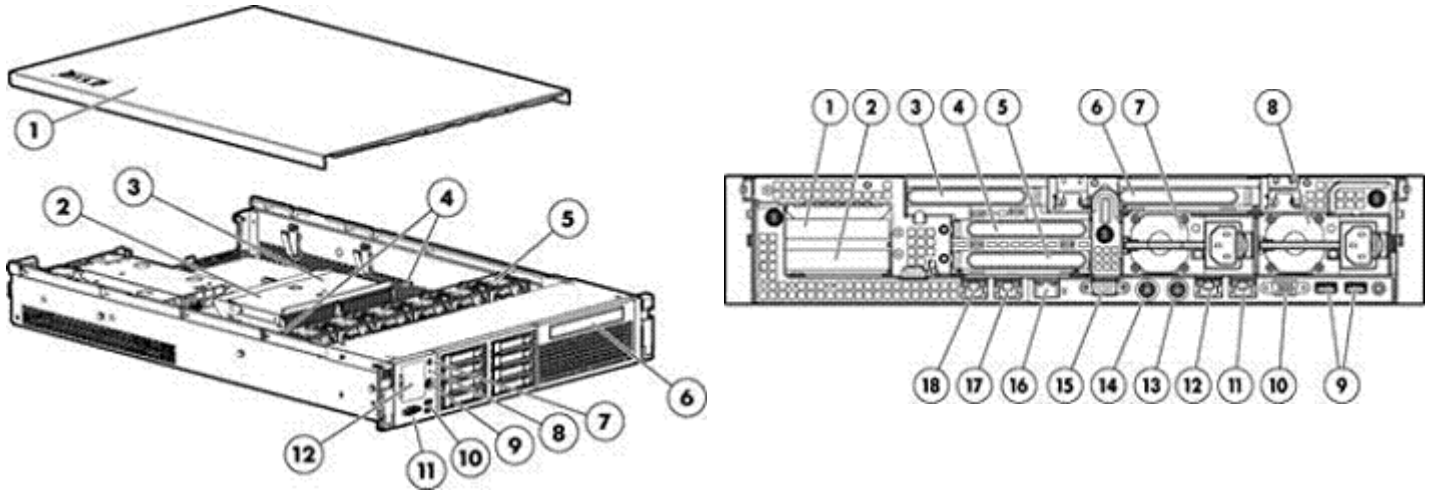


Overview

As the leading 2P 2U AMD rack server, the HP ProLiant DL385 G6 is designed with virtualization in mind, yet flexible to support any business need in many environments from corporate datacenters to sophisticated SMBs.



Front View:

1. Quick removal access panel
2. AMD Six-Core Processor (Performance models include two processors)
3. Second AMD Six-Core Processor
4. Sixteen sockets for PC2-6400 DIMMs (800MHz) with Advanced ECC
5. Hot-plug fans, full redundancy
6. Slim SATA DVD-RW Optical Drive included on Performance models
7. UID LED button
8. Health LED
9. Power On/Standby button and system power LED
10. USB connectors (2)
11. Video connector
12. Systems Insight Display

Rear View:

1. PCI slot 5
2. PCI slot 6
3. PCI slot 4
4. PCI slot 2
5. PCI slot 3
6. PCI slot 1
7. Power supply 2
8. Power supply 1
9. USB connectors (2)
10. Video connector
11. NIC 1 connector
12. NIC 2 connector
13. Mouse connector
14. Keyboard connector
15. Serial connector
16. iLO 2 connector
17. NIC 3 connector
18. NIC 4 connector



Standard Features

NOTE: For the Standard Features shipped in the "Factory Integrated Models", please see the "Configuration Information - Factory Integrated Models" section.

Processor

One of the following depending on Model

Six-Core Processors

AMD Opteron™ Processor Model 2435 (2.6 GHz, 6MB Level 3 Cache, 75W)

AMD Opteron™ Processor Model 2431 (2.4 GHz, 6MB Level 3 Cache, 75W)

AMD Opteron™ Processor Model 2427 (2.2 GHz, 6MB Level 3 Cache, 75W)

AMD Opteron™ Processor Model 2425HE (2.1 GHz, 6MB Level 3 Cache, 55W)

NOTE: Processor wattage references reflect Average CPU Power (ACP). For more information on ACP visit: <http://www.amd.com/powernow>.

NOTE: Up to 2 processors supported. High Performance Model configurations include two processors, 16 GB system memory, 512MB storage controller memory, BBWC, DVDRW, Redundant 750W Power Supplies, and 6 hot plug redundant fans.

NOTE: AMD Six-Core, 2400 series processors with 6MB Level 3 cache for blazing performance; systems support up to 2 processors (2 processors standard on all Performance models).

Cache Memory

6MB (1 x 6MB) Level 3 cache memory

Chipset

Serverworks HT-2100 Northbridge and HT-1000 Southbridge Chipset

Upgradeability

Upgradeable to two processors

Memory Protection

Advanced ECC

Memory

One of the following depending on Model

Type

REG PC2-6400 DIMMs (DDR2-800)

Standard models support 2:1 Bank Interleaving, with 4:1 Bank Interleaving (Data saved across 2 pairs of DIMMs) and Node interleaving support (data saved across 2 processors memory sets) available.

NOTE: If only one processor is installed, only half of the DIMM slots are available.

Standard
(Entry Models)

4 GB (2 x 2 GB)

Standard
(Base Models)

8 GB (2 x 4 GB)

Standard
(Performance Models)

16 GB (4 x 4 GB)

Maximum

128 GB (16 x 8 GB) (PC2-5300)

Network Controller

Two HP NC382i Dual Port Multifunction Gigabit Server Adapters (four ports total)

NOTE: 1GB of memory is sufficient to support up to eight Total Ports. 2GB of memory is required if nine or more Total Ports have been selected.



Standard Features

Expansion Slots

NOTE: Up to 6 PCI slots (one occupied by controller). Standard BTO riser with PCIe (1) x8 FL/FH, (2) x4 HL/FH. Optional second risers with PCIe (1) x8, (2) x4; or a PCIe/PCI-X mixed riser with (1) PCI-X, (1) x8, (1) x4; or a x16 225w PCIe riser with (1) x16; or a PCIe riser with (2) x8.

Primary Riser (Standard)	Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
	1	PCI-Express	x8	x16	42	Full Length/Full Height	
	2	PCI-Express	x4	x8	45	Half Length, Full Height	
	3	PCI-Express	x4	x8	48	Half Length, Full Height	Occupied by P410 controller

NOTE: Bus number - Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number

NOTE: Bus width - Indicates the number of physical electrical lanes running to the connector

PCIe Riser (Optional Secondary)	Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
	4	PCI-Express	x8	x16	4	Full Length/Full Height	
	5	PCI-Express	x4	x8	7	Low Profile	
	6	PCI-Express	x4	x8	A	Low Profile	

NOTE: Bus number - Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number

NOTE: Bus width - Indicates the number of physical electrical lanes running to the

PCIe/PCI-X Riser (Optional Primary)	Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
	1	PCI-Express	64-bit	N/A	49	Full Length, Half Height	
	2	PCI-Express	x8	x16	42	Half Length, Full Height	
	3	PCI-Express	x4	x8	45	Half Length, Full Height	

NOTE: Bus number - Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number

NOTE: Bus width - Indicates the number of physical electrical lanes running to the connector

NOTE: PCI-X support is limited to PCI-X cards only

PCIe/PCI-X (Optional Secondary)	Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
	4	PCI-X	64-bit	N/A	B	Full Length/Full Height	
	5	PCI-Express	x8	x16	4	Low Profile	
	6	PCI-Express	x4	x8	7	Low Profile	



Standard Features

NOTE: Bus number - Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number

NOTE: Bus width - Indicates the number of physical electrical lanes running to the connector

NOTE: PCI-X support is limited to PCI-X cards only

x16 PCIe Riser (Optional Primary)	Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
	1	PCI-Express	x16	x16	42	Full Length/Full Height	Supports up to 225W; single wide cards only

NOTE: Bus number - Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number

NOTE: Bus width - Indicates the number of physical electrical lanes running to the connector

(2) x8 PCIe Riser (Optional Primary)	Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
	1	PCI-Express	x8	x16	45	Full Length/Full Height	
	2	PCI-Express	x8	x16	42	Half Length, Full Height	

NOTE: Bus number - Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number

NOTE: Bus width - Indicates the number of physical electrical lanes running to the connector

NOTE: Only single wide cards are supported

NOTE: The shared network port is only supported in the secondary riser connector

(2) x8 PCIe Riser (Optional Secondary)	Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
	4	PCI-Express	x8	x16	7	Full Length/Full Height	
	5	PCI-Express	x8	x16	4	Low Profile	

NOTE: Bus number - Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number

NOTE: Bus width - Indicates the number of physical electrical lanes running to the connector

NOTE: Only single wide cards are supported

NOTE: The shared network port is only supported in the secondary riser connector

Storage Controller One of the following depending on Model

Entry Models: HP Smart Array P410/Zero Memory Controller

Base Models: HP Smart Array P410/256 MB Controller

High Performance Models: HP Smart Array P410/512 MB BBWC Controller

Available upgrades: 256MB, 512MB with BBWC, 512MB with FBWC, 1G with FBWC, Battery kit upgrade (for the 256MB cache), and Smart Array Advanced Pack (SAAP)

NOTE: RAID 6 requires purchase of HP Smart Array Advanced Pack (516471-B21).



Standard Features

Internal Storage Devices	Diskette Drive	None
	Optical Drive	None
	One of the following depending on Model	HP Slim SATA DVD RW Optical Drive (standard on Performance Models)
	Hard Drives	None ship standard

Maximum Internal Storage	Hot Plug SFF SAS	9.6TB	16 x 600GB (with optional drive cage)
	Hot Plug LFF SAS	12TB	6 x 2TB (with optional drive cage)

Interfaces	Serial	1
	Video	2 (1 front, 1 back)
	Network RJ-45 (Ethernet)	4
	iLO 2 remote management port	1
	Keyboard	1
	Pointing Device (Mouse)	1
	Graphics	1
	USB 2.0 Ports	5 (2 front, 2 back, 1 inside)

NOTE: Please see the following URL for additional information regarding USB support:
<http://h18004.www1.hp.com/products/servers/platforms/usb-support.html>.

Industry Standard Compliance	ACPI 2.0 Compliant
	PCIe 1.1 Compliant
	PCI 2.2 Compliant
	PCI-X 2.0a Compliant
	WOL Support
	Microsoft® Logo certifications
	USB 2.0 Support

Server Power Cords	NOTE: If customers require a local power cord, they can check the power cord matrix for the appropriate sku. Please see the following power cord matrix for details: http://www.hp.com/go/powercordmatrix
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Standard Features

Common Slot ProLiant

HP has a new design for ProLiant power - the new Common Slot (CS) Power Supply bay. This design provides the customer with commonality in power supplies across multiple platforms to save on the cost of spares and allows HP to offer multiple power solutions to fit the customers' needs. Many HP ProLiant Servers come with high efficiency CS power supplies that are designed to provide the highest power efficiency without degrading performance of the server. HP CS Power Supplies have efficiency ratings up to 92%. There are several power output options to choose from allowing you to "Right Size" a power supply that is appropriate for your server configuration. To make sure you select the correct power supply to meet your configuration, we suggest that you use the HP Power Advisor at: www.hp.com/go/hppoweradvisor, to decide the "Right-Size" for your configuration. All HP Common Slot power sources are UL, CE Mark Compliant, Hot Plug and Redundant.

It is highly recommended that you use the HP Power Calculator in defining the "Right-Size" power supply for your needs.

HP's ProLiant Common Slot Power supplies (460W & 750W) meet multiple Energy Efficiency Initiatives. Climate Savers Computing Initiative GOLD, ECOS Consulting 80PLUS GOLD and plans on offering models that meet the Energy Star for Server requirements when they are published.

HP's ProLiant Common Slot Power supplies (1200W) meet multiple Energy Efficiency Initiatives. Climate Savers Computing Initiative Bronze, ECOS Consulting 80PLUS Bronze Power Supply requirements.

Redundant Power: Optional (1 + 1 or n+n redundant) power supplies can be purchased through power supply option kits (see Redundant Options for part numbers).

NOTE: Performance models include two power supplies; Base and Entry models include one power supply. On CTO models, power supply must be selected from available options.

System Fans

Hot plug fans ship standard, N+1 fully redundant (3+1) for 1 processor, (5+1) for 2 processors

NOTE: Processor option kits include 2 additional fans when upgrading to 2 processors.

Required Cabling

For required cabling information, refer to the HP Web site at: www.hp.com/servers/dl385-g6.

Operating Systems and Virtualization Software Support for ProLiant Servers

[Microsoft Windows Server](#)
[Microsoft Windows Server Hyper-V](#)
[Red Hat Enterprise Linux \(RHEL\)](#)
[SUSE Linux Enterprise Server \(SLES\)](#)
[Oracle Enterprise Linux \(OEL\)](#)
[Solaris](#)
[VMware](#)

NOTE: For more information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server, please visit our Support Matrix at: <http://www.hp.com/go/ossupport> and our driver download page www.hp.com/support/DL385G6



Standard Features

Graphics

Integrated ATI ES1000, 32MB video standard

- 16 bit color: maximum resolution of 1600 x 1200
- 32 bit color: maximum resolution of 1280 x 1024

NOTE: Maximum resolution available via iLO remote console is 1280 x 1024.

Form Factor

Rack (2U), (3.5-inch)

HP Insight management software

HP Insight Foundation

Managing the growing number of servers can be complex and expensive for your organization. IT managers need to address changing business needs with tools that meet the challenges of managing today's complex Datacenters.

HP provides management solutions that are designed to simplify a server's installation, configuration and maintenance throughout the entire server lifecycle. This provides the customer with higher levels of operational efficiency and highly reliable systems: <http://www.hp.com/go/foundation>.

The foundation pack includes:

- HP SmartStart
- HP Management DVD
- HP ProLiant Smart Update Firmware DVD

SmartStart version supported (minimum): SmartStart 8.25.

<http://www.hp.com/servers/smartstart>

NOTE: In an effort to support reducing our environmental impact, the HP Insight Foundation Suite for ProLiant media will be available as a selectable option for this server at time of order of a CTO SKU. This will allow customers to order the number of media kits that best meet their needs and eliminate receiving unnecessary duplicate media.

HP Integrated Lights-Out (iLO) integrated on system board

HP Integrated Lights-Out (iLO) simplifies server setup, health monitoring, power and thermal control, and lights-out remote administration of ProLiant ML, DL, and BL servers. HP iLO functions without additional software and can be accessed from any location via a web browser. HP iLO works hand-in-hand with HP Systems Insight Manager, Insight Control, and Insight Dynamics for ProLiant, helping customers unleash the value of the ProLiant platform and deliver the highest possible quality of IT service. For more information, visit: www.hp.com/go/iLO



Standard Features

Intelligent Manageability	HP Systems Insight Manager software SmartStart Management Agent Redundant ROM Remote Flash ROM ROM-Based Setup Utility (RBSU) Integrated Management Log Automatic Server Recovery (ASR) Dynamic Sector Repairing (with Smart Array controller) Drive Parameter Tracking (with Smart Array controller) Pre-Failure Warranty (covers processors, SAS hard drives and memory)
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Security	Power-on password Keyboard password Diskette drive control Diskette boot control QuickLock, Network Server Mode Parallel and serial interface control Administrator's password
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Warranty	<p>This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HP Care Pack services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.</p> <p>NOTE: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have HP replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at: http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html</p>
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Optional Features

HP Insight management software

HP Insight Control

HP Insight Control, a product option, delivers essential infrastructure management that can help save time and money by making it easy to deploy, migrate, monitor, remote control, and optimize your IT infrastructure through a single, simple management console.

Two versions of Insight Control are available, to serve environments requiring either a Linux-based or a Windows-based central management server: HP Insight Control for Linux, and HP Insight Control. See www.hp.com/go/insightcontrol

HP Insight Control includes one year of 24 x 7 HP Software Technical Support and Update Service ensuring rapid access to HP support staff and proactive delivery of software updates. For more information about this service, please visit: <http://www.hp.com/services/insight>.

HP Insight Dynamics for ProLiant

HP Insight Dynamics for ProLiant, a product option, is an integrated command center that enables IT Staff personnel to continuously analyze and optimize a converged infrastructure, while automating and reducing the cost of common data center tasks by as much as 40 percent. As a powerfully integrated by design toolkit to accelerate complex technology projects and simplify daily operations that ultimately enable IT Staff personnel to dynamically keep pace with the organizations changing business requirements. It enables them to plan capacity and power continuously, balance across physical and virtual resources, and ensure cost-effective high availability. It also enables IT organizations to provision infrastructure consistently and automatically from pools of shared resources using a self-service portal. Resources provisioned can range from a single virtual machine to complex multi-tier environments and their associated physical and virtual resource requirements. In addition to the previous functional benefits, it also provides a cost-effective disaster recovery for physical and virtual environments that works with HP StorageWorks Continuous Access software for both the Enterprise Virtual Array and the XP storage array allowing application environments to be reactivated in minutes with the touch of a button to a remote location.

NOTE: For more information, visit: <http://www.hp.com/go/insightdynamics>

HPC Interconnects

NOTE: High Performance Computing (HPC) interconnect technologies are available for this server under the Cluster Platform product portfolio. These high-speed interconnects are fully supported by HP when they are part of these configure to order clusters. Solutions can be defined with a lot of flexibility with the help of configuration tools. Please visit the following URL to configure HPC Clusters with InfiniBand or Gigabit Ethernet Interconnects: <http://www.hp.com/techservers/clusters/ucp/index.html>

InfiniBand

PCI-Express adapters



Optional Features

Factory Express Portfolio for Servers and Storage

HP Factory Express offers configuration, customization, integration and deployment services for HP servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HP products supported through Factory Express include a wide array of servers and storage: HP Integrity, HP ProLiant, HP ProLiant Server Blades, HP BladeSystem, HP 9000 servers as well as the MSAxxxx, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches.

For more information on Factory Express services for your specific server model please contact your sales representative or go to: <http://www.hp.com/go/factory-express>.

HP Enterprise Configurator

The HP eConfigure-Enterprise Configurator now provides factory default racking for our HP hardware portfolio. This approach is aligned with our strategic direction to meet the needs and expectations of our valued customers. If you require "custom" rack configuration, please contact HP's Customer Business Center or an Authorized Partner for assistance.

<http://www.hp.com/products/configurator>.



Service and Support

Service and Support

HP Care Pack Services: Packaged server and storage services for increased uptime, productivity and ROI

When you buy HP server and storage products and solutions, it's also a good time to think about what levels of support you may need. Our portfolio of service options reduce deployment and management worries while helping you get the most out of your server and storage investments. We take a holistic approach to your environment, bridging servers, blades, storage, software and network infrastructures with our packaged HP Care Pack Services for servers and storage.

Protect your business beyond warranty

When it comes to robustness and reliability, standard computing equipment warranties have matured along with technology. Good news that can also create problems stemming from depending on standard warranties designed to only protect against product defects and some downtime causes. Using a standard approach to warranty uplifts, such as HP Care Pack Services, helps reduce downtime risks and provides operational consistency for mission-critical and standard business computing.

HP Care Pack Services: Upgrading or extending standard server and storage warranties cost effectively

HP Care Pack Services offer a standard reactive hardware and software support services suite sold separately, or combined with our Support Plus and Support Plus 24 services. The portfolio also provides a combination of integrated proactive and reactive services, such as Proactive 24 Service and Critical Service. In addition with HP Proactive Select, you can acquire the specific proactive constancy and technical services. HP Proactive Select menu offers a broad set of service options that you can mix and match depending on your specific requirements. Proactive service options include offers for server, storage, network, SAN device, software, environment and education services.

HP server and storage lifecycle support services offers a full spectrum of customer care-from technology support to complex migrations to complete managed services. HP Factory Express provides customization, integration and deployment services for turnkey solutions. HP Education Services offer flexible, comprehensive training on to help your IT staff get the most out of your server and storage investments. HP Financial solutions extend innovative financing and cost-effective asset management programs-from purchase to equipment retirement.

Learn more: www.hp.com/services/servers and www.hp.com/services/storage

NOTE: Care Pack Services availability may vary by product and country.

HP Care Pack Services are sold by HP and HP Authorized Service Partners:

- Services for customers purchasing from HP or an enterprise reseller are quoted using HP order configuration tools.
- Customers purchasing from a commercial reseller can find HP Care Pack Services at <http://www.hp.com/go/lookuptool>



Service and Support

Recommended HP Care Pack Services for optimal satisfaction with your HP product

Recommended Services **3-Year HP Hardware Support Onsite Call-to-Repair (CTR) Service, 6- or 24-hour**
Provides your IT manager with a team of support specialists who will quickly begin troubleshooting the system to help return the hardware to operating condition within 6 or 24 hours of the initial service request to the HP Global Solution Center.

HP is committed to repairing your hardware within a maximum of six or twenty four hours. The benefits include:

- Improved system uptime
- Predictable repair times
- More effective IT resource planning
- Consistent level of hardware support across your multi-technology systems

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-6636ENN>

3-Year HP Hardware Support Onsite Service, 4-hour response, 24x7

Provides you with rapid remote support and if required an HP authorized representative who will arrive on site any time and day of the year to begin hardware maintenance service within 4 hours of the service request being logged.

This service provides a trained HP service specialist to perform an installation that meets HP quality standards, for:

- Help improve or maintain system uptime
- Convenient onsite support
- Committed response time

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EEE>

HP ProLiant Server Hardware Installation

Provides for the basic hardware installation of HP branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner.

- Expedited installation, with all service prerequisites met before the installation is performed
- Installation in accordance with manufacturer's specifications, enhancing the supportability of your HP-installed hardware and software
- Service delivery at a mutually scheduled time
- Allows your IT resources to stay focused on their core tasks and priorities
- Availability of an HP service specialist to answer questions during the onsite delivery of this service

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN>



Service and Support

Optional HP Care Pack Services that will enhance your HP product experience

Optional Services

3-Year HP Support Plus 24

As an alternative to our recommended support level, for customers who need access to responsive 24x7 hardware and software support plus software updates on HP and selected third party products:

For a higher return on your server and storage technology, our 3-year combined reactive support service delivers integrated onsite hardware/software support services available 24x7x365, including access to HP technical resources, 4-hour response onsite hardware support and software updates.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-6638EEE>

3-Year HP Proactive 24

As an alternative to our recommended support level, for customers who want enhanced operational effectiveness and proactive problem identification:

Provides improved stability, availability and operational effectiveness with an integrated hardware and software support service that combines industry-leading reactive technical assistance with proactive account services, giving your IT manage support from a team of service specialists.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA0-1614ENUC>

HP Proactive Select Service

Customer needs on demand access to consulting, technical proactive services and education courses

Provides a flexible way to purchase HP best-in-class consultancy and technical services. You can buy Proactive Select Service Credits when you purchase your hardware and then use the credits over the next 12 months.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-3842ENN>

eSupport

HP eSupport is a portfolio of technology-based services that assist you with managing your business environment - from the desktop to the data center.

Support Portal

The HP support portal provides one-stop access to the information, tools and services you need to manage the daily operations of your IT environment.

Features include:

- Access to self-solve tools (including search technical knowledge base)
- Efficient logging and tracking of support cases
- Collaboration with other business and IT professionals
- Download of patches and drivers
- Access to diagnostic tools
- Proactive notification of relevant information

Access to certain features of the support portal requires an HP service agreement. To access the support portal, visit: <http://www.hp.com/support>

HP Insight Remote Support software delivers secure remote support for your HP Servers and Storage, 24



Service and Support

X 7, so you can spend less time solving problems and more time focused on your business. You can have your systems remotely monitored for hardware failure using secure technology that's been proven at thousands of companies around the world. In many cases, you can avoid problems before they occur.

Customer Technical Training

In today's cost-conscious business environment, IT professionals, developers, consultants and users face an interesting challenge: how to keep up with the latest technologies and expand important skills while delivering profitable results on current projects. To help address this challenge, HP offers innovative training solutions that help keep you up-to-date on virtualization, server, storage, Insight Control, Citrix, Microsoft® and open source/Linux-related topics-while spending less time away from business-critical activities.

HP Services Awards

HP Technology Services continues to be recognized for service and support excellence by customers, partners, industry organizations and publications around the world. Recent honors and award reflect our services team's dedications, technical expertise, professionalism and uncompromising commitment to customer satisfaction.

Additional Services Information

To learn more on HP ProLiant servers, HP BladeSystem servers and HP StorageWorks storage products, please contact your HP sales representative or HP Authorized Channel Partner. Or visit: www.hp.com/services/proliant or www.hp.com/services/bladeSystem or <http://www.hp.com/hps/storage>



Pre-configured Models

NOTE: For the Standard Features shipped in the "Factory Integrated Models", please see the "Configuration Information - Factory Integrated Models" section.

NOTE: Pre-configured models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.

NOTE: HP does not allow factory integration of options into pre-configured models. Any additional options purchased will be shipped separately.

NOTE: If you desire a custom configuration please see "Configuration Information - Factory Integrated Models" section of this QuickSpecs.

Performance Models

NOTE: Preconfigured Performance models save valuable deployment time at a discounted bundle price.

HP ProLiant DL385 G6 2435 2.6GHz Six Core Performance Rack Server 570102-001	Processor(s)	(2) Six-Core AMD Opteron™ Processor Model 2435 (2.6 GHz, 75W)
	Cache Memory	6MB (1 x 6MB) L3 cache
	Memory	16GB (4 x 4GB) of 2:1 interleaved PC2-6400 DIMMs (DDR2-800MHz) with Advanced ECC capabilities
	Network Controller	Two HP NC382i Dual Port Multifunction Gigabit Server Adapters (four ports total)
	Storage Controller	HP Smart Array P410/512MB BBWC Controller
	Hard Drives	None ship standard
	Internal Storage	Standard: 8 SFF SAS/SATA HDD Bays Optional: 16 SFF SAS/SATA HDD Bays
	Optical Drive	Slim SATA DVD-RW Optical Drive
	Power Supply	(2) 750W power supplies
	Fans	6 Hot Plug Fully Redundant Fans
	Form Factor	Rack (2U), (3.5-inch)
	Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.

HP ProLiant DL385 G6 2435 2.6GHz Six Core ICE Performance Rack Server 575381-001	Processor(s)	(2) Six-Core AMD Opteron™ Processor Model 2435 (2.6 GHz, 75W)
	Cache Memory	6MB (1 x 6MB) L3 cache
	Memory	16GB (4 x 4GB) of 2:1 interleaved PC2-6400 DIMMs (DDR2-800MHz) with Advanced ECC capabilities
	Network Controller	Two HP NC382i Dual Port Multifunction Gigabit Server Adapters (four ports total)
	Storage Controller	HP Smart Array P410/512MB BBWC Controller
	Hard Drives	None ship standard
	Internal Storage	Standard: 8 SFF SAS/SATA HDD Bays Optional: 16 SFF SAS/SATA HDD Bays
	Optical Drive	Slim SATA DVD-RW Optical Drive
	Power Supply	(2) 750W power supplies
	Fans	6 hot plug redundant fans
	Insight Control	HP Insight Control No Media single server license, including 1 year of 24x7 Technical Support and Updates
	Form Factor	Rack (2U), (3.5-inch)



Pre-configured Models

Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.
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Base Models

HP ProLiant DL385 G6 2431 2.4GHz Six Core Base Rack Server 570103-001	Processor(s)	(1) Six-Core AMD Opteron™ Processor Model 2431 (2.4 GHz, 75W)
	Cache Memory	6MB (1 x 6MB) L3 cache
	Memory	8GB (2 x 4GB) of 2:1 interleaved PC2-6400 DIMMs (DDR2-800MHz) with Advanced ECC capabilities
	Network Controller	Two HP NC382i Dual Port Multifunction Gigabit Server Adapters (four ports total)
	Storage Controller	HP Smart Array P410/256MB Controller
	Hard Drives	None ship standard
	Internal Storage	Standard: 8 SFF SAS/SATA HDD Bays Optional: 16 SFF SAS/SATA HDD Bays
	Optical Drive	Not included on Base Model
	Power Supply	(1) 460W power supply
	Fans	4 hot plug redundant fans
	Form Factor	Rack (2U), (3.5-inch)
	Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.

Entry Models

HP ProLiant DL385 G6 2427 2.2GHz Six Core Entry Rack Server 570108-001	Processor(s)	(1) Six-Core AMD Opteron™ Processor Model 2427 (2.2 GHz, 75W)
	Cache Memory	6MB (1 x 6MB) L3 cache
	Memory	4GB (2 x 2GB) of 2:1 interleaved PC2-6400 DIMMs (DDR2-800MHz) with Advanced ECC capabilities
	Network Controller	Two HP NC382i Dual Port Multifunction Gigabit Server Adapters (four ports total)
	Storage Controller	HP Smart Array P410/Zero Memory Controller
	Hard Drives	None ship standard
	Internal Storage	Standard: 8 SFF SAS/SATA HDD Bays Optional: 16 SFF SAS/SATA HDD Bays
	Optical Drive	Not Included on entry model
	Power Supply	(1) 460W power supply
	Fans	4 hot plug redundant fans
	Form Factor	Rack (2U), (3.5-inch)
	Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.



Pre-configured Models

HP ProLiant DL385 G6 2425HE 2.1GHz Six Core Rack Server 570109-001	Processor(s)	(1) Six-Core AMD Opteron™ Processor Model 2425HE (2.1 GHz, 55W)
	Cache Memory	6MB (1 x 6MB) L3 cache
	Memory	4GB (2 x 2GB) of 2:1 interleaved PC2-6400 DIMMs (DDR2-800MHz) with Advanced ECC capabilities
	Network Controller	Two HP NC382i Dual Port Multifunction Gigabit Server Adapters (four ports total)
	Storage Controller	HP Smart Array P410/Zero Memory Controller
	Hard Drives	None ship standard
	Internal Storage	Standard: 8 SFF SAS/SATA HDD Bays Optional: 16 SFF SAS/SATA HDD Bays
	Optical Drive	Not Included on entry model
	Power Supply	(1) 460W power supply
	Fans	4 hot plug redundant fans
	Form Factor	Rack (2U), (3.5-inch)
	Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response.



Smart Buys

HP S-Buy DL385 G6 2427 LFF Svr 583758-001	Processor(s)	(1) AMD Opteron™ Processor Model 2427 (2.2 GHz, 6MB Level 3 Cache, 75W)
	Memory	4GB (2 x 2 GB) PC2-6400
	Network Controller	Two HP NC382i Dual Port Multifunction Gigabit Server Adapters (four ports total)
	Storage Controller	HP Smart Array P410/256MB Controller
	Hard Drive	None included, 6 LFF Serial Attached SCSI (SAS) Drive Bays
	Optical Drive	None
	Power Supply	(1) 460W power supply
	Form Factor	Rack (2U), (3.5 in)

HP S-Buy DL385 G6 2431 2P Svr 583759-001	Processor(s)	(2) AMD Opteron™ Processor Model 2431 (2.4 GHz, 6MB Level 3 Cache, 75W)
	Memory	8GB (4 x 2 GB) PC2-6400
	Network Controller	(2) HP NC382i Dual-Port Multifunction Gigabit Server Adapters (4 ports total)
	Storage Controller	HP Smart Array P410/256MB Controller
	Hard Drive	None included, 6 LFF Serial Attached SCSI (SAS) Drive Bays
	Optical Drive	None
	Power Supply	(1) 750W power supply
	Form Factor	Rack (2U), (3.5 in)



Configuration Information - Factory Integrated Models

NOTE: This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

NOTE: Configure-to-order (CTO) servers must start with a CTO Chassis.

NOTE: FIO indicates that this option is only available as a factory installable option.

Step 1: Base Configuration (choose one of the following configurable models)

HP Models	HP ProLiant DL385G6 Rack CTO Chassis	572431-B21
	Factory Integrated Model ships with:	
	(8) SFF Serial Attached SCSI (SAS) Drive Bays	
	Two HP NC382i Dual Port Multifunction Gigabit Server Adapters (four ports total)	
	PCI-Express Riser Cage	
	One IEC Power cord	
	Hot plug fans (fully redundant)	
	NOTE: 4 fans one processor models; 6 fans two processor models	
	Rack (2U), (3.5-inch)	
	NOTE: this option removes the optical media bay and 8 SFF drive bays	
	HP ProLiant DL385G6 Rack LFF CTO Chassis	573104-B21
	Factory Integrated Model ships with:	
	(6) LFF Serial Attached SCSI (SAS) Drive Bays	
	NOTE: LFF configuration does not support internal optical drive	
	Two HP NC382i Dual Port Multifunction Gigabit Server Adapters (four ports total)	
	PCI-Express Riser Cage	
	One IEC Power cord	
	Hot plug fans (fully redundant)	
	NOTE: (4 fans one processor models; 6 fans two processor models)	
	Rack (2U), (3.5-inch)	

Step 1A: Choose Storage Controller (must choose only one of the following)

HP Storage Controllers	NOTE: Storage Controller is NOT required if selecting P/N: 570121-B21 in Step 3 below.	
	NOTE: RAID 6 requires purchase of HP Smart Array Advanced Pack (516471-B21).	
	NOTE: All storage controllers listed are PCI Express.	
	HP Smart Array P800/512 BBWC 2-ports Int/2-ports Ext PCIe x8 SAS Controller	381513-B21
	HP Smart Array P212/256 1-ports Int/1-ports Ext PCIe x8 SAS Controller	462834-B21
	HP Smart Array P212/ZM 1-ports Int/1-ports Ext PCIe x8 SAS Controller	462828-B21
	HP Smart Array P410/ZM 2-ports Int PCIe x8 FIO SAS Controller	462860-B21
	HP Smart Array P410/256 2-ports Int PCIe x8 SAS Controller	462862-B21
	HP Smart Array P410/256 2-ports Int PCIe x8 FIO SAS Controller	491195-B21
	HP Smart Array P410/512 BBWC 2-ports Int PCIe x8 SAS Controller	462864-B21
	HP Smart Array P411/256 2-ports Ext PCIe x8 SAS Controller	462830-B21
	HP Smart Array P411/512 BBWC 2-ports Ext PCIe x8 SAS Controller	462832-B21



Configuration Information - Factory Integrated Models

Step 2: Choose Required Options (only one of the following from each list unless otherwise noted)

HP Processors

NOTE: If two processors are desired, select one xxxxx-L21 and one xxxxx-B21. If selecting 570113-L21 and high performance features are desired, select High Performance Pack in Step 3 below.

Six-Core Processors

HP DL385 G6 AMD Opteron™ 2435 (2.60GHz/6-core/6MB/75W) FIO Processor Kit	570113-L21
HP DL385 G6 AMD Opteron™ 2431 (2.40GHz/6-core/6MB/75W) FIO Processor Kit	570115-L21
HP DL385 G6 AMD Opteron™ 2427 (2.20GHz/6-core/6MB/75W) FIO Processor Kit	570117-L21
HP DL385 G6 AMD Opteron™ 2425HE (2.10GHz/6-core/6MB/55W) FIO Processor Kit	570119-L21

HP Memory

NOTE: DIMM banks are active only when the corresponding processor socket is populated.

HP 2GB (2x1GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497763-B21
HP 4GB (2x2GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497765-B21
HP 8GB (2x4GB) Dual Rank PC2-6400 (DDR2-800) Registered Memory Kit	497767-B21
HP 8GB (2x4GB) Dual Rank x4 PC2-6400 (DDR2-800) Registered Low Power Memory Kit	504351-B21
HP 16GB (2x8GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	408855-B21
HP 64GB (8x8GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	495605-B21

NOTE: P/N: 495605-B21 includes 8 DIMMs instead of 2. It is counted as 4 kits instead of 1.

HP Power Supplies

NOTE: Prior to making a power supply selection it is highly recommended that the HP Power Advisor is run to determine the right size power supply for your server configuration. The HP Power Advisor is located at: www.hp.com/go/hppoweradvisor.

HP 460W HE 12V Hot Plug AC Power Supply Kit	503296-B21
HP 750W Common Slot High Efficiency Power Supply Kit	512327-B21
HP 1200W 12V Hot Plug AC Power Supply	500172-B21
HP 1200W -48V DC Common Slot Power Supply	437573-B21

NOTE: DC power supplies contain a -48V DC power cord designed for in rack DC power rectifiers.



Configuration Information - Factory Integrated Models

Step 3: Choose Additional Factory Integratable Options

HP Performance Packs	The HP ProLiant DL385 G6 performance packs are necessary to configure a HP ProLiant DL385 G6 Performance Model. HP ProLiant DL385 G6 Performance model includes the latest performance technologies and enterprise class availability features pre-installed for convenience and value. The performance pack includes a 2nd processor, two additional fans, HP Smart Array P410/512MB with BBWC, and a second 750W CS HE power supply. To complete the configuration of a Performance model, select the Slim SATA DVD-RW Optical Drive Kit (481043-B21).	
	HP DL385G6 O2435 HPM FIO PERF PACK	570121-B21
HP Insight Software	HP Insight Control, No Media 1-Server License Factory-Integratable Option (FIO) including 1 year of 24x7 Technical Support and Updates	582765-B21
	HP Insight Control for Linux, No Media 1-Server License Factory-Integratable Option (FIO) including 1 year of 24x7 Technical Support and Updates	TC203A

Step 4: Choose Additional Options for Factory Integration

NOTE: For additional options, please refer to the "Core Options" and "Additional Options" section below.



Core Options

NOTE: Some options may not be available for factory integration. Please contact an HP sales representative for additional information.

HP Unique Options	HP StorageWorks RDX160 Removable Disk Backup System DL Server Module NOTE: Mounts in DL385 G6 second drive cage slot (160GB of Disk Storage)	AP724A
	HP StorageWorks RDX320 Removable Disk Backup System DL Server Module NOTE: Mounts in DL385 G6 second drive cage slot (320GB of Disk Storage)	AP725A
	HP StorageWorks RDX500 Removable Disk Backup System DL Server Module NOTE: Mounts in DL385 G6 second drive cage slot (500GB of Disk Storage)	AP726A
	HP StorageWorks RDX 1TB Removable Disk Backup System DL Server Module NOTE: Mounts in DL385 G6 second drive cage slot (1 TB of Disk Storage)	BV848A
	HP 8SFF CAGE 385 G6 NOTE: Second drive cage installation replaces internal optical bay. NOTE: Second drive cage requires second controller or HP SAS Expander Card (468406-B21).	516914-B21

HP Processors

Six-Core Processors

HP DL385 G6 AMD Opteron™ 2435 (2.60GHz/6-core/6MB/75W) Processor Kit	570113-B21
HP DL385 G6 AMD Opteron™ 2431 (2.40GHz/6-core/6MB/75W) Processor Kit	570115-B21
HP DL385 G6 AMD Opteron™ 2427 (2.20GHz/6-core/6MB/75W) Processor Kit	570117-B21
HP DL385 G6 AMD Opteron™ 2425HE (2.10GHz/6-core/6MB/55W) Processor Kit	570119-B21

NOTE: Second processor kits include additional two fans.

HP Memory

HP 2GB (2x1GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497763-B21
HP 4GB (2x2GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497765-B21
HP 8GB (2x4GB) Dual Rank PC2-6400 (DDR2-800) Registered Memory Kit	497767-B21
HP 8GB (2x4GB) Dual Rank x4 PC2-6400 (DDR2-800) Registered Low Power Memory Kit	504351-B21
HP 16GB (2x8GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	408855-B21
HP 64GB (8x8GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	495605-B21

HP Optical Drives

HP Slim SATA DVD-ROM Optical Drive	481041-B21
HP Slim SATA DVD-RW Optical Drive NOTE: Included in performance models.	481043-B21
HP External USB CD/DVD R/RW Optical Drive	FS943AA#ABA

HP Hard Drives

NOTE: The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.

NOTE: Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

SAS Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives



Core Options

HP 600GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	581286-B21
HP 450GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	581284-B21
HP 300GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	507127-B21
HP 146GB 6G SAS 15K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	512547-B21
HP 146GB 6G SAS 10K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	507125-B21
HP 72GB 6G SAS 15K rpm SFF (2.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	512545-B21
SAS Hot Plug LFF (3.5-inch) Enterprise (ENT) Drives	
HP 600GB 6G SAS 15K rpm LFF (3.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	516828-B21
HP 450GB 6G SAS 15K rpm LFF (3.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	516816-B21
HP 300GB 6G SAS 15K rpm LFF (3.5-inch) Dual Port Enterprise 3yr Warranty Hard Drive	516814-B21
SAS Hot Plug SFF (2.5-inch) Midline (MDL) Drives	
HP 500GB 6G SAS 7.2K rpm SFF (2.5-inch) Dual Port Midline 1yr Warranty Hard Drive	507610-B21
SAS Hot Plug LFF (3.5-inch) Midline (MDL) Drives	
HP 2TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive	507616-B21
HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) Dual Port Midline 1yr Warranty Hard Drive	507614-B21
NOTE: Please see the QuickSpecs for Technical Specifications and additional information:	
http://h18000.www1.hp.com/products/quickspecs/12244_na/12244_na.html	
SATA Hot Plug SFF (2.5-inch) Midline (MDL) Drives	
HP 500GB 3G SATA 7.2K rpm SFF (2.5-inch) Midline 1yr Warranty Hard Drive	507750-B21
HP 160GB 3G SATA 7.2K rpm SFF (2.5-inch) Midline 1yr Warranty Hard Drive	530888-B21
SATA Hot Plug LFF (3.5-inch) Midline (MDL) Drives	
HP 2TB 3G SATA 7.2K rpm LFF (3.5-inch) Midline 1yr Warranty Hard Drive	507632-B21
HP 1TB 3G SATA 7.2K rpm LFF (3.5-inch) Midline 1yr Warranty Hard Drive	454146-B21
HP 500GB 3G SATA 7.2K rpm LFF (3.5-inch) Midline 1yr Warranty Hard Drive	458928-B21
SATA Hot Plug SFF (2.5-inch) Entry (ETY) Drives	
HP 250GB 3G SATA 5.4K rpm SFF (2.5-inch) Entry 1yr Warranty Hard Drive	460355-B21
HP 120GB 1.5G SATA 5.4K rpm SFF (2.5-inch) Entry 1yr Warranty Hard Drive	458924-B21
SATA Hot Plug LFF (3.5-inch) Entry (ETY) Drives	
HP 250GB 3G SATA 7.2K rpm LFF (3.5-inch) Entry 1yr Warranty Hard Drive	571230-B21
HP 160GB 3G SATA 7.2K rpm LFF (3.5-inch) Entry 1yr Warranty Hard Drive	458945-B21
NOTE: Please see the QuickSpecs for Technical Specifications and additional information:	
http://h18000.www1.hp.com/products/quickspecs/13021_na/13021_na.html	



Core Options

SATA Hot Plug Midline (MDL) Solid State Drives

HP 60GB 3G SATA SFF (2.5-inch) Midline 1yr Warranty Solid State Drive 572071-B21

HP 120GB 3G SATA SFF (2.5-inch) Midline 1yr Warranty Solid State Drive 572073-B21

SATA Hot Plug 3.5" Midline (MDL) Solid State Drives

HP 60GB 3G SATA LFF (3.5-inch) Midline 1yr Warranty Solid State Drive 570761-B21

HP 120GB 3G SATA LFF (3.5-inch) Midline 1yr Warranty Solid State Drive 570763-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18000.www1.hp.com/products/quickspecs/13415_na/13415_na.html

HP Networking

Gigabit Ethernet adapters

HP NC112T PCIe Gigabit Server Adapter 503746-B21

HP NC360T PCI Express Dual Port Gigabit Server Adapter 412648-B21

HP NC364T PCI Express Quad Port Gigabit Server Adapter 435508-B21

HP NC365T 4-port Ethernet Server Adapter 593722-B21

HP NC373F PCI Express Multifunction Gigabit Server Adapter 394793-B21

HP NC373T PCI Express Multifunction Gigabit Server Adapter 394791-B21

HP NC375T PCI Express Quad Port Gigabit Server Adapter 538696-B21

HP NC382T PCI Express Dual Port Multifunction Gigabit Server Adapter 458492-B21

10 Gigabit Ethernet adapters

NOTE: No more than two 10GbE I/O devices are supported in a single ProLiant server.

NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately.

HP NC522SFP Dual Port 10GbE Server Adapter 468332-B21

HP NC550SFP Dual Port 10GbE Server Adapter 581201-B21

NOTE: Please see the QuickSpecs for additional information:

www.hp.com/go/ProLiantNICs.

HP 10 GbE PCI-e G2 Dual Port Adapter 516937-B21

HP InfiniBand

HP InfiniBand 4X DDR PCI-E Dual Port Host Adapter 409376-B21

HP InfiniBand 4X DDR PCI-E Dual Port HCA 448397-B21

HP IB 4X DDR PCI-e DUAL PORT 0 mem HCA 483513-B21

NOTE: Please see the QuickSpecs for additional information:

http://h18000.www1.hp.com/products/quickspecs/13078_na/13078_na.html



Core Options

HP I/O Expansion Options	HP DL38X (1) x16 PCI-E riser kit	494323-B21
	HP DL38X (1) x8, (2) x4 PCI-E riser kit	500580-B21
	NOTE: This riser card will support Qty. 2 of 10 Gbe NICs or can be used for 2 additional PCIe Gen2 cards	
	NOTE: The shared network port is only supported in the secondary riser connector	
	HP DL38X PCI-X riser kit (1) PCI-X, (1) x8, (1) x4)	494322-B21
	HP DL38X (2) x8 PCI-E Riser Kit	494326-B21
	NOTE: This riser card will support Qty 2 of 10Gbe NICs.	

HP Power Supplies

NOTE: Prior to making a power supply selection it is highly recommended that the HP Power Advisor is run to determine the right size power supply for your server configuration. The HP Power Advisor is located at: www.hp.com/go/hppoweradvisor.

HP 460W HE 12V Hot Plug AC Power Supply Kit	503296-B21
HP 750W Common Slot High Efficiency Power Supply Kit	512327-B21
HP 1200W 12V Hot Plug AC Power Supply	500172-B21
HP 1200W -48V DC Common Slot Power Supply	437573-B21
NOTE: DC power supplies contain a -48V DC power cord designed for in rack DC power rectifiers.	



Additional Options

NOTE: Some options may not be integrated at the factory. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for additional information.

HP Insight Software	HP Insight Control	
	HP Insight Control, Single-Server License including 1 year of 24x7 Technical Support and Updates	452148-B22
	HP Insight Control suite, No Media, Electronic License including 1 year of 24x7 Technical Support and Updates	T9074BAE
	HP Insight Control, Electronic License for bundling with ProLiant ML/DL server, including 1 year of 24x7 Technical Support and Updates	TC278AAE
	HP Insight Control, Tracking License for bundling with ProLiant ML/DL server, including 1 year of 24x7 Technical Support and Updates	TC275A
	HP Insight Software Media Kit	436222-B21
	NOTE: Insight Software DVD media without licenses. Contains HP Systems Insight Manager, HP Insight Control, HP Insight Dynamics, HP Insight Control for Microsoft System Center, and Virtual Connect Enterprise Manager software. Uses an integrated installer to perform quick and accurate software installation and updates.	
	NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.	
	NOTE: Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.	
	NOTE: Licenses ship without media. The HP Insight Control Media Kit can be ordered separately, or can be downloaded at: http://www.hp.com/go/insightupdates .	
	NOTE: For additional license options please see the Insight Control QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12631_na/12631_na.html	
	HP Insight Control for Linux	
	HP Insight Control for Linux, 1-server license, including one year of 24x7 Technical Support and Updates, Electronic	TC213AAE
	HP Insight Control for Linux, No Media, 1-Server license, including one year of 24x7 Technical Support and Updates	TC209A
	HP Insight Control for Linux, Media pack (DVD) - No licenses included	TC208A
	NOTE: Media pack DVD contains the ISO image for HP Insight Control for Linux, HP Systems Insight Manager, HP Insight Control power management, HP Insight Control virtual machine management, and an integrated installer. Servers must be acquired separately.	
	NOTE: Licenses ship without media. The Media Kit for Insight Control for Linux can be ordered separately, or can be downloaded at: http://www.hp.com/go/ic-linux (click on Download button).	
	NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single set of activation keys.	
	NOTE: For additional License Kits, including electronic licensing options, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/13019_na/13019_na.html	
	HP Integrated Lights-Out (iLO) Advanced	
	HP Integrated Lights-Out Advanced, No Media, 1-Server License, including 1 year of 24x7 Technical Support and Updates	512485-B21



Additional Options

	HP ProLiant Essentials Integrated Lights-Out Advanced Pack, Electronic, including 1 year of 24x7 Technical Support and Updates	TA850AAE
	NOTE: This license allows 1 server to be deployed and managed via HP iLO Advanced. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support Service.	
	NOTE: For additional license kits, including electronic delivery options, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12362_na/12362_na.html	
	HP Insight Control Server Deployment	
	HP Insight Control server deployment, Electronic License including 1 year of 24x7 Technical Support and Updates	T9082AAE
	HP Insight Control server deployment, Single-Server License including 1 year of 24x7 Technical Support and Updates	452151-B21
	NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.	
	NOTE: Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.	
	NOTE: Licenses ship without media. The HP Insight Control Media Kit can be ordered separately, or can be downloaded at: http://www.hp.com/go/insightupdates .	
	NOTE: For additional license options please see the Insight Control QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12631_na/12631_na.html	

HP Drive Cage Options	HP 8SFF CAGE 380G6	516914-B21
HP I/O Accelerator Options	HP 160GB SLC PCIe ioDrive	600278-B21
	NOTE: A low-profile PCI bracket is included for use in low-profile slots.	
	HP 320GB MLC PCIe ioDrive	600279-B21
	NOTE: A low-profile PCI bracket is included for use in low-profile slots.	
	HP 320GB SLC PCIe ioDrive Duo	600281-B21
	HP 640GB MLC PCIe ioDrive Duo	600282-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13587_na/13587_na.html	



Additional Options

HP Security - TPM	<p>HP Trusted Platform Module Option Kit</p> <p>NOTE: The TPM (Trusted Platform Module) is a microcontroller chip that can securely store artifacts used to authenticate the server platform. These artifacts can include passwords, certificates and encryption keys. Windows® BitLocker™ Drive Encryption (BitLocker) is a data protection feature available in Windows Server® 2008. BitLocker leverages the enhanced security capabilities of a Trusted Platform Module (TPM) version 1.2. The TPM works with BitLocker to help protect user data and to ensure that a server running Windows Server 2008 has not been tampered with while the system was offline. For more information about TPM, including a white paper, go to: www.hp.com/go/TPM.</p> <p>NOTE: ProLiant OS pre-installed units will come with the partition required for TPM deployment.</p> <p>NOTE: The TPM key is unique to every TPM deployed server and must be retained. Misplacing or losing the key could result in data loss.</p>	488069-B21
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HP Storage Controllers	<p>SAS Controllers</p> <p>Smart Array P800 Controller</p> <p>HP Smart Array P800/512 BBWC 2-ports Int/2-ports Ext PCIe x8 SAS Controller</p> <p style="text-align: right;">381513-B21</p> <p>HP Smart Array P212 Controller</p> <p>HP Smart Array P212/ZM 1-ports Int/1-ports Ext PCIe x8 SAS Controller</p> <p style="text-align: right;">462828-B21</p> <p>HP Smart Array P212/256 1-ports Int/1-ports Ext PCIe x8 SAS Controller</p> <p style="text-align: right;">462834-B21</p> <p>Smart Array P410 Controller</p> <p>HP Smart Array P410/256 2-ports Int PCIe x8 SAS Controller</p> <p style="text-align: right;">462862-B21</p> <p>HP Smart Array P410/512 BBWC 2-ports Int PCIe x8 SAS Controller</p> <p style="text-align: right;">462864-B21</p> <p>HP Smart Array P410/512 FBWC 2-ports Int PCIe x8 SAS Controller</p> <p style="text-align: right;">578230-B21</p> <p>HP Smart Array P410/1G FBWC 2-ports Int PCIe x8 SAS Controller</p> <p style="text-align: right;">572532-B21</p> <p>HP Smart Array P411 Controller</p> <p>HP Smart Array P411/256 2-ports Ext PCIe x8 SAS Controller</p> <p style="text-align: right;">462830-B21</p> <p>HP Smart Array P411/512 BBWC 2-ports Ext PCIe x8 SAS Controller</p> <p style="text-align: right;">462832-B21</p> <p>HP Smart Array P411/512 FBWC 2-ports Ext PCIe x8 SAS Controller</p> <p style="text-align: right;">578229-B21</p> <p>HP Smart Array P411/1G FBWC 2-ports Ext PCIe x8 SAS Controller</p> <p style="text-align: right;">572531-B21</p> <p>Smart Array P812 Controller</p> <p>HP Smart Array P812/1G FBWC 2-ports Int/4-ports Ext PCIe x8 SAS Controller</p> <p style="text-align: right;">487204-B21</p> <p>Optional Upgrades</p> <p>HP 256MB P-series Cache Upgrade</p> <p style="text-align: right;">462968-B21</p> <p>NOTE: Supported on HP Smart Array P212 Controller and HP Smart Array P410/Zero Memory Controller only.</p> <p>HP 512MB P-Series Battery Backed Write Cache Upgrade</p> <p style="text-align: right;">462967-B21</p> <p>HP 650 mAh P-Series Battery</p> <p style="text-align: right;">462969-B21</p> <p>NOTE: To enable BBWC on the 256MB cache.</p> <p>NOTE: Supported on HP Smart Array P212 Controller, HP Smart Array P410 Controller, and HP Smart Array P411 Controller only.</p> <p>HP 8484 to Mini SAS 33in Cable Assembly</p> <p style="text-align: right;">591734-B21</p> <p>NOTE: Cable for use connecting the Smart Array P800 Controller to internal hard disk drives on select HP ProLiant G6 Servers.</p>
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Additional Options

HP 512MB Flash Backed Write Cache	534916-B21
HP 1GB Flash Backed Cache	534562-B21
HP Smart Array Advanced Pack including 1yr 24x7 Technical Support and Updates Single Server License	516471-B21

NOTE: This part number can be used to purchase a single license or to order multiple licenses with a single activation key. Customers will receive a license entitlement certificate via e-mail. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Include one year of 24x7 HP Software Technical Support Services.

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18000.www1.hp.com/products/quickspecs/12616_na/12616_na.html
(Smart Array P800 Controller)

http://h18000.www1.hp.com/products/quickspecs/13203_na/13203_na.html
(Smart Array P212 Controller)

http://h18000.www1.hp.com/products/quickspecs/13201_na/13201_na.html
(Smart Array P410 Controller)

http://h18000.www1.hp.com/products/quickspecs/13202_na/13202_na.html
(Smart Array P411 Controller)

http://h18000.www1.hp.com/products/quickspecs/13558_na/13558_na.html
(Smart Array P812 Controller)

http://h18000.www1.hp.com/products/quickspecs/13200_na/13200_na.html
(Smart Array Advanced Pack)

SAS Controller Options

HP 24 Bay 3Gb SAS Expander Card	468406-B21
HP Mini SAS to Mini SAS 8in Cable Assembly	496012-B21

NOTE: BTO Models will require Mini SAS 4i to Mini SAS 4i, 8.00" (496012-B21), included on CTO built models.

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

http://h18004.www1.hp.com/products/quickspecs/13232_na/13232_na.html
(SAS Expander Card)

SAS HBA

HP SC08Ge 2-ports Ext PCIe x8 SAS Host Bus Adapter	488765-B21
HP Modular Smart Array SC08e 2-ports Ext PCIe x8 SAS Host Bus Adapter	614988-B21

NOTE: This is a 2 x4 External Port HBA

NOTE: This is only approved for the HP StorageWorks P2000 G3 SAS Modular Smart Array.

NOTE: Please see the following QuickSpecs for additional information:

http://h18004.www1.hp.com/products/quickspecs/13082_na/13082_na.html
(SC08Ge HBA)

http://h18004.www1.hp.com/products/quickspecs/13651_na/13651_na.html
(SC08e 6Gb HBA)

SCSI HBA

HP SC11Xe Ultra320 Single Channel/ PCIe x4 SCSI Host Bus Adapter	412911-B21
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NOTE: Recommended HBA for SCSI tape drive connect.



Additional Options

NOTE: Please see the following QuickSpecs for additional information:
http://h18000.www1.hp.com/products/quickspecs/12566_na/12566_na.html
(SC11Xe HBA)

Backup & Recovery Software

Data Protector Express

HP Data Protector Express V5.0 for 1 Server E-LTU	TC330AAE
HP Data Protector Express V5.0 for 3 Servers E-LTU	TC331AAE
HP Data Protector Express V5.0 for 10 Servers E-LTU	TC332AAE
HP Basic Upgrade to Data Protector Express V5 for 1 Server E-LTU	TC333AAE

NOTE: One of these Data Protector Express base products is required. To see available options: <http://www.hp.com/go/dataprotectorexpress>

Tape Backup

NOTE: For the complete range of StorageWorks tape drives, autoloaders, libraries and media see: <http://www.hp.com/go/tape>. For hardware and software compatibility of HP StorageWorks tape backup products see: <http://www.hp.com/go/connect>.

HP DAT 320 USB 1U Rack-mount Kit	AP835B
HP StorageWorks 1/8 G2 LTO-4 Ultrium 1760 SAS Tape Autoloader NOTE: Requires HP 1U Tape Autoloader Rack Kit (AH166A) for rack installation. Connection using HP SC44Ge SAS Host Bus Adapter (416096-B21) recommended.	AK377A
HP StorageWorks LTO-4 Ultrium 1760 Tape Drive in 1U SAS Rack Kit NOTE: Connection using HP Smart Array P212/Zero Memory Controller (462828-B21) recommended.	EH946B
HP StorageWorks LTO-5 Ultrium 3000 Tape Drive in 1U SAS Rack Kit NOTE: Connection using HP Smart Array P212/Zero Memory Controller (462828-B21) recommended.	EJ014A
HP StorageWorks 1/8 G2 LTO-3 Ultrium 3000 SAS Tape Autoloader NOTE: Requires HP 1U Tape Autoloader Rack Kit (AH166A) for rack installation. Connection using HP Smart Array P212/Zero Memory Controller (462828-B21) recommended.	BL536A
HP StorageWorks MSL2024 1 LTO-4 Ultrium 1760 SAS Drive Library	AK378A
HP StorageWorks MSL2024 Tape Library with one LTO-5 Ultrium 3000 SAS Drive NOTE: Connection using HP Smart Array P212/Zero Memory Controller (462828-B21) recommended.	BL537A
HP StorageWorks MSL4048 1 LTO-4 Ultrium 1760 SAS Drive Library	AK380A
HP StorageWorks MSL4048 Tape Library with one LTO-4 Ultrium 3000 SAS Drive NOTE: Connection using HP Smart Array P212/Zero Memory Controller (462828-B21) recommended.	BL538A



Additional Options

Disk Backup

NOTE: For the complete range of StorageWorks D2D Backup Systems see: <http://www.hp.com/go/d2d>. For the complete range of StorageWorks RDX drives and media see: <http://www.hp.com/go/rdx>. For hardware and software compatibility of HP StorageWorks disk backup products see: <http://www.hp.com/go/connect>.

HP StorageWorks D2D Backup Systems with Backup Data Deduplication

HP StorageWorks D2D2502i Backup System EJ001B

NOTE: 1.5TB of useable network disk backup capacity. Network connected appliance with connectivity using the iSCSI protocol. If the server requires a hardware iSCSI initiator, the QLogic QLA4050 Host Bus Adapter is recommended.

HP StorageWorks D2D2504i Backup System EJ002B

NOTE: 3.0TB of useable network disk backup capacity. Network connected appliance with connectivity using the iSCSI protocol. If the server requires a hardware iSCSI initiator, the QLogic QLA4050 Host Bus Adapter is recommended.

HP StorageWorks D2D4112fc Backup System EH993B

NOTE: 9.0TB (expandable to 18.0TB) of useable network disk backup capacity. Fibre Channel SAN connected appliance. Direct server attach is not supported, requires connection via SAN fabric.

HP StorageWorks RDX Removable Disk Backup Systems USB

HP StorageWorks RDX160 Removable Disk Backup System DL Server Module AP724A

NOTE: Mounts in DL385 G6 second drive cage slot (160GB of Disk Storage)

HP StorageWorks RDX320 Internal Removable Disk Backup System for DL Servers AP725A

NOTE: 320GB of disk capacity per data cartridge.

HP StorageWorks RDX500 Internal Removable Disk Backup System for DL Servers AP726A

NOTE: 500GB of disk capacity per data cartridge.

HP StorageWorks RDX750 Internal Removable Disk Backup System for DL Servers AW578A

NOTE: 750GB of disk capacity per data cartridge.

HP StorageWorks RDX 1TB Internal Removable Disk Backup System DL Servers BV848A

NOTE: 1 TB of disk capacity per data cartridge.

HP StorageWorks Options

StorageWorks Fibre Channel HBA

NOTE: For the complete listing of Fibre Channel Host Bus Adapters for Windows 2000, Windows Server 2003 and Linux, please see:

<http://h18006.www1.hp.com/storage/saninfrastructure/hba.html>

Brocade Fibre Channel HBAs

HP StorageWorks 81B PCI-e FC HBA Single Port AP769A

HP StorageWorks 82B PCI-e FC HBA Dual Port AP770A

HP StorageWorks 41B 4Gb PCI-e FC HBA AP767A

HP StorageWorks 42B 4Gb Dual-Port PCI-e FC HBA AP768A

Emulex Fibre Channel HBAs

HP StorageWorks 81E PCI-e FC HBA Single Port AJ762A

HP StorageWorks 82E PCI-e FC HBA Dual Port AJ763A

HP StorageWorks FC2142 4Gb PCI-e HBA A8002A

HP StorageWorks FC2242 Dual Channel 4Gb PCI-e HBA A8003A

QLogic Fibre Channel HBAs

HP StorageWorks 81Q PCI-e FC HBA Single Port AK344A



Additional Options

HP StorageWorks 82Q PCI-e FC HBA Dual Port	AJ764A
HP StorageWorks FC1142 4Gb PCI-e HBA	AE311A
HP StorageWorks FC1242 Dual Channel 4Gb PCI-e HBA	AE312A
StorageWorks SCSI HBA	
HP U320e SCSI Host Bus Adapter	AH627A
NOTE: Recommended HBA for MSL SCSI Tape Library connect.	
StorageWorks Converged Network Adapter	
HP CN1000E 2P Converged Network Adapter	AW520A

HP Modular Smart Array	MSA SAN Storage Arrays	
	HP StorageWorks 60 Modular Smart Array	418408-B21
	NOTE: Supports 12 SFF drives, and SAS 3 Gb/s and SATA 1.5 Gb/s.	
	NOTE: Please see the QuickSpecs for additional options and configuration information at:	
	http://h18000.www1.hp.com/products/quickspecs/12627_na/12627_na.html	
	HP StorageWorks 70 Modular Smart Array	418800-B21
	NOTE: Supports 25 SFF drives, and SAS 3 Gb/s and SATA 1.5 Gb/s.	
	NOTE: Please see the QuickSpecs for additional options and configuration information at:	
	http://h18000.www1.hp.com/products/quickspecs/12652_na/12652_na.html	
	Disk Enclosures	
	HP StorageWorks D2600 Disk Enclosure	AJ940A
	HP StorageWorks D2700 Disk Enclosure	AJ941A
	NOTE: Please see the QuickSpecs for additional options and configuration information at:	
	http://h18000.www1.hp.com/products/quickspecs/13404_na/13404_na.html	

HP Uninterruptible Power Systems	HP Rack-mountable UPS	
	HP R1500 G2 UPS	
	HP, R1.5kVA UPS, 1U	AF419A
	NOTE: Please see the QuickSpecs for additional information:	
	http://h18000.www1.hp.com/products/quickspecs/12507_na/12507_na.html	
	NOTE: For additional information on HP Uninterruptible Power Systems please go to:	
	www.hp.com/servers/rackups .	
	NOTE: For additional information on sizing your server, please reference:	
	http://www.upssizer.com .	
	HP R/T3000 Uninterruptible Power System (UPS)	
	HP R/T3000 UPS, High voltage	AF453A
	NOTE: Please see the QuickSpecs for additional information:	
	http://h18000.www1.hp.com/products/quickspecs/13417_na/13417_na.html	
	HP Rack-Mountable R5500 UPS	
	HP R5500 VA UPS	AF426A
	NOTE: Please see the QuickSpecs for additional information:	
	http://h18000.www1.hp.com/products/quickspecs/13129_na/13129_na.html	



Additional Options

NOTE: For additional information on HP Uninterruptible Power Systems please go to: www.hp.com/servers/rackups.

NOTE: For additional information on sizing your server, please reference: <http://www.upssizer.com>.

NOTE: Please see the UPS and PDU cable matrix's on the HP Power Protection and Management page. Under Power Cords, click on the "HP Power Cord Matrix" link. That link will list cable descriptions, requirements, and specifications for UPS and PDU units. Please see the following link: www.hp.com/products/powercords.

HP Power Distribution Units

HP Monitored Power Distribution Unit: Half Rack Version

HP 4.9 kVA S124 Monitored PDU- single input, 1Ø, 24A

AF914A

NOTE: Please see the following QuickSpecs for additional information:

http://h18000.www1.hp.com/products/quickspecs/12118_na/12118_na.html

HP Monitored Power Distribution Unit: Full Rack Version

HP 8.6 kVA S1324 Monitored PDU- single input, 3Ø, 24A

AF504A

HP 8.3 S1140 Monitored PDU- single input, 1Ø, 40A

AF506A

NOTE: Please see the following QuickSpecs for additional information:

http://h18000.www1.hp.com/products/quickspecs/12118_na/12118_na.html

Modular Power Distribution Units 1U/0U (Up to 32 outlets)

NOTE: 1U/0U mounting brackets shipped with the unit (optimized for 10000 and 9000 series racks).

HP Modular Power Distribution Units (mPDU), High Volt Model, 24A (200-240 VAC)

252663-D72

8.3kVA Model - mPDU, 40A, High (power cord attached)

252663-D73

HP Modular Power Distribution Units (mPDU), High Volt Model, 16A (200-240 VAC)

252663-B24

NOTE: This PDU has a detachable input power cord and allows for adaptability to power requirements.

NOTE: Please see the following QuickSpecs for additional options including shorter jumper cables and country specific power cords:

http://h18000.www1.hp.com/products/quickspecs/11041_na/11041_na.html

NOTE: For additional information on HP Power Distribution Units including accessories please go to: www.hp.com/go/pdu.

NOTE: Please see the UPS and PDU cable matrix's on the HP Power Protection and Management page. Under Power Cords, click on the "HP Power Cord Matrix" link. That link will list cable descriptions, requirements, and specifications for UPS and PDU units. Please see the following link: www.hp.com/products/powercords.



Additional Options

HP Rack Series	HP Rack 10000 G2 Series (Carbon/Graphite Metallic)	
	10642 G2 (42U) Rack Cabinet - Pallet	AF001A
	10642 G2 (42U) Rack Cabinet - Shock Pallet	AF002A
	HP 10642G2 1200mm deep Rack cabinet Shock Rack	AF092A
	HP 10647G2 1200mm deep Rack cabinet Shock Rack	AF094A
	NOTE: It is mandatory to use a shock pallet when shipping racks with equipment installed.	
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/12402_na/12402_na.html	
	NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://www.hp.com/go/rackandpower .	

HP Rack Options	Keyboards and Monitors	
	HP TFT7600 G2 KVM Console Rackmount Keyboard Monitor	AZ870A
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13731_na/13731_na.html	
	HP TAA TFT7600 US Rkmntkybd 17in Monitor	AG067A
	NOTE: For additional information regarding Rack Options, please see the following URL: http://www.hp.com/go/rackandpower .	
	HP Server Console Switches	
	HP Server console switch 0x2x8	AF616A
	HP Server console switch 0x2x16	AF617A
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/11834_na/11834_na.html	
	HP Server Console Switch G2 with Virtual Media & CAC	
	0x2x16 KVM Server Console G2 Switch with Virtual Media and CAC	AF618A
	0x2x32 KVM Server Console G2 Switch with Virtual Media and CAC	AF619A
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13475_na/13475_na.html	
	HP IP Console Switch G2 with Virtual Media & CAC	
1x1Ex8 KVM IP Console Switch G2 with Virtual Media and CAC	AF620A	
2x1Ex16 KVM IP Console Switch G2 with Virtual Media and CAC	AF621A	
4x1Ex32 KVM IP Console Switch G2 with Virtual Media and CAC	AF622A	
NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13474_na/13474_na.html		



Additional Options

HP USB and SD Options	HP USB 04 Standard Keyboard	DT528A#ABA
	HP 2GB USB Flash Media Drive Key	608447-B21

NOTE: HP qualified blank USB key for use with HP ProLiant servers that support the VMware virtualization environment and other HP value-add software like SmartStart. HP recommends this industry standard USB flash device for use with VMware ESXi. USB device must be installed in the internal slot of the ProLiant server for use with VMware ESXi. Refer to [HP VMware Getting Started Guide](#) for installation instructions.

HP Care Pack Services	Hardware Services On-site Service	
	4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years, Electronic	U4544E
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4545E
	Hardware Services 6-Hour Call to Repair On-site Service	
	6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4546E
	Installation & Start-up Services	
	Hardware Installation, Electronic	U4554E
	Installation & Start-Up of a ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays, Electronic	U4555E
	Installation and Startup for Essentials Rapid Deployment Pack, Electronic	U5683E
	Support Plus	
	Onsite HW support, 8am-9pm, M-F, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays, Electronic	U4556E
	Support Plus 24	
Onsite HW support 24x7, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U4557E	
Onsite HW support 24x7, 4hr response and SuSE Linux SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U6312E	

NOTE: For more information, customer/resellers can contact: <http://www.hp.com/services/carepack>.



Memory

NOTE: Memory configurations listed do not apply to "Factory Integrated Models".

HP ProLiant DL385 G6

Standard Memory (Base Models)

8 GB REG PC2-6400 2 x 4 GB installed (Base Model)

Upgrading Memory and Memory Interleaving

DIMMs must be installed in identical pairs. Bank interleaving is automatically enabled on a processor node under the following conditions:

- Four single ranked DIMMs populated per node (4 x 1 GB or 4 x 2 GB for example) yields 2-way bank interleaving.
 - Two dual ranked DIMMs populated per node (2 x 4 GB or 2 x 8 GB for example) yields 2-way bank interleaving.
 - Four dual ranked DIMMs populated per node (4 x 4 GB or 4 x 8 GB for example) yields 4-way bank interleaving.
- If single and dual ranked DIMMs are mixed on the same node, bank interleaving will not be enabled.
If single and dual ranked DIMMs are mixed on the same node, bank interleaving will not be enabled.

Node interleaving can be configured via RBSU if both processors have the same memory footprint and it is independent of bank interleaving.

DIMMs must be installed in decreasing capacity with the largest DIMMs installed in the banks furthest away from each processor.

Standard Memory Plus Optional Memory

Up to 56 GB memory is available with the standard memory and the optional installation of 6 x 8GB PC2-5300 DIMMs.

Standard Memory Replaced with Optional Memory

Up to 64 GB of memory is available with the removal of the standard memory and the optional installation of 8 x 8 GB PC2-5300 DIMMs.

NOTE: Chart does not represent all possible configurations.

NOTE: DIMM banks are active only when the corresponding processor socket is populated.

	Slot																Total	
	Bank A		Bank B		Bank C		Bank D		Bank E		Bank F		Bank G		Bank H			
Config	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Standard	4GB	4GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	8GB
Optional	8GB	8GB	8GB	8GB	8GB	8GB	4GB	4GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	56GB
Maximum	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty	64GB

HP ProLiant DL385 G6 Performance Models

Standard Memory

16 GB REG PC2-6400 4 x 4 GB installed

Upgrading Memory and Memory Interleaving

DIMMs must be installed in identical pairs. Bank interleaving is automatically enabled on a processor node under the following conditions:

1. Four single ranked DIMMs populated per node (4 x 1 GB or 4 x 2 GB for example) yields 2-way bank interleaving.
 2. Two dual ranked DIMMs populated per node (2 x 4 GB or 2 x 8 GB for example) yields 2-way bank interleaving.
 3. Four dual ranked DIMMs populated per node (4 x 4 GB or 4 x 8 GB for example) yields 4-way bank interleaving.
- If single and dual ranked DIMMs are mixed on the same node, bank interleaving will not be enabled.



Memory

Node interleaving can be configured via RBSU if both processors have the same memory footprint and it is independent of bank interleaving.

DIMMs must be installed in decreasing capacity with the largest DIMMs installed in the banks furthest away from each processor.

Standard Memory Plus Optional Memory

Up to 112 GB memory is available with the standard memory and the optional installation of 12 x 8GB PC2-5300 DIMMs.

Standard Memory Replaced with Optional Memory

Up to 128 GB of memory is available with the removal of the standard memory and the optional installation of 16 x 8 GB PC2-5300 DIMMs.

NOTE: Chart does not represent all possible configurations.

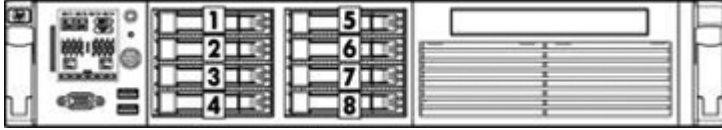
	Slot																Total
	Bank A		Bank B		Bank C		Bank D		Bank E		Bank F		Bank G		Bank H		
Config	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Standard	4GB	4GB	Empty	Empty	Empty	Empty	Empty	Empty	4GB	4GB	Empty	Empty	Empty	Empty	Empty	Empty	16GB
Optional	8GB	8GB	8GB	8GB	8GB	8GB	4GB	4GB	8GB	8GB	8GB	8GB	8GB	8GB	4GB	4GB	112GB
Maximum	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	8GB	128GB

Following are memory options available from HP:

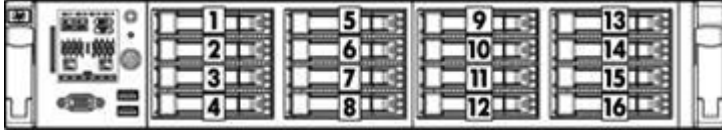
HP Memory	HP 2GB (2x1GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497763-B21
	HP 4GB (2x2GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497765-B21
	HP 8GB (2x4GB) Dual Rank PC2-6400 (DDR2-800) Registered Memory Kit	497767-B21
	HP 8GB (2x4GB) Dual Rank x4 PC2-6400 (DDR2-800) Registered Low Power Memory Kit	504351-B21
	HP 16GB (2x8GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	408855-B21
	HP 64GB (8x8GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	495605-B21



Storage



1-8 Eight SFF SAS hot plug hard drive bays



1-16 Sixteen SFF SAS hot plug hard drive bays

NOTE: This configuration does not support optical drive.

NOTE: This configuration requires a second controller or SAS Expander Card.



1-6 Six LFF SAS hot plug hard drive bays

NOTE: This configuration does not support optical drive.

NOTE: This configuration replaces SFF hard drive cage.

Drive Support

	Quantity Supported	Position Supported	Controller
Removable Media			
Slim SATA DVD RW Optical Drive	Only 1 available removable media bay	Slimline bay	Integrated SATA
NOTE: Included in performance models.			
Slim SATA DVD-ROM Optical Drive	Only 1 available removable media bay	Slimline bay	Integrated SATA

Hard Drives

NOTE: The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.

NOTE: Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

SAS Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives

	Quantity Supported	Position Supported	Controller
600GB 6G SAS 10K DP	Up to 16	1-8	HP Smart Array P800/512 BBWC Controller
450GB 6G SAS 10K DP		1-16	HP Smart Array P212/Zero Memory Controller
300GB 6G SAS 10K DP		NOTE: Depending on Model	HP Smart Array P212/ 256 MB Controller
146GB 6G SAS 15K DP			HP Smart Array P410/256 MB Controller
146GB 6G SAS 10K DP			HP Smart Array P410/512 MB BBWC Controller
72GB 6G SAS 15K DP			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller
	HP Smart Array P411/512 MB BBWC Controller		
			HP Smart Array P411/512 MB FBWC Controller



Storage

HP Smart Array P411/1G FBWC Controller
 HP Smart Array P812/1G Flash Backed Cache Controller

SAS Hot Plug LFF (3.5-inch) Enterprise (ENT) Drives

	Quantity Supported	Position Supported	Controller
600GB 6G SAS 15K DP	Up to 6	1-6	HP Smart Array P800/512 BBWC Controller
450GB 6G SAS 15K DP			HP Smart Array P212/Zero Memory Controller
300GB 6G SAS 15K DP			HP Smart Array P212/ 256 MB Controller
			HP Smart Array P410/256 MB Controller
			HP Smart Array P410/512 MB BBWC Controller
			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
			HP Smart Array P411/1G FBWC Controller
			HP Smart Array P812/1G Flash Backed Cache Controller

SAS Hot Plug SFF (2.5-inch) Midline (MDL) Drives

	Quantity Supported	Position Supported	Controller
500GB 6G SAS 7.2K DP	Up to 16	1-8	HP Smart Array P800/512 BBWC Controller
		1-16	HP Smart Array P212/Zero Memory Controller
		NOTE:	HP Smart Array P212/ 256 MB Controller
		Depending on Model	HP Smart Array P410/256 MB Controller
			HP Smart Array P410/512 MB BBWC Controller
			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
			HP Smart Array P411/1G FBWC Controller
			HP Smart Array P812/1G Flash Backed Cache Controller

SAS Hot Plug LFF (3.5-inch) Midline (MDL) Drives

	Quantity Supported	Position Supported	Controller
2TB 6G SAS 7.2K DP	Up to 6	1-6	HP Smart Array P800/512 BBWC Controller
1TB 6G SAS 7.2K DP			HP Smart Array P212/Zero Memory Controller
			HP Smart Array P212/ 256 MB Controller
			HP Smart Array P410/256 MB Controller
			HP Smart Array P410/512 MB BBWC Controller
			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller



Storage

HP Smart Array P411/512 MB FBWC Controller
 HP Smart Array P411/1G FBWC Controller
 HP Smart Array P812/1G Flash Backed Cache Controller

SATA Hot Plug SFF (2.5-inch) Midline (MDL) Drives

	Quantity Supported	Position Supported	Controller
500GB 3G SATA 7.2K	Up to 16	1-8	HP Smart Array P800/512 BBWC Controller
160GB 3G SATA 7.2K		1-16	HP Smart Array P212/Zero Memory Controller
		NOTE: Depending on Model	HP Smart Array P212/ 256 MB Controller
			HP Smart Array P410/256 MB Controller
			HP Smart Array P410/512 MB BBWC Controller
			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
			HP Smart Array P411/1G FBWC Controller
			HP Smart Array P812/1G Flash Backed Cache Controller

SATA Hot Plug LFF (3.5-inch) Midline (MDL) Drives

	Quantity Supported	Position Supported	Controller
2TB 3G SATA 7.2K	Up to 6	1-6	HP Smart Array P800/512 BBWC Controller
1TB 3G SATA 7.2K			HP Smart Array P212/Zero Memory Controller
500GB 3G SATA 7.2K			HP Smart Array P212/ 256 MB Controller
			HP Smart Array P410/256 MB Controller
			HP Smart Array P410/512 MB BBWC Controller
			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
			HP Smart Array P411/1G FBWC Controller
			HP Smart Array P812/1G Flash Backed Cache Controller

SATA Hot Plug SFF (2.5-inch) Entry (ETY) Drives

	Quantity Supported	Position Supported	Controller
250GB 3G SATA 5.4K	Up to 16	1-8	HP Smart Array P800/512 BBWC Controller
120GB 1.5G SATA 5.4K		1-16	HP Smart Array P212/Zero Memory Controller
		NOTE: Depending on Model	HP Smart Array P212/ 256 MB Controller
			HP Smart Array P410/256 MB Controller
			HP Smart Array P410/512 MB BBWC Controller
			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller



Storage

HP Smart Array P411/512 MB BBWC Controller
 HP Smart Array P411/512 MB FBWC Controller
 HP Smart Array P411/1G FBWC Controller
 HP Smart Array P812/1G Flash Backed Cache Controller

SATA Hot Plug LFF (3.5-inch) Entry (ETY) Drives

	Quantity Supported	Position Supported	Controller
250GB 3G SATA 7.2K	Up to 6	1-6	HP Smart Array P800/512 BBWC Controller
160GB 3G SATA 7.2K			HP Smart Array P212/Zero Memory Controller
			HP Smart Array P212/ 256 MB Controller
			HP Smart Array P410/256 MB Controller
			HP Smart Array P410/512 MB BBWC Controller
			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
			HP Smart Array P411/1G FBWC Controller
			HP Smart Array P812/1G Flash Backed Cache Controller

SATA Hot Plug Midline (MDL) Solid State Drives

	Quantity Supported	Position Supported	Controller
60GB 3.0G SATA SSD	Up to 16	1-8	HP Smart Array P212/Zero Memory Controller
120GB 3.0G SATA SSD		1-16	HP Smart Array P212/ 256 MB Controller
			HP Smart Array P410/256 MB Controller
			HP Smart Array P410/512 MB BBWC Controller
			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller
			HP Smart Array P411/512 MB FBWC Controller
			HP Smart Array P411/1G FBWC Controller
			HP Smart Array P812/1G Flash Backed Cache Controller

SATA Hot Plug 3.5" Midline (MDL) Solid State Drives

	Quantity Supported	Position Supported	Controller
60GB 3.0G SATA SSD	Up to 6	1-6	HP Smart Array P212/Zero Memory Controller
120GB 3.0G SATA SSD			HP Smart Array P212/ 256 MB Controller
			HP Smart Array P410/256 MB Controller
			HP Smart Array P410/512 MB BBWC Controller
			HP Smart Array P410/512 MB FBWC Controller
			HP Smart Array P410/1G FBWC Controller
			HP Smart Array P411/256 MB Controller
			HP Smart Array P411/512 MB BBWC Controller



Storage

HP Smart Array P411/512 MB FBWC Controller
 HP Smart Array P411/1G FBWC Controller
 HP Smart Array P812/1G Flash Backed Cache Controller

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
60 Modular Smart Array	Up to 4	External	HP Smart Array P212/Zero Memory Controller HP Smart Array P212/256 MB Controller
	Up to 8	External	HP Smart Array P800/512 BBWC Controller HP Smart Array P411/256 MB Controller HP Smart Array P411/512 BBWC Controller HP Smart Array P411/512 MB FBWC Controller HP Smart Array P411/1G FBWC Controller HP Smart Array P812/1G Flash Backed Cache Controller
70 Modular Smart Array	Up to 4	External	HP Smart Array P800/512 BBWC Controller HP Smart Array P411/256 MB Controller HP Smart Array P411/512 MB BBWC Controller HP Smart Array P411/512 MB FBWC Controller HP Smart Array P411/1G FBWC Controller

Maximum Storage Capacity - (with MSA70)

Internal	8.0TB (16x 500GB SAS/SATA)
External	12.5TB (250 x 500GB SAS/SATA SFF)
Total	20.5TB

Tape and Disk Backup

NOTE: For the complete range of StorageWorks tape drives, autoloaders, libraries and media, including the internal fitting models, see: <http://www.hp.com/go/tape>. For the complete range of StorageWorks D2D Backup Systems see: <http://www.hp.com/go/d2d>. For the complete range of StorageWorks RDX drives and media see: <http://www.hp.com/go/rdx>. For hardware and software compatibility of HP StorageWorks disk and tape backup products see: <http://www.hp.com/go/connect>.

	Position Supported	Controller	Controller Part Number
HP StorageWorks SCSI Tape Drives	External	HP SC11Xe Ultra320 Single Channel/ PCIe x4 SCSI Host Bus Adapter	412911-B21
LTO-1 Ultrium 232			
LTO-2 Ultrium 448			
LTO-3 Ultrium 920			
LTO-3 Ultrium 960			
LTO4 Ultrium 1760			
LTO-4 Ultrium 1840			
DAT 40			
DAT 72			
DAT 160			
1U Rack-Mount Kit			
3U Rack-Mount Kit			

NOTE: Please check the full compatibility information at: <http://www.hp.com/go/connect>



Storage

HP StorageWorks USB Tape Drives DAT 40 DAT 72 DAT 160 DAT 320 1U USB Rack-Mount Kit	External	USB 2.0 Port	N/A
HP StorageWorks SAS Tape Drives DAT 160 DAT 320 LTO-2 Ultrium 448 LTO-3 Ultrium 920 LTO-4 Ultrium 1760 LTO-4 Ultrium 1840 LTO-5 Ultrium 3000 LTO-5 Ultrium 3280 1U Rack-Mount Kit 3U Rack-Mount Kit	External	HP Smart Array P212/ZM 1-ports Int/1-ports Ext PCIe x8 SAS Controller NOTE: Please check the full compatibility information at: http://www.hp.com/go/connect	462828-B21
HP StorageWorks SCSI Tape Autoloaders DAT 72x10 Autoloader 1/8 G2 Autoloader	External	HP SC11Xe Ultra320 Single Channel/ PCIe x4 SCSI Host Bus Adapter NOTE: Please check the full compatibility information at: http://www.hp.com/go/connect	412911-B21
HP StorageWorks SCSI Tape Libraries MSL2024 MSL4048 MSL8096 MSL6000	External	HP U320e SCSI Dual Channel Controller NOTE: Please check the full compatibility information at: http://www.hp.com/go/connect	AH627A
HP StorageWorks SAS Tape Autoloaders and Libraries 1/8 G2 Autoloader MSL2024 MSL4048 MSL8096	External	HP Smart Array P212/ZM 1-ports Int/1-ports Ext PCIe x8 SAS Controller NOTE: Please check the full compatibility information at: http://www.hp.com/go/connect	462828-B21
HP StorageWorks Fibre Channel Tape Libraries MSL2024 MSL4048 MSL8096 MSL6000	External	Please consult the EBS connectivity matrix at: http://www.hp.com/go/ebs for connectivity information and the supported Fibre Channel HBAs shown in this QuickSpecs.	N/A



Storage

HP StorageWorks USB RDX Removable Disk Backup System RDX160 RDX320 RDX500 RDX750 RDX1TB	Internal or External	USB 2.0 Port	N/A
HP StorageWorks D2D Backup Systems, iSCSI D2D2500i D2D4000i	External	Embedded Network Controller. If the server requires a hardware iSCSI initiator, the QLogic QLA4050 Host Bus Adapter is recommended.	N/A
HP StorageWorks D2D Backup Systems, Fibre Channel D2D4000fc	External	Direct server attach is not supported, requires connection via SAN fabric. See: http://www.hp.com/go/connect	N/A



Power Specifications

HP 460W HE 12V Hot Plug AC Power Supply Kit							
Part Number	503296-B21						
Input Voltage Range (V rms)	100 to 240						
Frequency Range (Nominal) (Hz)	50/60						
Nominal Input Voltage (Vrms)	100	120	200	208	220	230	240
Maximum Rated Output Wattage Rating	460	460	460	460	460	460	460
Nominal Input Current (A rms)	5.5	4.5	2.6	2.5	2.4	2.3	2.2
Maximum Rated Input Wattage Rating (Watts)	526	520	505	505	503	503	503
Maximum Rated VA (Volt-Amp)	548	542	527	527	524	524	524
Efficiency (%)	87.5	88.5	91	91	91.5	91.5	91.5
Power Factor	0.97						
Leakage Current (mA)	0.42	0.50	0.83	0.87	0.92	0.96	1.00
Maximum Inrush Current (A peak)	30						
Maximum Inrush Current duration (mS)	20						
Maximum British Thermal Unit Rating (BTU-Hr)	1794	1773	1725	1725	1715	1715	1715
HP 750W Common Slot High Efficiency Power Supply Kit							
Part Number	512327-B21						
Input Voltage Range (V rms)	100 to 240						
Frequency Range (Nominal) (Hz)	50/60						
Nominal Input Voltage (Vrms)	100	120	200	208	220	230	240
Maximum Rated Output Wattage Rating	750	750	750	750	750	750	750
Nominal Input Current (A rms)	8.9	7.4	4.3	4.1	3.9	3.7	3.6
Maximum Rated Input Wattage Rating (Watts)	857	847	824	824	820	820	820
Maximum Rated VA (Volt-Amp)	894	884	859	854	854	854	
Efficiency (%)	87.5	88.5	91	91	91.5	91.5	91.5
Power Factor	0.97						
Leakage Current (mA)	0.42	0.50	0.83	0.87	0.92	0.96	1.00
Maximum Inrush Current (A peak)	30						
Maximum Inrush Current duration (mS)	20						
Maximum British Thermal Unit Rating (BTU-Hr)	2925	2892	2812	2812	2797	2797	2797



Power Specifications

HP 1200W 12V Hot Plug AC Power Supply							
Part Number	500172-B21						
Input Voltage Range (V rms)	100 to 240						
Frequency Range (Nominal) (Hz)	50/60						
Nominal Input Voltage (Vrms)	100	120	200	208	220	230	240
Maximum Rated Output Wattage Rating	800	900	1200	1200	1200	1200	1200
Nominal Input Current (A rms)	9.7	9.0	7.0	6.8	6.4	6.1	5.9
Maximum Rated Input Wattage Rating (Watts)	930	1034	1348	1348	1348	1348	1348
Maximum Rated VA (Volt-Amp)	970	1079	1406	1406	1406	1406	1406
Efficiency (%)	86	87	89	89	89	89	89
Power Factor	0.97						
Leakage Current (mA)	0.42	0.50	0.83	0.87	0.92	0.96	1.00
Maximum Inrush Current (A peak)	30						
Maximum Inrush Current duration (mS)	20						
Maximum British Thermal Unit Rating (BTU-Hr)	3174	3530	4600	4600	4600	4600	4600
HP 1200W -48V DC Common Slot Power Supply							
Part Number	437573-B21						
Input Voltage Range (V rms)	36-72						
Frequency Range (Nominal) (Hz)	DC						
Nominal Input Voltage (Vrms)	36		48		72		
Maximum Rated Output Wattage Rating	1200		1200		1200		
Nominal Input Current (A rms)	38		28		19		
Maximum Rated Input Wattage Rating (Watts)	1380		1350		1365		
Maximum Rated VA (Volt-Amp)	1380		1350		1365		
Efficiency (%)	87		89		88		
Power Factor	N/A						
Leakage Current (mA)	N/A						
Maximum Inrush Current (A peak)	20		25		35		
Maximum Inrush Current duration (mS)	1		1		3		
Maximum British Thermal Unit Rating (BTU-Hr)	4713		4610		4662		

NOTE: To review typical system power ratings use the HP Power Advisor which is available online located at url: www.hp.com/go/proliant-energy-efficient or www.hp.com/go/hppoweradvisor

- Click on "ProLiant Servers"
- Click on the Server of interest. Example: DL385 G6
- Click on: "Power Calculator" link. (You may need to scroll down to see it)



Technical Specifications

System Unit	Dimensions (H x W x D) (with bezel)	3.38 x 17.54 x 27.25 in (8.59 x 44.54 x 69.98 cm)	
	Weight (approximate)	Maximum (all hard drives, power supply, and processor installed)	60 lb (27.22 kg)
		Minimum (one hard drive, power supply, and processor installed)	47.18 lb (20.41 kg)
	Input Requirements (per power supply)	Rated Line Voltage	100 to 120 VAC
			200 to 240 VAC
		Rated Input Current	For 1200 W Power Supply: 10 A (at 100 VAC), 4.9 A (at 200 VAC)
			For 750 W Power Supply: 8.9 A (at 100 VAC), 4.3 A (at 200 VAC)
			For 460 W Power Supply: 5.5 A (at 100 VAC), 2.6 A (at 200 VAC)
	Rated Input Frequency	50 to 60 Hz	
	Rated Input Power	For 1200 W Power Supply: 930 W (at 100 VAC), 1348 W (at 200 VAC)	
	For 750 W Power Supply: 857 W (at 100 VAC), 824 W (at 200 VAC)		
	For 460 W Power Supply: 526 W (at 100 VAC), 505 W (at 200 VAC)		
BTU Rating	Maximum	For 1200 W Power Supply: 3530 BTU/hr (at 100 VAC), 4600 BTU/hr (at 200 VAC)	
		For 750 W Power Supply: 2925 BTU/hr (at 100 VAC), 2812 BTU/hr (at 200 VAC)	
		For 460 W Power Supply: 1794 BTU/hr (at 100 VAC), 1725 BTU/hr (at 200 VAC)	
Power Specifications	NOTE: To review typical system power ratings use the HP Power Advisor which is available online located at url: www.hp.com/go/proliant-energy-efficient or www.hp.com/go/hppoweradvisor		
Power Supply Output (per power supply)	Rated Steady-State Power	For 1200 W Power Supply: 800 W (at 100 VAC), 900 W (at 120 VAC), 1200 W (at 200 to 240 VAC)	
		For 750 W Power Supply:	



Technical Specifications

		750 W (at 100 to 120 VAC), 750 W (at 200 to 240 VAC) For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)
	Maximum Peak Power	For 1200 W Power Supply: 800 W (at 100 VAC), 900 W (at 120 VAC), 1200 W (at 200 to 240 VAC) For 750 W Power Supply: 750 W (at 100 to 120 VAC), 750 W (at 200 to 240 VAC) For 460 W Power Supply: 460 W (at 100 to 120 VAC), 460 W (at 200 to 240 VAC)
	System Inlet Temperature	Operating
		10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
		Non-operating
		-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
	Relative Humidity (non-condensing)	Operating
		10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
		Non-operating
		5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
	Altitude	Operating
		3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
		Non-operating
		9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).
		Idle
		LWAd 6.3 B
		LpAm 47 dBA
		Operating



Technical Specifications

Emissions Classification (EMC)	LWAd	6.3 B
	LpAm	47 dBA
	FCC Rating	Class A
	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1

NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.

Smart Array P410 Controller	Disk Drive and Enclosure Interface - Transfer rate	6Gb/s SAS (Serial Attached SCSI) 3Gb/s SATA (Serial ATA)	
	SAS Connectors	2 internal (Mini-SAS) x8 wide port connectors	
	Cache Memory Speed	DDR2-800MHz with 40 or 72-bit wide bus provides up to 4.2 GB/s maximum bandwidth.	
	Server Interface	x8 5G PCIe 2.0 provides 4GB/s maximum bandwidth	
	SAS Speed	x8 6G SAS provides 4.8GB/s maximum bandwidth	
	Cache Memory	40-bit 256MB ECC protected cache (72-bit 512MB BBWC module upgrades available); transportable with battery-backed upgrade	
	Logical Drives Supported	Up to 64 logical drives	
	Maximum Logical Drive Capacity	Greater than 2TB	
	Host Memory Addressing	64-bit, supporting greater than 4GB server memory space	
	RAID Support	RAID 6, 6+0 (Advanced Data Guarding)	NOTE: The minimum of 256 MB cache, battery kit, and Smart Array Advanced Pack License Key upgrade is required to enable RAID 6, 6+0
		RAID 5, 5+0 (Distributed Data Guarding)	NOTE: The 256 MB is required to enable RAID 5, 5+0 support of the Smart Array P410i
		RAID 1+0 (Striping & Mirroring)	
		RAID 0 (Striping)	



Technical Specifications

Two HP NC382i Dual Port Multifunction Gigabit Server Adapters	Network Interface	10Base-T/100Base-TX/1000Base-TX	
	Compatibility	IEEE 802.3 10Base-T	
		IEEE 802.3ab 1000Base-T	
		IEEE 802.3u 100Base-TX	
	Data Transfer Method	PCI Express, four lanes (x4)	
	Controller	BCM5709C	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s
		10Base-T (Full-Duplex)	20 Mb/s
		100Base-TX (Half-Duplex)	100 Mb/s
		100Base-TX (Full-Duplex)	200 Mb/s
1000Base-TX (Half and Full-Duplex)		2000Mb/s	
Connector	Two RJ-45		
Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)	
	100Base-TX	Category 5 or higher UTP; up to 328 ft (100 m)	
	1000BaseTX	Category 5 or higher UTP; up to 328 ft (100 m)	

Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green . To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.
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The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less.

