (RoCE) with support of Data Center Bridging (DCB) protocols:
  - Priority-based Flow Control (PFC) prevents drops in the network and pauses frame propagation per priority class
  - Enhanced Transmission Selection (ETS) reserves bandwidth per priority class in network contention situations
  - Data Center Bridging Exchange Protocol (DCBX) discovers and exchanges priority and bandwidth information with endpoints
  - Explicit Congestion Notification (ECN) provides end-to-end notification per IP flow by marking packets that experienced congestion without dropping traffic. The platform is capable of tracking ECN statistics on the number of marked packets that have experienced congestion
  - Fiber Channel and Fibre Channel over Ethernet (FCoE) N-Port Virtualization (NPV) enables LAN and SAN converged networks on a lossless, reliable ethernet network

Cisco Tetration™ platform support:

- The telemetry information from the Cisco Nexus 9300 Series Switches is exported every 100 milliseconds by default directly from the switch’s Application-Specific Integrated Circuit (ASIC). This information consists of three types of data: (a) flow information, which contains information about endpoints, protocols, ports, when the flow started, how long the flow was active, etc.; (b) information on inter-packet variations, which captures any inter-packet variations within the flow (examples include variation in Time To Live (TTL), IP and TCP flags, payload length, etc.); and (c) context information, which is derived outside the packet header and includes variations in buffer utilization, packet drops within a flow, association with tunnel endpoints, etc.

The Cisco Tetration platform consumes this telemetry data and, by using unsupervised machine learning and behavior analysis, can provide outstanding pervasive visibility across everything in your data center in real time. By using algorithmic approaches, the Cisco Tetration platform provides deep application insights and interactions, enabling dramatically simplified operations, a zero-trust model, and migration of applications to any programmable infrastructure. To learn more, go to https://www.cisco.com/go/tetration.
Cisco Nexus flexible consumption options

Some of the largest web-scale customers require the flexibility to run their own operating system, and Cisco Nexus support for the SAI industry standard hardware abstraction interface (Figure 1) enables open integration of operating systems like Sonic for our platforms. This open integration for our industry leading Cisco Nexus 9300 Cloud Scale and Cisco Nexus 3400 platforms allows customers the freedom to run the network operating system of their choice on our SAI-ready Cisco Nexus platforms.

Figure 1. Cisco Nexus SAI architecture

Cisco Nexus 9300 Switches

The Cisco Nexus 9300 belongs to the fixed Cisco Nexus 9000 Series Switches based on Cisco Cloud Scale technology. The platform supports cost-effective cloud-scale deployments, an increased number of endpoints, and cloud services with wire-rate security and telemetry. The platform is built on modern system architecture designed to provide high performance and meet the evolving needs of highly scalable data centers and growing enterprises.

These switches offer a variety of interface options to transparently migrate existing data centers from speeds of 100 Mbps, 1 Gbps, and 10 Gbps to 25 Gbps at the server, and from speeds of 10 and 40 Gbps to 50 Gbps, 100 Gbps, and 400 Gbps at the aggregation layer. The platform provides investment protection for customers, delivering large buffers, highly flexible Layer 2 and Layer 3 scalability, and performance to meet the changing needs of virtualized data centers and automated cloud environments. The Cisco Nexus 9300-GX Switches are the next generation of fixed Cisco Nexus 9000 Series Switches. The platform introduces a fully backward-compatible 400G optical interface Quad Small Form-Factor Pluggable—Double Density (QSFP-DD) to transparently migrate existing data center fabrics from speeds of 40 Gbps and 100 Gbps to 400 Gbps.

Cisco Nexus 9300 Switches deployed in the Cisco ACI mode support Network Assurance Engine (NAE). NAE continuously verifies if the network infrastructure is operating as per policy intent; it leverages the power of mathematical models to reason on behalf of the operator in policy, configuration, and dynamic state level. NAE can precisely indicate problems in the network, identify which application or part of a network is impacted, root-cause the problem, and suggest how to fix it. Its continuous verification approach transforms Day 2 Operations from reactive to proactive mode and does so without using any packet data. NAE helps avoid outages by predicting the impact of changes, reducing network-related IT incidents, and shrinking the mean time to repair by up to 66 percent. NAE also helps ensure network security and segmentation compliance. To learn more about NAE, visit https://www.cisco.com/c/en/us/products/data-center-analytics/network-assurance-engine/index.html.
# Cisco Nexus 9300 Switch models

The Cisco Nexus 9300 Switches offer industry-leading density and performance with flexible port configurations that can support existing copper and fiber cabling (Tables 1, 2).

<table>
<thead>
<tr>
<th>Feature</th>
<th>100M/1GT</th>
<th>100M/1/10GT</th>
<th>1/10/25G SFP28</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cisco Nexus 9348GC-FXP</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ports</strong></td>
<td>48 x 1-GBASE-T ports, 4 x 10/25-Gbps SFP28 ports and 2 x 40/100 QSFP28 ports</td>
<td>48 x 10GBASE-T and 6 x 40/100-Gbps QSFP28 ports</td>
<td>48 x 10/25-Gbps and 6 x 40/100-Gbps QSFP28 ports</td>
</tr>
<tr>
<td><strong>CPU</strong></td>
<td>4 cores</td>
<td>4 cores</td>
<td>6 cores</td>
</tr>
<tr>
<td><strong>System memory</strong></td>
<td>24 GB</td>
<td>24 GB</td>
<td>24 GB</td>
</tr>
<tr>
<td><strong>SSD drive</strong></td>
<td>128 GB</td>
<td>128 GB</td>
<td>128 GB</td>
</tr>
<tr>
<td><strong>System buffer</strong></td>
<td>40 MB</td>
<td>40 MB</td>
<td>40 MB</td>
</tr>
<tr>
<td><strong>Management ports</strong></td>
<td>2 ports: 1 RJ-45 and 1 SFP+</td>
<td>2 ports: 1 RJ-45 and 1 SFP+</td>
<td>1 RJ-45 port (L1 and L2 ports are unused)</td>
</tr>
<tr>
<td><strong>USB ports</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>RS-232 serial ports</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Power supplies (up to 2)</strong></td>
<td>350W AC, 440W DC</td>
<td>500W AC, 930W DC, or 1200W HVAC/HVDC</td>
<td>500W AC, 930W DC, or 1200W HVAC/HVDC</td>
</tr>
<tr>
<td><strong>Typical power (AC/DC)</strong></td>
<td>178W</td>
<td>276W</td>
<td>260W</td>
</tr>
<tr>
<td><strong>Maximum power (AC/DC)</strong></td>
<td>287W</td>
<td>460W</td>
<td>425W</td>
</tr>
<tr>
<td><strong>Fans</strong></td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Airflow</strong></td>
<td>Port-side intake and exhaust</td>
<td>Port-side intake and exhaust</td>
<td>Port-side intake and exhaust</td>
</tr>
<tr>
<td><strong>Physical dimensions</strong> (H x W x D)</td>
<td>1.72 x 17.3 x 19.7 in. (4.4 x 43.9 x 49.9 cm)</td>
<td>1.72 x 17.3 x 22.5 in. (4.4 x 43.9 x 57.1 cm)</td>
<td>1.72 x 17.3 x 22.5 in. (4.4 x 43.9 x 57.1 cm)</td>
</tr>
<tr>
<td><strong>Cisco Nexus 93108TC-FX</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ports</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CPU</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>System memory</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SSD drive</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>System buffer</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Management ports</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>USB ports</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RS-232 serial ports</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Power supplies (up to 2)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Typical power (AC/DC)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maximum power (AC/DC)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fans</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Airflow</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical dimensions</strong> (H x W x D)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Typical and maximum power values are based on input drawn from the power circuit. The power supply value (for example, 500W AC power supply: NXA-PAC-500W-PI) is based on the output rating to the inside of the switch.
### Table 2. Cisco Nexus 9300 Switch high-density platform specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>40/100G</th>
<th>40/100/400G</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cisco Nexus 9336C-FX2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ports</td>
<td>36 x 40/100-Gbps QSFP28 ports</td>
<td>64 x 40/100-Gbps QSFP28 ports and 2 x 1/10-Gbps SFP ports</td>
</tr>
<tr>
<td><strong>Cisco Nexus 9364C</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPU</td>
<td>4 cores</td>
<td>4 cores</td>
</tr>
<tr>
<td>System memory</td>
<td>24 GB</td>
<td>32 GB</td>
</tr>
<tr>
<td>SSD drive</td>
<td>128 GB</td>
<td>128 GB</td>
</tr>
<tr>
<td>System buffer</td>
<td>40 MB</td>
<td>40 MB</td>
</tr>
<tr>
<td>Management ports</td>
<td>2 ports: 1 RJ-45 and 1 SFP+</td>
<td>2 ports: 1 RJ-45 and 1 SFP+ 1</td>
</tr>
<tr>
<td>USB ports</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>RS-232 serial ports</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Power supplies (up to 2)</td>
<td>1100W AC, 1100W DC, 1100W HVAC/HVDC</td>
<td>1200W AC, 930W DC(^1) or 1200W HVAC/HVDC</td>
</tr>
<tr>
<td>Typical power (AC)</td>
<td>367W</td>
<td>429W</td>
</tr>
<tr>
<td>Maximum power (AC)</td>
<td>777W</td>
<td>1245W</td>
</tr>
<tr>
<td>Fans</td>
<td>3 dual fan trays</td>
<td>5</td>
</tr>
<tr>
<td>Airflow</td>
<td>Port-side intake and exhaust</td>
<td>Port-side intake and exhaust</td>
</tr>
<tr>
<td>Physical dimensions</td>
<td>1.72 x 17.3 x 24.5 in. (4.4 x 43.9 x 62.3 cm)</td>
<td>3.8 x 17.37 x 22.27 in. (8.59 x 44.13 x 56.58 cm)</td>
</tr>
</tbody>
</table>

**Note:**

- 930W-DC PSU is supported in redundancy mode if 3.5W QSFP+ modules or Passive QSFP cables are used and the system is used in 40°C ambient temperature or less; for other optics or higher ambient temperatures, 930W-DC is supported with 2 PSU’s in nonredundancy mode only.
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Specifications

Table 3 lists the performance and scalability specifications for the Cisco Nexus 9300 Switches. (Check the software release notes for feature support information.)

Table 3. Hardware performance and scalability specifications*

<table>
<thead>
<tr>
<th>Item</th>
<th>Cisco Nexus 9300-FX Series</th>
<th>Cisco Nexus 9300-FX2 Series</th>
<th>Cisco Nexus 9364C Switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum number of Longest Prefix Match (LPM) routes**</td>
<td>1,792,000</td>
<td>896,000</td>
<td>262,000</td>
</tr>
<tr>
<td>Maximum number of IP host entries**</td>
<td>1,792,000</td>
<td>896,000</td>
<td>262,000</td>
</tr>
<tr>
<td>Maximum number of MAC address entries**</td>
<td>512,000</td>
<td>256,000</td>
<td>92,000</td>
</tr>
<tr>
<td>Maximum number of multicast routes</td>
<td>32,000</td>
<td>32,000</td>
<td>32,000</td>
</tr>
<tr>
<td>Number of Interior Gateway Management Protocol (IGMP) snooping groups</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum number of Cisco Nexus 2000 Series Fabric Extenders per switch</td>
<td>16</td>
<td>16</td>
<td>NA</td>
</tr>
<tr>
<td>Maximum number of Access Control List (ACL) entries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum number of VLANs</td>
<td>3,967</td>
<td>3,967</td>
<td>3,967</td>
</tr>
<tr>
<td>Number of Virtual Routing and Forwarding (VRF) instances</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Check the software release notes for feature support information.
** Specifications valid for single-slice forwarding engines.
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<table>
<thead>
<tr>
<th>Item</th>
<th>Cisco Nexus 9300-FX Series</th>
<th>Cisco Nexus 9300-FX2 Series</th>
<th>Cisco Nexus 9364C Switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum number of ECMP paths</td>
<td>64</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td>Maximum number of port channels</td>
<td>512</td>
<td>512</td>
<td>1,024</td>
</tr>
<tr>
<td>Maximum number of links in a port channel</td>
<td>32</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Number of active SPAN sessions</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Maximum number of VLAN's in Rapid Per-VLAN Spanning Tree (RPVST) instances</td>
<td>3,967</td>
<td>3,967</td>
<td>3,967</td>
</tr>
<tr>
<td>Maximum number of Hot-Standby Router Protocol (HSRP) groups</td>
<td>490</td>
<td>490</td>
<td>490</td>
</tr>
<tr>
<td>Number of Network Address Translation (NAT) entries</td>
<td>1,023</td>
<td>1,023</td>
<td>1,023</td>
</tr>
<tr>
<td>Maximum number of Multiple Spanning Tree (MST) instances</td>
<td>64</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td>Flow-table size used for Cisco Tetration platform</td>
<td>32,000</td>
<td>64,000</td>
<td>–</td>
</tr>
</tbody>
</table>

* More templates and greater scalability are on the roadmap. Refer to the [Cisco Nexus 9000 Series Verified Scalability Guide](#) documentation for the latest exact scalability values validated for specific software.

** Raw capacity of flow table.
Cisco NX-OS: Industry Leading Data Center Operating System

Service and support
Cisco offers a range of professional, solution, and product support services for each stage of your Cisco Nexus 9000 platform deployment:

- Cisco Data Center Quick Start Service for Cisco Nexus 9000 Series Switches: This offering provides consulting services that include technical advice and assistance to help deploy Cisco Nexus 9000 Series Switches.
- Cisco Data Center Accelerated Deployment Service for Cisco Nexus 9000 Series Switches: This service delivers planning, design, and implementation expertise to bring your project into production. The service also provides recommended next steps, an architectural high-level design, and operation-readiness guidelines to scale the implementation to your environment.
- Cisco Migration Service for Cisco Nexus 9000 Series Switches: This service helps you migrate from Cisco Catalyst® 6000 Series Switches to Cisco Nexus 9000 Series Switches.
- Cisco Product Support: Support service is available globally 24 hours a day, 7 days a week, for Cisco software and hardware products and technologies associated with Cisco Nexus 9000 Series Switches. Enhanced support options delivered by Cisco also include solution support for Cisco ACI, Cisco SMARTnet™ Service, and Cisco Smart Net Total Care® service.

For more information, visit https://www.cisco.com/go/services.

Cisco Nexus 3000 Switches
Based on industry-leading merchant silicon elements, Cisco Nexus 3000 has a comprehensive portfolio of fixed switches. The Cisco Nexus 34180YC and 3464C programmable switches are high-speed, low-power, high-density fixed data center switches. The Cisco Nexus 3400-S is the first 400G programmable switch series in the Cisco Nexus 3000 portfolio with 50 Gbps PAM4 Serial-Deserializers (SerDes), and is designed for data centers with industry-leading performance-per-watt power efficiency at low latency and offers leading analytics. The main benefits of the Cisco Nexus 3400-S switches are as follows:

- With the 12.8-Tbps ASIC, the Cisco Nexus 3432D-S provides 32 ports of 400G, allowing customers to grow at scale with fewer numbers of switches in their fabric, simplifying management, and reducing the cost and number of hops. At 400G, the Cisco Nexus 3400-S offers the lowest latency in the industry, of 370 nanoseconds at high-power efficiency.
- The Cisco Nexus 3400-S offers a programmable pipeline translated to flexible profiles, whether Longest-Prefix-Matching (LPM)-optimized or Layer 3 host-optimized. Customers can choose the profile to match their deployment needs.
- The Cisco Nexus 3400-S supports comprehensive encapsulation and tunneling technologies, Virtual Extensible LAN (VXLAN), VXLAN routing, MPLS, Generic Protocol Extension (GPE), and Geneve Network Virtualization using Generic Routing Encapsulation (NGRE).
- Cisco Nexus 3400-S switches enable deep network analytics, offering per-flow monitoring, queue forensics, and drop-packet forensics to help monitor customer networks.

For more information about the Cisco Nexus 9000 Series and latest software release information and recommendations, visit https://www.cisco.com/go/nexus9000.

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Cisco NX-OS: Industry Leading Data Center Operating System

**Switch models**

Table 4. Cisco Nexus 3000 Switch specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>1/10/25G SFP28</th>
<th>40/100G QSFP28</th>
<th>40/100/400G QSFPDD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco Nexus 34180YC</td>
<td>48 x 10/25-Gbps and 6 x 40/100-Gbps QSFP28 ports</td>
<td>64 x QSFP+/QSFP28 ports and 2 x SFP ports</td>
<td>32 x 40/100/400-Gbps QSFPDD ports and 2 x 100M/1G SFP ports</td>
</tr>
<tr>
<td>CPU</td>
<td>4 cores</td>
<td>4 cores</td>
<td>4 cores</td>
</tr>
<tr>
<td>System memory</td>
<td>16 GB</td>
<td>16 GB</td>
<td>16 GB</td>
</tr>
<tr>
<td>SSD drive</td>
<td>128 GB</td>
<td>128 GB</td>
<td>128 GB</td>
</tr>
<tr>
<td>System buffer</td>
<td>20 MB</td>
<td>22 MB</td>
<td>70 MB</td>
</tr>
<tr>
<td>Management ports</td>
<td>2 ports: 1 RJ-45 and 1 SFP</td>
<td>2 ports: 1 RJ-45 and 1 SFP</td>
<td>2 ports: 1 RJ-45 and 1 SFP+</td>
</tr>
<tr>
<td>USB ports</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>RS-232 serial ports</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Power supplies (up to 2)</td>
<td>500W AC, 930W DC, or 1200W HVAC/HVDC</td>
<td>1200W AC, 930W DC, or 1200W HVAC/HVDC</td>
<td>1100W AC</td>
</tr>
<tr>
<td>Typical power (AC/DC)</td>
<td>190W</td>
<td>460W</td>
<td>626W</td>
</tr>
<tr>
<td>Maximum power (AC/DC)</td>
<td>350W</td>
<td>1000W</td>
<td>1240W</td>
</tr>
<tr>
<td>Fans</td>
<td>4</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Physical dimensions (H x W x D)</td>
<td>1.72 x 17.3 x 22.5 in. (4.4 x 43.9 x 57.1 cm)</td>
<td>3.38 x 17.4 x 22.5 in. (8.6 x 44.1 x 57.1 cm)</td>
<td>1.75 x 17.29 x 25.4 in. (4.44 x 43.91 x 64.51 cm)</td>
</tr>
</tbody>
</table>

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