Cisco Nexus 9300-FX Series Switches
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Product overview

The Cisco Nexus® 9300-FX Series switches belongs to the fixed Cisco Nexus 9000 platform based on Cisco Cloud Scale technology. The platform support 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.

Cisco Nexus 9300-FX series switches offer a variety of interface options to transparently migrate existing data centers from 100-Mbps, 1-Gbps, and 10-Gbps speeds to 25-Gbps at the server, and from 10- and 40-Gbps speeds to 50- and 100-Gbps at the aggregation layer. The platforms provide 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.

Cisco provides two modes of operation for Cisco Nexus 9000 Series Switches. Organizations can use Cisco NX-OS Software to deploy the switches in standard Cisco Nexus switch environments (NX-OS mode). Organizations can also deploy the infrastructure that is ready to support the Cisco Application Centric Infrastructure (Cisco ACI™) platform to take full advantage of an automated, policy-based, systems-management approach (ACI mode).

Switch models

Table 1. Cisco Nexus 9300-FX Series Switches

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco Nexus 93180YC-FX</td>
<td>48 x 1/10/25-Gbps fiber ports and 6 x 40/100-Gbps QSFP28 ports</td>
</tr>
<tr>
<td>Cisco Nexus 93108TC-FX</td>
<td>48 x 100M/1/10GBase-T ports and 6 x 40/100-Gbps QSFP28 ports</td>
</tr>
<tr>
<td>Cisco Nexus 9348GC-FXP</td>
<td>48 x 100M/1G BASE-T ports, 4 x 10/25-Gbps SFP28 ports and 2 x 40/100-Gbps QSFP28 ports</td>
</tr>
</tbody>
</table>

The Cisco Nexus 93180YC-FX Switch (Figure 1) is a 1RU switch with latency of less than 1 microsecond that supports 3.6 Tbps of bandwidth and 1.2 bpps. The 48 downlink ports on the 93180YC-FX are capable of supporting 1-, 10-, or 25-Gbps Ethernet or as 16-, 32-Gbps Fibre Channel ports², creating a point of convergence for primary storage, compute servers, and back-end storage resources at the top of rack.

The 6 uplink ports can be configured as 40 and 100-Gbps Ethernet or FCoE ports, offering flexible migration options. The switch has IEEE compliant, FC-FEC and RS-FEC enabled for 25-Gbps support. All ports support wire-rate MACsec encryption². Please see the Licensing guide section to enable features on the platform.

¹ Capabilities to enable FC is on the software roadmap
² Capabilities to enable MACsec needs feature license, please see the Cisco Nexus 9000 Licensing Guide
Figure 1. Cisco Nexus 93180YC-FX Switch

The Cisco Nexus 93108TC-FX Switch (Figure 5) is a 1RU switch that supports 2.16 Tbps of bandwidth and over 850 mpps. The 48 10GBASE-T downlink ports on the 93108TC-FX can be configured to work as 100-Mbps, 1-Gbps, or 10-Gbps ports. The 6 uplinks ports can be configured as 40- and 100-Gbps ports, offering flexible migration options.

Figure 2. Cisco Nexus 93108TC-FX Switch

The Cisco Nexus 9348GC-FXP Switch (Figure 6) is a 1RU switch that supports 696 Gbps of bandwidth and over 250 mpps. The 48 1GBASE-T downlink ports on the 9348GC-FXP can be configured to work as 100-Mbps, 1-Gbps ports. The 4 ports of SFP28 can be configured as 1/10/25-Gbps and the 2 ports of QSFP28 can be configured as 40- and 100-Gbps ports. The Cisco Nexus 9348GC-FXP is ideal for big data customers that require a Gigabit Ethernet ToR switch with local switching.

Figure 3. Cisco Nexus 9348GC-FXP Switch

Features and benefits

The Cisco Nexus 9300-FX series provide the following features and benefits:

- **Architectural Flexibility**
  - Industry leading Software Defined Networking Solution Cisco ACI™ support.
  - Support for standards based VXLAN EVPN fabrics, inclusive of hierarchical multi-site support (refer to VXLAN Network with MP-BGP EVPN Control Plane for more information).
  - Three-tier BGP architectures, enabling horizontal, non-blocking IPv6 network fabrics at web-scale.
  - 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).

- **Extensive Programmability**
  - Day zero automation through Power On Auto Provisioning, drastically reducing provisioning time.
Industry leading integrations for leading devops configuration management applications – Ansible, Chef, Puppet, SALT. Extensive Native YANG and industry standard OpenConfig model support through RESTCONF/NETCONF.

Pervasive API's for all switch CLI functions (JSON based RPC over HTTP/HTTPs).

**High Scalability, Flexibility, and Security**

Flexible forwarding tables support up to 2 million shared entries on FX models. Flexible use of TCAM space allows for custom definition of Access Control List (ACL) templates.

IEEE 802.1ae MAC Security (MACsec) support on all ports of 9300-FX models with speed 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.

**Intelligent Buffer Management**

The platform offers Cisco's innovative [intelligent buffer management](#), that offers capability to distinguish mice and elephant flows and apply different queue management schemes to them based on their network forwarding requirements in the event of link congestion.

Intelligent buffer management functions are:

- **Approximate Fair Dropping (AFD) with Elephant trap (ETRAP).** AFD distinguishes long-lived elephant flows from short-lived mice flows, by using ETRAP. AFD exempts mice flows from the dropping algorithm so that mice flows will get their fair share of bandwidth without being starved by bandwidth-hungry elephant flows. Also, AFD tracks elephant flows and subjects them to the AFD algorithm in the egress queue to grant them their fair share of bandwidth.

- **ETRAP** measures the byte counts of incoming flows and compares this against the user defined ETRAP threshold. After a flow crosses the threshold, it becomes an elephant flow.

- **Dynamic Packet Prioritization (DPP)** provides the capability of separating mice flows and elephant flows into two different queues so that buffer space can be allocated to them independently. Mice flows, sensitive to congestion and latency can take priority queue and avoid re-ordering that allows to elephant flows to take full link bandwidth.

**RDME over Converged Ethernet – RoCE Support**

Platform offers lossless transport for RDMA over Converged Ethernet with support of DCB protocols:

- **Priority-based Flow Control** – (PFC) to prevent drops in the network and pause frame propagation per priority class.

- **Enhanced Transmission Selection** – (ETS) to reserve bandwidth per priority class in network contention situation.

- **Data Center Bridging Exchange Protocol** – (DCBX) to discover and exchange priority and bandwidth information with end points.

Platform also supports **Explicit Congestion Notification** – (ECN) that provides end-to-end notification per IP flow by marking packets that experienced congestion, without dropping traffic. The platform is capable to track ECN statistics of number of marked packet that have experienced congestion.
LAN and SAN Convergence
- Fibre Channel\(^1\) and Fibre Channel over Ethernet (FCoE) N-Port Virtualization (NPV) support enables the network administrator to control domain IDs and points of management on a Fibre Channel network as it scales. This feature enables LAN and SAN converged networks on a lossless, reliable Ethernet network.

Hardware and Software High Availability
- Virtual Port-Channel (vPC) technology provides Layer 2 multipathing through the elimination of Spanning Tree Protocol. It also enables fully utilized bisectional bandwidth and simplified Layer 2 logical topologies without the need to change the existing management and deployment models.
- The 64-way Equal-Cost MultiPath (ECMP) routing enables the use of Layer 3 fat-tree designs. This feature helps organizations prevent network bottlenecks, increase resiliency, and add capacity with little network disruption.
- Advanced reboot capabilities include hot and cold patching.
- The switches use hot-swappable Power-Supply Units (PSUs) and fans with N+1 redundancy.

Purpose-Built Cisco NX-OS Software Operating System with Comprehensive, Proven Innovations
- Single binary image that supports every switch in the Cisco Nexus 9000 series, simplifying image management. The operating system is modular, with a dedicated process for each routing protocol: a design that isolates faults while increasing availability. In the event of a process failure, the process can be restarted without loss of state. The operating system supports hot and cold patching and online diagnostics.
- Data Center Network Manager (DCNM) is the network management platform for all NX-OS-enabled deployments, spanning new fabric architectures, IP Fabric for Media, and storage networking deployments for the Cisco Nexus\(^2\)-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 change 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, overlay, virtual and physical endpoints), including compute visualization with VMware.
- 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 Tetration Analytics Platform Support
- The telemetry information from the 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, this information contains information about endpoints, protocols, ports, when the flow started, how long the flow was active, etc. (b) Inter-packet variation, this information captures any inter-packet variations within the flow. Examples include variation in Time To Live (TTL), IP and TCP flags, payload length, etc. (c) Context details, context information is derived outside the packet header, including variation in buffer utilization, packet drops within a flow, association with tunnel endpoints, etc.
- The Cisco Tetration Analytics platform consumes this telemetry data, and by using unsupervised machine learning and behavior analysis it can provide outstanding pervasive visibility across everything in your data center in real time. By using algorithmic approaches, the Cisco Tetration Analytics platform provides a 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.

\(^1\) Capabilities to enable FC switch mode is on software roadmap
- **Cisco Network Assurance Engine (NAE)**
  - Cisco NAE continuously verifies if the network infrastructure is operating as per policy intent and 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 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 it 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%. NAE also helps assure 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](https://www.cisco.com/c/en/us/products/data-center-analytics/network-assurance-engine/index.html).

### Product specifications

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

**Table 2.**  Cisco Nexus 9300-FX Series Switch specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Cisco Nexus 93180YC-FX</th>
<th>Cisco Nexus 93108TC-FX</th>
<th>Cisco Nexus 9348GC-FXP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ports</td>
<td>48 x 10/25-Gbps and 6 x 40/100-Gbps QSFP28 ports</td>
<td>48 x 10GBase-T and 6 x 40/100-Gbps QSFP28 ports</td>
<td>48 x 1-GBase-T ports, 4 x 10/25-Gbps SFP28 ports and 2 x 40/100 QSFP28 ports</td>
</tr>
<tr>
<td>Downlink supported speeds</td>
<td>1/10/25-Gbps Ethernet 16/32-Gbps Fibre Channel</td>
<td>100-Mbps and 1/10-Gbps speeds</td>
<td>100-Mbps and 1-Gbps speeds</td>
</tr>
<tr>
<td>CPU</td>
<td>6 cores</td>
<td>4 cores</td>
<td>4 cores</td>
</tr>
<tr>
<td>System memory</td>
<td>24 GB</td>
<td>24 GB</td>
<td>24 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>40 MB</td>
<td>40 MB</td>
<td>40 MB</td>
</tr>
<tr>
<td>Management ports</td>
<td>1 RJ-45 port L1 and L2 ports are unused</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>500W AC, 930W DC, or 1200W HVAC/HVDC</td>
<td>350W AC, 440W DC</td>
</tr>
<tr>
<td>Typical power (AC/DC)*</td>
<td>260W</td>
<td>276W</td>
<td>178W</td>
</tr>
<tr>
<td>Maximum power (AC/DC)*</td>
<td>425W</td>
<td>460W</td>
<td>287W</td>
</tr>
<tr>
<td>Input voltage (AC)</td>
<td>100 to 240V</td>
<td>100 to 240V</td>
<td>100 to 240V</td>
</tr>
<tr>
<td>Input voltage (High-Voltage AC [HVAC])</td>
<td>200 to 277V</td>
<td>200 to 277V</td>
<td>90 to 305V</td>
</tr>
<tr>
<td>Input voltage (DC)</td>
<td>−48 to −60V</td>
<td>−48 to −60V</td>
<td>−36V to −72V</td>
</tr>
</tbody>
</table>
Table 3 lists the performance and scalability specifications for the Cisco Nexus 9300-FX series 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 Switches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum number of Longest Prefix Match (LPM) routes **</td>
<td>1,792,000</td>
</tr>
<tr>
<td>Maximum number of IP host entries **</td>
<td>1,792,000</td>
</tr>
<tr>
<td>Maximum number of MAC address entries **</td>
<td>512,000</td>
</tr>
<tr>
<td>Maximum number of multicast routes</td>
<td>32,000</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>
<thead>
<tr>
<th>Item</th>
<th>Cisco Nexus 9300-FX Series Switches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Interior Gateway Management Protocol (IGMP) snooping groups</td>
<td>Shipping: 8,000</td>
</tr>
<tr>
<td></td>
<td>Maximum: 32,000</td>
</tr>
<tr>
<td>Maximum number of Cisco Nexus 2000 Series Fabric Extenders per switch</td>
<td>16</td>
</tr>
<tr>
<td>Maximum number of Access Control List (ACL) entries</td>
<td>Single-slice forwarding engine:</td>
</tr>
<tr>
<td></td>
<td>5,000 ingress</td>
</tr>
<tr>
<td></td>
<td>2,000 egress</td>
</tr>
<tr>
<td>Maximum number of VLANs</td>
<td>3,967</td>
</tr>
<tr>
<td>Number of Virtual Routing and Forwarding (VRF) instances</td>
<td>Shipping: 1,000</td>
</tr>
<tr>
<td></td>
<td>Maximum: 16,000</td>
</tr>
<tr>
<td>Maximum number of ECMP paths</td>
<td>64</td>
</tr>
<tr>
<td>Maximum number of port channels</td>
<td>512</td>
</tr>
<tr>
<td>Maximum number of links in a port channel</td>
<td>32</td>
</tr>
<tr>
<td>Number of active SPAN sessions</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>
</tr>
<tr>
<td>Maximum number of Hot-standby Router Protocol (HSRP) groups</td>
<td>490</td>
</tr>
<tr>
<td>Number of Network Address Translation (NAT) entries</td>
<td>1,023</td>
</tr>
<tr>
<td>Maximum number of Multiple Spanning Tree (MST) instances</td>
<td>64</td>
</tr>
<tr>
<td>Flow-table size used for Cisco Tetration Analytics platform***</td>
<td>32,000</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

Table 4 lists the environmental properties, and Table 5 lists the weight for the Cisco Nexus 9300-FX series switches.

**Table 4. Environmental properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature</td>
<td>32 to 104°F (0 to 40°C)</td>
</tr>
<tr>
<td>Nonoperating (storage) temperature</td>
<td>−40 to 158°F (−40 to 70°C)</td>
</tr>
<tr>
<td>Humidity</td>
<td>5 to 95% (noncondensing)</td>
</tr>
<tr>
<td>Altitude</td>
<td>0 to 13,123 ft (0 to 4,000m)</td>
</tr>
</tbody>
</table>
Table 5. Weight

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco Nexus 93180YC-FX without power supplies or fans</td>
<td>17.4 lb (7.9 kg)</td>
</tr>
<tr>
<td>Cisco Nexus 93108TC-FX without power supplies or fans</td>
<td>17.4 lb (7.9 kg)</td>
</tr>
<tr>
<td>Cisco Nexus 9348GC-FXP without power supplies or fans</td>
<td>14.2 lb (6.44 kg)</td>
</tr>
<tr>
<td>350W AC power supply</td>
<td>2.8 lb (1.27 kg)</td>
</tr>
<tr>
<td>440W DC power supply</td>
<td>2.6 lb (1.27 kg)</td>
</tr>
<tr>
<td>500W AC power supply</td>
<td>2.42 lb (1.1 kg)</td>
</tr>
<tr>
<td>930W DC power supply</td>
<td>2.42 lb (1.1 kg)</td>
</tr>
<tr>
<td>1200W HVDC/HVAC power supply</td>
<td>2.42 lb (1.1 kg)</td>
</tr>
<tr>
<td>Fan tray: NXA-FAN-30CFM-F or NXA-FAN-30CFM-B</td>
<td>0.92 lb (0.4 kg)</td>
</tr>
</tbody>
</table>

Table 6 summarizes regulatory standards compliance for the Cisco Nexus 9300-FX series switches.

Table 6. Regulatory Standards Compliance: Safety and EMC

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory compliance</td>
<td>Products should comply with CE Markings according to directives 2004/108/EC and 2006/95/EC</td>
</tr>
<tr>
<td>Safety</td>
<td>NEBS</td>
</tr>
<tr>
<td></td>
<td>• UL 60950-1 Second Edition</td>
</tr>
<tr>
<td></td>
<td>• CAN/CSA-C22.2 No. 60950-1 Second Edition</td>
</tr>
<tr>
<td></td>
<td>• EN 60950-1 Second Edition</td>
</tr>
<tr>
<td></td>
<td>• IEC 60950-1 Second Edition</td>
</tr>
<tr>
<td></td>
<td>• AS/NZS 60950-1</td>
</tr>
<tr>
<td></td>
<td>• GB4943</td>
</tr>
<tr>
<td>EMC: Emissions</td>
<td>• 47CFR Part 15 (CFR 47) Class A</td>
</tr>
<tr>
<td></td>
<td>• AS/NZS CISPR22 Class A</td>
</tr>
<tr>
<td></td>
<td>• CISPR22 Class A</td>
</tr>
<tr>
<td></td>
<td>• EN55022 Class A</td>
</tr>
<tr>
<td></td>
<td>• ICES003 Class A</td>
</tr>
<tr>
<td></td>
<td>• VCCI Class A</td>
</tr>
<tr>
<td></td>
<td>• EN61000-3-2</td>
</tr>
<tr>
<td></td>
<td>• EN61000-3-3</td>
</tr>
<tr>
<td></td>
<td>• KN22 Class A</td>
</tr>
<tr>
<td></td>
<td>• CNS13438 Class A</td>
</tr>
</tbody>
</table>
**Specification** | **Description**
---|---
EMC: Immunity | - EN55024  
- CISPR24  
- EN300386  
- KN 61000-4 series
RoHS | The product is RoHS-6 compliant with exceptions for leaded-ball grid-array (BGA) balls and lead press-fit connectors.

**Software licensing and optics supported**

The software packaging for the Cisco Nexus 9000 Series offers flexibility and a comprehensive feature set. The default system software has a comprehensive Layer 2 security and management feature set. To enable additional functions, including Layer 3 IP unicast and IP multicast routing and Cisco Nexus Data Broker, you must install additional licenses. To meet customer requirements, licensing is available as both subscription and perpetual. The [licensing guide](https://www.cisco.com/go/nexus9000) illustrates the software packaging and licensing available to enable advanced features. For the latest software release information and recommendations, refer to the product bulletin at [https://www.cisco.com/go/nexus9000](https://www.cisco.com/go/nexus9000).


**Ordering information**

Table 7 presents ordering information for the Cisco Nexus 9300-FX series switches.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base Part Numbers</strong></td>
<td></td>
</tr>
<tr>
<td>N9K-C93180YC-FX</td>
<td>Nexus 9300 with 48p 1/10G/25G SFP and 6p 40G/100G QSFP28, MACsec, and Unified Ports capable</td>
</tr>
<tr>
<td>N9K-C93108TC-FX</td>
<td>Nexus 9300 with 48p 10G BASE-T and 6p 40G/100G QSFP28, MACsec capable</td>
</tr>
<tr>
<td>N9K-C9348GC-FXP</td>
<td>Nexus 9300 with 48p 100M/1G BASE-T, 4p 10/25G SFP28 and 2p 40G/100G QSFP28</td>
</tr>
<tr>
<td><strong>Power Supplies on Nexus 9348GC-FXP</strong></td>
<td></td>
</tr>
<tr>
<td>NXA-PAC-350W-PI</td>
<td>Nexus 9000 350W AC PS, Port-side Intake</td>
</tr>
<tr>
<td>NXA-PAC-350W-PE</td>
<td>Nexus 9000 350W AC PS, Port-side Exhaust</td>
</tr>
<tr>
<td>NXA-PDC-440W-PI</td>
<td>Nexus 9000 440W DC PS, Port-side Intake</td>
</tr>
<tr>
<td>NXA-PDC-440W-PE</td>
<td>Nexus 9000 440W DC PS, Port-side Exhaust</td>
</tr>
<tr>
<td>Part Number</td>
<td>Product Description</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------</td>
</tr>
<tr>
<td><strong>Power Supplies on Nexus 93180YC-FX and 93108TC-FX</strong></td>
<td></td>
</tr>
<tr>
<td>NXA-PAC-500W-PI</td>
<td>Nexus 9000 500W AC PS, Port-side Intake</td>
</tr>
<tr>
<td>NXA-PAC-500W-PE</td>
<td>Nexus 9000 500W AC PS, Port-side Exhaust</td>
</tr>
<tr>
<td>NXA-PDC-930W-PI</td>
<td>Nexus 9000 930W DC PS, Port-side Intake</td>
</tr>
<tr>
<td>NXA-PDC-930W-PE</td>
<td>Nexus 9000 930W DC PS, Port-side Exhaust</td>
</tr>
<tr>
<td>N9K-PUV-1200W</td>
<td>Nexus 9300 1200W Universal Power Supply, Bi-directional air flow and Supports HVAC/HVDC</td>
</tr>
<tr>
<td><strong>Fans on Nexus 93300-FX Series</strong></td>
<td></td>
</tr>
<tr>
<td>NXA-FAN-30CFM-F</td>
<td>Nexus Single Fan, 30CFM, port side exhaust airflow</td>
</tr>
<tr>
<td>NXA-FAN-30CFM-B</td>
<td>Nexus Single Fan, 30CFM, port side intake airflow</td>
</tr>
<tr>
<td><strong>Licenses on Nexus 9348GC-FXP</strong></td>
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<td>ACI &amp; NX-OS Subscription Essential package for 1G Nexus 9K Leaf, 3 Year Term</td>
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<td>ACI &amp; NX-OS Subscription Essential package for 1G Nexus 9K Leaf, 5 Year Term</td>
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<td>ACI Advantage SW license for a 1G Nexus 9K Leaf</td>
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<td>NXOS-ES-GF</td>
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<td>NXOS-AD-GF</td>
<td>NX-OS Advantage SW license for a 1G Nexus 9K Leaf</td>
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<tr>
<td><strong>Licenses on Nexus 93180YC-FX and 93K-C93108TC-FX</strong></td>
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<tr>
<td>C1E1TN9300XF-3Y</td>
<td>ACI &amp; NX-OS Subscription Essential package for 10/25/40G+ Nexus 9K Leaf, 3 Year Term</td>
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<td>ACI &amp; NX-OS Subscription Essential package for 10/25/40G+ Nexus 9K Leaf, 5 Year Term</td>
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<td>NX-OS Advantage SW license for a 10/25/40G+ Nexus 9K Leaf</td>
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<td>Part Number</td>
<td>Product Description</td>
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<td><strong>Power Cords</strong></td>
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<tr>
<td>CAB-250V-10A-AR</td>
<td>AC Power Cord - 250V, 10A - Argentina (2.5 meter)</td>
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<tr>
<td>CAB-250V-10A-BR</td>
<td>AC Power Cord - 250V, 10A - Brazil (2.1 meter)</td>
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<tr>
<td>CAB-250V-10A-CN</td>
<td>AC Power Cord - 250V, 10A - PRC (2.5 meter)</td>
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<tr>
<td>CAB-250V-10A-ID</td>
<td>AC Power Cord - 250V, 10A, South Africa (2.5 meter)</td>
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<tr>
<td>CAB-250V-10A-IS</td>
<td>AC Power Cord - 250V, 10A - Israel (2.5 meter)</td>
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<tr>
<td>CAB-9K10A-AU</td>
<td>Power Cord, 250VAC 10A 3112 Plug, Australia (2.5 meter)</td>
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<tr>
<td>CAB-9K10A-EU</td>
<td>Power Cord, 250VAC 10A CEE 7/7 Plug, EU (2.5 meter)</td>
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<td>CAB-9K10A-IT</td>
<td>Power Cord, 250VAC 10A CEI 23-16/VII Plug, Italy (2.5 meter)</td>
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<tr>
<td>CAB-9K10A-SW</td>
<td>Power Cord, 250VAC 10A MP232 Plug, SWITZ (2.5 meter)</td>
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<tr>
<td>CAB-9K10A-UK</td>
<td>Power Cord, 250VAC 10A BS1363 Plug (13 A fuse), UK (2.5 meter)</td>
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<tr>
<td>CAB-9K12A-NA</td>
<td>Power Cord, 125VAC 13A NEMA 5-15 Plug, North America (2.5 meter)</td>
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<tr>
<td>CAB-AC-L620-C13</td>
<td>North America, NEMA L6-20-C13 (2.0 meter)</td>
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<tr>
<td>CAB-C13-C14-2M</td>
<td>Power Cord Jumper, C13-C14 Connectors, 2 Meter Length (2 meter)</td>
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<tr>
<td>CAB-C13-C14-AC</td>
<td>Power cord, C13 to C14 (recessed receptacle), 10A (3 meter)</td>
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<tr>
<td>CAB-C13-CBN</td>
<td>Cabinet Jumper Power Cord, 250 VAC 10A, C14-C13 Connectors (0.7 meter)</td>
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<tr>
<td>CAB-IND-10A</td>
<td>10A Power cable for India (2.5 meter)</td>
</tr>
<tr>
<td>CAB-N5K6A-NA</td>
<td>Power Cord, 200/240V 6A North America (2.5 meter)</td>
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<tr>
<td>CAB-HVAC-SD-0.6M</td>
<td>HVAC Power cable for Anderson-LS-25</td>
</tr>
<tr>
<td>CAB-HVAC-C14-2M</td>
<td>HVAC power cable for C14, 2 meters (no more than 240 V)</td>
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<tr>
<td>CAB-HVAC-RT-0.6M</td>
<td>HVAC Power cable with right angle connector for RF-LS-25</td>
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<tr>
<td><strong>Accessories on Nexus 9300-FX Series</strong></td>
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<tr>
<td>NXK-ACC-KIT-1RU</td>
<td>Nexus Fixed Accessory Kit with 4-post rack mount kit</td>
</tr>
<tr>
<td>NXK-ACC-KIT-2P</td>
<td>Nexus Fixed Accessory Kit with 2-post rack mount kit; supported on 9348GC-FXP only</td>
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</table>
Warranty, service and support

The Cisco Nexus 9300-FX series has a 1-year limited hardware warranty. The warranty includes hardware replacement with a 10-day turnaround from receipt of a Return Materials Authorization (RMA).

Cisco offers a range of professional, solution, and product support services for each stage of your Cisco Nexus 9300-FX series 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.

* For Cisco products only

Cisco environmental sustainability

Information about Cisco’s environmental sustainability policies and initiatives for our products, solutions, operations, and extended operations or supply chain is provided in the “Environment Sustainability” section of Cisco’s Corporate Social Responsibility (CSR) Report.

Reference links to information about key environmental sustainability topics (mentioned in the “Environment Sustainability” section of the CSR Report) are provided in the following table:

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<tr>
<th>Sustainability topic</th>
<th>Reference</th>
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<tr>
<td>Information on product material content laws and regulations</td>
<td>Materials</td>
</tr>
<tr>
<td>Information on electronic waste laws and regulations, including products, batteries, and packaging</td>
<td>WEEE compliance</td>
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Cisco makes the packaging data available for informational purposes only. It may not reflect the most current legal developments, and Cisco does not represent, warrant, or guarantee that it is complete, accurate, or up to date. This information is subject to change without notice.
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For more information

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