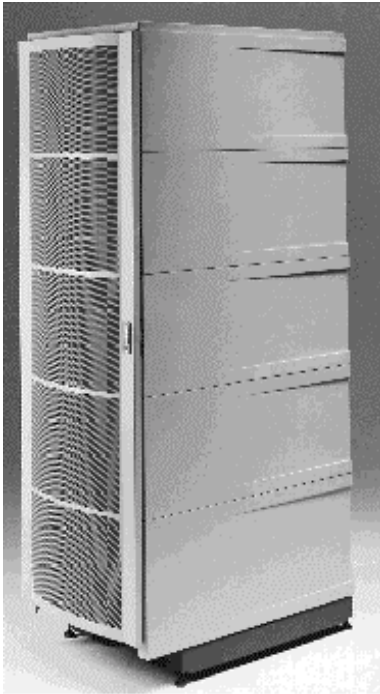
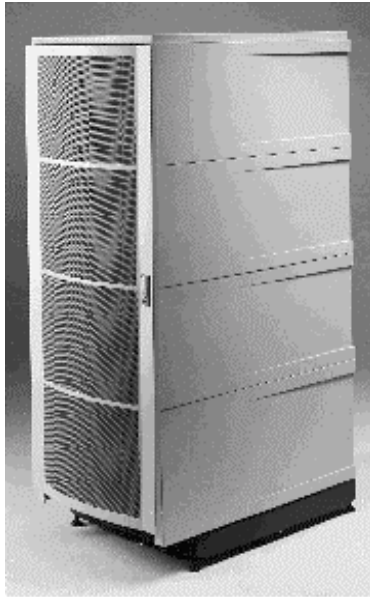


## Subchapter 4.4—Cabinets

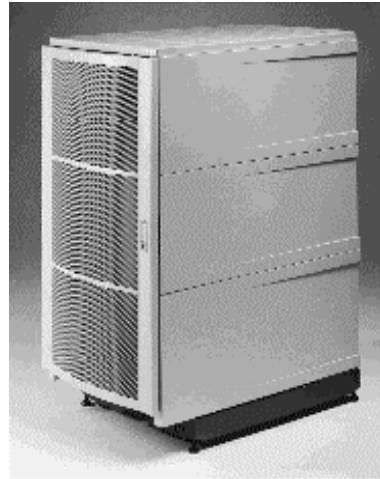
1.96-meter 19-inch Cabinet (A5136A)



1.6-meter 19-inch Cabinet (A5135A)



1.25-meter 19-inch Cabinet (A5134A)



### Product Overview

HP Rack System/E cabinets are available for racking HP e3000 Business Servers as well as for racking data storage, datacommunications, Terminal Controllers (DTCs), HP PowerTrust UPSs and the additional HP-PB I/O card cages for Corporate Business Servers.

- Cabinet A4900A is a 1.25-meter cabinet that provides 25 EIA (Electronic Industries Association) units of rack space (one EIA unit = 1.75 inches)
- Cabinet A4901A/A4901D is a 1.6-meter cabinet that provides 33 EIA units of rack space
- Cabinet A4902A/A4902D is a 1.96-meter cabinet that provides 41 EIA units of rack space

Designed and built to the highest HP quality standards, the HP Rack System/E cabinets deliver leading edge protection in the simplest form. Ease of integration, installation, and use characterizes the HP Rack System/E cabinets, which are comprised of:

- Front and rear doors have 63% of their surface area perforated for optimal cooling
- Pull-out front/back anti-tip foot
- Numbered columns
- Fully perforated top cap for added airflow
- 3-inch urethane casters

Multiple racks may be tied together to create continuous data center rack space. Individual racks may be expanded for an additional 8Us of vertical space (U = EIA).

### Standards

All racks conform to the Electronic Industries Association (EIA) standard 310-D. The 1.9-meter rack is a Type A cabinet with 41U of vertical mounting space. One 'U' is equal to 44.45 mm (1.75 in).

**Features**

- Shipped from factory with side panels
- Ability to move and ship fully integrated racks
- Optimized ventilation with fully perforated top, front and rear door
- Extendibility can add 8Us of vertical mounting space
- Number 12-gauge steel columns for easy installation and secure racking of up to 907 kg (2000 lbs.) of equipment
- Columns include threaded inserts (AVKs) at strategic locations for quick installation of common accessories such as the tie kit, front door and PDUs.
- Can fit through most doorways around the world
- Anti-tip front and back feet shipped from factory

**Specifications**

- Top cap: 18-gauge, cold-rolled steel

**Color**

- Columns and base: Slate gray (this will be rolling to graphite metallic when the slate gray frame supply is exhausted)
- Top: Quartz gray (A490xA) or Graphite (A490xD)
- Side panels: Quartz gray (A490xA) or Graphite (A490xD)
- Rear door: Quartz gray (A490xA) or Graphite (A490xD)

**Weight**

- Rack (empty) on shipping pallet: 142.4 kg (314 lbs.)
- Rear door: 11.8 kg (26 lbs.)
- Load capacity: On shipping pallet: 816 kg (1800 lbs.); Off shipping pallet: 907 kg, 2000 lbs.)
- Casters rating: 453.6 kg (1000 lbs.) per caster

**Material**

- Columns: 12-gauge, cold-rolled steel
- Base: 10-gauge, cold-rolled steel

**Tools Required for Setup**

- Torx T25 screwdriver
- Phillips #2 screwdriver
- 13-mm Socket wrench

**Accessories**

Product Number	Description
J1509A	Front door for Quartz Gray Rack System/E41
J1509D	Front door for Graphite Rack System/E41
J1510A	Front door for Quartz Gray Rack System/E33
J1510D	Front door for Graphite Rack System/E33
J1511A	Front door for Quartz Gray Rack System/E25
J1506A	HP side panel kit for Quartz Gray Rack System/E41
J1506D	HP side panel kit for Graphite Rack System/E41
J1507A	HP side panel kit for Quartz Gray Rack System/E33
J1507D	HP side panel kit for Graphite Rack System/E33
J1508A	HP side panel kit for Rack System/E25
J1514A	HP Filler Panels for Quartz Gray Rack System/E Quantity 6
J4387A	HP Filler Panels for Graphite Rack System/E Quantity 6
A5540A	Anti-tip feet for Slate Gray base frame
A5540D	Anti-tip feet for Metallic Graphite base frame
C2790A	14 kg (30 lbs.) Anti-tip Ballast
J1479B	54 kg (120 lbs.) Anti-tip Ballast kit for Slate Gray base frame
J1479D	54 kg (120 lbs.) Anti-tip Ballast kit for Metallic Graphite base frame
J1512A	HP Tie Kit for Quartz Gray Rack System/E41
J1512D	HP Tie Kit for Graphite Rack System/E41
J1513A	HP Tie Kit for Quartz Gray Rack System/E33
J1513D	HP Tie Kit for Graphite Rack System/E33
A5543A	HP Depth Extension Kit Quartz Gray Rack System/E41 (required for N-Class Servers)
A5543D	HP Depth Extension Kit Graphite Rack System/E41 (required for N-Class Servers)
A5542A	HP Depth Extension Kit Quartz Gray Rack System/E33 (required for N-Class Servers)
A5542D	HP Depth Extension Kit Graphite Rack System/E33 (required for N-Class Servers)
A5541A	HP Depth Extension Kit Quartz Gray Rack System/E25 (required for N-Class Servers)
J1471A	HP 8U Vertical Extension Kit For Quartz Gray cabinet
J1521A	Lift Hooks for Rack System/E
J1526A	Universal shelf for Quartz Gray rack—sliding
J1526D	Universal shelf for Graphite rack—sliding
J1518A	Keyboard rackmount kit for Quartz Gray rack, retractable
J1518D	Keyboard rackmount kit for Graphite rack—retractable
J1519A	Monitor rackmount kit for Quartz Gray rack—retractable
J1519D	Monitor rackmount kit for Graphite rack—retractable
J1520A	Universal shelf for Quartz Gray rack—stationary
J1520D	Universal shelf for Graphite rack—stationary

**How to Order Cabinets and Peripherals**

**Ordering HP Rack System/E Cabinets**

The HP Rack System/E cabinets (1.25-meter, 1.6-meter, and 1.96-meter) are used in both integrated and standalone configurations.

**When placing your order, ensure that the cabinet is placed on the same section of the order as the SPU.** The factory will install rackmount kits, filler panels, and cables automatically.

**Table 4.4.1 Factory-Integrated Cabinets**

Product Number	Description	EIA Units	Cabinet Width	Usable Width	Cabinet Depth
A4900A	HP Rack System/E25, 19-inch standard, EIA base cabinet (1.25-meter)	25	.6 meters	19-inch standard	1.0 meters
A4901A/A4901D	HP Rack System/E33, 19-inch standard, EIA base cabinet (1.6-meter)	33	.6 meters	19-inch standard	1.0 meters
A4902A/A4902D	HP Rack System/E41, 19-inch standard, EIA base cabinet (2.0-meter)	41	.6 meters	19-inch standard	1.0 meters

## To Order Factory-Integrated HP Rack System/E Cabinets

**Note:** The HP e3000 Series 99x servers are packaged in their own cabinet. Peripherals for the 99x servers may be integrated into an A4901A/A4901D E/33 1.6-meter cabinet. When ordered at the same time as the 99x servers, only one A4901A/A4901D cabinet (containing the intended system disk, additional disks and options) will be placed in the same order section as the SPU.

Only one 9x8 and 9x9KS server may be integrated into the cabinet at the factory; however, multiple disk and tape options may be ordered.

1. Order an HP e3000 Business Server
2. Order the correct racking kit if needed: product A6395A for the A-Class Servers, A7070A for the N-Class Servers, A5175B for 9x8 Servers or A5173B for 9x9KS.
3. Order either the 1.25-meter (A4900A), 1.6-meter (A4901A/A4901D) or 1.96-meter (A4902A/A4902D) cabinet on same order-section as server.
4. Order the appropriate size required rear door. Rear doors are not bundled with the base cabinet and must be ordered separately. Order J1511A for E/25, J1510A/J1510D for E/33, or J1509A/J1509D for E/41. Rear doors are no longer optional after 4/1/99. A5175B for 9x8 Servers or A5173B for 9x9KS.
5. Determine customer's integrated peripheral requirements and total EIA space needed.
6. Order integration options for peripherals (rackmount kits are included).
7. For the HP e3000 N-Class Servers, order the appropriate required Depth Extension Kit on the same order-section as the cabinet being ordered. Order A5541AZ for E/25, A5542AZ/A5542DZ for E/33, or A5543AZ/A5543DZ for E/41.
8. Customers planning to use tie-together kits should order option AXW (delete side panels). Only one set of side panels is required for a string of racks tied together. Order an equal amount of AXW options and Tie-together kits.
9. Order A5137AZ (PDU) for power distribution. Each A5137AZ contains qty. 7 IEC-320 C13 and quantity 1 IEC-320 C19 outlets, and 1 IEC-320 C20 inlet. Two A5137AZ PDUs can be strung together using an option A5N jumper cord. A quantity of 0 – 6 PDUs can be ordered for each cabinet. Specify the desired power cord option for each PDU.

### Notes:

- HP Rack System/E cabinets A1534A, A4901A/A4901D, and A4902A/A4902D can be ordered without integrated SPUs or peripherals (standalone). When ordered standalone, the factory will not install rackmount kits, filler panels, and cables.
- Standalone peripherals that are not available as cabinet options should be ordered separately with corresponding rackmount kits. See the Supported Components list in this section.

## HP Rack System/E Cabinet Configuration Worksheet

The Factory Integrated Expansion Cabinet Racking Configuration Worksheet (**Table 4.4.2**) illustrates the integrated expansion cabinet options and add-on products.

Use the worksheet to determine supportability of the racking configuration. Use the worksheet as follows:

1. After entering the proposed configuration in the quantity columns, multiply the quantity entered for each item by the EIA number given for each component.
2. Sum all the components to ensure that the total EIA units are less than or equal to 41 units for the 1.96-meter cabinet, less than or equal to 33 units for the 1.6-meter cabinet, or less than or equal to 25 units for the 1.25-meter cabinet.
3. Multiply the quantity entered for each item by the power required listed for each component (**Table 4.4.7**). If racking a component for which there is no listed Power Required value, then follow these rules to compute a number:
  - a. If a wattage number is given on the component and is labeled "Power Factor Corrected," then use this number.
  - b. If a wattage number is given which is not labeled "Power Factor Corrected," then multiply this number by 1.4.
  - c. If no wattage number is given on the component, then multiply the volts by the amperage of the component.

4. If HP PowerTrust UPS power protection is going to be used, sum all of the volt-amperes of all components. Choose the appropriate HP PowerTrust rackmounted UPS based on the volt-amperes required.

*Note: If add-on peripherals are ordered with the factory integrated expansion cabinet, ensure that enough unracked space is left to install additional peripherals and enough volt-amperes are reserved for power protection.*

**Table 4.4.2 Factory-Integrated Expansion Cabinet Racking Configuration Worksheet**

Component	Quantity	EIA Units	Vertical Space Required (EIA units)	Quantity	Power Required (Table 4.4.7)	Total Power Required (VA units)
<b>I. SPU (select SPU to be racked)</b>						
<i>A6395A (A-Class), A7070A (N-Class), A5175B (9x8) and A5173B (9x9KS) racking hardware must be ordered for factory racking. Factory Integrated Cabinets have been structured so that all orderable configurations will not exceed the 16-amp maximum current limit.</i>						
HP e3000 A-Class Servers	_____	× 2	= _____	_____	× _____	= _____
HP e3000 N-Class Servers	_____	× 10	= _____	_____	× _____	= _____
HP e3000 9x8 Servers	_____	× 6	= _____	_____	× _____	= _____
HP e3000 9x9KS Servers	_____	× 17	= _____	_____	× _____	= _____
HP e3000 997 Servers	_____			_____	× _____	= _____
<b>II. A4900A 1.25-meter racking cabinet</b>						
(The 1.25-meter cabinet is not recommended for the 9x9KS Servers)						
<b>A4901A/A4901D 1.6-meter racking cabinet</b>						
<b>A4902A/A4902D 1.96-meter racking cabinet</b>						
Filler panels to cover unused space will be installed automatically at the factory for integrated cabinet products.						
<b>Power Options (A5137AZ)</b>						
AW3—100-120 volts US Power 4.5-meters long with 5-20P plug (only for 1.25-meter cabinet)						
AW4—200-240 volts North American Power 4.5-meter long with 6-20P plug						
AW5—200-240 volts International Power 4.5-meter long unterminated						
A5N—120/240 VAC Jumper/Universal UPS-PDU power cord, 2-meter, C20 plug						
AWT—240V 4.5-meter cord C19/CEE7/7 plug						
A5F—240V North American UPS-PDU power cord 4.5-meter long with L6-30P						
AWU-240V 4.5-meter cord IEC-309 plug						
A5G—240V European UPS-PDU power cord 4.5-meter long unterminated						
A5H—120/240V Universal UPS-PDU power cord 4.0-meter long with C-20P plug						
<b>Factory-Integrated Peripherals (see Table 4.4.7)</b>						
	_____	× _____	= _____	_____	× _____	= _____
	_____	× _____	= _____	_____	× _____	= _____
	_____	× _____	= _____	_____	× _____	= _____
	_____	× _____	= _____	_____	× _____	= _____
	_____	× _____	= _____	_____	× _____	= _____



**Table 4.4.2 Factory-Integrated Expansion Cabinet Racking Configuration Worksheet (continued)**

Component	Quantity	EIA Units	Vertical Space Required (EIA units)	Quantity	Power Required (Table 4.4.7)	Total Power Required (VA units)
<b>DTC Products</b>						
J2070AZ—Add DTC 72MX	_____	× 3	= _____	_____	× _____	= _____
Option 001—Configure DTC 72MX with 24 direct ports	_____	× 1	= _____			
Option 002—Configure DTC 72MX with 48 direct ports	_____	× 2	= _____			
Option 003—Configure DTC 72MX with 72 direct ports	_____	× 3	= _____			
Option UG4—Configure DTC 72MX with 24 RS-423 direct ports	_____	× 1	= _____			
Option UG5—Replace eight RJ-45 direct ports with eight DB-25 modem ports on 1 modem distribution panel (MDP). Must order option 001, 002, or 003.						
Option UG6—Replace 24 RJ-45 direct ports with 24 DB-25 modem ports, on 3 modem distribution panels (MDPs). Must order option 001, 002, or 003.	_____	× -1	= _____			
To rack in a 1.25-, 1.6- or 1.96-meter expansion cabinet, order a modem distribution panel (MDP) rack mounting hardware kit:						
C2792AZ for rear mounting up to 5 MDPs or	_____	× 6	= _____			
J2084AZ for front mounting for up to 5 MDPs or	_____	× 7	= _____			
J2087AZ for front/rear mounting for up to 10 MDPs or	_____	× 7	= _____			
<i>For example, to configure 48 modem ports and 24 direct ports, order: One option 003 (provides 72 ports), two option UG6 (provides 48 modem ports on six MDPs), one J2087AZ (provides racking for up to ten MDPs)</i>						
Option 1CW—Add X.25 card with RS-232 interface						
Option 1CX—Add X.25 card with V.35 interface						
Option 004—Add Telnet Access Card						
They do not require additional EIA units.						
<i>Note: The DTC 72MX comes with three slots. Option 001 consumes one slot, option 002 consumes two, and option 003 consumes all three.</i>						
<i>Options 1CW, 1CX, and 004 each take one slot. The maximum number of X.25 cards per DTC 72MX is three. One Telnet Access Card is allowed per DTC 72MX. A Telnet Access Card and an X.25 card can be used in the same DTC.</i>						
<b>HP-PB I/O Card Cage (9x9KS and 99x Servers only)</b>						
A1828AZ—Adds HP-PB I/O card cage with 14 single-high card slots, 10-meter HP-PB Dual Cable, and lower bus converter	_____	× 7	= _____	_____	× _____	= _____



**Table 4.4.2 Factory-Integrated Expansion Cabinet Racking Configuration Worksheet (continued)**

Component	Quantity	EIA Units	Vertical Space Required (EIA units)	Quantity	Power Required (Table 4.4.7)	Total Power Required (VA units)
<b>III. Optional Power Protection</b>						
<b>Note: PowerTrust II-MR was obsoleted on October 1, 2002</b>						
<b>3.0 kVA PowerTrust II-LR (A1356A) was discontinued on November 1, 2003</b>						
A6585A—12-kVA, 230-V, HP PowerTrust II-MR UPS	_____	x 13	= _____			
A6584A—9-kVA, 230-V, HP PowerTrust II-MR UPS	_____	x 13	= _____			
A6583A—4.5-kVA, 230-V, HP PowerTrust II-MR UPS	_____	x 8	= _____			
A1356A—3-kVA, 230-V, HP PowerTrust II-LR UPS	_____	x 2	= _____			
A1354A—2-kVA, 230-V, HP PowerTrust II-LR UPS	_____	x 2	= _____			
A1353A—2-kVA, 120-V, HP PowerTrust II-LR UPS	_____	x 2	= _____			
A6587A—HP PowerTrust II-MR 6.5-/8.0-kW Battery Pack	_____	x 8	= _____			
A6586A—HP PowerTrust II-MR 4.0-kW Battery Pack	_____	x 4	= _____			
A1357A—HP PowerTrust II-LR Battery Pack	_____	x 2	= _____			
<b>IV. Total EIA Units</b>			= _____			
<b>V. Integrated Cabinet</b>						
Order the cabinet(s) that meet your total EIA requirements (See <b>Table 4.4.7</b> Cabinet Measurement Details)						
<b>VI. Total Power</b>						= _____
Order the UPS that meets the total power protection requirements						
<i>Note: The DTC 72MX comes with three slots. Option 001 consumes one slot, option 002 consumes two, and option 003 consumes all three. Options 1CW, 1CX, and 004 each take one slot. The maximum number of X.25 cards per DTC 72MX is three. One Telnet Access Card is allowed per DTC 72MX. A Telnet Access Card and an X.25 card can be used in the same DTC.</i>						
<b>HP-PB I/O Card Cage (9x9KS and 99x Servers only)</b>						
A1828AZ—Adds HP-PB I/O card cage with 14 single-high card slots, 10-meter HP-PB Dual Cable, and lower bus converter	_____	x 7	= _____	_____	x _____	= _____

### Standalone Cabinet Racking Configuration Worksheet

HP Rack System/E is available as a field-integrated cabinet in 3 sizes; 25U, 33U, and 41U. These are identical to the factory-integrated cabinets except no servers or peripherals are integrated. These cabinets can be shipped and moved fully integrated, include anti-tip feet and side panels. The rear door is sold separately, but mandatory.

Customers who order standalone cabinets will need to order rackmount or mounting kits for each component they plan to install in the cabinet unless otherwise indicated. They also need to order filler panels for the empty space remaining in the cabinet. See **Table 4.4.7** to determine how much space (in EIA units) will be filled by servers and peripherals. The remaining empty space will require filler panels. Each filler panel covers one EIA unit of space. (1.75 inches, 44.45 mm) The HP Rack System/E includes a perforated rear door and top piece providing optimal airflow.

***Note:** If peripherals with an “AZ” suffix are ordered along with a cabinet, that peripheral will be racked in the cabinet and the remaining slots filled with filler panels before shipping to the customer.*

**Table 4.4.3 Field Integrated Cabinets**

Product Number	Description	EIA Units	Cabinet Width	Usable Width	Cabinet Depth
A4900A	HP Rack System/E25, 19-inch standard, EIA base cabinet	25	.6 meters	19-inch standard	1.0 meters
A4901A/A4901D	HP Rack System/E33, 19-inch standard, EIA base cabinet	33	.6 meters	19-inch standard	1.0 meters
A4902A/A4902D	HP Rack System/E41, 19-inch standard, EIA base cabinet	41	.6 meters	19-inch standard	1.0 meters

#### To Order Standalone HP Rack System/E Cabinets

Use the racking configuration worksheet (**Table 4.4.4**) to determine supportability of the proposed configuration. Use the worksheet as follows:

1. After entering the proposed configuration in the quantity columns, multiply the quantity entered for each component by the EIA number given.
2. Sum all the components to ensure that the total EIA units are less than or equal to the correct number of EIA units for the 1.25-, 1.6- or 1.96-meter cabinet.
3. Sum the current requirements of all components to ensure the 16-amp current limit is not exceeded. Refer to **Table 4.4.7** for a list of components supported and their current consumption.
4. Multiply the quantity entered for each item by the power required listed for each component (**Table 4.4.7**). If racking a component for which there is no listed Power Required value, then follow these rules to compute a number:
  - a. If a wattage number is given on the component and is labeled “Power Factor Corrected,” then use this number.
  - b. If a wattage number is given which is not labeled “Power Factor Corrected,” then multiply this number by 1.4.
  - c. If no wattage number is given on the component, then multiply the volts by the amperage of the component.

If HP PowerTrust UPS power protection is going to be used, sum all of the volt-amperes of all components. Choose the appropriate HP PowerTrust rackmounted UPS based on the volt-amperes required.



**Table 4.4.4 Standalone Expansion Cabinet Racking Configuration Worksheet**

Component	Quantity	EIA Units	Vertical Space Required (EIA units)	Quantity	Power Required (Table 4.4.7)	Total Power Required (VA units)																																																												
<b>(Standalone cabinets must on a separate section of the order, if an SPU is also ordered)</b>																																																																		
<p>I. <b>A4900A</b> Error! Bookmark not defined. <b>1.25-meter racking cabinet</b>                      (The A4900A 1.25-meter cabinet is not available for the 99x Servers because its height is not the same as the 99x SPU. It is also not recommended for 9x9KS Servers.)                      Filler panels to cover unused space must be ordered separately.  <b>A4901A/A4901D 1.6-meter racking cabinet</b>  <b>A4902A/A4902D 1.96-meter racking cabinet</b>                      (Filler panels to cover unused space must be ordered separately.)</p> <p><b>Power Cord Options (A5137AZ)</b>                      AW3-100-120 volts US Power 4.5 meters long w/5-20P plug (Only for 1.25-meter cabinet)                      AW4-200-240 volts North American Power 4.5 meters long w/6-20P plug                      AW5-200-240 volts International Power 4.5 meter long unterminated                      A5N-120/240 VAC Jumper/Universal UPS-PDU power cord, 2m, C20 plug                      AWT-240V 4.5-meter cord C19/CEE7/7 plug                      AWU-240V 4.5-meter cord IEC-309 plug                      A5F-240V North American UPS-PDU power cord 4.5 meters long w/L6-30P                      A5G-240V European UPS-PDU power cord 4.5 meters long unterminated                      A5H-120/240V Universal UPS-PDU power cord 4.0 meters long w/C-20P plug</p> <p><b>Peripherals</b></p> <table style="margin-left: auto; margin-right: auto;"> <tr><td>_____</td><td>x</td><td>_____</td><td>=</td><td>_____</td><td>_____</td><td>x</td><td>_____</td><td>=</td><td>_____</td></tr> <tr><td>_____</td><td>x</td><td>_____</td><td>=</td><td>_____</td><td>_____</td><td>x</td><td>_____</td><td>=</td><td>_____</td></tr> <tr><td>_____</td><td>x</td><td>_____</td><td>=</td><td>_____</td><td>_____</td><td>x</td><td>_____</td><td>=</td><td>_____</td></tr> <tr><td>_____</td><td>x</td><td>_____</td><td>=</td><td>_____</td><td>_____</td><td>x</td><td>_____</td><td>=</td><td>_____</td></tr> <tr><td>_____</td><td>x</td><td>_____</td><td>=</td><td>_____</td><td>_____</td><td>x</td><td>_____</td><td>=</td><td>_____</td></tr> <tr><td>_____</td><td>x</td><td>_____</td><td>=</td><td>_____</td><td>_____</td><td>x</td><td>_____</td><td>=</td><td>_____</td></tr> </table> <p><i>Add two EIA unit panels if HP-FL disk is the bottom-most racked device in cabinet. (Allows room for cables.) Racking hardware for ALL disks is included.</i></p>							_____	x	_____	=	_____	_____	x	_____	=	_____	_____	x	_____	=	_____	_____	x	_____	=	_____	_____	x	_____	=	_____	_____	x	_____	=	_____	_____	x	_____	=	_____	_____	x	_____	=	_____	_____	x	_____	=	_____	_____	x	_____	=	_____	_____	x	_____	=	_____	_____	x	_____	=	_____
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**Table 4.4.4 Standalone Expansion Cabinet Racking Configuration Worksheet (continued)**

Component	Quantity	EIA Units	Vertical Space Required (EIA units)	Quantity	Power Required (Table 4.4.7)	Total Power Required (VA units)
<b>(Standalone cabinets must on a separate section of the order, if an SPU is also ordered)</b>						
<b>DTC Products</b>						
J2070A—Add DTC 72MX	_____	× 3	= _____	_____	× _____	= _____
Option 001—Configure DTC 72MX with 24 direct ports	_____	× 1	= _____			
Option 002—Configure DTC 72MX with 48 direct ports	_____	× 2	= _____			
Option 003—Configure DTC 72MX with 72 direct ports	_____	× 3	= _____			
Option UG4—Configure DTC 72MX with 24 RS-423 direct ports	_____	× 3	= _____			
Option 1AC—To rack in a 1.1- or 1.6-meter cabinet, order a DTC racking kit.	_____	× 0	= _____			
Option UG5—Replace eight RJ-45 direct ports with eight DB-25 modem ports on 1 modem distribution panel (MDP). Must order option 001, 002, or 003.	_____	× -1	= _____			
Option UG6—Replace 24 RJ-45 local ports with 24 DB-25 modem ports, on 3 modem distribution panels (MDPs). Must order option 001, 002, or 003.	_____	× -1	= _____			
To rack in a 1.1- or 1.6-meter expansion cabinet, order a modem distribution panel (MDP) rack mounting hardware kit:						
C2792A for rear mounting up to 5 MDPs or	_____	× 6	= _____	_____	× _____	= _____
J2084A for front mounting for up to 5 MDPs or	_____	× 7	= _____	_____	× _____	= _____
J2087A for front/rear mounting for up to 10 MDPs	_____	× 7	= _____	_____	× _____	= _____
<i>For example, to configure 48 modem ports and 24 direct ports, order: One option 003 (provides 72 ports), two option UG6 (provides 48 modem ports on six MDPs), one J2087A (provides racking for up to ten MDPs)</i>						
Option 1CW—Add X.25 card with RS-232 interface	_____					
Option 1CX—Add X.25 card with V.35 interface	_____					
Option 004—Add Telnet Access Card	_____					
They do not require additional EIA units.						
<i>NOTE: The DTC 72MX comes with three slots. Option 001 consumes one slot, option 002 consumes two, and option 003 consumes all three. Options 1CW, 1CX, and 004 each take one slot. The maximum number of X.25 cards per DTC 72MX is three. One Telnet Access Card is allowed per DTC 72MX. A Telnet Access Card and an X.25 card can be used in the same DTC.</i>						
<b>HP-PB I/O Card Cage (9x9KS and 99x Servers only)</b>						
A1828A—Adds HP-PB I/O Card Cage with 14 single-high card slots, 10-meter HP-PB dual cable, and lower bus converter. Racking hardware for HP-PB I/O card cage is included.	_____	× 7	= _____	_____	× _____	= _____

Table 4.4.4 Standalone Expansion Cabinet Racking Configuration Worksheet (continued)

Component	Quantity	EIA Units	Vertical Space Required (EIA units)	Quantity	Power Required (Table 4.4.7)	Total Power Required (VA units)
<b>(Standalone cabinets must on a separate section of the order, if an SPU is also ordered)</b>						
<b>II. Optional Power Protection</b>						
<b>Note: PowerTrust II-MR was obsoleted on October 1, 2002</b>						
<b>3.0 kVA PowerTrust II-LR (A1356A) was discontinued on November 1, 2003</b>						
A6585A—12-kVA, 230-V, HP PowerTrust II-MR UPS	_____	× 13	= _____			
A6584A—9-kVA, 230-V, HP PowerTrust II-MR UPS	_____	× 13	= _____			
A6583A—4.5-kVA, 230-V, HP PowerTrust II-MR UPS	_____	× 8	= _____			
A1356A—3-kVA, 230-V, HP PowerTrust II-LR UPS	_____	× 2	= _____			
A1354A—2-kVA, 230-V, HP PowerTrust II-LR UPS	_____	× 2	= _____			
A1353A—2-kVA, 120-V, HP PowerTrust II-LR UPS	_____	× 2	= _____			
A6587A—HP PowerTrust II-MR 6.5-/8.0-kW Battery Pack	_____	× 8	= _____			
A6586A—HP PowerTrust II-MR 4.0-kW Battery Pack	_____	× 4	= _____			
A1357A—HP PowerTrust II-LR Battery Pack	_____	× 2	= _____			
<b>III. Filler Panels</b>						
J1514A/J1514D—Adds six 1 EIA unit filler panels						
<b>IV. Total EIA Units</b>						
Order the cabinet(s) that meet your total EIA requirements (See Table 4.4.5 Cabinet Overview)			= _____			
<b>V. Total Power</b>						
Order the UPS that meets the total power protection requirements					= _____	

## Configuration

### Space Allocation

The 1.25-meter, 1.6-meter and 1.96-meter rackmount cabinets, servers and peripherals are measured in EIA units (1 EIA unit = 1.75 in. or 44.45 mm).

- The 1.25-meter cabinet provides 25 EIA units of usable rack height.
- The 1.6-meter cabinet provides 33 EIA units of rack space.
- The 1.96-meter cabinet provides 41 EIA units of rack height.

Table 4.4.5 Cabinet Measurement Details

Product Number	Description	EIA Units	Height	Width	Depth
A4902A/A4902D	1.96-meter cabinet	41	1.96 meter	.6 meter	.94 meter
A4901A/A4901D	1.6-meter cabinet	33	1.6 meter	.6 meter	.94 meter
A4900A	1.25-meter cabinet	25	1.25 meter	.6 meter	.94 meter

### Power Information

When ordering standalone cabinets, customers have options for 120V to 240V power distribution in North America and 230V in Europe. When ordering integrated cabinets for use in North America, customers may order the 120V power distribution option with the 1.25-meter cabinet only. The 200-240V options can be ordered with all cabinets. The 240V option is highly recommended in the U.S. for the cabinet to prevent current overloads (see Table 4.4.6). This is based on the common 20-amp limit of most U.S. building codes. Equipment uses half the current at 240V that it would use at 120V, so a 240V PDU allows more equipment to be run off a single PDU and off a single wiring circuit in the customer's building. Two A5137AZ PDUs can be strung together using an option A5N jumper cord. When using the jumper cord extra caution should be taken to ensure current loads remain under the specified ratings.

Auto-ranging equipment like the HP e3000 Business Servers, 9x8, 9x9, 99x Servers, and mass storage products will automatically work at either 120V or 240V. Other equipment that is not auto-ranging must be ordered with the corresponding power options.

**Table 4.4.6 Cabinet Power Details (for use with HP PowerTrust UPS units)**

Product Number	Power Option	Cord Length	Power Distribution	Maximum Current	Phase	Plug Style	IEC-320 C13 Receptacles	IEC-320 C19 Receptacles	PDU Kit Accessory*
A4900A <sup>1</sup> A4901A/ A4901D <sup>1</sup> A4902A/ A4902D									
<b>PDU for</b>	<b>HP Rack System/E</b>	<b>Cabinet</b>							
A5137AZ	AW3 (A4900A only) AW4 (U.S.) AW5 (International) A5N AWT (European) AWU (European) A5F * A5G * A5H (Universal)*	4.5 meter 4.5 meter 4.5 meter 2 meter 4.5 meter 4.5 meter 4.5 meter 4.5 meter 4.0 meter	100-120 V 200-240 V 200-240 V Universal 240 V 240 V 240 V 240 V Universal 120/240 V UPS	16 A (each PDU string) 16 A 16 A 16 A 16 A 16 A 16 A 16 A	Single Single Single Single Single Single Single Single Single	5-20P L6-20P Unterminated C-20P CEE7/7 IEC-309 L6-30P Unterminated C-20P C20-P	7 10 10    10 10 10 10	1	N/A
A5499AZ	001 002	3 meter 3 meter	240 V 240 V	30 30	Single	L6-30P IEC-309	8	2	A5612A/AZ Swing Bracket
E7683A	North America	4.5 meter	200-240 V	60	Single	IEC-309	0	8	
E7684A	International	4.5 meter	200-240 V	60	Single	IEC-309	0	8	

To check that the servers and peripherals do not exceed the 16-amp capacity of the cabinets: Cabinets do not have power options. Customers must order A5137AZ.

1. Sum the currents required by each system.
  2. If sum is less than 16 amps, the configuration meets power requirements.
- \* For use with HP PowerTrust UPS units.

European cabinets all have 230V power distribution units. Customers in Asia Pacific and South America should order the power option, which is appropriate for the power supply in their country.

**Note:** Each cabinet requires a dedicated 20-amp circuit.

### Special Power Cords

The cords listed below can be used to connect an HP e3000 SPU or peripheral to a PDU in an adjacent cabinet.

- A5567A—120/240 VAC Power Cord, C13-C20 plugs, 4.4 meters long.
- A5568A—120/240 VAC Power Cord, C13-C14 plugs, 4.4 meters long.

### Supported Components

The HP Rack System/E cabinets support HP e3000, 9x7, 9x8, and 9x9KS servers, and a variety of peripherals. Combinations of supported products are limited only by space inside the cabinet and the 16-amp maximum current limit.

When ordering integrated cabinets from the factory, you simply need to order the server, peripherals, and cabinet options you require on the same order section. When ordering standalone cabinets, you need to order a rackmount kit for each component you intend to rack in the cabinet. A rackmount kit can consist of rails, bezels, and a power cord. Kits are orderable in the form of server and peripheral options listed in the “Required Mounting Hardware” column in **Table 4.4.7**.

**Factory-Racking Guidelines**

When an order specifies that the ordered components are to be installed in a cabinet, the factory uses the following guidelines to place the different components in the cabinet.

The factory partitions the 19 inch cabinets into two sections, the upper half and the lower half. The factory considers the middle of the rack as zero (0). Below the relative positioning of the different devices are listed. Each device has a plus (+) or a minus (-) sign associated with it. If the sign is plus, the device will be positioned in the **highest** available location in the rack according to the relative racking order. If the sign is a minus, then the item will be positioned in the **lowest** available location in the cabinet according to the relative racking order.

For example, if an SPU and a UPS were to be placed into a rack, then the SPU will be located in the top of the rack and the UPS would be positioned in the bottom of the rack. The middle would be filled with filler panels.

Understanding where devices will be located is important when specifying cables. These guidelines should be used to determine the appropriate length of cable. If the customer's specific application requires a different racking strategy, order the field rack options rather than having to rearrange the devices in the cabinets at the customer site.

**Relative Positions if SPU is ordered**

If an SPU is included in the order section, the SPU is placed at the top of the cabinet and the rest of the components are loaded below. The following diagram shows the relative order

SPUs	+
SE HP 6000 Enclosures with DDS	+
SE HP HA Enclosures with removable media (DDS, CD-ROM, 8 mm)	+
SE HP 6000 without DDS	+
SE HP HA Enclosures without removable media	+
FWD HP HA Enclosures	+
FWD HP 6000 Enclosures	+
DTCs	+
FWD SCSI Disk Arrays	+
HP-FL Disk Arrays	-
FWD HP HA Disk Arrays	-
UPS	-

**Relative Positions if no SPU is ordered**

If no SPU is included in the order section, the placement of the devices changes slightly. The following diagram shows the relative order.

DTCs	+
FWD HP 6000 Enclosures	-
FWD HP HA Enclosures	-
SE HP 6000 Enclosures with DDS	-
SE HP HA Enclosures with removable media (DDS, CD-ROM 8 mm)	-
SE HP HA Enclosures without removable DDS	-
SE HP 6000 Enclosures without removal media	-
FWD SCSI Disk Arrays	-
HP-FL Disk Arrays	-
FWD HP HA Disk Arrays	-
UPS	-

Note: If a single-ended device is included in an enclosure, then the entire enclosure is considered single-ended.

**Table 4.4.7 Components Supported in HP e3000 Server Cabinets (A4900A, A4901A/A4901D, and A4902A/A4902D)**

Product Number	Description	EIA Units	Required Mounting Hardware (with dark, slate gray front bezel)	Current	kW Rating (for UPS loading)	Number of AC Plugs
				220 VAC		
A6398B	HP e3000 A-Class Server A400-100-110	2	A6395A for field racking A6395A opt. OD1 for factory racking	1.8 A	.4	1
A6399B	HP e3000 A-Class Server A500-100-140	2	A6395A for field racking A6395A opt. OD1 for factory racking	2.2 A	.6	1
A6399B plus A6394A	HP e3000 A-Class Server A500-200-140	2	A6395A for field racking A6395A opt. OD1 for factory racking	2.2 A	.6	1
A7018C	HP e3000 A-Class Server A500-100-150	2	A6395A for field racking A6395A opt. OD1 for factory racking	1.8 A	.4	1
A7019C	HP e3000 A-Class Server A500-100-200	2	A6395A for field racking A6395A opt. OD1 for factory racking	2.2 A	.6	1
A7019C plus A7020A	HP e3000 A-Class Server A500-200-200	2	A6395A for field racking A6395A opt. OD1 for factory racking	2.2 A	.6	1
A6103C	HP e3000 N-Class Server N4000-100-380	2	A7070A for field racking A7070A opt. OD1 for factory racking	13.8 A (6.9 A per input)	3	Up to 3
A6103C plus A7015A	HP e3000 N-Class Server N4000-200-380	2	A7070A for field racking A7070A opt. OD1 for factory racking	13.8 A (6.9 A per input)	3	Up to 3
A6914C	HP e3000 N-Class Server N4000-100-500	2	A7070A for field racking A7070A opt. OD1 for factory racking	13.8 A (6.9 A per input)	3	Up to 3
A6914C plus A7016A	HP e3000 N-Class Server N4000-200-500	2	A7070A for field racking A7070A opt. OD1 for factory racking	13.8 A (6.9 A per input)	3	Up to 3
A6914C plus A7016A	HP e3000 N-Class Server N4000-300-500	2	A7070A for field racking A7070A opt. OD1 for factory racking	13.8 A (6.9 A per input)	3	Up to 3
A6914C plus A7016A	HP e3000 N-Class Server N4000-400-500	2	A7070A for field racking A7070A opt. OD1 for factory racking	13.8 A (6.9 A per input)	3	Up to 3
	9x8	6	A5859A for field racking A5175C for factory racking			1
	9x9KS (except for 929KS/030, 939KS/030, 979KS, and 989KS)	17	A5860A <sup>6</sup> for field racking A5173C for factory racking			1
	929KS/030, 939KS/030, 979KS, and 989KS	17	A5860A <sup>6</sup> for field racking A5173C for factory racking			1
<b>HP PowerTrust Uninterruptible Power Supplies</b>						
<b>Note: PowerTrust II-MR was obsolete on October 1, 2002. 3.0 kVA PowerTrust II-LR (A1356A) was discontinued on November 1, 2003</b>						
A6585A	12-kVA, 230-V, HP PowerTrust II-MR UPS	13	Included	N/A	N/A	1
A6584A	9-kVA, 230-V, HP PowerTrust II-MR UPS	13	Included	N/A	N/A	1
A6583A	4.5-kVA, 230-V, HP PowerTrust II-MR UPS	8	Included	N/A	N/A	1
A1356A	3-kVA, 230-V, HP PowerTrust II-LR UPS	2	Must specify as option in order	N/A	N/A	1
A1354A	2-kVA, 230-V, HP PowerTrust II-LR UPS	2	Must specify as option in order	N/A	N/A	1
A1353A	2-kVA, 120-V, HP PowerTrust II-LR UPS	2	Must specify as option in order	N/A	N/A	1
A6886A	HP PowerTrust II-MR 6.5-/8.0-kW Battery Pack	8	Included	N/A	N/A	N/A
A6886A	HP PowerTrust II-MR 4.0-kW Battery Pack	4	Included	N/A	N/A	N/A
A1357A	HP PowerTrust II-LR Battery Pack	2	Included	N/A	N/A	N/A
<b>Rackmounting Hardware</b>						
C2788B	Generic Rail kit for non-standard 19-inch peripherals	None	Included	N/A	N/A	N/A
C2792A	ADP Rackmount Kit for rear of cabinet	None	Included	N/A	N/A	N/A
C2790A or J1479B	Anti-tip ballast	None	Included	N/A	N/A	N/A
J1514A/J1514D	Package of six one-EIA-unit filler panels	6		N/A	N/A	N/A

### **Sample Racking Configuration for the 99x Server**

The illustrated configuration in **Figure 4.4.1** is an example of a 99x server racking arrangement as dictated by cable length limits. The system consists of one SPU cabinet and one peripheral expansion cabinet for disk drives, DTCs, an HP PowerTrust UPS and two backup cabinets.

The SPU cabinet houses the HP-PB I/O Card Cage for the expansion cabinet to the left of the SPU in the illustration. The racked components in the cabinet are FWD disk arrays, DTC 72MXs and the HP PowerTrust UPS required for the CS SPU power protection.

The SPU cabinet houses the HP-PB I/O Card Cage for the expansion cabinet to the left of the SPU in the illustration. The racked components in the cabinet are FWD disk arrays, DTC 72MXs and the HP PowerTrust UPS required for the CS SPU power protection.

The HP PowerTrust UPSs are shown connected to RS-232 connections of the DTC 72MX to provide communication paths between the SPU and the HP PowerTrust UPSs.

The two cabinets to the right of the SPU cabinet (each containing SCSI devices) house their own HP-PB I/O Card Cage. The card cages are racked in each expansion cabinet to bypass the limited cable length of 2.5 meters between the SCSI card and the first SCSI device.

The SCSI cable provided with the base CS SPU is 2.5 meters. To resolve the distance restriction, an HP-PB I/O Card Cage can be mounted in each expansion cabinet (as shown in **Figure 4.4.1**) to allow the use of a 10-meter HP-PB Dual Cable.

Since each of the two cabinets to the right has an HP-PB I/O Card Cage, an HP PowerTrust UPS is included in one cabinet to provide power protection to both cabinets. This HP PowerTrust UPS is connected to the DTC 72MX to provide a communication path between the SPU and the HP PowerTrust UPS. When two cabinets are supported by a single HP PowerTrust UPS, the two cabinets must be positioned side-by-side to allow the second cabinet to be plugged into the HP PowerTrust UPS.

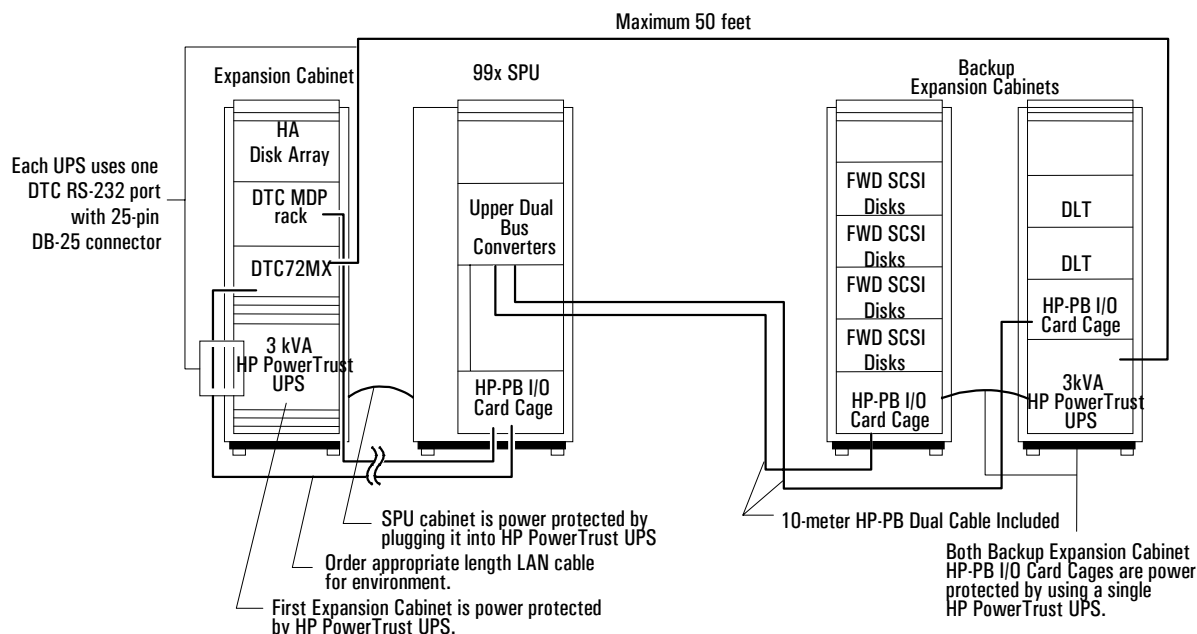
A sample configuration for a CS 99x system is shown in **Figure 4.4.1**. As shown on the figure, this configuration uses one additional HP-PB I/O card cage to provide the additional slots and I/O bandwidth necessary to support this configuration. Depending on the system workload, it may even be advisable to increase the aggregate system I/O bandwidth, allowing the disk, LAN and X.25 traffic to be divided across three HP-PB channels.

**Note:** *If the additional HP-PB I/O card cage is added, an additional Dual Bus-Converter (A1829A) would need to be added to the SPU. An additional 1.6-meter expansion cabinet would also be required to house the HP-PB I/O card cage.*

A SCSI Bus has a maximum supported cable length of 6 meters, including internal, interconnect, and external cables of SCSI devices. In order to connect a SCSI card housed in a separate expansion cabinet from the SCSI device, no more than a maximum of A3312A Multi-Mechanism packages can be racked and still remain within the 6-meter length (each A3312A package utilizes 1.75 meters internal cable length and .5 meters of interconnect cabling for “daisy chaining” of SCSI packages).

If a greater separation distance is required between the SPU and the expansion cabinet housing the SCSI devices, then the HP-PB I/O Card Cage containing the SCSI should be in the same cabinet as the SCSI device. Also see the DTC Cabling and Racking Guide (P/N 5961-6410) available from the LDC.

Figure 4.4.1 99x Server Illustrated Racking Configuration Example



Qty	P/N	Description
1	A5135A	1.6-meter Integrated Expansion Cabinet
2	A3540AZ	High Availability Disk Array
1	J2070AZ	DTC72MX
1	Opt. 003	72 RJ45 Direct Ports (includes 3 DDPs*)
1	Opt. UG5	Replace 8 direct with 8 modem DB-25 ports
1	J2084AZ	DTC MDP** rackmount kit
1	A2998B	3 kVA HP PowerTrust UPS

Qty	P/N	Description
1	A5135A	1.6-meter Integrated Expansion Cabinet
4	A3312AZ	FWD SCSI Disks
1	A1828AZ	HP-PB I/O Card Cage

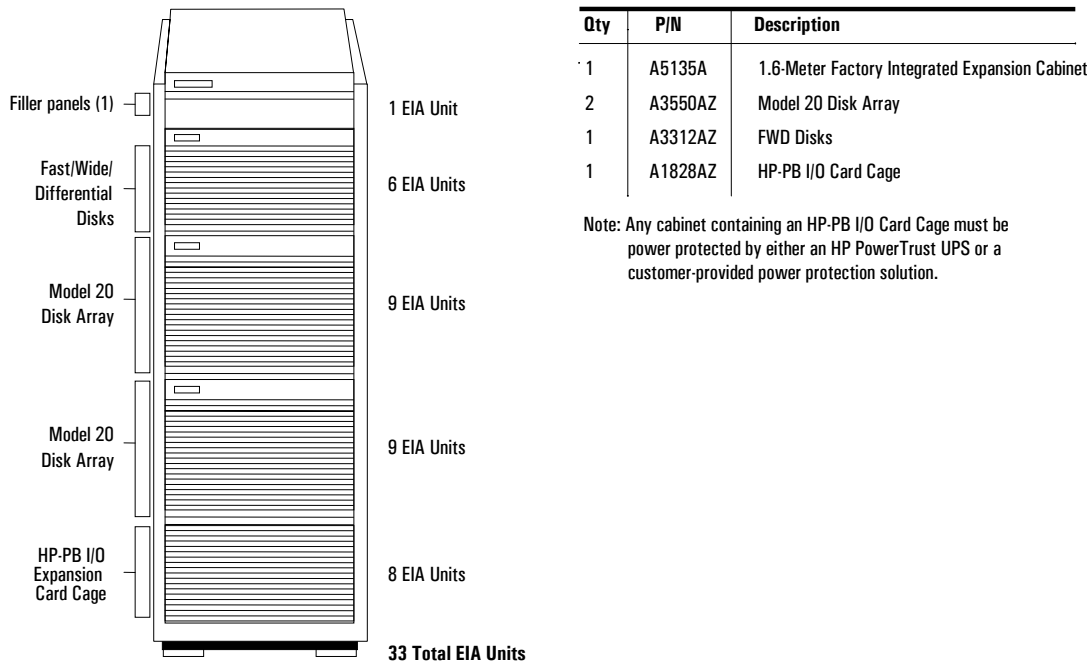
Qty	P/N	Description
1	A5135A	1.6-meter Integrated Expansion Cabinet
1	A1828AZ	HP-PB I/O Card Cage
2		DLT Tape
1	A2998B	3kVA HP PowerTrust UPS

\*DDP = Direct Distribution Panel  
\*\*MDP = Modem Distribution Panel

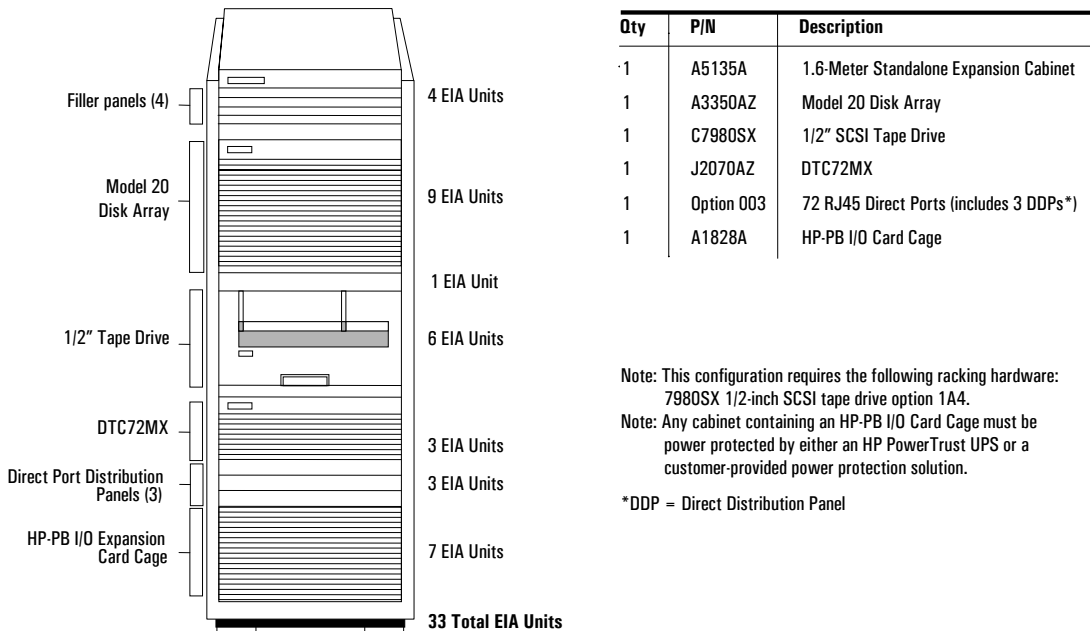
Several examples of 1.6-meter expansion cabinet configurations for the HP e3000 Server are shown on the following pages. All sample configurations illustrate the use of the A4901A/A4901D integrated cabinet as a base unit. In some examples, additional components must be ordered separately. Only the components ordered as associated products to the A4901A/A4901D cabinet are factory-integrated.

**Note:** Factory integration is only available for disk and tape devices that are offered as associated products to the A4901A/A4901D integrated cabinet. All other devices ordered separately require field installation.

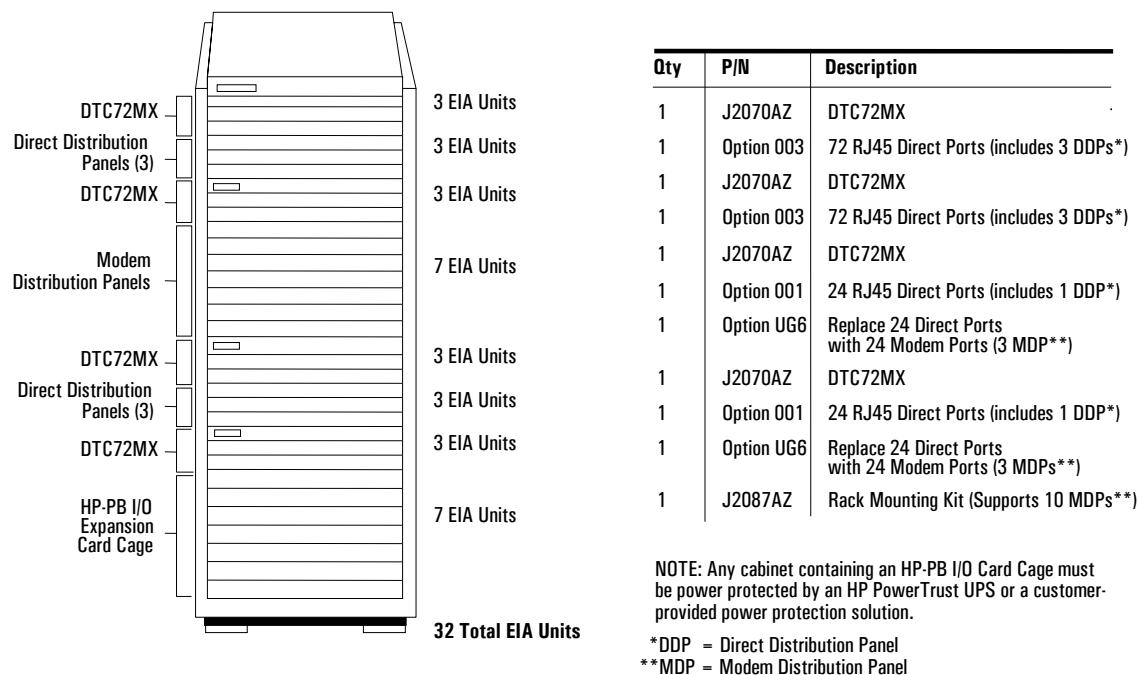
**Figure 4.4.2 1.6-meter Factory-Integrated Backup Expansion Cabinet Configuration Example for the 99x Server**



**Figure 4.4.3 1.6-meter Standalone Backup Expansion Cabinet configuration Example for the 99x Server**

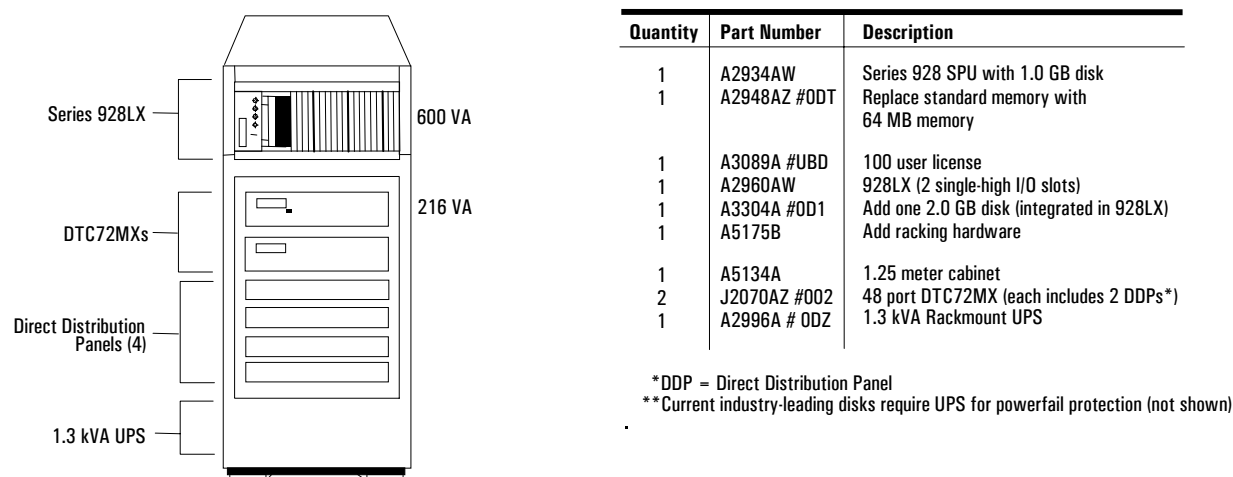


**Figure 4.4.4 1.6-meter Factory-Integrated Backup Expansion Cabinet Configuration Example for the 99x Server**

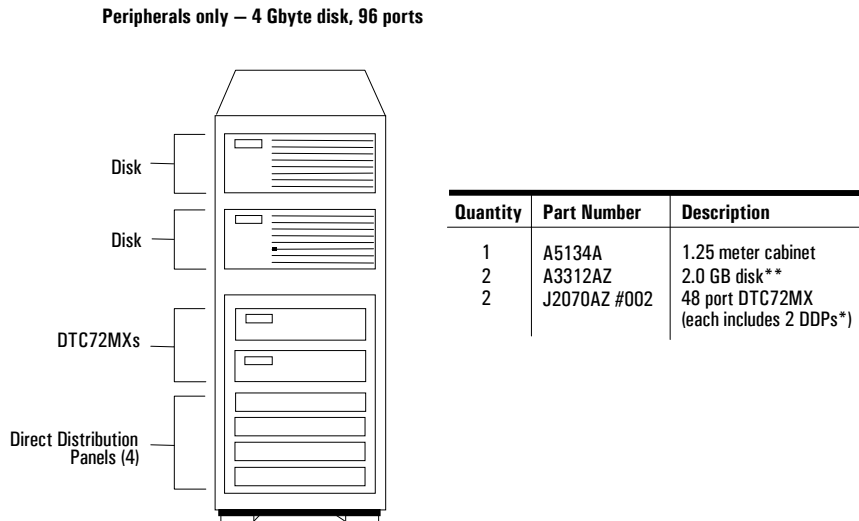


**Figure 4.4.5 Factory-Integrated Cabinet Ordering Example—1.25-meter Cabinet (A4900A) for the 9x8 Systems**

Series 928LX with 3 Gbyte disk, 96 ports



**Figure 4.4.6 Factory-Integrated Cabinet Ordering Example—1.25-meter Cabinet (A4900A) for the 9x8 Systems**



**Anti-tip Feet**

Bolt-on anti-tip feet are required when racking slider-mounted products into HP Rack System/E cabinets. A513xA cabinets will include bolt-on feet with every cabinet by default as of August 1, 1999. For field upgrades, order the bolt-on anti-tip feet (A5540A/A5540D) when installing a slider-mounted product into an existing HP Rack System/E cabinet.

**Maximum Cable Length**

The maximum combined length of single ended SCSI cable is six meters. The maximum length applies to cables that interconnect each daisy-chained device and the cable lengths that are internal to each device. The total cable length is the sum of the length of all SCSI

**Tie-Together Kit**

The tie-together kit creates a multiple bay solution for large systems. A system that bolts the columns of adjacent racks together completes the cosmetic finish of the multi-bay solution. If the extractor fan option is chosen for the multi-bay system, be sure to order a fan with each rack to ensure proper ventilation.

**Rack Tie-Together Kit**

Product Number	Description	
J1512A/J1512D	HP Rack System/E41 Tie kit	Provides hardware to create multi-bay systems
J1513A/J1513D	HP Rack System/E33 Tie kit	

*Note: Remember to use the AXW (delete side panels) option when tie-together kits are used for factory-integrated cabinets. Only one set of side panels is needed for each string of cabinets. Order an equal number of AXW options and Tie-together kits.*

**Universal Monitor Kit – J1519A/J1519D**

The Universal monitor kit can be used in all HP racks. It can accommodate any HP monitor up to 19 inches and 100 pounds (11 EIA units).

**Retractable Keyboard**

The J1518A/J1518D retractable keyboard kit can be used in all HP racks. It can accommodate any standard keyboard and a mouse and can be used in a rack with a front door (2 EIA units).

### Stationary Shelf

The J1520A/J1520D stationary shelf can be used in all HP racks, supporting equipment, which may not have its own racking kit (1 EIA unit).

### Power Distribution Units (PDU)

The number of outlets per PDU varies based on the PDU. The maximum number of outlets on a PDU is 10. However, two PDUs can be pig-tailed together. The maximum number of PDUs that can be installed in a rack is four. Each PDU is rated for a maximum of 16 amps (approximately 2750VA for 100-120V PDUs and 5500VA for 200-240V PDUs).

If total load in rack exceeds this value, order a second PDU as an accessory.

1. Integrated racks require a minimum of one PDU be ordered with the cabinet. Cabinets ordered as Standalone racks will not have a PDU unless it is ordered at the time of the cabinet. PDUs are ordered using product A5137A and selecting the appropriate power option.
2. PDUs not needed when using UPS, plug power cords directly into UPS. If using both UPS and PDUs, customer must order UPS PDUs due to higher current requirement.
3. Order IEC-320 power cables to connect each electrical device in rack to the PDU.

### Filler Panels

For a uniform exterior appearance, filler panels close up blank spaces not occupied by components and help cooling efficiency. The filler panel kit contains six panels. Each filler panel is 1 EIA Unit in height. The accessory product number is J1514A/J1514D.

HP Distributors may order bulk packs of Quartz Gray filler panels under product number J1524A.

### Side Panel Kits

The HP Rack System/E has removable, modular side panels that provide easy access to integrated equipment. Side panels are included with A513xA cabinets. When not desired, side panels can be deleted by ordering option AXW. Side panel kits that include modular side panels to completely cover both sides of each rack can be ordered separately. When ordering side panels for racks tied together, order only one side panel kit for each "bay" of tied together racks.

- J1506A/J1506D—HP Rack System/E41 Side Panel Kit
- J1507A/J1507D—HP Rack System/E33 Side Panel Kit
- J1508A—HP Rack System/E25 Side Panel Kit

### Miscellaneous

#### ***Are the cabinets backward compatible with older Series 900 Business Servers?***

The Rack System/E cabinets are compatible with ONLY 9x8 and 9x9KS servers. They can however, store 19-inch peripherals from older systems such as ½ -inch tape drives

#### ***Are fans included with the cabinets?***

At initial release, a fan is not available. The cabinet's front door has 63% of its area as perforations to increase ventilation. The rear door likewise has 63% of its area perforated, and the top is also heavily perforated for better ventilation.

#### ***When do I need to order an anti-tip ballast?***

Due to the weight of the many rack mounted items, ballast kits (C2790A or J1479B ) have been developed to add stability to HP Rack System/E cabinets while the system(s) is being serviced. These ballasts were designed to easily install easily attach to the rear anti-tip foot that comes standard with every HP Rack System/E cabinet

**Table 4.4.8 Additional Cabinet Components**

PDU Modules	Power ratings	IEC-320 C13 Receptacles	IEC-320 C19 Receptacles	IEC-320 C14 Receptacles	IEC-320 C20 Receptacles	NEMA 5-15R Outlets	Maximum Current
E7670A	110-240 VAC	10		1			16 A
E7671A	100-240 VAC	6	2		1		16 A
E7672A	120-240 VAC—Bundle	15	2		2		16 A
E7674A	100-240 VAC	7	1		1		16 A
E7675A	100-127 VAC	1			1	9	16A
E7676A	100-240 VAC	10			1		16 A
E7723B	Cable guide						
E7742A	Jumper cord (connects two PDUs)	1 plug		1 plug			16 A

\* E7672A bundles 1 each E7670A, E7671A and E7742A

**Table 4.4.9 PDU Power Cords**

Part Number	Description
E7802A	4.5-meter cord, 5-20P plug
E7803A	4.5-meter cord, L6-20P plug
E7804A	4.5-meter cord, C20 plug
E7805A	4.5-meter cord, L6-30P plug
E7806A	4.5-meter cord, no plug
E7808A	4.5-meter power cord, IEC-309 plug (outside N. America use only)
E7809A	4.5-meter power cord, CEE7/7 plug (outside N. America use only)
E7810A	4.5-meter power cord, GB16C plug
E7811A	4.5-meter power cord, SI32 plug
<b>Jumper Cords (to connect the mounted equipment to PDU within the cabinet)</b>	
A5567A	4.4-meter jumper cord, C13-C20 plug
A5568A	4.4-meter jumper cord, C13-C14 plug
E7804A	4.5-meter jumper cord, C20 plug
E7807A	0.8-meter jumper cord, C14-C15 plug
E7742A	250V / 10A 2.5-meter jumper cord, C13-C14 plug
E7743A	125V / 10A 2.5-meter jumper cord, C13, NEMA 5-15 plug
E7798A	2.5-meter jumper cord, C20 plug

**Table 4.4.10 Other Rack Accessories**

E7980A	200-240 V switch accessory for 19-inch 16 A modular PDU (includes switch panel)
J1522A	Hardware (25 each, decorative screws, mounting screws and nuts)
J1516A	Spacers, set of 4 (2 right and 2 left) accommodating legacy kits to be rackmounted in the HP Rack System/E.
E7714A	Keyboard/mouse kit (stationary)
5181-8787	IEC-320 male power cable adapter
C2788B	Generic rail kit for non-standard 19-inch peripherals
C2792A	ADP rackmount kit for rear of cabinet