Overview
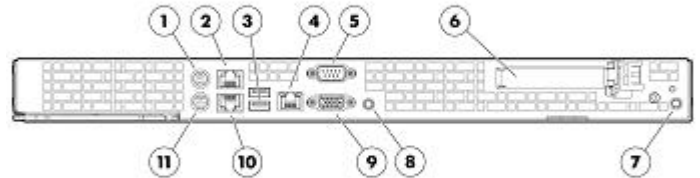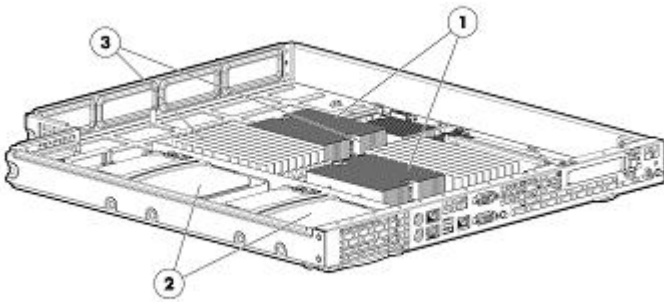
The HP ProLiant SL165z G6 server is part of a new family, HP ProLiant SL6000, of HP server solutions optimized for scale-out customers to greatly reduce costs, maximize power efficiency, by sharing power supplies and fans, and maintain total flexibility.

Two independent HP ProLiant SL165z G6 servers go into the 2U HP ProLiant z6000 G6 Chassis. The HP ProLiant SL165z G6 server is a two socket AMD server with 16 DDR2 DIMM sockets and support for a low profile x16 PCI-e Gen 1.

The HP ProLiant SL165z G6 is optimized for applications needing large amounts of memory.

Inside View:
1. Two (2) AMD Opteron 2400 series processors
2. Two 3.5" non-hot plug hard drives using a quick release drive carrier
3. 16 DDRs DIMM slots

Front View:
1. Mouse
2. (1) 1Gbit NIC
3. (2) USB Ports
4. Dedicated Management port
5. Serial Portt
6. Optional low profile x16 PCI-e Gen 1
7. Power button
8. UID
9. Video Port

What's New

- Support for 2TB SATA Hard Drive
- Support for HP 1200W Common Slot High Efficiency Power Supply Kit

QuickSpecs

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, 75W ACP) AMD Opteron™ processor Model 2431 (2.4 GHz, 75W ACP) AMD Opteron™ processor Model 2427 (2.2 GHz, 75W ACP) AMD Opteron™ processor Model 2425HE (2.1 GHz, 55W ACP) AMD Opteron™ processor Model 2423HE (2.0 GHz, 55W ACP) **Quad-Core Processors** AMD Opteron™ processor Model 2393SE (3.1GHz, 105W ACP) AMD Opteron™ processor Model 2389 (2.9GHz, 75W ACP) AMD Opteron™ processor Model 2384 (2.7GHz, 75W ACP) AMD Opteron™ processor Model 2380 (2.5GHz, 75W ACP) AMD Opteron™ processor Model 2376 (2.3GHz, 75W ACP) AMD Opteron™ processor Model 2381HE (2.5GHz, 55W ACP) AMD Opteron™ processor Model 2376 HE (2.3GHz, 55W ACP) AMD Opteron™ processor Model 2374 HE (2.2GHz, 55W ACP) AMD Opteron™ processor Model 2377EE (2.3GHz, 50W ACP) NOTE: Supports up to two AMD Opteron™ 2400 series Six-Core processors or up to two AMD Opteron™ 2300 series Quad-Core processors. NOTE: Supports DirectConnect Architecture and supports Power Now. NOTE: Processor wattage references reflect Average CPU Power (ACP). For more information on ACP visit: http://www.amd.com/powernow.
Cache Memory	6MB shared L3
Chipset	ServerWorks HT2100 and HT1000
Upgradeability	Upgradeable to two processors
Memory Protection	Advanced ECC

Standard Features

Memory	Type	REG PC2-6400 DDR2-800 MHz memory with Advanced ECC
One of the following depending on Model		REG PC2-5300 DDR2-667 MHz memory with Advanced ECC
	Maximum	128 GB (16 x 8 GB)

NOTE: Depending on the memory configuration and processor model, the memory speed may run at 1333MHz, 1066MHz, or 800MHz. Please see the Online Memory Configuration Tool at: www.hp.com/go/ddr3memory-configurator.

NOTE: Kits described as LP include Low Power DIMMs. For more information on ProLiant Energy Efficient Features, see: www.hp.com/go/proliant-energy-efficient.

Network Controller

HP NC362i Integrated Dual Port Gigabit Server Adapter

Expansion Slots

NOTE: Standard - PCI-Express assembly includes: Slot 1: Low Profile PCI-Express x16.

Slot #	Technology	Bus Width**	Connector Width*	Bus Number*	Form Factor	Notes
1	PCI Express	x16	x16	3	Low Profile	

* Default bus assignment. Inserting cards with PCI bridges may alter the actual bus assignment number.

** Default bus assignment. Inserting cards with PCI bridges may alter the actual bus assignment number.

** Slots are enumerated differently based on OS. MS OS's enumerate from lowest to highest Device ID by bus (starting with the lowest bus).

Storage Controller

HP Embedded SATA Controller

NOTE: A diskette drive or virtual FDD using LO100i Advanced Pack is needed to install storage controller drivers during a Windows operating system installation from a CD.

Internal Storage Devices	Diskette Drives	Via USB only
	Optical Drives	Via USB only
		NOTE: External support only.
	Hard Drives	None ship standard
	Drive Bays	Up to two 3.5" non-hot plug Serial ATA (SATA) hard drives using a quick release drive carrier
		Up to four 2.5" non-hot plug Serial ATA (SATA) or Solid State Drive (SSD) hard drives using a quick release drive carrier and the SFF drive cage

Maximum Internal Storage	Non-Hot Plug SATA 3.5"	4.0TB	2 x 2TB
	Non-Hot Plug SATA 2.5"	2.0TB	4 x 500GB
	Non-Hot Plug SSD 2.5"	480GB	4x120GB

QuickSpecs

Standard Features

Interfaces	Serial	1
	Parallel	None
	Network RJ-45 (Ethernet)	HP NC362i Integrated Dual Port Gigabit Server Adapter
	Keyboard	1
	Pointing Device (Mouse)	1
	Graphics	1
	USB	3 (two front, one internal)

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 V2.0 Compliant

PCI 2.2 Compliant

PXE Support

WOL Support

Microsoft® Logo certifications

IPMI 2.0 Compliant

Server Power Cords

One 6' Highline (IEC-IEC) power cord ships standard
NOTE: HP ProLiant DL and SL servers no longer ship standard with NEMA power cords (163719-002) that allow connection to 110V US wall outlets in a home or office. ProLiant DL servers are primarily connected to PDU's in data center racks so they now ship standard with only a PDU power cord (416151-B21). If a user wishes to power a ProLiant DL server using a 110V receptacle (NEMA-15), the NEMA power cord (227099-001) must be ordered separately.

If customers require a local power cord, they can check the power cord matrix for the appropriate cord. Please see the following power cord matrix: http://www.hp.com/go/powercordmatrix.

Common Slot Power Supplies

HP has a new design for ProLiant power-supplies. The new Common Slot (CS) Power Supply 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 or are compatible with high-efficiency power without degrading performance of the ProLiant server. Power Supplies have efficiency ratings up to 94%. There are five right size power options to choose from depending on the configuration of your server. To make sure you select the correct power supply to meet your configuration, please use the HP Power Advisor at: www.hp.com/go/hppoweradvisor. 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.

The HP ProLiant Common Slot Power supplies meet multiple Energy Efficiency Initiatives: Climate Savers Computing Initiative GOLD and ECOS Consulting 80PLUS GOLD for the 460w and 750w Power Supplies and Climate Savers Computing Initiative PLATINUM, ECOS Consulting 80PLUS PLATINUM for 1200w Power Supply. HP worked with the EPA on developing an ENERGY STAR Computer Server specification and we now offer models that meet the requirements. Please visit the ENERGY STAR website at: www.energystar.gov for a list of qualified platforms.

Standard Features

	Optional power supplies can be purchased through power supply option kits (see Power Supply Options for part numbers).
System Fans	3 system fans ship standard in z6000 chassis
Required Cabling	For required cabling information, refer to the HP Web site at: www.hp.com/servers/sl165z.
Operating Systems and Virtualization Software Support for ProLiant Servers	Microsoft Windows Server Microsoft Windows Server 2008 Hyper V Red Hat Enterprise Linux (RHEL) SUSE Linux Enterprise Server (SLES) Solaris 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 including how to purchase from HP, please visit our OS Support Site at: http://www.hp.com/go/supportos and our driver download page http://www.hp.com/support/SL165zG6.
Graphics	32MB shared supporting 1600x1200x16M resolution
Form Factor	HP ProLiant z6000 G6 Chassis - 2U Chassis NOTE: Can support two SL165z server trays in the 2U chassis. HP ProLiant SL165z G6 Server - 1U server tray
Embedded Manageability	**HP LO100 Advanced**

HP Lights-Out 100 with Optional LO100 Advanced Licenses for Virtual KVM and Virtual Media.

Standard Features:

- Embedded IPMI standard reporting
- System event log access
- Remote Serial console (serial redirection)
- Browser, Telnet access
- SMASH-CLP compliant
- IPMI 2.0 compliant
- Secure Socket Layer (SSL) Encryption
- Secure Shell (SSH) Encryption

Licensed Features:

- Virtual media (Floppy, CD, USB 2.0)
- Virtual KVM

QuickSpecs

HP ProLiant SL165z Generation 6 (G6)

Standard Features

Security	Power-on password
	Setup password
	SSH and SSL Encryption

Warranty

This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners. Hardware diagnostic support and repair is available for one year 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.

NOTE: Server Warranty includes 1 year Parts, 1 year labor, and 1 year on-site service. 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.

Optional Features

HP Insight Control management software	HP Insight Control for Linux	HP Insight Control for Linux (IC-Linux), as a product option, delivers essential lifecycle management that can help save time and money by integrating discovery, server deployment, firmware updates & provisioning, health & performance management, remote management, and virtualization. This makes it easy to optimize your IT infrastructure through a single, simple management console. The IC-Linux suite installs and licenses software modules that are integrated into HP System Insight Manager (HP SIM).
		HP Insight Control for Linux serves environments requiring a Linux-based management console. See www.hp.com/go/ic-linux.
		HP Insight Control for Linux 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 Control server deployment	HP Insight Control server deployment is an optional deployment solution for HP ProLiant and Integrity servers hosted on a Windows CMS. It automates the process of deploying and provisioning server software, enabling companies to quickly and easily adapt to changing business demands. Insight Control server deployment includes software optimizations for HP servers, including the HP scripting toolkits, configuration jobs for leading industry-standard operating systems, sample unattended files, and HP server support packs that include software drivers, management agents, and important documentation. Deploying servers can be accomplished either through imaging or through scripting.
		Insight Control server deployment is hosted on a Windows server and is intended for heterogeneous environments deploying Windows, Linux, VMware ESX and Microsoft Hyper-V systems.
		Insight Control server deployment 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

Optional Features

High Performance Clusters	HP Cluster Platforms	HP Cluster Platforms are specifically engineered, factory-integrated large-scale ProLiant clusters optimized for High Performance Computing, with a choice of servers, networks and software. Operating system options include specially priced offerings for Red Hat Enterprise Linux and Novell SLES, as well as Microsoft Windows HPC Server. A Cluster Platform Configurator simplifies ordering. http://www.hp.com/go/clusters
	HP HPC Interconnects	High Performance Computing (HPC) interconnect technologies are available for this server as part of the HP Cluster Platform portfolio. These high-speed InfiniBand and Gigabit interconnects are fully supported by HP when integrated within an HP cluster. Flexible, validated solutions can be defined with the help of configuration tools. http://www.hp.com/techservers/clusters/ucp/index.html
	HP Cluster Management Utility	HP Cluster Management Utility (CMU) is an HP-licensed and HP-supported suite of tools that are used to manage large-scale Linux ProLiant systems. CMU includes software for the centralized provisioning, management and monitoring of nodes. CMU makes the administration of clusters user friendly, efficient, and effective. http://www.hp.com/go/cmu
	HP HPC Linux Value Pack	HP HPC Linux Value Pack (Value Pack) is an HP-licensed and HP-supported specially priced software bundle for the development and deployment of applications on HPC Cluster Platforms. Value Pack includes the Platform LSF workload scheduler, the HP-MPI parallelization library, the HP Unified Parallel C compiler and the HP Shmem library, as well as the execution environments for the libraries and compiler. HP HPC Linux Value Pack

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.

Service and Support

NOTE: HP Care Pack services are offered at enclosure level only.

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

QuickSpecs

Service and Support

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

Recommended Services

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 More effective IT resource planning

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

3-Year HP Hardware Support Onsite Service, 4-hour response, 13x5
Delivers increased equipment availability and productivity with rapid remote support and onsite response for your HP server and storage hardware.

- 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 Hardware Support Onsite Service, next-day response, 9x5
An enhancement to warranty support for products with limited warranty entitlement

Provides high-quality remote assistance and onsite support for your covered hardware if required, helping you to improve product uptime.

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

3-Year HP Hardware Support Onsite Call-to-Repair (CTR) Service, 6- or 24-hour
As an alternative to our recommended support level, for customers who need committed call-to-repair for server hardware.

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.

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

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 X 7, so you can spend less time solving problems and more time focused on your business. You can

Service and Support

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

QuickSpecs

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 from each list unless otherwise noted)

HP Chassis	HP ProLiant z6000 G6 Chassis	538080-B21
	NOTE: ships with 2U chassis and 3 fans.	
HP Server Node	HP ProLiant SL165z G6 Server	580307-B21
	NOTE: It is required that 2 server trays be purchased.	
	NOTE: Each SL165z tray has 1 system board.	
HP Rail Kits	HP ProLiant z6000 G6 2U rail kit	570226-B21
	NOTE: 2U rail kit used for HP or 3rd part racks - allows addition of one z6000 chassis at a time.	
	HP ProLiant z6000 G6 10U Bulk rail kit	570227-B21
	NOTE: 10U rail kit used for HP racks ONLY - allows addition of five z6000 chassis at a time.	
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 Common Slot Platinum Power Supply Kit	593188-B21
	HP 750W Common Slot Platinum Power Supply Kit	593831-B21
	HP 1200W Common Slot High Efficiency Power Supply Kit	578322-B21

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

HP Processors	Quad-Core Processors	
	NOTE: If 2 processors are desired, select one xxxxx-L21 and one xxxxxx-B21.	
	HP SL160z G6 Intel® Xeon® X5560 (2.80GHz/4-core/8MB/95W) FIO Processor Kit	588189-L21
	HP SL170z G6 Intel® Xeon® X5560 (2.80GHz/4-core/8MB/95W) FIO Processor Kit	588191-L21
	HP SL2x170z G6 Intel® Xeon® X5560 (2.80GHz/4-core/8MB/95W) FIO Processor Kit	588193-L21
	HP DL165 G5/G5p AMD Opteron 2377EE (2.30GHz/4-core/6MB/50W) Processor Kit	536530-B21

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 2GB (2x1GB) Single Rank PC2-5300 (DDR2-667) Registered Memory Kit	408851-B21
	HP 4GB (2x2GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	408853-B21

Configuration Information - Factory Integrated Models

HP 4GB (2x2GB) Single Rank PC2-5300 (DDR2-667) Registered Low Power Memory Kit	483401-B21
HP 8GB (2x4GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	408854-B21
HP 8GB (2x4GB) Dual Rank PC2-5300 (DDR2-667) Registered Low Power Memory Kit	483403-B21

NOTE: All DDR3 memory option kits consist of one DIMM per kit. For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool: www.hp.com/go/ddr3memory-configurator.
NOTE: Kits described as LP include Low Power DIMMs. For more information on ProLiant Energy Efficient Features, see: www.hp.com/go/proliant-energy-efficient.

Step 3: Choose Additional Options for Factory Integration
NOTE: For additional options, please refer to the "Core Options" and "Additional Options" section below.

QuickSpecs

Core 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 Unique Options		
	HP I/O Riser x16 SL165 G6 KIT	580638-B21
	HP ProLiant z6000 Redundant Fan Kit	538082-B21
	HP Internal USB Cable G6 Kit	536769-B21
	HP ProLiant z6000 Tray blank kit NOTE: This is needed to help with cooling if a tray is removed from the z6000.	574551-B21
	HP ProLiant z6000 Cable Management Kit NOTE: This is needed when using Fiber cables.	575156-B21
	1U Filler Panel Blank Mounting Bracket NOTE: This is needed to mount the 1U blanking panel back with server when the server is recessed mounted.	579069-B21
	HP z6000 Battery Back Write Cache Hardware Kit NOTE: This is required when adding BBWC.	582653-B21
	HP z6000 Processor / Memory Blank Kit NOTE: This is optional to give the best cooling efficiency when server trays are not configured exactly the same in the z6000 chassis.	579255-B21

HP Processor		
	Six-Core Processors	
	HP DL165 G6 AMD Opteron™ 2435 (2.60GHz/6-core/6MB/75W) Processor Kit	572221-B21
	HP DL165 G6 AMD Opteron™ 2431 (2.40GHz/6-core/6MB/75W) Processor Kit	572219-B21
	HP DL165 G6 AMD Opteron™ 2427 (2.20GHz/6-core/6MB/75W) Processor Kit	572142-B21
	HP DL165 G6 AMD Opteron™ 2425HE (2.10GHz/6-core/6MB/55W) Processor Kit	572140-B21
	HP DL165 G6 AMD Opteron™ 2423HE (2.00GHz/6-core/6MB/55W) Processor Kit	572138-B21
	Quad-Core Processors	
	HP DL165 G5/G5p AMD Opteron™ 2389 (2.90GHz/4-core/6MB/75W) Processor Kit	500049-B21
	HP DL165 G5/G5p AMD Opteron™ 2384 (2.70GHz/4-core/6MB/75W) Processor Kit	500064-B21
	HP DL165 G5/G5p AMD Opteron™ 2380 (2.50GHz/4-core/6MB/75W) Processor Kit	500060-B21
	HP DL165 G5/G5p AMD Opteron™ 2376 (2.30GHz/4-core/6MB/55W) Processor Kit	500056-B21
	HP DL165 G5/G5p AMD Opteron™ 2381HE (2.50GHz/4-core/6MB/55W) Processor Kit	500058-B21
	HP DL165 G5/G5p AMD Opteron™ 2376HE (2.30GHz/4-core/6MB/55W) Processor Kit	507540-B21
	HP DL165 G5 AMD Opteron™ 2374HE (2.20GHz/4-core/6MB/55W) Processor Kit	500051-B21
	HP DL165 G5/G5p AMD Opteron™ 2377EE (2.30GHz/4-core/6MB/50W) Processor Kit	536530-B21

Core Options

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 2GB (2x1GB) Single Rank PC2-5300 (DDR2-667) Registered Memory Kit	408851-B21
	HP 4GB (2x2GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	408853-B21
	HP 4GB (2x2GB) Single Rank PC2-5300 (DDR2-667) Registered Low Power Memory Kit	483401-B21
	HP 8GB (2x4GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	408854-B21
	HP 8GB (2x4GB) Dual Rank PC2-5300 (DDR2-667) Registered Low Power Memory Kit	483403-B21

NOTE: All DDR3 memory option kits consist of one DIMM per kit. For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool: www.hp.com/go/ddr3memory-configurator.
NOTE: Kits described as LP include Low Power DIMMs. For more information on ProLiant Energy Efficient Features, see: www.hp.com/go/proliant-energy-efficient.

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.	
	NOTE: The hard drives use a quick release carrier.	
	NOTE: One 2 Drive SFF Drive Cage (582657-B21) is required when installing 2 SFF drives.	
	SATA Entry (ETY) Drives - with quick-release (QR) carrier	
	HP 160GB 3G SATA 7.2K rpm LFF (3.5-inch) Quick-release Entry 1yr Warranty Hard Drive	574021-B21
	SATA Midline (MDL) Drives - with quick-release (QR) carrier	
	HP 2TB 3G SATA 7.2K rpm LFF (3.5-inch) Quick-release Midline 1yr Warranty Hard Drive	574755-B21
	HP 1TB 3G SATA 7.2K rpm LFF (3.5-inch) Quick-release Midline 1yr Warranty Hard Drive	574025-B21
	HP 500GB 3G SATA 7.2K rpm LFF (3.5-inch) Quick-release Midline 1yr Warranty Hard Drive	574023-B21
	HP 500GB 3G SATA 7.2K rpm SFF (2.5-inch) Quick-release Midline 1yr Warranty Hard Drive	574953-B21
	HP 160GB 3G SATA 7.2K rpm SFF (2.5-inch) Quick-release Midline 1yr Warranty Hard Drive	574893-B21
	SATA Midline (MDL) Solid State Drives - with quick-release (QR) carrier	
	HP 120GB 3G SATA SFF (2.5-inch) Quick-release Midline 1yr Warranty Solid State Drive	586587-B21
	HP 60GB 3G SATA SFF (2.5-inch) Quick-release Midline 1yr Warranty Solid State Drive	586585-B21

Core Options

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 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 NC522SFP 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 Technical Specifications and additional information: www.hp.com/go/ProLiantNICs

HP InfiniBand	HP IB 4X DDR PCI-e Dual Port HCA	448397-B21
	HP IB 4X DDR PCI-e Dual Port 0 Memory HCA	483513-B21
	HP 10 GbE PCI-e G2 Dual Port Adapter	516937-B21

NOTE: Please see the QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/13078_na/13078_na.html

HP I/O Expansion Options	HP I/O Riser x16 SL165 G6 KIT	580638-B21

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 Common Slot Platinum Power Supply Kit	593188-B21
	HP 750W Common Slot Platinum Power Supply Kit	593831-B21
	HP 1200W Common Slot High Efficiency Power Supply Kit	578322-B21

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 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

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High Performance Clusters

HP Cluster Management Utility

HP Cluster Management Utility Compute Node Flexible License	436284-B21

NOTE: This part number can be used to purchase one certificate for multiple licenses with a single activation key. Each license is for one node (server). Customer will receive a printed end user license agreement and license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online in order to obtain a license key.

HP Cluster Management Utility License and Media	433257-B21

NOTE: Order a minimum of one license per cluster to purchase media including software and documentation, which will be delivered to the customer, and also licenses CMU management. No license key is delivered or required.

NOTE: For additional license kits please see the QuickSpecs at:
http://h18004.www1.hp.com/products/quickspecs/12612_na/12612_na.html

HP HPC Linux Value Pack

HP High Performance Computing Linux Value Pack 1 Processor Flexible License	TC293A

NOTE: This part number can be used to purchase one certificate for multiple licenses with a single activation key. Each license is for one socket (a.k.a. processor). Customer will receive a printed end user license agreement and license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online in order to obtain a license key.

HP High Performance Computing Linux Value Pack Media Kit	TC294A

NOTE: This part number can be used to purchase media including software and documentation, which will be delivered to the customer.

NOTE: For additional license kits please see the QuickSpecs at:
http://h18004.www1.hp.com/products/quickspecs/13485_na/13485_na.html

QuickSpecs

Additional Options

HP Rail Options	HP SL Universal Switch Rail Kit	592774-B21
	NOTE: This kit allows you to install HP or 3rd party switch in the same rack as SL6000.	

HP Storage Controllers	SCSI HBA	
	HP SC11Xe Ultra320 Single Channel/ PCIe x4 SCSI Host Bus Adapter	412911-B21
	NOTE: Please see the following QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/12566_na/12566_na.html (SC11Xe Host Bus Adapter)	

HP StorageWorks Options	Emulex Fibre Channel HBAs	
	HP StorageWorks 81E 8Gb Single Port PCI-e Fibre Channel Host Bus Adapter	AJ762A
	HP StorageWorks 82E 8Gb Dual Port PCI-e Fibre Channel Host Bus Adapter	AJ763A
	HP StorageWorks FC2142SR 4Gb PCIe Host Bus Adapter	A8002A
	HP StorageWorks FC2242SR 4Gb PCIe DC Host Bus Adapter	A8003A
	QLogic Fibre Channel HBAs	
	HP StorageWorks 81Q PCI-e Fibre Channel Host Bus Adapter	AK344A
	HP StorageWorks 82Q 8Gb Dual Port PCI-e Fibre Channel Host Bus Adapter	AJ764A
	HP StorageWorks FC1142SR 4Gb PCIe Host Bus Adapter	AE311A
	HP StorageWorks FC1242SR 4Gb PCIe DC Host Bus Adapter	AE312A
	StorageWorks SCSI HBA	
	HP StorageWorks U320e SCSI Dual Channel Host Bus Adapter	AH627A
	NOTE: Recommended HBA for MSL SCSI Tape Library connect.	

HP Modular Smart Array	Disk Enclosures	
	HP StorageWorks D2600 Disk Enclosure	AJ940A
	HP StorageWorks D2700 Disk Enclosure	AJ941A
	NOTE: Please see the following QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13404_na/13404_na.html	

Additional Options

HP SL Advanced Power Manager

NOTE: The SL Advanced Power Manager is an optional rack level solution for the HP ProLiant SL6000 which enables server-level DC (or hardware) power on and off and server-level monitoring. In addition, the SL APM will automatically discover SL hardware components which are connected into the SL APM solution.

NOTE: The SL APM does not replace rack PDUs, but is designed to enable the utilization of basic, low cost, rack PDUs while providing the functionality of 'switched' PDUs which provide hardware power on/off of individual servers by turning off the AC power to the power supplies of a given server. Because the SL servers share power supplies to optimize power efficiency, using 'switched' PDUs to turn off the power supplies in the chassis will result in the loss of all servers in that chassis. The SL APM solves this by allowing server-level hardware power on/off of the DC power to the individual server motherboards.

HP SL Advance Power Manager	538084-B21
HP SL APM Distribution Module	539264-B21

NOTE: Connects up to 10 chassis.

HP SL APM Cable Kit	580212-B21

NOTE: 1 per SL APM Distribution module.

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 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

NOTE: HP ProLiant SL165z G6 models have two different rail kits to choose from:

- 10U bulk rail kit - Used to fit in HP 10000 series racks
  - One 10U bulk rail kit will hold up to five z6000 chassis, thus ten SL165z G6 servers
- 2U rail kit - Used to fit in 3rd party racks or to sell one z6000 chassis at a time
  - One 2U rail kit will hold one z6000 chassis, thus two SL165z servers

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.

NOTE: The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. The 10000 G2 Series Racks provide enhanced airflow for maximum cooling, allowing these racks to be fully loaded with servers using the latest processors.
CAUTION: If a third-party rack is used, observe the following additional requirements to ensure adequate airflow and to prevent damage to the equipment: Front and rear doors: If your 42U server rack includes closing front and rear doors, you must allow 830 square inches (5,350 sq cm) of hole evenly distributed from top to bottom to

Additional Options

permit adequate airflow (equivalent to the required 64 percent open area for ventilation). Side: The clearance between the installed rack component and the side panels of the rack must be a minimum of 2.75 inches (7 cm).
CAUTION: Always use blanking panels to fill all remaining empty front panel U-spaces in the rack. This arrangement ensures proper airflow. Using a rack without blanking panels results in improper cooling that can lead to thermal damage.
NOTE: For additional information, refer to the Setup and Installation Guide or the Documentation CD provided with the server, or to the server documentation located in the Support section at the following URL: www.hp.com/servers/sl165z.

NOTE: Quick deploy rail system provides tool-free support for racks with square or round mounting holes (including Compaq/HP 7000, 9000, 10000 G2 and HP series), with an adjustment range of 24" - 36". The ambidextrous cable management arm can be mounted on either the left or right side for improved cable management.

HP USB and SD Options	HP USB 2-Button Optical Scroll Mouse (Carbonite/Silver)	DC172B
	HP USB 04 Standard Keyboard	DT528A#ABA

HP Care Pack Services	**Hardware Services 4-Hour On-site Service**	
	24-Hour x 7-Day Coverage, 3 Years, Electronic	U9510E
	Hardware Services Next Business Day On-Site Service	
	9-Hour x 5-Day Coverage, 3 Years, Electronic	U9508E
	Hardware Services 6-Hour Call to Repair On-Site Service	
	Hardware Installation, Electronic	U9520E
	LO100i Advanced Pack	
	HP LO100i Advanced Pack 3year 24x7 Software Support	UM748E

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

QuickSpecs

HP ProLiant SL165z Generation 6 (G6)

Memory

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

HP ProLiant SL165z G6 (all models)

Maximum Memory

Up to 128GB memory is available with the optional installation of PC2-5300 Registered DIMM memory kits.

Memory should be installed in pairs and matched for optimum performance.

NOTE: Chart does not represent all possible memory configurations.

NOTE: Each processor support 4 DIMM sockets. Both processors sockets must be populated in order to use all 8 DIMM sockets.

Memory	Slot							
	1	2	3	4	5	6	7	8
Standard (2 GB)	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Maximum (128 GB)	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB
	9	10	11	12	13	14	15	16
	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB

Following are memory options available from HP:

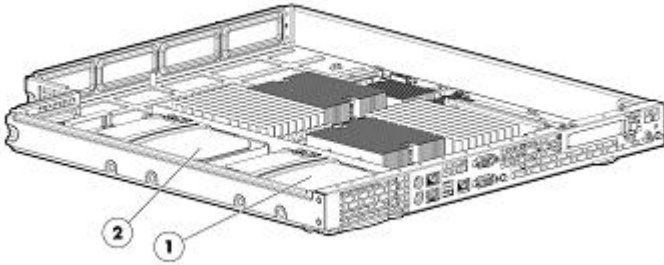| HP Memory		
	HP 2GB (2x1GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497763-B21
	HP 4GB (2x2GB) Single Rank PC2-6400 (DDR2-800) Registered Memory Kit	497765-B21
	HP 8GB (2x4GB) Dual Rank PC2-6400 (DDR2-800) Registered Memory Kit	497767-B21
	HP 8GB (2x4GB) Dual Rank x4 PC2-6400 (DDR2-800) Registered Low Power Memory Kit	504351-B21
	HP 2GB (2x1GB) Single Rank PC2-5300 (DDR2-667) Registered Memory Kit	408851-B21
	HP 4GB (2x2GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	408853-B21
	HP 4GB (2x2GB) Single Rank PC2-5300 (DDR2-667) Registered Low Power Memory Kit	483401-B21
	HP 8GB (2x4GB) Dual Rank PC2-5300 (DDR2-667) Registered Memory Kit	408854-B21
	HP 8GB (2x4GB) Dual Rank PC2-5300 (DDR2-667) Registered Low Power Memory Kit	483403-B21

NOTE: All DDR3 memory option kits consist of one DIMM per kit. For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool: www.hp.com/go/ddr3memory-configurator.

NOTE: Kits described as LP include Low Power DIMMs. For more information on ProLiant Energy Efficient Features, see: www.hp.com/go/proliant-energy-efficient.

Storage

1-2   Non-hot plug SATA hard drive bays - Using quick release carrier

Drive Support

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.

SATA Entry (ETY) Drives - with quick release carrier

	Quantity Supported	Position Supported	Controller
160GB 3G SATA 7.2K 3.5in	Up to 2	1-2	HP Embedded SATA Controller

SATA Midline (MDL) Drives - with quick release carrier

	Quantity Supported	Position Supported	Controller
2TB 3G SATA 7.2K 3.5in 1TB 3G SATA 7.2K 3.5in 500GB 3G SATA 7.2K 3.5in	Up to 2	1-2	HP Embedded SATA Controller
500GB 3G SATA 7.2K 2.5in 160GB 3G SATA 7.2K 2.5in	Up to 4	1-4	HP Embedded SATA Controller

SATA Midline (MDL) Solid State Drives - with quick-release carrier

	Quantity Supported	Position Supported	Controller
120GB 3G SATA 2.5in 60GB 3G SATA 2.5in	Up to 4	1-4	HP Embedded SATA Controller

Power Specifications

HP 460W Common Slot Platinum Power Supply Kit							
Part Number	593188-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)	5.3	4.3	2.5	2.4	2.3	2.2	2.1
Maximum Rated Input Wattage Rating (Watts)	512	505	493	493	492	492	491
Maximum Rated VA (Volt-Amp)	526	518	506	506	505	505	504
Efficiency (%)	89.8	91.2	93.2	93.3	93.5	93.6	93.6
Power Factor	0.985						
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)	1747	1722	1683	1682	1679	1678	1677

HP 750W Common Slot Platinum Power Supply Kit							
Part Number	593831-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)	8.6	7.1	4.2	4.0	3.8	3.6	3.4
Maximum Rated Input Wattage Rating (Watts)	841	828	809	808	807	806	805
Maximum Rated VA (Volt-Amp)	863	850	830	829	828	827	826
Efficiency (%)	89.2	90.6	92.7	92.8	93	93.1	93.2
Power Factor	0.985						
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)	2868	2825	2761	2757	2753	2749	2747

Power Specifications

HP 1200W Common Slot High Efficiency Power Supply Kit							
Part Number	578322-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)	9.3	8.6	6.7	6.5	6.1	5.8	5.6
Maximum Rated Input Wattage Rating (Watts)	889	989	1290	1290	1290	1290	1290
Maximum Rated VA (Volt-Amp)	927	1031	1345	1345	1345	1345	1345
Efficiency (%)	90	91	93	93	93	93	93
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)	10						
Maximum British Thermal Unit Rating (BTU-Hr)	3033	3375	4403	4403	4403	4403	4403

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

Technical Specifications

System Unit	Dimensions (H x W x D) (with bezel)		3.46 x 17.64 x 28.1 in (8.79 x 44.80 x 71.37 cm)
	Weight (approximate)	Maximum (all hard drives, power supplies, and processors installed)	53.7 lb (24.35 kg)
	Input Requirements (per power supply)	Rated Line Voltage	90 to 132 VAC 180 to 264 VAC
		Rated Input Current	5. 8 Amps (at 100 VAC) to 2.9 Amps (at 200 VAC)
		Rated Input Frequency	47 to 63 Hz
		Rated Input Power	570W (at 100 VAC) 565W (at 200 VAC)
	BTU Rating	Maximum	-500W 1940 BTU / hr (at 100 VAC), 1920 BTU/hr (at 200 VAC) 460W - 1773 BTU / hr (at 120 VAC), 1715 (at 240 VAC) 750W - 2892 BTU / hr (at 120 VAC), 2797 (at 240 VAC)
	Power Specifications		To review typical system power ratings use the Power Advisor which is available via the online tool located at URL: www.hp.com/go/hppoweradvisor - Click on the system of interest. Example: DL165 G6 - Follow the instructions of the next screens.
	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).

Technical Specifications

	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

L_{WAd}	6.82 B
L_{pAm}	51.93 dBA

Operating

L_{WAd}	6.84 B
L_{pAm}	51.93 dBA

Emissions Classification (EMC)	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.

HP Embedded SATA Controller	Drives Supported	Up to 4 SATA devices
	Channels	(4) 1.5Gb SATA
	Storage Capacity	2.0TB internal storage
	Data Transfer Method	32-bit/33-MHz PCI bus-master
	Maximum SATA Channel Transfer Rate	1.5Gb/s per channel
	Maximum Transfer Rate per PCI Bus (peak)	266 MB/s per channel
	Protocols	SATA
		PIO Mode [0-4]
	Cable	SATA
	Internal ATA Connectors	Four SATA connectors

Technical Specifications

HP NC362i Integrated Dual Port Gigabit Server Adapter	Network Interface Compatibility	Integrated 10/100/1000BASE-T Transceiver	
		IEEE 802.3 10Base-T	
		IEEE 802.3 1000Base-T	
		IEEE 802.3 100Base-TX	
	Data Transfer Method	Compliant to x4 PCIe Specification	
	Controller	Intel® 82576	
	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)	2000 Mb/s
	Connector	RJ-45	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		10/100/1000Base-TX	Category 5 UTP (2 Pair); 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.

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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