

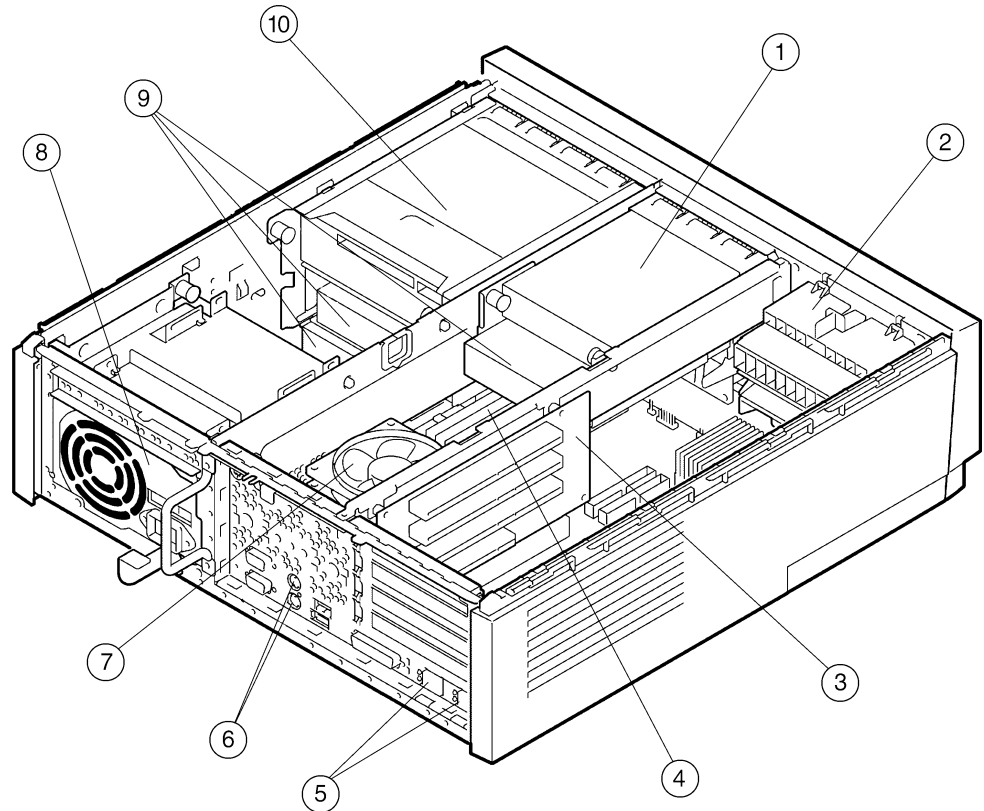
QUICKSPECS

Compaq AlphaServer DS10
(Linux-ready)

Overview

AT A GLANCE

- Alpha Processor module with 21264 466-MHz CPU with 2-MB onboard ECC cache
- Onboard IDE controller for internal storage
- Onboard dual 10/100 BaseT Ethernet ports
- Four PCI expansion slots, three 64-bit PCI slots, one 32-bit PCI slot
- 2-GB maximum memory capacity
- 1.44-MB diskette drive
- 600-MB CD-ROM drive
- 5.25" x 1.6" removable media bay or 3.5" x 1" hard disk drive bay, two 3.5" x 1" hard disk drive bays
- Two serial ports, one serial port with full duplex asynchronous modem control, one RMC dedicated serial port with full-duplex asynchronous modem control
- Bi-directional enhanced parallel port
- PS/2-style keyboard port and mouse port
- 300W (120/240V, 60/50 Hz) power supply
- 3-button mouse
- U.S./English keyboard with North American orders
- U.S. power cord with North American orders
- Optional rackmount kit must be ordered separately
- U.S./English documentation
- Protected by Compaq Services, including three-year, on-site hardware with next business day response



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|------------------------|-----------------------------|
| 1. Diskette drive | 6. Keyboard and mouse ports |
| 2. Fan | 7. CPU and fan |
| 3. PCI riser card | 8. Power supply |
| 4. Memory boards | 9. Disks |
| 5. Dual Ethernet ports | 10. CD-ROM drive |

QUICK SPECS

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Standard Features

MODELS

DS10 Linux-ready Servers
466 MHz CPU

DJ-PB10A-BB
(128-MB memory)

DJ-PB10A-BC
(256-MB memory)

DJ-PB10A-BD
(512-MB memory)

DJ-PB10A-BE
(1-GB memory)

Processor

Alpha 21264 466 MHz processor

Cache Memory

2-MB onboard cache

Upgradability

Supports upgrades of memory and hard drives
Standard One CPU

Memory

Standard 128 MB, 256 MB, 512 MB, or 1 GB (one memory kit)
Maximum 2 GB (Two memory kits, kits include two industry-standard DIMMs with ECC support)

Network Controller

Onboard dual 10/100 BaseT Ethernet ports

Expansion

Storage bays Five (Diskette drive bay, CD-ROM drive bay, 5.25" x 1.6" removable media bay or 3.5" x 1" hard disk drive bay, two 3.5" x 1" hard disk drive bays)
PCI slots Four slots (3 64-bit, 1 32-bit)

Storage

Diskette Drive 1.44-MB diskette drive
CD-ROM 5.25" half height CD-ROM drive
Hard Drives 10-GB IDE disk drive or 9.1-GB and 18.2-GB UltraSCSI disk drives available

Storage Controller

Onboard IDE controller for internal storage, PCI SCSI controller optional

Interfaces

Parallel One bi-directional enhanced port
Serial Two ports, one serial port with full-duplex asynchronous modem control and one RMS dedicated serial port with full-duplex asynchronous modem control
Keyboard One PS/2-style port
Mouse One port

Power Supplies

300W (120/240V, 60/50 Hz)

Service and Support

Protected by Compaq Services, including a three-year on-site hardware warranty with next business day response. Training, consulting, network integration, comprehensive system maintenance and guaranteed uptime services are also available for customers requiring higher levels of service and support.

Options

System requirements:

- Mandatory selection of IDE or SCSI system disk drive
- SCSI adapter and SCSI cable kit required for internal SCSI disks and tape
- Country-specific keyboard and power cord for all non-North American orders

Note: For system integration of any options with 6-3 part numbers, contact *CustomSystems*.

Mandatory Options

Maximum three internal disk drives

Systems support 3.5" x 1" internal drives only

IDE Disk Drive

10-GB 5400 rpm IDE drive 3X-RE56A-AA

SCSI Disk Drives

9.1-GB 7,200 rpm UltraSCSI drive DS-RZ2DA-WA

9.1-GB 10,000 rpm UltraSCSI drive DS-RZ1DD-WA

18-GB 7,200 rpm UltraSCSI drive DS-RZ2EA-WA

SCSI Adapters

PCI 1-port UltraSCSI single-ended adapter KZPBA-CA

PCI 2-port UltraSCSI single-ended adapter and 10/100 Mb Ethernet Combo adapter KZPCM-DA

PCI 1-channel Wide Ultra-2 (LVD) SCSI adapter SN-KZPCA-AA

SCSI Cable Kit

SCSI cable kit (includes SCSI cable and SCSI LED cable) 3X-BN50A-03

Memory

Maximum 2-GB memory

Systems include one memory kit; maximum two memory kits per system—Each kit includes two industry-standard DIMMs with ECC support

128-MB memory kit, two 200-pin, 100 MHz, 64-MB DIMMs 3X-MS310-BA

256-MB memory kit, two 200-pin, 100 MHz, 128-MB DIMMs 3X-MS310-CA

512-MB memory kit, two 200-pin, 100 MHz, 256-MB DIMMs 3X-MS310-DA

1-GB memory kit, two 200-pin, 100MHz, 512-MB DIMMs 3X-MS310-EA

Internal Storage

Systems include 600-MB 32X CD-ROM drive and 1.44-MB diskette drive in dedicated drive slots

Additional internal storage supported:

Three 1" hard disk drive bays

One removable 5.25" half-height removable media bay; note that one 3.5" x 1" hard disk drive is supported in removable media bay

SCSI adapter and SCSI cable kit required for SCSI disks or tapes

Internal Storage (continued)

See "Mandatory Options" for supported disk drives and SCSI cable kit

Controllers/Adapters

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 two per system KZPBA-CA

PCI 1-port UltraSCSI Differential adapter (uses one PCI slot); includes external 68-pin HD connector— maximum two per system KZPBA-CB

68-pin HD male-to-VHDCI male UltraSCSI cable; required for each external UltraSCSI shelf attached to KZPBA-CA/CB adapter BN38C-xx

Hard Disk Drives Supported in StorageWorks Shelf

9.1-GB 7,200 rpm UltraSCSI disk drive DS-RZ1DA-VW

18.2-GB 7,200 rpm UltraSCSI disk drive DS-RZ1EA-VW

36.4-GB 7,200 rpm UltraSCSI disk drive DS-RZ1FB-VW

9.1-GB 10,000 rpm UltraSCSI disk drive DS-RZ1DD-VW

18.2-GB 10,000 rpm UltraSCSI disk drive DS-RZ1ED-VW

Graphics Option

ELSA Gloria Synergy graphics with 8-MB SGRAM 1600x1200, 2D/3D graphics accelerator SN-PBXGK-BB

Monitors

Graphics monitors other than those listed below can be used if compatible with SVGA graphics ordered with system.

Selection of video extension cable and country-specific power cord is mandatory for all monitors.

15" Corporate Series auto-scan color monitor, VGA to 1024 x 768 @ 85 Hz; Northern Hemisphere without power cord 3R-VRQV5-24

Same as above except Southern Hemisphere without power cord 3R-VRQV5-11

17" (16" viewable image size) professional series auto-scanning color monitor, Trinitron CRT, 0.25 mm aperture grill pitch, VGA to 1280 x 1024 at 75 Hz, TCO 95, MPR-II, Energy Star, attached 1.8-m video cable; Northern Hemisphere without power cord 3R-VRQP7-24

Same as above except Southern Hemisphere without power cord 3R-VRQP7-23

Options

Monitors *(continued)*

21" (19.6" viewable image size) auto-scanning color monitor, Trinitron CRT, 0.25 mm aperture grill pitch, VGA to 1600 x 1200 at 75 Hz NI, TCO 95, Energy Star, includes 1.8-m video cable; Northern Hemisphere without power cord	3R-VRQP1-24
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Same as above except Southern Hemisphere without power cord	3R-VRQP1-23
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Video Extension Cable

1.8-m video extension cable; order one for each monitor	BN39C-02
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Monitor Power Cords

North America	BN26J-1K
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Japan, 2.5 m, Dentori approved	3X-BN46F-02
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Australia, New Zealand, 2.5 m	BN19H-2E
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Central Europe, 2.5 m	BN19C-2E
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UK, Ireland, 2.5 m	BN19A-2E
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Switzerland, 2.5 m	BN19E-2E
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Denmark, 2.5 m	BN19K-2E
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Italy, 2.5 m	BN19M-2E
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Egypt, India, South Africa, 2.5 m	BN19S-2E
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Israel, 2.5 m	BN18L-2E
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Keyboards

Systems ordered in North America include U.S./English keyboard; selection of a country specific keyboard is mandatory for all non-North American orders.

UNIX U.S./English keyboard	SN-LKQ47-AA
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UNIX Belgian keyboard	SN-LKQ47-AB
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UNIX Canadian/French keyboard	SN-LKQ47-AC
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UNIX Danish keyboard	SN-LKQ47-AD
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UNIX UK keyboard	SN-LKQ47-AE
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UNIX Finnish keyboard	SN-LKQ47-AF
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UNIX German keyboard	SN-LKQ47-AG
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UNIX Dutch keyboard	SN-LKQ47-AH
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UNIX Italian keyboard	SN-LKQ47-AI
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UNIX Swiss/French keyboard	SN-LKQ47-AK
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UNIX Swedish keyboard	SN-LKQ47-AM
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UNIX Norwegian keyboard	SN-LKQ47-AN
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UNIX French keyboard	SN-LKQ47-AP
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UNIX Latin-American keyboard	SN-LKQ47-AR
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UNIX Spanish keyboard	SN-LKQ47-AS
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UNIX Hebrew keyboard	SN-LKQ47-AT
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UNIX Portuguese keyboard	SN-LKQ47-AV
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UNIX BHCSY keyboard	SN-LKQ47-AX
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UNIX International keyboard	SN-LKQ47-BA
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UNIX Greek keyboard	SN-LKQ47-BH
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UNIX Taiwanese keyboard	SN-LKQ47-BI
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Keyboards *(continued)*

UNIX Korean keyboard	SN-LKQ47-BK
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UNIX Polish keyboard	SN-LKQ47-BP
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UNIX Hungarian keyboard	SN-LKQ47-BQ
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UNIX Arabic keyboard	SN-LKQ47-BR
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UNIX Cyrillic keyboard	SN-LKQ47-BT
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UNIX Turkish keyboard	SN-LKQ47-BU
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UNIX Czech keyboard	SN-LKQ47-BV
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UNIX Thai keyboard	SN-LKQ47-CB
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UNIX S. Chinese keyboard	SN-LKQ47-CV
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UNIX Slovak keyboard	SN-LKQ47-CZ
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Power Cords

Pedestal

Systems ordered in North America include 3X-BN46K-2E 120V North American power cord; selection of country-specific power cord is mandatory for all non-North American orders.

North America, 2.5 m	3X-BN46K-2E
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Japan, 2.5 m, Dentori approved	3X-BN46G-02
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Australia, New Zealand, 2.5 m	BN19H-2E
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Central Europe, 2.5 m	BN19C-2E
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UK, Ireland, 2.5 m	BN19A-2E
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Switzerland, 2.5 m	BN19E-2E
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Denmark, 2.5 m	BN19K-2E
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Italy, 2.5 m	BN19M-2E
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Egypt, India, South Africa, 2.5 m	BN19S-2E
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Israel, 2.5 m	BN18L-2E
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Rackmount

North America, 4.5 m	BN20Z-4E
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Non-North America, 4.5 m	3X-BN46L-4E
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Japan, Dentori approved, 4.5 m	3X-BN46D-4E
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M-Series Cabinet Enclosures and Accessories

M-Series Rackmount Kit

Rackmount kit must be ordered separately.

DS10 M-Series rackmount kit	3X-PBX01-AB
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M-Series Cabinet Enclosure

Cabinet enclosures, top gun blue, are available in three sizes:

43" cabinet enclosure (H9A11-xx) 20U or 35" of usable vertical space

67" cabinet enclosure (H9A10-xx) 31U or 54.2" of usable vertical space

79" cabinet enclosure (H9A15-xx) 38U or 66.5" of usable vertical space

QUICKSPECS

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Options

M-Series Cabinet Configuration Chart for AlphaServer DS10

Cabinet	Mounting Kit	Cabinet Height / Space	System	Shelves	Ballast Kit
H9A11-MC/MD	Optional, must be ordered separately 3X-PBX01-AB	35" / 20U	1	6	1
			2	6	1
			3	4	0
			4 or 5	2	0
			6	0	0
H9A10-MC/MD	Optional, must be ordered separately 3X-PBX01-AB	54.2" / 33U	1	6	2
			2	6	2
			3 or 4	6	1
			5	6	1
			6	4	0
			7	2	0
			8, 9, or 10	0	0
H9A15-MC/MD	Optional, must be ordered separately 3X-PBX01-AB	66.5" / 40U	1	N/A	N/A
			2	6	2
			3	6	2
			4 or 5	6	1
			6	6	0
			7 or 8	4	0
			9 or 10	2	0
			11 or 12	0	0

Options

M-Series Cabinet Enclosures and Accessories (continued)

M-series Cabinet Enclosure Options

M-series Cabinet Enclosures require the mandatory selection of the following items:

- H9A11, H9A10, or H9A15 Cabinet, 120V or 240V
- Cabinet front door based on cabinet height (optional on H9A11 cabinet)
- Factory Integration
- Ballast kits as required

Cabinet Enclosures

120V 24A controller with 10 NEMA 5-15R outlets, input power plug NEMA L5-30P, Americas, Asia Pacific; includes rear door, H7600-AA power distribution unit, trim kit, and front filler bezel kit H9A11-MC

240V 16A controller with 12 IEC C13 outlets, input power plug IEC 309, 16A, Europe; includes rear door, H7600-DB power distribution unit, trim kit, and front filler bezel kit H9A11-MD

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

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 2 H7600-DB power distribution units H9A10-MD

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

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

Cabinet Front Door

Top gun blue front door for H9A10-MC/MD Cabinet Enclosure H9C10-TF

Top gun blue front door for H9A15-MC/MD Cabinet Enclosure H9C15-TF

Top gun blue front door for H9A11-MC/MD Cabinet Enclosure: selection of front door for H9A11 is optional, cabinet includes front trim kit and filler bezel H9C11-EB

Shelves supported in M-series Cabinets with front doors (H9A10/M9A15)

StorageWorks UltraSCSI single bus, single-ended shelf with 180 W power supply and RETMA mounting kit BA36R-RC

M-Series Cabinet Enclosures and Accessories (continued)

Shelves supported in M-series Cabinets with front doors (H9A10/M9A15) (continued)

StorageWorks UltraSCSI split bus, single-ended shelf with 180 W 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

Shelves supported in M-series Cabinets with trim kit (H9A11)

StorageWorks UltraSCSI single bus, single-ended shelf with 180 W power supply and RETMA mounting kit—blue bezel BA35C-AA

StorageWorks UltraSCSI split bus, single-ended shelf with 180 W power supply and RETMA mounting kit—blue bezel BA35C-BA

BA370 Rackmounted Enclosure/Rear Cabinet Extender

BA370 front-mount rackmount enclosure includes RETMA rackmount kit; first BA370 enclosure must be front mounted in cabinet, 20U height 2T-BA370-AS

BA370 rear-mount rackmount enclosure includes RETMA rackmount kit; second BA370 enclosure must be rear mounted in cabinet, 20U height Note that Rear Cabinet Extender, H9C10-TE or H9C15-TE, is mandatory for second BA370 2T-BA370-AR

Rear cabinet extender, top gun blue, for H9A10-MC/MD cabinets H9C10-TE

Rear cabinet extender, top gun blue, for H9A15-MC/MD cabinets H9C15-TE

Factory Integration

Factory Integration of systems and storage devices assembled and configured in cabinet enclosure for H9A10/15 cabinet enclosures YS-ASCAA-AA

Factory Integration of systems and storage devices assembled and configured in cabinet enclosure for H9A11 cabinet enclosures YS-ASCAA-AB

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

M-Series Cabinet Enclosures and Accessories *(continued)*

For more information on M-series Cabinet Enclosures: www.digital.com/alphaserver/products/m-series.html

Rackmount System Management Station for M-series Cabinets

M-series cabinets accommodate Rackmount System Management Station components. For configuration and ordering information for console switches, flat panel display, and rackmounted keyboard drawer refer to:

<http://www.compaq.com/products/servers/options/in dex-rack.html>. Please note this website is available in English only.

Rackmount System Management Station is currently installed onsite only (not factory installed.) Contact *CustomSystems* for integration of Rackmount System Management Station components into M-Series cabinets.

For each Rackmount System Management Station component (control switch, flat panel display, keyboard drawer), order one rear cabinet extension bracket (2T-QH915-03).

Compaq CustomSystems 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.

Network Options

Systems include dual embedded 10/100 BaseT Ethernet ports (BN25G-xx cable must be ordered separately).

Additional Ethernet ports can be added using available PCI slots.

PCI 10/100-Mb 1-port Fast Ethernet controller (Twisted Pair); maximum two per system DE500-BA

PCI 10/100-Mb 4-Port Fast Ethernet controller (Twisted Pair); maximum two per system DE504-BA

Cable for 10BaseT Twisted Pair connection BN25G-xx

Software

Operating system software not offered with this system.

Hardware Supplemental Services

Systems include 3-year onsite hardware warranty with next business day response

Select optional Hardware Supplemental Services if required

3-year, 5 x 9, 4-hour response time	FM-MK4HR-36
5-year, 5 x 9, 4-hour response time	FM-MK4HR-60
3-year, 5 x 12, 4-hour response time	FM-MK512-36
5-year, 5 x 12, 4-hour response time	FM-MK512-60
3-year, 6 x 16, 4-hour response time	FM-MK616-36
5-year, 6 x 16, 4-hour response time	FM-MK616-60
3-year, 7 x 24, 4-hour response time	FM-MK724-36
5-year, 7 x 24, 4-hour response time	FM-MK724-60
Years 4-5, 5 x 9, next day response time	FM-MKXHW-60

QUICK SPECS

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Technical Specifications

System Unit

Physical Characteristics

Dimensions (HxWxD)	5.1 x 17.6 x 19 in/13 x 45 x 48 cm
Weight (maximum)	36 lbs/16.3 kg

Environmental

	Operating	Non-Operating
Temperature ¹	50° to 104°F/10° to 40°C	-40° to 151°F/-40° to 66°C
Humidity (non-condensing)	20% to 80%	10% to 95%
Altitude (unpressurized)	10,000 ft/3,048 m ²	40,000 ft/12,192 m

Power Requirements

Nominal voltage range	100 to 120 Vac/220 Vac
Operating voltage range	90 to 128 Vac/180 to 265 Vac
Power source phase	Single/Single
Nominal frequency	60 Hz/50 Hz
Frequency range	59-61 Hz/49-51 Hz
Maximum inrush current	11 amps/22 amps
Single power supply (single cordset)	12 amps/5 amps 7.4 amps each supply/3.7 amps each supply

¹ Maximum operating temperature at sea level. Reduce by 1.8°F (1°C) for each 2,000 ft (660 m) above sea level.

² Higher altitudes are possible if maximum operating temperature is reduced. Other restrictions may apply.