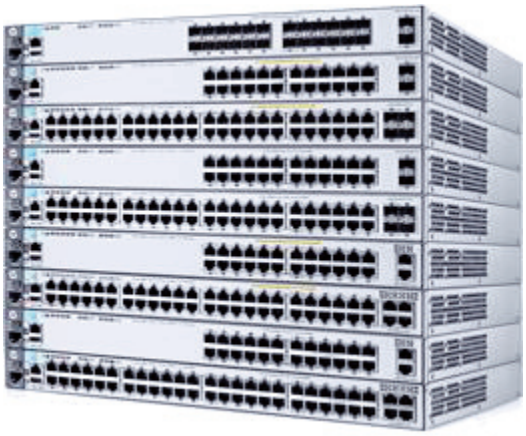

HP 3800 Switch Series

Data sheet

Product overview

The HP 3800 Switch Series is a family of fully managed Gigabit Ethernet switches. There are a total of nine switch models—a 24-port switch, a 48-port switch, a 24-port PoE+ switch, a 48-port PoE+ switch with either SFP+ or 10GBASE-T uplinks, and a 24-port SFP switch with 2 SFP+ uplinks. HP 3800 Series Switches utilize the latest HP ProVision ASIC technology and combine the latest advances in hardware engineering to deliver one of the most resilient and energy-efficient switches in the industry. The 3800 series implements meshed stacking technology to deliver chassis-like resiliency in a flexible stackable form factor.

Key features

- Fully managed Layer 3 stackable switch series
- Low-latency, highly resilient architecture
- SFP+, 10GBASE-T, PoE+, modular stacking
- Highly resilient meshed stacking technology
- Industry-leading lifetime warranty

Features and benefits

Quality of Service (QoS)

- **Layer 4 prioritization:** enables prioritization based on TCP/UDP port numbers
- **Class of Service (CoS):** sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ
- **Bandwidth shaping:**
  - **Port-based rate limiting:** provides per-port ingress-/egress-enforced maximum bandwidth
  - **Classifier-based rate limiting:** uses an access control list (ACL) to enforce maximum bandwidth for ingress traffic on each port
  - **Guaranteed minimum:** provides per-port, per-queue egress-based guaranteed minimum bandwidth
- **Advanced classifier-based QoS:** classifies traffic using multiple match criteria based on Layer 2, 3, and 4 information; applies QoS policies such as setting priority level and rate limit to selected traffic on a per-port or per-VLAN basis
- **Remote Intelligent Mirroring:** mirrors selected ingress/egress traffic based on ACL, port, MAC address, or VLAN to a local or remote HP 8200 zl, 6600, 6200 yl, 5400 zl, 3800, or 3500 switch anywhere on the network
- **RMON, XRMON, and sFlow v5:** provide advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- **Traffic prioritization:** allows real-time traffic classification into eight priority levels mapped to eight queues

Management

- **Friendly port names:** allow assignment of descriptive names to ports
- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** automated device discovery protocol provides easy mapping by network management applications
- **Command authorization:** leverages RADIUS to link a custom list of CLI commands to an individual network administrator's login; also provides an audit trail
- **Uni-Directional Link Detection (UDLD):** monitors cable between two switches and shuts down the ports on both ends if the cable is broken, turning the bidirectional link into a unidirectional one; this prevents network problems such as loops
- **Multiple configuration files:** can be stored to the flash image
- **Dual flash images:** provide independent primary and secondary operating system files for backup while upgrading
- **Out-of-band Ethernet management port:** for management over a separate physical management network; keeps management traffic segmented from network data traffic

Connectivity

- **Jumbo frames:** on Gigabit Ethernet and 10-Gigabit ports, they allow high-performance remote backup and disaster recovery services
- **IPv6:**
  - **IPv6 host:** enables switches to be managed and deployed at the IPv6 network's edge
  - **Dual stack (IPv4 and IPv6):** transitions from IPv4 to IPv6, supporting connectivity for both protocols
  - **MLD snooping:** forwards IPv6 multicast traffic to the appropriate interface
  - **IPv6 ACL/QoS:** supports ACL and QoS for IPv6 network traffic, preventing traffic flooding
  - **IPv6 routing:** supports static and OSPFv3 routing protocols
- **IEEE 802.3at Power Over Ethernet Plus (PoE+):** provides up to 30 W per port to IEEE 802.3 for PoE-/PoE+-powered devices such as video IP phones, IEEE 802.11n wireless access points, and advanced pan/zoom/tilt security cameras
- **Pre-standard PoE support:** detects and provides power to pre-standard PoE devices; see list of supported devices in the product FAQs at www.hp.com/networking
- **Choice of uplinks:**
  - **SFP+ uplink models:** for fiber optic (up to 70 km) or direct attach cable (DAC) connectivity
  - **10GBASE-T uplink models:** for 10 GbE speeds using standard RJ-45 connectors and standard twisted pair cabling up to 100 m
- **Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all RJ-45 ports

Performance

- **Selectable queue configurations:** allow you to increase performance by selecting the number of queues and associated memory buffering that best meet the requirements of your network applications
- **Energy-efficient design:**
  - **High-efficiency power supplies:** 80 PLUS GOLD certified power supplies for increased power savings
  - **Energy-efficient Ethernet support:** IEEE 802.3az support for reduced power consumption
- **Meshed stacking technology:**
  - **High-performance stacking:** up to 336 Gbps of stacking throughput; each 4-port stacking module can support up to 42 Gbps in each direction per stacking port
  - **Ring, chain, and mesh topologies:** support up to a 10-member ring or chain and 5-member fully meshed stacks; meshed topologies offer increased resiliency vs. a standard ring
  - **Virtualized switching:** when stacked, switches appear as a single chassis for simplified management
- **HP ProVision ASIC architecture:** designed with the latest HP ProVision ASIC, with very low latency, increased packet buffering, and adaptive power consumption

Resiliency and high availability

- **IEEE 802.3ad Link Aggregation Protocol (LACP) and HP port trunking:** support up to 24 trunks, each with up to 8 links (ports) per trunk
- **IEEE 802.1s Multiple Spanning Tree:** provides high link availability in multiple VLAN environments by allowing multiple spanning trees; provides legacy support for IEEE 802.1d and IEEE 802.1w
- **Virtual Router Redundancy Protocol (VRRP):** allows groups of two routers to dynamically back each other up to create highly available routed environments
- **Dual hot-swappable power supplies:**
  - **Increased resiliency:** second power supply can allow for complete switch power redundancy in case of power line or supply failure
  - **Increased PoE+ power:** second power supply can increase total available PoE+ power

Layer 2 switching

- **HP's switch meshing:** dynamically load balances across multiple active redundant links to increase available aggregate bandwidth
- **GARP VLAN Registration Protocol:** allows automatic learning and dynamic assignment of VLANs
- **IEEE 802.1ad QinQ:** increases the scalability of an Ethernet network by providing a hierarchical structure; connects multiple LANs on a high-speed campus or metro network
- **VLAN support and tagging:** supports the IEEE 802.1Q standard and 2,048 VLANs simultaneously
- **IEEE 802.1v protocol VLANs:** isolate select non-IPv4 protocols automatically into their own VLANs

Layer 3 services

- **Loopback interface address:** defines an address in Routing Information Protocol (RIP) and OSPF that can always be reachable, improving diagnostic capability
- **Route maps:** provide more control during route redistribution; allow filtering and altering of route metrics
- **User Datagram Protocol (UDP) helper function:** allows UDP broadcasts to be directed across router interfaces to specific IP unicast or subnet broadcast addresses and prevents server spoofing for UDP services such as DHCP

Layer 3 routing

- **Routing Information Protocol (RIP):** provides RIPv1 and RIPv2 routing
- **Static IP routing:** provides manually configured routing for both IPv4 and IPv6 networks
- **OSPF:** provides OSPFv2 for IPv4 routing and OSPFv3 for IPv6 routing

Security

- **Source-port filtering:** allows only specified ports to communicate with each other
- **RADIUS/TACACS+:** eases switch management security administration by using a password authentication server
- **Secure Shell:** encrypts all transmitted data for secure remote CLI access over IP networks
- **Secure Sockets Layer (SSL):** encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch

- **Port security:** allows access only to specified MAC addresses, which can be learned or specified by the administrator
- **MAC address lockout:** prevents particular configured MAC addresses from connecting to the network
- **Detection of malicious attacks:** monitors 10 types of network traffic and sends a warning when an anomaly that potentially can be caused by malicious attacks is detected
- **Secure FTP:** allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- **Switch management logon security:** can require either RADIUS or TACACS+ authentication for secure switch CLI logon
- **Secure management access:** securely encrypts all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3
- **ICMP throttling:** defeats ICMP denial-of-service attacks by enabling any switch port to automatically throttle ICMP traffic
- **Virus throttling:** detects traffic patterns typical of WORM-type viruses and either throttles or entirely prevents the virus from spreading across the routed VLANs or bridged interfaces without requiring external appliances
- **Identity-driven ACL:** enables implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user
- **STP BPDU port protection:** blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- **Dynamic IP lockdown:** works with DHCP protection to block traffic from unauthorized hosts, preventing IP source address spoofing
- **DHCP protection:** blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- **Dynamic ARP protection:** blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- **STP Root Guard:** protects the root bridge from malicious attack or configuration mistakes
- **Management Interface Wizard:** helps ensure that management interfaces such as SNMP, telnet, SSH, SSL, Web, and USB are secured at the desired level
- **Security banner:** displays a customized security policy when users log in to the switch
- **Switch CPU protection:** provides automatic protection against malicious network traffic trying to shut down the switch
- **USB Secure Autorun:** deploys, diagnoses, and updates switch using a USB flash drive; works with a secure credential to prevent tampering (requires HP PMC+)
- **Access control lists (ACLs):** provide filtering based on the IP field, source/destination IP address/subnet, and source/destination TCP/UDP port number on a per-VLAN or per-port basis
- **Multiple Authentication Methods:**
  - **IEEE 802.1X:** authentication of multiple IEEE 802.1X users per port; prevents user "piggybacking" on another user's authentication
  - **Web-based authentication:** authenticates from Web browser for clients that do not support IEEE 802.1X supplicant
  - **MAC-based authentication:** client is authenticated with the RADIUS server based on client's MAC address
  - **Concurrent authentication modes:** each switch port will accept up to 32 sessions of IEEE 802.1X, Web, and MAC authentications

Convergence

- **IP multicast snooping (data-driven IGMP):** automatically prevents flooding of IP multicast traffic
- **LLDP-MED (Media Endpoint Discovery):** is a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones
- **RADIUS VLAN for voice:** uses a standard RADIUS attribute and LLDP-MED to automatically configure a VLAN for IP phones
- **PoE allocations:** support multiple methods (automatic, IEEE 802.3af class, LLDP-MED, or user specified) to allocate PoE power for more efficient energy savings
- **IP multicast routing:** includes PIM Sparse and Dense modes to route IP multicast traffic

Warranty and support

- **Lifetime warranty:** for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)*

*Hardware warranty replacement for as long as you own the product, with next business day advance replacement (available in most countries) with a five-year hardware warranty replacement for the disk drive included with HP AllianceONE Services zl Module, HP Threat Management Services zl Module, HP PCM+ Agent with AllianceONE Services zl Module, and HP MSM765 zl Mobility Controller. For details, refer to the HP Software License, Warranty, and Support booklet at www.hp.com/networking/warranty.

- **Electronic and telephone support:** limited electronic and telephone support is available from HP; refer to www.hp.com/networking/warranty for details on the support provided and the period during which support is available
- **Software releases:** refer to www.hp.com/networking/warranty for details on the software releases provided and the period during which software releases are available for your product(s)

Specifications

	HP 3800-24G-PoE+-2SFP+ Switch (J9573A)	HP 3800-48G-PoE+-4SFP+ Switch (J9574A)	HP 3800-24G-2SFP+ Switch (J9575A)
Included accessories	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)
Ports	24 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 fixed 1000/10000 SFP+ ports 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 Stacking module slot	48 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 fixed 1000/10000 SFP+ ports 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 Stacking module slot	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 fixed 1000/10000 SFP+ ports 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 Stacking module slot
Power supplies	2 power supply slots 1 minimum power supply required includes: 1 x J9580A (HP X312 1000W 100-240VAC to 54VDC Power Supply)	2 power supply slots 1 minimum power supply required includes: 1 x J9580A (HP X312 1000W 100-240VAC to 54VDC Power Supply)	2 power supply slots 1 minimum power supply required includes: 1 x J9581A (HP X311 400W 100-240VAC to 12VDC Power Supply)
Fan tray	includes: 1 x J9582A 1 fan tray slot	includes: 1 x J9582A 1 fan tray slot	includes: 1 x J9582A 1 fan tray slot
Physical characteristics			
Dimensions	18.4(d) x 17.43(w) x 1.7(h) in. (46.74 x 44.27 x 4.32 cm) (1U height)	18.4(d) x 17.43(w) x 1.7(h) in. (46.74 x 44.27 x 4.32 cm) (1U height)	18.4(d) x 17.43(w) x 1.7(h) in. (46.74 x 44.27 x 4.32 cm) (1U height)
Weight	15.9 lb. (7.21 kg) switch chassis with 1 power supply and fan tray installed	16.84 lb. (7.64 kg) switch chassis with 1 power supply and fan tray installed	15.25 lb. (6.92 kg) switch chassis with 1 power supply and fan tray installed
Memory and processor			
Processor	HP ProVision ASIC/ARM @ 350 MHz; Freescale PowerPC @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 18 MB dynamic	HP ProVision ASIC/ARM @ 350 MHz; Freescale PowerPC @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 36 MB dynamic	HP ProVision ASIC/ARM @ 350 MHz; Freescale PowerPC @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 18 MB dynamic
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only
Performance			
1000 Mb Latency	< 2.8 µs (LIFO 64-byte packets)	< 2.8 µs (LIFO 64-byte packets)	< 2.8 µs (LIFO 64-byte packets)
10 Gbps Latency	< 1.9 µs (LIFO 64-byte packets)	< 1.9 µs (LIFO 64-byte packets)	< 1.9 µs (LIFO 64-byte packets)
Throughput	65.4 million pps (64-byte packets)	130.9 million pps (64-byte packets)	65.4 million pps (64-byte packets)
Switching capacity	88 Gbps	176 Gbps	88 Gbps
Routing table size	10000 entries	10000 entries	10000 entries
MAC address table size	65500 entries	65500 entries	65500 entries
Environment			
Operating temperature	32°F to 131°F (0°C to 55°C); max temperature is 45°C when transceivers are installed	32°F to 131°F (0°C to 55°C); max temperature is 45°C when transceivers are installed	32°F to 131°F (0°C to 55°C); max temperature is 45°C when transceivers are installed
Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing
Altitude	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)
Acoustic	Power: 49 dB, Pressure: 33.7 dB	Power: 57 dB, Pressure: 41.2 dB	Power: 36 dB, Pressure: 26.4 dB
Electrical characteristics			
Maximum heat dissipation	434 BTU/hr (457.87 kJ/hr)	635 BTU/hr (669.93 kJ/hr)	434 BTU/hr (457.87 kJ/hr)
Voltage	100-120/200-240 VAC	100-120/200-240 VAC	100-127/200-240 VAC
Current	9.4/7.8 A	9.4/7.8 A	6/3 A
Idle power	70 W	97 W	66 W
Maximum power rating	127 W	186 W	127 W
PoE power	720 W	1080 W	
Frequency	50/60 Hz	50/60 Hz	50/60 Hz

Specifications (continued)

	HP 3800-24G-PoE+-2SFP+ Switch (J9573A)	HP 3800-48G-PoE+-4SFP+ Switch (J9574A)	HP 3800-24G-2SFP+ Switch (J9575A)
Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE Power is the power supplied by the internal power supply, it is dependent on the type and quantity of power supplies and may be supplemented with the use of a External Power Supply (EPS). With a single power supply @ 120 V input, a maximum of 572 W of PoE power is available.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE Power is the power supplied by the internal power supply, it is dependent on the type and quantity of power supplies and may be supplemented with the use of a External Power Supply (EPS). With a single power supply @ 120 V input, a maximum of 514 W of PoE power is available. With a single power supply @ 240 V, a maximum of 814 W of PoE power is available.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825	EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825	EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
Immunity			
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V
Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3
Management	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (HT021E)	3-year, 4-hour onsite, 13x5 coverage for hardware (HT021E)	3-year, 4-hour onsite, 13x5 coverage for hardware (HT021E)
	3-year, 4-hour onsite, 24x7 coverage for hardware (HT023E)	3-year, 4-hour onsite, 24x7 coverage for hardware (HT023E)	3-year, 4-hour onsite, 24x7 coverage for hardware (HT023E)
	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HT028E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HT028E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HT028E)
	3-year, 24x7 SW phone support, software updates (HT027E)	3-year, 24x7 SW phone support, software updates (HT027E)	3-year, 24x7 SW phone support, software updates (HT027E)
	4-year, 4-hour onsite, 13x5 coverage for hardware (HT031E)	4-year, 4-hour onsite, 13x5 coverage for hardware (HT031E)	4-year, 4-hour onsite, 13x5 coverage for hardware (HT031E)
	4-year, 4-hour onsite, 24x7 coverage for hardware (HT033E)	4-year, 4-hour onsite, 24x7 coverage for hardware (HT033E)	4-year, 4-hour onsite, 24x7 coverage for hardware (HT033E)
	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT038E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT038E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT038E)
	4-year, 24x7 SW phone support, software updates (HT037E)	4-year, 24x7 SW phone support, software updates (HT037E)	4-year, 24x7 SW phone support, software updates (HT037E)
	5-year, 4-hour onsite, 13x5 coverage for hardware (HT041E)	5-year, 4-hour onsite, 13x5 coverage for hardware (HT041E)	5-year, 4-hour onsite, 13x5 coverage for hardware (HT041E)
	5-year, 4-hour onsite, 24x7 coverage for hardware (HT043E)	5-year, 4-hour onsite, 24x7 coverage for hardware (HT043E)	5-year, 4-hour onsite, 24x7 coverage for hardware (HT043E)
	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT048E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT048E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT048E)
	5-year, 24x7 SW phone support, software updates (HT047E)	5-year, 24x7 SW phone support, software updates (HT047E)	5-year, 24x7 SW phone support, software updates (HT047E)
	3 Yr 6 hr Call-to-Repair Onsite (HT025E)	3 Yr 6 hr Call-to-Repair Onsite (HT025E)	3 Yr 6 hr Call-to-Repair Onsite (HT025E)
	4 Yr 6 hr Call-to-Repair Onsite (HT035E)	4 Yr 6 hr Call-to-Repair Onsite (HT035E)	4 Yr 6 hr Call-to-Repair Onsite (HT035E)
	5 Yr 6 hr Call-to-Repair Onsite (HT045E)	5 Yr 6 hr Call-to-Repair Onsite (HT045E)	5 Yr 6 hr Call-to-Repair Onsite (HT045E)
	1-year, 4-hour onsite, 13x5 coverage for hardware (HT011E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HT011E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HT011E)

Specifications (continued)

	HP 3800-24G-PoE+-2SFP+ Switch (J9573A)	HP 3800-48G-PoE+-4SFP+ Switch (J9574A)	HP 3800-24G-2SFP+ Switch (J9575A)
	1-year, 4-hour onsite, 24x7 coverage for hardware (HT013E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HT013E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HT013E)
	1-year, 6 hour Call-To-Repair Onsite for hardware (HT015E)	1-year, 6 hour Call-To-Repair Onsite for hardware (HT015E)	1-year, 6 hour Call-To-Repair Onsite for hardware (HT015E)
	1-year, 24x7 software phone support, software updates (HT017E)	1-year, 24x7 software phone support, software updates (HT017E)	1-year, 24x7 software phone support, software updates (HT017E)
	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HT018E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HT018E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HT018E)
	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT009E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT009E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT009E)
	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HT010E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HT010E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HT010E)
	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT019E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT019E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT019E)
	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT020E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT020E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT020E)
	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT029E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT029E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT029E)
	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT030E)	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT030E)	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT030E)
	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT039E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT039E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT039E)
	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT040E)	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT040E)	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT040E)
	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

Specifications (continued)

	HP 3800-24G-PoE+-2SFP+ Switch (J9573A)	HP 3800-48G-PoE+-4SFP+ Switch (J9574A)	HP 3800-24G-2SFP+ Switch (J9575A)
Standards and protocols (applies to all products in series)	**Device management** RFC 1591 DNS (client) HTML and telnet management **General protocols** IEEE 802.1ad Q-in-Q IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1s Multiple Spanning Trees IEEE 802.1v VLAN classification by Protocol and Port IEEE 802.1w Rapid Reconfiguration of Spanning Tree IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3af Power over Ethernet IEEE 802.3x Flow Control RFC 768 UDP RFC 783 TFTP Protocol (revision 2) RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 868 Time Protocol RFC 951 BOOTP RFC 1058 RIPv1 RFC 1350 TFTP Protocol (revision 2) RFC 1519 CIDR RFC 1542 BOOTP Extensions RFC 2030 Simple Network Time Protocol (SNTP) v4 RFC 2131 DHCP RFC 2453 RIPv2 RFC 2548 (MS-RAS-Vendor only) RFC 3046 DHCP Relay Agent Information Option RFC 3576 Ext to RADIUS (CoA only) RFC 3768 VRRP RFC 4675 RADIUS VLAN & Priority UDLD (Uni-directional Link Detection) **IP multicast** RFC 3376 IGMPv3 (host joins only) RFC 3973 Draft 2 PIM Dense Mode RFC 4601 Draft 10 PIM Sparse Mode **IPv6** RFC 1981 IPv6 Path MTU Discovery RFC 2375 IPv6 Multicast Address Assignments	RFC 2460 IPv6 Specification RFC 2464 Transmission of IPv6 over Ethernet Networks RFC 2710 Multicast Listener Discovery (MLD) for IPv6 RFC 2925 Remote Operations MIB (Ping only) RFC 3019 MLDv1 MIB RFC 3315 DHCPv6 (client only) RFC 3484 Default Address Selection for IPv6 RFC 3587 IPv6 Global Unicast Address Format RFC 3596 DNS Extension for IPv6 RFC 3810 MLDv2 (host joins only) RFC 4022 MIB for TCP RFC 4113 MIB for UDP RFC 4251 SSHv6 Architecture RFC 4252 SSHv6 Authentication RFC 4253 SSHv6 Transport Layer RFC 4254 SSHv6 Connection RFC 4291 IP Version 6 Addressing Architecture RFC 4293 MIB for IP RFC 4294 IPv6 Node Requirements RFC 4419 Key Exchange for SSH RFC 4443 ICMPv6 RFC 4541 IGMP & MLD Snooping Switch RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-configuration RFC 5095 Deprecation of Type 0 Routing Headers in IPv6 RFC 5340 OSPFv3 for IPv6 RFC 5453 Reserved IPv6 Interface Identifiers RFC 5722 Handling of Overlapping IPv6 Fragments **MIBs** RFC 1213 MIB II RFC 1493 Bridge MIB RFC 1724 RIPv2 MIB RFC 1850 OSPFv2 MIB RFC 2021 RMONv2 MIB RFC 2096 IP Forwarding Table MIB RFC 2613 SMON MIB RFC 2618 RADIUS Client MIB RFC 2620 RADIUS Accounting MIB RFC 2665 Ethernet-Like-MIB RFC 2668 802.3 MAU MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2737 Entity MIB (Version 2) RFC 2787 VRRP MIB RFC 2863 The Interfaces Group MIB RFC 2925 Ping MIB	**Network management** IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events) RFC 3176 sFlow ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3 XRMON **OSPF** RFC 2328 OSPFv2 RFC 3101 OSPF NSSA RFC 5340 OSPFv3 for IPv6 **QoS/CoS** RFC 2474 DiffServ Precedence, including 8 queues/port RFC 2597 DiffServ Assured Forwarding (AF) RFC 2598 DiffServ Expedited Forwarding (EF) **Security** IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+ RFC 2865 RADIUS (client only) RFC 2866 RADIUS Accounting Access Control Lists (ACLs) MAC Authentication MAC Lockdown MAC Lockout Port Security Secure Sockets Layer (SSL) SSHv1/SSHv2 Secure Shell Web Authentication

Specifications (continued)

	HP 3800-48G-4SFP+ Switch (J9576A)	HP 3800-24G-2XG Switch (J9585A)	HP 3800-48G-4XG Switch (J9586A)
Included accessories	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)
Ports	48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 fixed 1000/10000 SFP+ ports 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 Stacking module slot	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 RJ-45 10-GbE ports IEEE 802.3an-2006 Type 10GBASE-T; Duplex: full only 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 Stacking module slot	48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 RJ-45 10-GbE ports IEEE 802.3an-2006 Type 10GBASE-T; Duplex: full only 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 Stacking module slot
Power supplies	2 power supply slots 1 minimum power supply required includes: 1 x J9581A (HP X311 400W 100-240VAC to 12VDC Power Supply)	2 power supply slots 1 minimum power supply required includes: 1 x J9581A (HP X311 400W 100-240VAC to 12VDC Power Supply)	2 power supply slots 1 minimum power supply required includes: 1 x J9581A (HP X311 400W 100-240VAC to 12VDC Power Supply)
Fan tray	includes: 1 x J9582A 1 fan tray slot	includes: 1 x J9582A 1 fan tray slot	includes: 1 x J9582A 1 fan tray slot
Physical characteristics			
Dimensions	18.4(d) x 17.43(w) x 1.7(h) in. (46.74 x 44.27 x 4.32 cm) (1U height)	18.4(d) x 17.43(w) x 1.7(h) in. (46.74 x 44.27 x 4.32 cm) (1U height)	18.4(d) x 17.43(w) x 1.7(h) in. (46.74 x 44.27 x 4.32 cm) (1U height)
Weight	16 lb. (7.26 kg) switch chassis with 1 power supply and fan tray installed	15.8 lb. (7.17 kg) switch chassis with 1 power supply and fan tray installed	16.35 lb. (7.42 kg) switch chassis with 1 power supply and fan tray installed
Memory and processor			
Processor	HP ProVision ASIC/ARM @ 350 MHz; Freescale PowerPC @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 36 MB dynamic	HP ProVision ASIC/ARM @ 350 MHz; Freescale PowerPC @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 18 MB dynamic	HP ProVision ASIC/ARM @ 350 MHz; Freescale PowerPC @ 1200 MHz, 4 GB flash, 2 GB SDRAM GB; packet buffer size: 36 MB dynamic
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only
Performance			
1000 Mb Latency	< 2.8 µs (LIFO 64-byte packets)	< 2.8 µs (LIFO 64-byte packets)	< 2.8 µs (LIFO 64-byte packets)
10 Gbps Latency	< 1.9 µs (LIFO 64-byte packets)	< 1.9 µs (LIFO 64-byte packets)	< 1.9 µs (LIFO 64-byte packets)
Throughput	130.9 million pps (64-byte packets)	65.4 million pps (64-byte packets)	130.9 million pps (64-byte packets)
Switching capacity	176 Gbps	88 Gbps	176 Gbps
Routing table size	10000 entries	10000 entries	10000 entries
MAC address table size	65500 entries	65500 entries	65500 entries
Environment			
Operating temperature	32°F to 131°F (0°C to 55°C); max temperature is 45°C when transceivers are installed	32°F to 131°F (0°C to 55°C)	32°F to 131°F (0°C to 55°C); max temperature is 45°C when SFP+ transceivers are installed
Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing
Altitude	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)
Acoustic	Power: 36 dB, Pressure: 25.4 dB	Power: 39 dB, Pressure: 25.5 dB	Power: 34 dB, Pressure: 24.5 dB
Electrical characteristics			
Maximum heat dissipation	635 BTU/hr (669.93 kJ/hr)	434 BTU/hr (457.87 kJ/hr)	635 BTU/hr (669.93 kJ/hr)
Voltage	100-127/200-240 VAC	100-127/200-240 VAC	100-127/200-240 VAC
Current	6/3 A	6/3 A	6/3 A
Idle power	70 W	70 W	74 W
Maximum power rating	186 W	127 W	186 W
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.

Specifications (continued)

	HP 3800-48G-4SFP+ Switch (J9576A)	HP 3800-24G-2XG Switch (J9585A)	HP 3800-48G-4XG Switch (J9586A)
Safety	EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825	EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825	EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
Immunity			
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V
Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3
Management	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (HT021E)	3-year, 4-hour onsite, 13x5 coverage for hardware (HT021E)	3-year, 4-hour onsite, 13x5 coverage for hardware (HT021E)
	3-year, 4-hour onsite, 24x7 coverage for hardware (HT023E)	3-year, 4-hour onsite, 24x7 coverage for hardware (HT023E)	3-year, 4-hour onsite, 24x7 coverage for hardware (HT023E)
	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HT028E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HT028E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HT028E)
	3-year, 24x7 SW phone support, software updates (HT027E)	3-year, 24x7 SW phone support, software updates (HT027E)	3-year, 24x7 SW phone support, software updates (HT027E)
	4-year, 4-hour onsite, 13x5 coverage for hardware (HT031E)	4-year, 4-hour onsite, 13x5 coverage for hardware (HT031E)	4-year, 4-hour onsite, 13x5 coverage for hardware (HT031E)
	4-year, 4-hour onsite, 24x7 coverage for hardware (HT033E)	4-year, 4-hour onsite, 24x7 coverage for hardware (HT033E)	4-year, 4-hour onsite, 24x7 coverage for hardware (HT033E)
	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT038E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT038E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT038E)
	4-year, 24x7 SW phone support, software updates (HT037E)	4-year, 24x7 SW phone support, software updates (HT037E)	4-year, 24x7 SW phone support, software updates (HT037E)
	5-year, 4-hour onsite, 13x5 coverage for hardware (HT041E)	5-year, 4-hour onsite, 13x5 coverage for hardware (HT041E)	5-year, 4-hour onsite, 13x5 coverage for hardware (HT041E)
	5-year, 4-hour onsite, 24x7 coverage for hardware (HT043E)	5-year, 4-hour onsite, 24x7 coverage for hardware (HT043E)	5-year, 4-hour onsite, 24x7 coverage for hardware (HT043E)
	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT048E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT048E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT048E)
	5-year, 24x7 SW phone support, software updates (HT047E)	5-year, 24x7 SW phone support, software updates (HT047E)	5-year, 24x7 SW phone support, software updates (HT047E)
	3 Yr 6 hr Call-to-Repair Onsite (HT025E)	3 Yr 6 hr Call-to-Repair Onsite (HT025E)	3 Yr 6 hr Call-to-Repair Onsite (HT025E)
	4 Yr 6 hr Call-to-Repair Onsite (HT035E)	4 Yr 6 hr Call-to-Repair Onsite (HT035E)	4 Yr 6 hr Call-to-Repair Onsite (HT035E)
	5 Yr 6 hr Call-to-Repair Onsite (HT045E)	5 Yr 6 hr Call-to-Repair Onsite (HT045E)	5 Yr 6 hr Call-to-Repair Onsite (HT045E)
	1-year, 4-hour onsite, 13x5 coverage for hardware (HT011E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HT011E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HT011E)
	1-year, 4-hour onsite, 24x7 coverage for hardware (HT013E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HT013E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HT013E)
	1-year, 6 hour Call-To-Repair Onsite for hardware (HT015E)	1-year, 24x7 software phone support, software updates (HT017E)	1-year, 24x7 software phone support, software updates (HT017E)
	1-year, 24x7 software phone support, software updates (HT017E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HT018E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HT018E)
	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HT018E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT009E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT009E)
	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT009E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HT010E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HT010E)
	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HT010E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT019E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT019E)

Specifications (continued)

	HP 3800-48G-4SFP+ Switch (J9576A)	HP 3800-24G-2XG Switch (J9585A)	HP 3800-48G-4XG Switch (J9586A)
	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT019E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT020E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT020E)
	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT020E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT029E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT029E)
	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT029E)	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT030E)	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT030E)
	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT030E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT039E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT039E)
	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT039E)	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT040E)	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT040E)
	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT040E)	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.		

Specifications (continued)

	HP 3800-48G-4SFP+ Switch (J9576A)	HP 3800-24G-2XG Switch (J9585A)	HP 3800-48G-4XG Switch (J9586A)
Standards and protocols (applies to all products in series)	**Device management** RFC 1591 DNS (client) HTML and telnet management **General protocols** IEEE 802.1ad Q-in-Q IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1s Multiple Spanning Trees IEEE 802.1v VLAN classification by Protocol and Port IEEE 802.1w Rapid Reconfiguration of Spanning Tree IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3af Power over Ethernet IEEE 802.3x Flow Control RFC 768 UDP RFC 783 TFTP Protocol (revision 2) RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 868 Time Protocol RFC 951 BOOTP RFC 1058 RIPv1 RFC 1350 TFTP Protocol (revision 2) RFC 1519 CIDR RFC 1542 BOOTP Extensions RFC 2030 Simple Network Time Protocol (SNTP) v4 RFC 2131 DHCP RFC 2453 RIPv2 RFC 2548 (MS-RAS-Vendor only) RFC 3046 DHCP Relay Agent Information Option RFC 3576 Ext to RADIUS (CoA only) RFC 3768 VRRP RFC 4675 RADIUS VLAN & Priority UDLD (Uni-directional Link Detection) **IP multicast** RFC 3376 IGMPv3 (host joins only) RFC 3973 Draft 2 PIM Dense Mode RFC 4601 Draft 10 PIM Sparse Mode **IPv6** RFC 1981 IPv6 Path MTU Discovery RFC 2375 IPv6 Multicast Address Assignments	RFC 2460 IPv6 Specification RFC 2464 Transmission of IPv6 over Ethernet Networks RFC 2710 Multicast Listener Discovery (MLD) for IPv6 RFC 2925 Remote Operations MIB (Ping only) RFC 3019 MLDv1 MIB RFC 3315 DHCPv6 (client only) RFC 3484 Default Address Selection for IPv6 RFC 3587 IPv6 Global Unicast Address Format RFC 3596 DNS Extension for IPv6 RFC 3810 MLDv2 (host joins only) RFC 4022 MIB for TCP RFC 4113 MIB for UDP RFC 4251 SSHv6 Architecture RFC 4252 SSHv6 Authentication RFC 4253 SSHv6 Transport Layer RFC 4254 SSHv6 Connection RFC 4291 IP Version 6 Addressing Architecture RFC 4293 MIB for IP RFC 4294 IPv6 Node Requirements RFC 4419 Key Exchange for SSH RFC 4443 ICMPv6 RFC 4541 IGMP & MLD Snooping Switch RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-configuration RFC 5095 Deprecation of Type 0 Routing Headers in IPv6 RFC 5340 OSPFv3 for IPv6 RFC 5453 Reserved IPv6 Interface Identifiers RFC 5722 Handling of Overlapping IPv6 Fragments **MIBs** RFC 1213 MIB II RFC 1493 Bridge MIB RFC 1724 RIPv2 MIB RFC 1850 OSPFv2 MIB RFC 2021 RMONv2 MIB RFC 2096 IP Forwarding Table MIB RFC 2613 SMON MIB RFC 2618 RADIUS Client MIB RFC 2620 RADIUS Accounting MIB RFC 2665 Ethernet-Like-MIB RFC 2668 802.3 MAU MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2737 Entity MIB (Version 2) RFC 2787 VRRP MIB RFC 2863 The Interfaces Group MIB RFC 2925 Ping MIB	**Network management** IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events) RFC 3176 sFlow ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3 XRMON **OSPF** RFC 2328 OSPFv2 RFC 3101 OSPF NSSA RFC 5340 OSPFv3 for IPv6 **QoS/CoS** RFC 2474 DiffServ Precedence, including 8 queues/port RFC 2597 DiffServ Assured Forwarding (AF) RFC 2598 DiffServ Expedited Forwarding (EF) **Security** IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+ RFC 2865 RADIUS (client only) RFC 2866 RADIUS Accounting Access Control Lists (ACLs) MAC Authentication MAC Lockdown MAC Lockout Port Security Secure Sockets Layer (SSL) SSHv1/SSHv2 Secure Shell Web Authentication

Specifications (continued)

	HP 3800-24G-PoE+-2XG Switch (J9587A)	HP 3800-48G-PoE+-4XG Switch (J9588A)	HP 3800-24SFP-2SFP+ Switch (J9584A)
Included accessories	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)	1 HP 3800 Switch Fan Tray (J9582A) 1 HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)
Ports	24 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 2 RJ-45 10-GbE ports IEEE 802.3an-2006 Type 10GBASE-T; Duplex: full only 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 Stacking module slot	48 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 RJ-45 10-GbE ports IEEE 802.3an-2006 Type 10GBASE-T; Duplex: full only 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 Stacking module slot	24 SFP 100/1000 Mbps ports (IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 100BASE-TX: half or full; 1000BASE-T: full only 2 fixed 1000/10000 SFP+ ports 1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 Stacking module slot
Power supplies	2 power supply slots 1 minimum power supply required includes: 1 x J9580A (HP X312 1000W 100-240VAC to 54VDC Power Supply)	2 power supply slots 1 minimum power supply required includes: 1 x J9580A (HP X312 1000W 100-240VAC to 54VDC Power Supply)	2 power supply slots 1 minimum power supply required includes: 1 x J9581A (HP X311 400W 100-240VAC to 12VDC Power Supply)
Fan tray	includes: 1 x J9582A 1 fan tray slot	includes: 1 x J9582A 1 fan tray slot	includes: 1 x J9582A 1 fan tray slot
Physical characteristics			
Dimensions	18.4(d) x 17.43(w) x 1.7(h) in. (46.74 x 44.27 x 4.32 cm) (1U height)	18.4(d) x 17.43(w) x 1.7(h) in. (46.74 x 44.27 x 4.32 cm) (1U height)	18.4(d) x 17.43(w) x 1.7(h) in. (46.74 x 44.27 x 4.32 cm) (1U height)
Weight	16.45 lb. (7.46 kg) switch chassis with 1 power supply and fan tray installed	17.25 lb. (7.82 kg) switch chassis with 1 power supply and fan tray installed	16 lb. (7.26 kg) switch chassis with 1 power supply and fan tray installed
Memory and processor			
Processor	HP ProVision ASIC/ARM @ 350 MHz; Freescale PowerPC @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 18 MB dynamic	HP ProVision ASIC/ARM @ 350 MHz; Freescale PowerPC @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 36 MB dynamic	HP ProVision ASIC/ARM @ 350 MHz; Freescale PowerPC @ 1200 MHz, 4 GB flash, 2 GB SDRAM; packet buffer size: 18 MB dynamic
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only
Performance			
1000 Mb Latency	< 2.8 µs (LIFO 64-byte packets)	< 2.8 µs (LIFO 64-byte packets)	< 2.8 µs (LIFO 64-byte packets)
10 Gbps Latency	< 1.9 µs (LIFO 64-byte packets)	< 1.9 µs (LIFO 64-byte packets)	< 1.9 µs (LIFO 64-byte packets)
Throughput	65.4 million pps (64-byte packets)	130.9 million pps (64-byte packets)	65.4 million pps (64-byte packets)
Switching capacity	88 Gbps	176 Gbps	88 Gbps
Routing table size	10000 entries	10000 entries	10000 entries
MAC address table size	65500 entries	65500 entries	65500 entries
Environment			
Operating temperature	32°F to 131°F (0°C to 55°C)	32°F to 131°F (0°C to 55°C); max temperature is 45C when SFP+ transceivers are installed	32°F to 113°F (0°C to 45°C)
Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing
Altitude	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)	up to 10,000 ft. (3 km)
Acoustic	Power: 48 dB, Pressure: 32.6 dB	Power: 57 dB, Pressure: 41.5 dB	Power: 36 dB, Pressure: 25 dB
Electrical characteristics			
Maximum heat dissipation	434 BTU/hr (457.87 kJ/hr)	635 BTU/hr (669.93 kJ/hr)	434 BTU/hr (457.87 kJ/hr)
Voltage	100-120/200-240 VAC	100-120/200-240 VAC	100-127/200-240 VAC
Current	9.4/7.8 A	9.4/7.8 A	6/3 A
Idle power	71 W	100 W	55 W
Maximum power rating	127 W	186 W	127 W
PoE power	720 W	1080 W	
Frequency	50/60 Hz	50/60 Hz	50/60 Hz

Specifications (continued)

	HP 3800-24G-PoE+-2XG Switch (J9587A)	HP 3800-48G-PoE+-4XG Switch (J9588A)	HP 3800-24SFP-2SFP+ Switch (J9584A)
Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE Power is the power supplied by the internal power supply, it is dependent on the type and quantity of power supplies and may be supplemented with the use of a External Power Supply (EPS). With a single power supply @ 120 V input, a maximum of 572 W of PoE power is available.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE Power is the power supplied by the internal power supply, it is dependent on the type and quantity of power supplies and may be supplemented with the use of a External Power Supply (EPS). With a single power supply @ 120 V input, a maximum of 514 W of PoE power is available. With a single power supply @ 240 V input, a maximum of 814 W of PoE power is available.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825	EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825	EN 60950/IEC 60950; UL 60950; CAN/CSA 22.2 No. 60950; EN 60825
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A
Immunity			
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V
Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reductions, 0.5 period; 30% reduction, 25 periods
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3
Management	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu	HP PCM+; HP PCM; command-line interface; Web browser; configuration menu
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (HT021E)	3-year, 4-hour onsite, 13x5 coverage for hardware (HT021E)	3-year, 4-hour onsite, 13x5 coverage for hardware (HT021E)
	3-year, 4-hour onsite, 24x7 coverage for hardware (HT023E)	3-year, 4-hour onsite, 24x7 coverage for hardware (HT023E)	3-year, 4-hour onsite, 24x7 coverage for hardware (HT023E)
	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HT028E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HT028E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (HT028E)
	3-year, 24x7 SW phone support, software updates (HT027E)	3-year, 24x7 SW phone support, software updates (HT027E)	3-year, 24x7 SW phone support, software updates (HT027E)
	4-year, 4-hour onsite, 13x5 coverage for hardware (HT031E)	4-year, 4-hour onsite, 13x5 coverage for hardware (HT031E)	4-year, 4-hour onsite, 13x5 coverage for hardware (HT031E)
	4-year, 4-hour onsite, 24x7 coverage for hardware (HT033E)	4-year, 4-hour onsite, 24x7 coverage for hardware (HT033E)	4-year, 4-hour onsite, 24x7 coverage for hardware (HT033E)
	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT038E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT038E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT038E)
	4-year, 24x7 SW phone support, software updates (HT037E)	4-year, 24x7 SW phone support, software updates (HT037E)	4-year, 24x7 SW phone support, software updates (HT037E)
	5-year, 4-hour onsite, 13x5 coverage for hardware (HT041E)	5-year, 4-hour onsite, 13x5 coverage for hardware (HT041E)	5-year, 4-hour onsite, 13x5 coverage for hardware (HT041E)
	5-year, 4-hour onsite, 24x7 coverage for hardware (HT043E)	5-year, 4-hour onsite, 24x7 coverage for hardware (HT043E)	5-year, 4-hour onsite, 24x7 coverage for hardware (HT043E)
	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT048E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT048E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (HT048E)
	5-year, 24x7 SW phone support, software updates (HT047E)	5-year, 24x7 SW phone support, software updates (HT047E)	5-year, 24x7 SW phone support, software updates (HT047E)
	3 Yr 6 hr Call-to-Repair Onsite (HT025E)	3 Yr 6 hr Call-to-Repair Onsite (HT025E)	3 Yr 6 hr Call-to-Repair Onsite (HT025E)
	4 Yr 6 hr Call-to-Repair Onsite (HT035E)	4 Yr 6 hr Call-to-Repair Onsite (HT035E)	4 Yr 6 hr Call-to-Repair Onsite (HT035E)
	5 Yr 6 hr Call-to-Repair Onsite (HT045E)	5 Yr 6 hr Call-to-Repair Onsite (HT045E)	5 Yr 6 hr Call-to-Repair Onsite (HT045E)
	1-year, 4-hour onsite, 13x5 coverage for hardware (HT011E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HT011E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HT011E)

Specifications (continued)

	HP 3800-24G-PoE+-2XG Switch (J9587A)	HP 3800-48G-PoE+-4XG Switch (J9588A)	HP 3800-24SFP-2SFP+ Switch (J9584A)
	1-year, 4-hour onsite, 24x7 coverage for hardware (HT013E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HT013E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HT013E)
	1-year, 24x7 software phone support, software updates (HT017E)	1-year, 24x7 software phone support, software updates (HT017E)	1-year, 24x7 software phone support, software updates (HT017E)
	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HT018E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HT018E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HT018E)
	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT009E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT009E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT009E)
	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HT010E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HT010E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HT010E)
	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT019E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT019E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT019E)
	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT020E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT020E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT020E)
	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT029E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT029E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT029E)
	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT030E)	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT030E)	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT030E)
	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT039E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT039E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HT039E)
	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT040E)	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT040E)	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HT040E)
	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

Specifications (continued)

	HP 3800-24G-PoE+-2XG Switch (J9587A)	HP 3800-48G-PoE+-4XG Switch (J9588A)	HP 3800-24SFP-2SFP+ Switch (J9584A)
Standards and protocols (applies to all products in series)	**Device management** RFC 1591 DNS (client) HTML and telnet management **General protocols** IEEE 802.1ad Q-in-Q IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1s Multiple Spanning Trees IEEE 802.1v VLAN classification by Protocol and Port IEEE 802.1w Rapid Reconfiguration of Spanning Tree IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3af Power over Ethernet IEEE 802.3x Flow Control RFC 768 UDP RFC 783 TFTP Protocol (revision 2) RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 868 Time Protocol RFC 951 BOOTP RFC 1058 RIPv1 RFC 1350 TFTP Protocol (revision 2) RFC 1519 CIDR RFC 1542 BOOTP Extensions RFC 2030 Simple Network Time Protocol (SNTP) v4 RFC 2131 DHCP RFC 2453 RIPv2 RFC 2548 (MS-RAS-Vendor only) RFC 3046 DHCP Relay Agent Information Option RFC 3576 Ext to RADIUS (CoA only) RFC 3768 VRRP RFC 4675 RADIUS VLAN & Priority UDLD (Uni-directional Link Detection) **IP multicast** RFC 3376 IGMPv3 (host joins only) RFC 3973 Draft 2 PIM Dense Mode RFC 4601 Draft 10 PIM Sparse Mode **IPv6** RFC 1981 IPv6 Path MTU Discovery RFC 2375 IPv6 Multicast Address Assignments	RFC 2460 IPv6 Specification RFC 2464 Transmission of IPv6 over Ethernet Networks RFC 2710 Multicast Listener Discovery (MLD) for IPv6 RFC 2925 Remote Operations MIB (Ping only) RFC 3019 MLDv1 MIB RFC 3315 DHCPv6 (client only) RFC 3484 Default Address Selection for IPv6 RFC 3587 IPv6 Global Unicast Address Format RFC 3596 DNS Extension for IPv6 RFC 3810 MLDv2 (host joins only) RFC 4022 MIB for TCP RFC 4113 MIB for UDP RFC 4251 SSHv6 Architecture RFC 4252 SSHv6 Authentication RFC 4253 SSHv6 Transport Layer RFC 4254 SSHv6 Connection RFC 4291 IP Version 6 Addressing Architecture RFC 4293 MIB for IP RFC 4294 IPv6 Node Requirements RFC 4419 Key Exchange for SSH RFC 4443 ICMPv6 RFC 4541 IGMP & MLD Snooping Switch RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-configuration RFC 5095 Deprecation of Type 0 Routing Headers in IPv6 RFC 5340 OSPFv3 for IPv6 RFC 5453 Reserved IPv6 Interface Identifiers RFC 5722 Handling of Overlapping IPv6 Fragments **MIBs** RFC 1213 MIB II RFC 1493 Bridge MIB RFC 1724 RIPv2 MIB RFC 1850 OSPFv2 MIB RFC 2021 RMONv2 MIB RFC 2096 IP Forwarding Table MIB RFC 2613 SMON MIB RFC 2618 RADIUS Client MIB RFC 2620 RADIUS Accounting MIB RFC 2665 Ethernet-Like-MIB RFC 2668 802.3 MAU MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2737 Entity MIB (Version 2) RFC 2787 VRRP MIB RFC 2863 The Interfaces Group MIB RFC 2925 Ping MIB	**Network management** IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events) RFC 3176 sFlow ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3 XRMON **OSPF** RFC 2328 OSPFv2 RFC 3101 OSPF NSSA RFC 5340 OSPFv3 for IPv6 **QoS/CoS** RFC 2474 DiffServ Precedence, including 8 queues/port RFC 2597 DiffServ Assured Forwarding (AF) RFC 2598 DiffServ Expedited Forwarding (EF) **Security** IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+ RFC 2865 RADIUS (client only) RFC 2866 RADIUS Accounting Access Control Lists (ACLs) MAC Authentication MAC Lockdown MAC Lockout Port Security Secure Sockets Layer (SSL) SSHv1/SSHv2 Secure Shell Web Authentication

HP 3800 Switch Series accessories

Modules

HP 3800 4-port Stacking Module (J9577A)

Cables

HP 3800 0.5m Stacking Cable (J9578A)
HP 3800 1m Stacking Cable (J9665A)
HP 3800 3m Stacking Cable (J9579A)

Fan Tray

HP 3800 Switch Fan Tray (J9582A)

Mounting Kit

HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

HP 3800-24G-PoE+-2SFP+ Switch (J9573A)

HP X121 1G SFP LC SX Transceiver (J4858C)
HP X121 1G SFP LC LX Transceiver (J4859C)
HP X121 1G SFP LC LH Transceiver (J4860C)
HP X121 1G SFP RJ45 T Transceiver (J8177C)
HP X122 1G SFP LC BX-D Transceiver (J9142B)
HP X122 1G SFP LC BX-U Transceiver (J9143B)
HP X132 10G SFP+ LC SR Transceiver (J9150A)
HP X132 10G SFP+ LC LR Transceiver (J9151A)
HP X132 10G SFP+ LC LRM Transceiver (J9152A)
HP X132 10G SFP+ LC ER Transceiver (J9153A)
HP 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)
HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)
HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)
HP 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)
HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)
HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)
HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)
NEW HP 0.5 m PremierFlex OM3+ LC/LC Optical Cable (BK837A)
NEW HP 1 m PremierFlex OM3+ LC/LC Optical Cable (BK838A)
NEW HP 2 m PremierFlex OM3+ LC/LC Optical Cable (BK839A)
NEW HP 5 m PremierFlex OM3+ LC/LC Optical Cable (BK840A)
NEW HP 15 m PremierFlex OM3+ LC/LC Optical Cable (BK841A)
NEW HP 30 m PremierFlex OM3+ LC/LC Optical Cable (BK842A)
NEW HP 50 m PremierFlex OM3+ LC/LC Optical Cable (BK843A)
HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable (J9281B)
HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (J9283B)
HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable (J9285B)
HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable (J9300A)
HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable (J9301A)
HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable (J9302A)
HP X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)

HP 3800-48G-PoE+-4SFP+ Switch (J9574A)

HP X121 1G SFP LC SX Transceiver (J4858C)
HP X121 1G SFP LC LX Transceiver (J4859C)
HP X121 1G SFP LC LH Transceiver (J4860C)
HP X121 1G SFP RJ45 T Transceiver (J8177C)
HP X122 1G SFP LC BX-D Transceiver (J9142B)
HP X122 1G SFP LC BX-U Transceiver (J9143B)
HP X132 10G SFP+ LC SR Transceiver (J9150A)
HP X132 10G SFP+ LC LR Transceiver (J9151A)
HP X132 10G SFP+ LC LRM Transceiver (J9152A)
HP X132 10G SFP+ LC ER Transceiver (J9153A)
HP 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)
HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)
HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)
HP 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)
HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)
HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)
HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)
NEW HP 0.5 m PremierFlex OM3+ LC/LC Optical Cable (BK837A)
NEW HP 1 m PremierFlex OM3+ LC/LC Optical Cable (BK838A)
NEW HP 2 m PremierFlex OM3+ LC/LC Optical Cable (BK839A)
NEW HP 5 m PremierFlex OM3+ LC/LC Optical Cable (BK840A)
NEW HP 15 m PremierFlex OM3+ LC/LC Optical Cable (BK841A)
NEW HP 30 m PremierFlex OM3+ LC/LC Optical Cable (BK842A)
NEW HP 50 m PremierFlex OM3+ LC/LC Optical Cable (BK843A)
HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable (J9281B)
HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (J9283B)
HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable (J9285B)
HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable (J9300A)
HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable (J9301A)

HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable (J9302A)
HP X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)

HP 3800-24G-2SFP+ Switch (J9575A)

HP X121 1G SFP LC SX Transceiver (J4858C)
HP X121 1G SFP LC LX Transceiver (J4859C)
HP X121 1G SFP LC LH Transceiver (J4860C)
HP X121 1G SFP RJ45 T Transceiver (J8177C)
HP X122 1G SFP LC BX-D Transceiver (J9142B)
HP X122 1G SFP LC BX-U Transceiver (J9143B)
HP X132 10G SFP+ LC SR Transceiver (J9150A)
HP X132 10G SFP+ LC LR Transceiver (J9151A)
HP X132 10G SFP+ LC LRM Transceiver (J9152A)
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HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)
HP 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)
HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)
HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)
HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)
NEW HP 0.5 m PremierFlex OM3+ LC/LC Optical Cable (BK837A)
NEW HP 1 m PremierFlex OM3+ LC/LC Optical Cable (BK838A)
NEW HP 2 m PremierFlex OM3+ LC/LC Optical Cable (BK839A)
NEW HP 5 m PremierFlex OM3+ LC/LC Optical Cable (BK840A)
NEW HP 15 m PremierFlex OM3+ LC/LC Optical Cable (BK841A)
NEW HP 30 m PremierFlex OM3+ LC/LC Optical Cable (BK842A)
NEW HP 50 m PremierFlex OM3+ LC/LC Optical Cable (BK843A)
HP X242 10G SFP+ to SFP+ 1m Direct Attach Copper Cable (J9281B)
HP X242 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (J9283B)
HP X242 10G SFP+ to SFP+ 7m Direct Attach Copper Cable (J9285B)
HP X244 10G XFP to SFP+ 1m Direct Attach Copper Cable (J9300A)
HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable (J9301A)
HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable (J9302A)
HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)

HP 3800-48G-4SFP+ Switch (J9576A)

HP X121 1G SFP LC SX Transceiver (J4858C)
HP X121 1G SFP LC LX Transceiver (J4859C)
HP X121 1G SFP LC LH Transceiver (J4860C)
HP X121 1G SFP RJ45 T Transceiver (J8177C)
HP X122 1G SFP LC BX-D Transceiver (J9142B)
HP X122 1G SFP LC BX-U Transceiver (J9143B)
HP X132 10G SFP+ LC SR Transceiver (J9150A)
HP X132 10G SFP+ LC LR Transceiver (J9151A)
HP X132 10G SFP+ LC LRM Transceiver (J9152A)
HP X132 10G SFP+ LC ER Transceiver (J9153A)
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HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)
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HP X244 10G XFP to SFP+ 3m Direct Attach Copper Cable (J9301A)
HP X244 10G XFP to SFP+ 5m Direct Attach Copper Cable (J9302A)
HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)

HP 3800-24G-2XG Switch (J9585A)

HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)

HP 3800 Switch Series accessories (continued)

HP 3800-48G-4XG Switch (J9586A)

HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)

HP 3800-24G-PoE+-2XG Switch (J9587A)

HP X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)

HP 3800-48G-PoE+-4XG Switch (J9588A)

HP X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)

HP 3800-24SFP-2SFP+ Switch (J9584A)

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HP X121 1G SFP LC LX Transceiver (J4859C)
HP X121 1G SFP LC LH Transceiver (J4860C)
HP X121 1G SFP RJ45 T Transceiver (J8177C)
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HP X132 10G SFP+ LC LRM Transceiver (J9152A)
HP X132 10G SFP+ LC ER Transceiver (J9153A)
HP X111 100M SFP LC FX Transceiver (J9054C)
HP X112 100M SFP LC BX-D Transceiver (J9099B)
HP X112 100M SFP LC BX-U Transceiver (J9100B)
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HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)
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