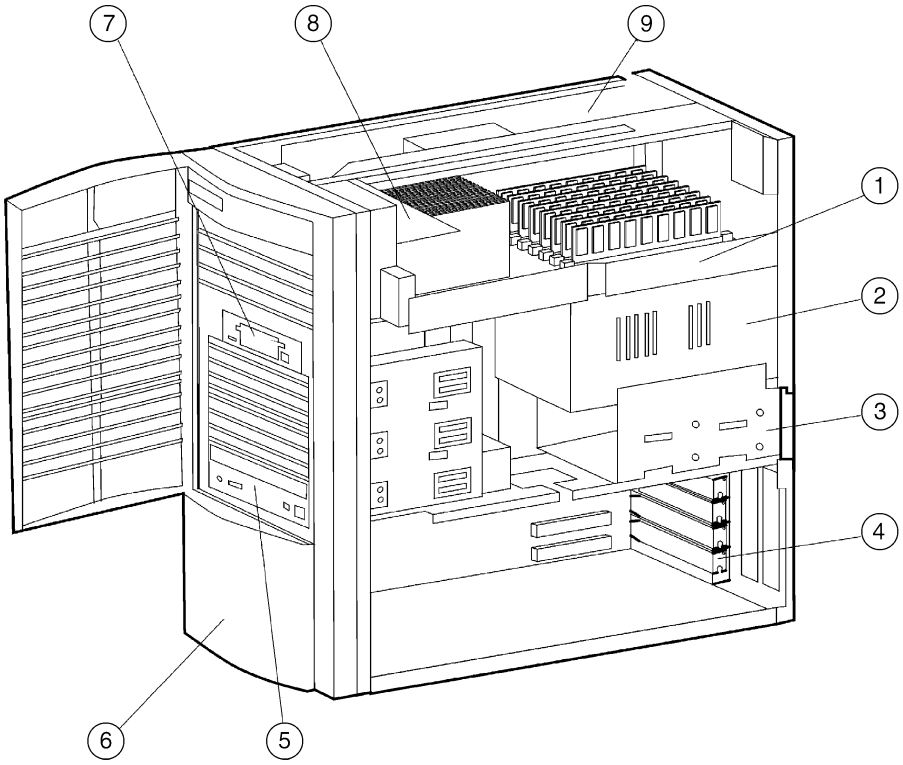
Overview

At A Glance

AlphaStation XP1000 Linux-Ready Systems include:

- Tower enclosure Alpha 21264A (EV67) 667-MHz CPU with 64-KB data cache, 64-KB instruction cache, and 4-MB Level 2 cache
- Five Expansion slots on two buses: Two 64-bit PCI slots, two 32-bit PCI slots, one PCI/ISA 32-bit combination slot
- Two memory option banks, four DIMM slots per bank, maximum 2-GB memory
- Six Storage bays: One diskette drive bay, one CD-ROM drive bay, two 5.25″ x 1.6″ removable media bays, two 3.5″ x 1″ hard disk drive bays
- 400W power supply
- Onboard wide UltraSCSI adapter
- Onboard 16-bit Soundblaster compatible audio
- Onboard 10/100 Ethernet (Twisted pair); ThinWire and Thick wire optional
- Integrated I/O comprising parallel port, two serial ports, audio in, audio out, headphone, microphone, mouse, and keyboard ports
- 1.44 -MB diskette drive
- 650-MB 40X CD-ROM drive
- Protected by Compaq Services, including a three-year on-site limited warranty



1. CPU and memory daughter-card latch
2. 400-watt auto-sensing power supply
3. Internal hard drive cage (hinged)
4. PCI and ISA expansion slots
5. 40X Max CD-ROM drive
6. Front bezel
7. 1.44-MB diskette drive
8. Fan pipe (directs air to CPU heatsink area)
9. Main logic board

Standard Features

Processor	Alpha 21264A (EV67) 667-MHz CPU	
Cache Memory	64-KB data cache, 64-KB instruction cache and 4-MB Level 2 cache	
Upgradability	500-MHz to 667-MHz CPU upgrade available	
Memory	Standard	Mandatory for CTO systems
	Maximum	2 GB
Network Controller	Onboard 10/100 Fast Ethernet adapter	
Expansion Ports	Parallel (25-pin)	1
	Serial (9-pin)	2
	Pointing device (mouse) P/S2	1
	Keyboard P/S2	1
	Microphone	1
	Headphones/Audio-out	1
	Audio-in	1
Expansion Slots	I/O (total)	5
	PCI	2 (64-bit), 2 (32-bit)
	Shared PCI/ISA	1
Storage Controller	Onboard Wide UltraSCSI adapter	
Storage	Diskette Drive	1.44 MB
	CD-ROM	650-MB 40X ATAPI CD-ROM Drive
	Internal Hard Drives	Choice of 9.1-GB, 18.2-GB, 36.4-GB drives
	Maximum Internal Storage	72 GB
Manageability	Compaq Insight Manager	
Service and Support	Compaq Services provides a wide range of service offerings including a three-year limited warranty fully supported by a worldwide network of resellers and service providers; lifetime toll-free 7 x 24 hardware technical phone support. Note: Additional Linux support and installation information is located at www.compaq.com/alphaserver/linux	

Systems/Options

Step 1 – Select system

Configure-to-order (CTO) Systems

CTO systems require the **mandatory** selection of the following items:

- Minimum of 256-MB memory
- Hard disk drive
- Country Kit

Country-specific keyboard for CTO systems; keyboard is not mandatory but essential for full system operation

Note: Additional items in Steps 3 through 11 are optional and will be factory integrated when ordered with CTO systems.

OS	CPU	Memory	Graphics	Hard Drive	Order No.
Linux-Ready	667 MHz	Mandatory	Optional	Mandatory	SN-E2G6W-L2

Step 2 – Country Kits

- Linux-Ready universal country kits include two country-specific power cords and mouse; multi-lingual user documentation is shipped with system kernel.
- Country kit required for system to be operational
- Bulk system orders must include country kits equal to the total number of systems ordered

Country	FIS and Documentation, Language Supported	
United States	English	SN-PBB0U-AA
Australia/New Zealand	English	SN-PBB0U-CN
Canada	French	SN-PBB0U-AC
Chinese	Simplified Chinese	SN-PBB0U-CV
Chinese/General Asia	English	SN-PBB0U-CA
Denmark	English	SN-PBB0U-AD
Finland	English	SN-PBB0U-AF
France, Belgium	French	SN-PBB0U-AP
General European	English	SN-PBB0U-EC
Germany	German	SN-PBB0U-AG
Italy	Italian	SN-PBB0U-AI
Japan	Japanese	SN-PBB0U-AJ
Japan	English	SN-PBB0U-CC
Netherlands	Dutch	SN-PBB0U-AH
Norway	English	SN-PBB0U-AN
Spain	Spanish	SN-PBB0U-AS
Sweden	English	SN-PBB0U-AM
Switzerland/English	English	SN-PBB0U-CH
Switzerland/French	French	SN-PBB0U-AK
Switzerland/Germany	German	SN-PBB0U-AL
Switzerland/Italian	Italian	SN-PBB0U-AW
United Kingdom	English	SN-PBB0U-AE

Options

Step 3 – Keyboards

- CTO systems do not include a keyboard. Selection of keyboard is not mandatory, but is essential for full system operation.
- Keyboards are colored to match CPU and monitor. Alternative keyboards purchased through distribution channels may not be the correct color matches.

Country	
US/English	SN-LKQ47-AA
Arabic	SN-LKQ47-BR
Belgium	SN-LKQ47-AB
Bosnia, Herzegovina, Croatia, Serbia, Yugoslavia	SN-LKQ97-AX
Canada/French	SN-LKQ47-AC
China	SN-LKQ47-CV
Czech Republic	SN-LKQ47-BV
Denmark	SN-LKQ47-AD
Finland	SN-LKQ47-AF
France	SN-LKQ47-AP
German	SN-LKQ47-AG
Greece	SN-LKQ47-BH
Hebrew	SN-LKQ97-AT
Hungary	SN-LKQ47-BQ
International	SN-LKQ47-BA
Italy	SN-LKQ47-AI
Latin-American/Spanish	SN-LKQ47-AR
Netherlands	SN-LKQ47-AH
Norway	SN-LKQ47-AN
Poland	SN-LKQ47-BP
Portugal	SN-LKQ97-AV
Russia/Cyrillic	SN-LKQ47-BT
Slovak	SN-LKQ47-CZ
South Korean	SN-LKQ47-BK
Spain	SN-LKQ47-AS
Sweden	SN-LKQ47-AM
Switzerland/French	SN-LKQ47-AK
Taiwan	SN-LKQ47-BI
Thailand	SN-LKQ47-CB
Turkey	SN-LKQ47-BU
United Kingdom	SN-LKQ47-AE

Step 4 – Memory

- Selection of a minimum of 256-MB memory is mandatory for CTO systems
- Systems support a maximum of 2-GB memory (two memory banks support four DIMMs per bank)

256-MB ECC memory DIMMs (4 x 64MB DIMMs)	SN-MSP01-KB
512-MB ECC memory DIMMs (4 x 128MB DIMMs)	SN-MSP01-KC
1024-MB ECC memory DIMMs (4 x 256MB DIMMs)	SN-MSP01-KD

Options

Step 5 – Storage

- All systems include onboard UltraSCSI adapter for internal drives only.

Step 5a -- Internal Storage

SCSI Controller	PCI dual-channel PCI-to-UltraSCSI adapter (uses one PCI slot); maximum two per system	KZPCM-DA
Disk Drives	• CTO systems require one mandatory hard disk drive • Systems support up to four hard disk drives: - Two 3.5-inch x 1″ hard disk drives in internal bays. - Two 3.5-inch x 1.6″ or 1″ hard disk drives supported in the 5.25″ removable media bays	
	9.1-GB Ultra2 LVD Wide SCSI 7200 rpm 1″ hard disk drive	SN-PBXRW-SC
	9.1-GB Ultra3 LVD Wide SCSI 10K rpm 1″ hard disk drive	SN-PBXRW-VB
	18.2-GB Ultra2 LVD Wide SCSI 7200 rpm 1” hard disk drive	SN-PBXRW-TB
	18.2-GB Ultra3 LVD Wide SCSI 10K rpm 1″ hard disk drive	SN-PBXRW-WC
	18.2-GB Ultra2 LVD Wide SCSI 7200 rpm 1″ hard disk drive	SN-PBXRW-VB
	36.4-GB Ultra3 LVD Wide SCSI 10K rpm 1″ hard disk drive	SN-PBXRW-XB

Step 5b – External Storage

UltraSCSI StorageWorks Pedestals	• UltraSCSI top gun blue pedestals provide support for UltraSCSI disk drives; pedestal is available in single-bus or split-bus configurations and includes a personality module and 180W power supply • UltraSCSI shelf supports: seven 3.5″ hard disk drives, or one 5.25″ device and four 3.5″ hard disk drives, or two 5.25″ devices and one 3.5″ hard disk drive • Installation of redundant power supply reduces number of 3.5″ drive slots by one	
	UltraSCSI single-ended pedestal, single-bus personality module, 180W power supply	DS-BA356-KF
	UltraSCSI single-ended pedestal, split-bus personality module, 180W power supply	DS-BA356-KG
	UltraSCSI pedestal, single-channel differential personality module, 180W power supply	DS-BA356-KH
	180W power supply, includes 120V North American and 240V IEC power cord	CK-BA35X-HH
Storage Controllers for External StorageWorks Shelves	Note: The following controllers are only supported with StorageWorks shelves (not supported with the 3X-BA611-4D disk drive cage).	
	PCI 2-port UltraSCSI single-ended adapter and 10/100 Mbit Ethernet combo adapter (uses one PCI slot); includes internal 68-pin and 50-pin HD connectors and two external 68-pin VHDCI SCSI connectors, maximum one per system	KZPCM-DA
	VHDCI male-to-VHDCI male UltraSCSI cable; required for each external UltraSCSI shelf attached to KZPCM, xx = 02, 2E [2.5], 02, 05, 10, 20 m	BN37A-xx
	PCI 1-port UltraSCSI single-ended adapter (uses one PCI slot); includes internal 68-pin and 50-pin HD connectors and external 68-pin HD connector, maximum one per system; requires BN38C cable (2 to 20 m) to connect to single-ended UltraSCSI shelf	KZPBA-CA
	PCI 1-port UltraSCSI differential adapter (uses one PCI slot); includes external 68-pin HD connector, maximum one per system; requires BN38C cable (2 to 25 m) to connect to differential UltraSCSI shelf or external RAID array controller	KZPBA-CB
	68-pin HD male-to-VHDCI male UltraSCSI cable; required for each external UltraSCSI shelf attached to KZPBA-CA/CB adapter, xx = 02, 03, 05, 10, 20, 25 m	BN38C-xx
	1-channel Ultra2 SCSI RAID controller, 4-MB cache, maximum four per system	SN-KZPBC-AA

Options

Step 5 – Storage *(continued)*

StorageWorks Shelf	• Selection of StorageWorks shelf requires selection of UltraSCSI adapter and SCSI cable	
	StorageWorks UltraSCSI single-bus shelf kit	BA36R-RC
	StorageWorks UltraSCSI split-bus shelf kit	BA36R-RD
System Disk Drives (Supported in StorageWorks Shelf)	9.1-GB 7,200 rpm UltraSCSI drive	DS-RZ1DA-VW
	9.1-GB 10,000 rpm UltraSCSI drive	DS-RZ1DD-VW
	18.2-GB 7,200 rpm UltraSCSI drive	DS-RZ1EA-VW
	18.2-GB 10,000 rpm UltraSCSI drive	DS-RZ1ED-VW
	36.4-GB 10,000 rpm UltraSCSI drive	DS-RZ1FC-VW
Removable Media Device for External StorageWorks Shelves	600-MB 32X CD-ROM drive in StorageWorks carrier	DS-RRD47-VA
Expansion Boxes and SCSI Cables	External StorageWorks expansion box with 14 drive slots for 1" universal Ultra2 SCSI drives, rackmounted with redundant power supplies, dual SCSI bus, I/O module, US power cord, two 12' VHDCI-to-VHDCI cables Note: For SCSI drive information refer to the Compaq SCSI hard drive compatibility table at http://www.compaq.com/storage/index.html and http://www.compaq.com/products/storageworks/hddu2nonplug/u2nonplugindex.html	DS-SSL14-RS
	External StorageWorks deskside pedestal unit with 180W power supply, dual-speed blowers, UltraSCSI I/O personality module; configured for single bus	DS-BA356-KF
	VHDCI male-to-68-pin HD male SCSI cable; required to connect external StorageWorks UltraSCSI pedestal to SN-KZPBA-CA/CB and SN-KZPCA-AA adapters xx = -01 meter length, up to –020, 20 meter lengths	BN38C-xx
	VHDCI male-to-VHDCI male SCSI cable; required to connect external StorageWorks UltraSCSI pedestal to SN-KZPAC-AA/CA controller xx = -01 meter length, up to –025, 25 meter lengths	BN37A-xx

Step 6 – Graphics

	• System consists of two PCI buses – three PCI slots on Bus 0 and two PCI slots on Bus 1 • For optimal graphics performance, all graphics adapters should be installed on Bus 0; there will be a loss of performance on any adapter placed on PCI Bus 1 • First graphics adapter for single head systems must be installed on PCI Bus 0 • Multi-head systems must be homogeneous – all ELSA Gloria Synergy • Linux customers should refer to their Linux supplier for graphic adapter support	
	ELSA Gloria Synergy graphics with 8-MB SGRAM, TruColor at 1280 x 1024, maximum two per system	SN-PBXGK-BB
	3Dlabs Oxygen VX1 32-MB PCI 2D graphics accelerator card, maximum two per system	SN-PBXGF-AB

Options

Step 7 – Color Monitors

• Country Kit includes two country-specific power cords, one for system and one for monitor	
V570 15" (13.8" viewable image size) multiple-scan color monitor with Invar Shadow Mask, VGA to 1024 x 768 @ 75 Hz, 0.28mm AG, TCO99; Northern Hemisphere with NA power cord	3R-A3082-AA
Same as above with Eurocord	3R-A3083-AA
Same as above, APD, no power cord	3R-A3084-AA
V500 15" (13.8" viewable image size) auto-scanning color monitor, VGA to 1024 x 768 @75 Hz, 0.28mm FST, MPRII Southern Hemisphere with Australia/New Zealand power cord	3R-VRQV5-11
P710 17" (16" viewable image size) auto-scanning color monitor, Diamondtron NF, 0.25mm aperture grille pitch, VGA to 1280 x 1024 @75 Hz, TCO99, Northern Hemisphere with NA power cord	3R-A2936-AA
Same as above, APD, no power cord	3R-A2260-AA
Same as above, PRC with power cord, CCIB	3R-A3335-AA
Same as above, Southern Hemisphere, with Australia/New Zealand power cord	3R-A2263-AA
Same as above, Northern Hemisphere, with power factor correction and Eurocord, 220V only	3R-A2261-AA
TFT8020 (Flat Panel) 18" (18″ viewable image size) monitor, 0.28mm DP, 1280x 1024 @75 Hz, TCO 99, U.S. power cord – Use with SN-PBXGD-AD/AE or SN-PBXGK-BB	3R-A0852-AA
P910 19" (18" viewable image size) auto-scanning color monitor, Diamondtron NF, 0.25mm aperture grille pitch, VGA to 1280 x 1024 @ 85 Hz, TCO99, Northern Hemisphere with NA power cord	3R-A2935-AA
Same as above, PRC with power cord, CCIB	3R-A3334-AA
Same as above, Southern Hemisphere with Australia/New Zealand power cord	3R-A2267-AA
Same as above, Northern Hemisphere with power factor correction and Eurocord, 220V	3R-A2265-AA
P1100 21″ (19.8″ viewable image size) auto-scanning color monitor, Trinitron CRT, 0.28 mm aperture grill pitch, VGA to 1600 x 1200 @ 85 Hz NI, TCO99, Southern Hemisphere with Australia/New Zealand power cord	3R-VRQP1-23
P1210 22" (20" viewable image size) auto-scanning color monitor, Diamondtron NF, 0.24mm aperture grille pitch, VGA to 1600 x 1200 @ 85 Hz, TCO99 with power factor correction, Northern Hemisphere with NA power cord	3R-A2934-AA
Same as above with Eurocord	3R-VRQP2-24
Same as above, APD, no power cord	3R-A2268-AA
Same as above, PRC with power cord, CCIB	3R-A3333-AA

Video Cable

• Each monitor includes a 1.8-m signal cable – a video cable is required for most server applications	
1.8-m video cable	BN39C-02

Options

Step 7 – Color Monitors *(continued)*

Monitor Power Cords	North American, 120V, 75″	BN26J-1K
	Australia, New Zealand, 2.5m	BN19H-2E
	Central Europe, 2.5m	BN19C-2E
	Denmark, 2.5m	BN19K-2E
	Egypt, India, South Africa, 2.5m	BN19S-2E
	Israel, 2.5m	BN18L-2E
	Italy, 2.5m	BN19M-2E
	Japan, 2.5m	3X-BN46F-02
	Switzerland, 2.5m	BN19E-2E
	UK, Ireland, 2.5m	BN19A-2E

Step 8 – Network Options

- Systems include onboard 10/100 Ethernet (Twisted pair) controller

XP1 MAU 10Base5 AUI/Thickwire, maximum two per system	SN-PCXAN-DE
XP1 MAU Card 10Base2 ThinWire, maximum two per system	SN-PCXAN-DF

Step 9 – AlphaStation XP1000 Rackmount Options

M-series Rackmount Kit

- Rackmount kit must be ordered separately – requires removal of XP1000 front door

AlphaStation XP1000 M-series rackmount shelf kit; includes front panel bezel assembly	SN-BA26R-RA

M-series Cabinets and Accessories

M-series enclosures require the mandatory selection of the following items:

- H9A10, or H9A15 Cabinet, 120V or 240V
- Cabinet front door based on cabinet height
- Factory Integration
- Ballast kits as required

M-series Cabinet Configuration Chart for AlphaStation XP1000 (5U) with Storage Works shelves (4U)

Cabinet	Mounting Kit	Cabinet Height / Space	System	Shelves	Ballast Kit
H9A10-MC/MD	SN-BA26R-RA – Optional, must be ordered separately	54.2″ / 31U	1	6	2
			2	5	1
			3	4	0
			4	2	0
			5	1	0
			6	0	0
H9A15-MC/MD	SN-BA26R-RA – Optional, must be ordered separately	66.5″ / 38U	1	6	2
			1	6	2
			3	5	0
			4	4	0
			5	3	0
			6	2	0
			7	0	0

Options

Step 9 – AlphaStation XP1000 Rackmount Options *(continued)*

M-series Cabinets	67" cabinet enclosure with 54.2" or 33U of usable vertical space; 120V dual-24A controller, each with 10 NEMA 5-15R outlets, input power plug NEMA L5-30P, Americas, Asia Pacific; includes rear door, top fan tray, and two H7600-AA power distribution units	H9A10-MC
	67" cabinet enclosure with 54.2" or 33U of usable vertical space; 240V dual-16 A controller, each with 12 IEC C13 outlets, input power plug IEC 309, 16A, Europe; includes rear door, top fan tray, and two H7600-DB power distribution units	H9A10-MD
	79" cabinet enclosure with 66.5" or 40U of usable vertical space; 120V dual-24A controller, each with 10 NEMA 5-15R outlets, input power plug NEMA L5-30P, Americas, Asia Pacific; includes rear door, top fan tray, and two H7600-AA power distribution units	H9A15-MC
	79" cabinet enclosure with 66.5" or 40U of usable vertical space; 240V dual-16A controller, each with 12 IEC C13 outlets, input power plug IEC 309, 16A, Europe; includes rear door, top fan tray, and two H7600-DB power distribution units	H9A15-MD
	Note: For more information on M-series Cabinet Enclosures: http://www.compaq.com/alphaserver/products/m-series/index.html	
Cabinet Front Door	Top gun blue front door for H9A10-MC/MD cabinet	H9C10-TF
	Top gun blue front door for H9A15-MC/MD cabinet	H9C15-TF
Shelves supported in M-series Cabinets with front doors (H9A10/M9A15)	StorageWorks UltraSCSI single bus, single-ended shelf with 180W power supply and RETMA mounting kit	BA36R-RC
	StorageWorks UltraSCSI split bus, single-ended shelf with 180W power supply and RETMA mounting kit	BA36R-RD
	StorageWorks controller shelf with RETMA mounting kit and NEMA power for H9A10-MC, H9A15-MC cabinets (Americas, Asia Pacific); order BN30B-02 power cord for H9A10-MD, H9A15-MD cabinets (Europe)	BA35R-MR
	180W power supply	CK-BA35X-HH
Factory Integration	Factory Integration of systems and storage devices assembled and configured in cabinet enclosure for H9A10/15 cabinet enclosures	YS-ASCAA-AA
Ballast Kit	• Ballast is dead weight added to a cabinet at specific locations for specific configurations to meet safety regulations for installation, operation, and service; see “Cabinet Configuration Chart” for ballast kit requirements	
	Two 35-40 lb steel plates	H9C10-MC

Options

Step 9 – AlphaStation XP1000 Rackmount Options *(continued)*

Rackmount Power Cords	North America, 4.5 m	BN20Z-4E
	Non-North America, 4.5 m	3X-BN46L-4E
	Japan, Dentori approved, 4.5 m	3X-BN46D-4E

Compaq *Custom*Systems Support

- Cabinets containing systems and storage must be assembled by qualified assemblers: Compaq Manufacturing, Compaq CustomSystems Group, or an authorized Compaq Certified Integration Partner
- For custom integration of systems, options, and additional Compaq and third-party devices, or for other cabinets, doors, and trim kits of a different color, contact Compaq CustomSystems at 1-800-AT-COMPAQ (1-800-282-6672), or contact your local authorized Compaq Certified Integration Partner

Step 10 – XP1000 Field Upgrade Option

XP1000 500-MHz CPU upgrade to XP1000 667-MHz CPU for Tru64 UNIX, OpenVMS, and Linux-Ready systems	SN-E2G6W-UG

Step 11 – Hardware Supplemental Services

Hardware Supplemental Services	3-year 5 x 9 Next Business Day Onsite XP1000/667 warranty uplift (must purchase within 90 days of system purchase)	FM-AWXHW-36
	3-year 5 x 9 Same Day – 4-hour Response Onsite XP1000/667 warranty uplift (must purchase within 90 days of system purchase)	FM-AW4HR-36
	3-year 7 x 24 Same Day – 4-hour Response Onsite XP1000/667 warranty uplift (must purchase within 90 days of system purchase)	FM-AW724-36
	In Warranty XP1000/667 service upgrade for 1st year to 5x9 Next Business Day	FS-CPQ05-WJ
	In Warranty XP1000/667 service upgrade for 2nd or 3rd years to 5x9 Next Business Day	FS-CPQ05-WK
	Post Warranty XP1000/667 service – 5 x 9 Next Business Day	FS-CPQ05-35
	XP1000/667 Hardware Installation	FM-AWINS-IN

Step 12 – User Documentation

Compaq AlphaStation XP1000 Installation and Setup Guide in seven languages: English, French, German, Japanese, Spanish, Italian, Dutch	EK-XP100-SI
XP1000 Service Guide (CD-ROM)	QA-6G3AA-G8

Technical Specifications

System Unit	**Dimensions** (HxWxD)	Deskside Cabinet	16 x 8.6 x 17.5 in/41 x 22 x 44.8 cm
		Shipping Carton	23.4 x 20.5 x 15.4 in/59.4 x 52.1 x 39 cm
	Weight	With drive cage and one hard drive installed	41 lbs/18.6 kg
		Shipping weight	49 lbs/22.2 kg
	Power Supply, Auto Ranging	Nominal Range	100-132 VAC/230 VAC
		Operating Range	90-132 VAC/180-264 VAC
		Nominal Frequency	60 Hz/60 Hz
		Operating Frequency	47 to 63 Hz
		Maximum Input Current	100-120 range 6.5 arms/200-240 range 3.3 arms
	Temperature Range	Operating	50° to 104°F/10° to 40°C
		Non-operating	–40° to 151°F/–40° to 66°C
	Relative Humidity (non-condensing)	Operating	20% to 80%
		Non-operating	10% to 90%
	Maximum Altitude (non-pressurized)	Operating	10,000 ft/3,048 m
		Non-operating	40,000 ft/12,192 m
	Power Consumption	Typical	215 W/733 Btu/hr