Site and Hardware Planning Information

Sixth Edition (April 1998)

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About This Book

This book provides information for technical personnel planning for the installation of a system.

Audience Description

This book is intended for use by technical personnel planning for the installation of a system.

Overview of Contents

This book provides information to help when you are planning to install a system. It contains the following chapters:

- Chapter 1, "Site Planning and Preparation Overview," provides a general overview of things to consider when doing site planning.
- Chapter 2, "Physical Planning," contains information about the physical and electrical characteristics of most products and some associated products.
- Chapter 3, "Power Cords and Electrical Needs," describes the electrical needs to be considered when planning for your installation.
- Chapter 4, "Cable Planning," provides guidance for planning cable paths and lengths that are required for the installation.
- Chapter 5, "Cable Labeling," provides guidance for labeling cables that are required for the installation.
- Chapter 6, "Additional Planning Considerations," provides guidance for additional planning steps that may be necessary.
- · An index is provided at the back of this book.

ISO 9000

ISO 9000 registered quality systems were used in the development and manufacturing of this product.

Related Publications

The following is a list of catalogs and overview publications that provide information on systems and related products.

- Adapters, Devices and Cable Information for Micro Channel Bus Systems, order number SA23-2764, gives information about adapters and devices and detailed information about cables and cabling used with Micro Channel Bus Systems.
- Adapters, Devices and Cable Information for Multiple Bus Systems, order number SA23-2778, gives information about adapters and devices and detailed information about cables and cabling used with Multiple Bus Systems.
- AIX Power Solutions, order number GC67-0210, gives detailed information about software offerings.

- AIX and Related Products Documentation Overview, order number SC23-2456, provides information about documentation available for AIX and some other products.
- Asynchronous Communications Guide, order number SC23-2488, provides information about asynchronous communications.
- International Catalog of Micro Channel Adapter Cards, order number S246-0045, lists expansion adapters commercially marketed.
- Diagnostic Information for Micro Channel Bus Systems, order number SA23-2765 is the diagnostics manual for Micro Channel bus systems (formally Common Diagnostics Information Manual).
- Diagnostics Information for Multiple Bus Systems, order number SA23-2769 is the diagnostics manual for Multiple Bus systems.

Ordering This Publication

To order additional copies of this book, contact your sales representative and use order number SA38-0508.

Chapter 1. Site Planning and Preparation Overview

Successful installation does not happen by accident: It takes planning. You are the most valuable resource in site planning because you know where and how your system, and devices attached to it, will be used.

This chapter provides the basic information you need to plan for your system installation. It provides an overview of each planning task, as well as valuable reference information useful throughout the performance of these tasks. Depending on the complexity of the system you ordered and your existing computing resource you may not need to perform all the steps noted here.

First, with the help of your systems engineer, sales representative, or with the help of those coordinating your installation, sit down and list the hardware for which you need to plan. Use the summary of your order to help you when making your list. This list is now your "To Do" list. You can use the "Planning Task Checklist" on page 1-2 to assist you.

While you are responsible for planning, vendors, contractors, and your sales representative are also available to help with any aspect of the planning. For some system units, a customer service representative will install your system unit and verify correct operation. Other system units such as the 7006, 7009, and 7011 models are customer-installed. If you are not sure, check with your sales representative.

The physical planning section of this publication is a resource which provides the physical characteristics of many system units, and associated products. For information on products not in this publication contact your sales representative or your authorized dealer.

Before proceeding with planning, you should ensure that the hardware and software you have chosen meets your needs. Your sales representative is available to answer questions.

This book is for hardware planning. However, since the system memory and disk storage needed are a function of the software to be used, some things to consider are listed below. Information on software products is generally in or with the software Licensed Program Product itself. See "Related Publications" on page vii.

In assessing the adequacy of hardware and software, consider the following:

- Adequacy of available disk space and system memory for accommodating software, online documentation, and data (including future growth needs resulting from additional users, more data, and new applications).
- · Compatibility of all devices.
- Compatibility of software packages with each other and with the hardware configuration.
- Adequate redundancy or backup capabilities in hardware and software.
- Software portability to the new system, if necessary.
- Prerequisites and corequisites of chosen software have been satisfied.
- Data to be transferred to the new system.

Planning Task Checklist

This checklist provides a convenient way for you to document your planning progress.

Working with your sales representative, you should establish completion dates for each of the tasks. You may want to review your planning schedule periodically with your sales representative.

Target Date	Completion Date	Person Responsible	Planning Step
			Plan Your Office or Computer Room Layout (Physical Planning)
			Prepare for Power Cords and Electrical Needs
			Prepare for Cables and Cabling
			Create or Modify Communications Networks
			Perform Building Alterations, as Needed
			Prepare Maintenance, Recovery, and Security Plans
			Develop an Education Plan
			Order Supplies
			Prepare for System Delivery

CSU/CE Feature Installation

Attention: The following information is to indicate which features on various systems/models are intended to be installed by the customer and which features are to be installed by a Customer Engineer/Customer Service Representative (CE/CSR) as part of a Miscellaneous Equipment Specification (MES). This information is for systems/models available as of 04/98.

Notes:

- 1. 7013 J30 was announced as CSU. US practice has been for CE install.
- 2. The acronym CSU means Customer Set-Up.

Machine Type	Model	System CSU	Features/Options		
			CE Install	Customer Install	
7006	(ALL)	YES	ALL FEATURES	NONE	
7007	(ALL)	YES	ALL FEATURES	NONE	
7008	(ALL)	YES	ALL FEATURES	NONE	
7009	(ALL)	YES	ALL FEATURES	NONE	
7010	(ALL)	YES	ALL FEATURES	NONE	
7011	(ALL)	YES	ALL FEATURES	NONE	
7012	(ALL)	YES	ALL FEATURES	NONE	
7013	(ALL) 1	NO	ALL FEATURES	NONE	
7015	(ALL)	NO	ALL FEATURES	NONE	
7017	S70	NO	ALL FEATURES	NONE	
7024	(ALL)	YES	FC 6309	ALL OTHER FEATURES	
7025	(ALL)	YES	FC 2856, 6309, 6549	ALL OTHER FEATURES	
7026	(ALL)	NO	ALL OTHER FEATURES	FC 2901,2911, 2913 3071, 3072, 3083	
7027	(ALL)	NO	ALL OTHER FEATURES	FC 2616, 3080,3083 3084, 3090, 6142 6147, 3133, 3134 3137, 3138, 6153 6294, 6295	
7043	(ALL)	YES	FC 2856 & 6309	ALL OTHER FEATURES	
7236	(ALL)	NO	ALL FEATURES	NONE	
7248	(ALL)	YES	FC 2856	ALL OTHER FEATURES	
7317	(ALL)	NO	ALL FEATURES	NONE	
7318	(ALL)	NO	ALL FEATURES	NONE	
7319	(ALL)	NO	ALL FEATURES	NONE	

Chapter 2. Physical Planning

Site preparation for the system is your responsibility. The primary task of your site planner is to ensure that each system is installed so that it can operate and be serviced efficiently.

General Considerations

When determining the placement of your system, consider the following:

- · Adequate space for the devices.
- Working environment of personnel who will be using the devices (their comfort, ability to access the devices, supplies, and reference materials).
- Adequate space for maintaining and servicing the devices.
- Physical security requirements necessary for the devices.
- · Weight of the devices.
- · Heat output of the devices.
- · Operating temperature requirements of the devices.
 - When using tape media, the maximum operating temperature is 16 to 32°C (60 to 90°F). The maximum operating wet bulb temperature is 23°C (73°F).
- Humidity requirements of the devices.
 - When using tape media, the humidity is 20 to 80%.
- · Air flow requirements of the devices.
- Air quality of the location where the devices will be used. (For example, excess dust could damage your system.)
- · Altitude limitations of the devices.
- · Noise emission levels of the devices.
- Any vibration of equipment near where the devices will be placed.
- · Paths of power cords.

The following pages contain the information you need to evaluate these considerations; simply turn to the page relating to the system units or devices you purchased.

Physical Characteristics for System Units

The following information can help you plan for your system units and related products. You only have to do physical planning for the units or products you have ordered. Footprints are not drawn to scale.

If you want to use full-sized footprints of the system units, use the measurements provided to construct them out of folded newspaper or sheets of construction paper. You can then use them to plan a layout within the actual office space.

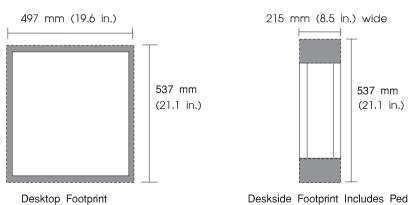
Each footprint represents a top view of the system unit or device. All dimension given include air flow but not service accessibility.

Note: The electrical and thermal information provided for system units does not include displays or a operators terminal (such as an ASCII terminal). If a display is included in a system offering, be sure to include display or terminal characteristics when planning the installation of these system units.

7006 Graphics Workstation Models 41T, 41W, 42T, and 42W

Dimensions		Desktop		Deskside		
Height		119 mm	4.7 in.	447 mm	17.6 in	
Width ¹		447 mm	17.6 in.	215 mm	8.5 in.	
Depth		451 mm	17.8 in.	451 mm	17.8 in.	
Weight			12.7 kg 28	lbs.		
Electrical						
Power source loa	ding		0.170			
(typical in kVA)						
Voltage range (V		10	to 127 or 200 to 24	,		
Frequency (hertz)			50 or 60			
Thermal output (t	• • • •		290 BTU/			
Power requirement	nts (typical)		85 watts			
Power factor		0.5 to 0.7				
Inrush current ⁶		75 amps at 120 V ac, 150 amps at 240 V ac				
Maximum altitude		2135 m (7000 ft.)				
Temperature Re	quirements	Opera		Non-Operating		
		16 to 32°C 1			10 to 43°C	
		(60 to 90.5F) (50 to 1		(50 to 11	0.5F)	
Humidity Requir	ements	Operating		Non-Ope	•	
(Noncondensing)		8 to 8		8 to 8		
Wet Bulb		23°C (73.5F)		27°C (80.5F)		
Noise Emissions	3 2	Operating		ldle		
L_{WAd}		5.2 b	els	5.0 bels		
L _{pAm}		41 dBA		38 dBA		
<l<sub>pA>_m</l<sub>		36 dBA		34 dBA		
Impulsive or pron	ninent	No)	No		
discrete tones						
Clearances ³	Front	Back	Left	Righ	t	
Install/Air Flow ^{4,5}	35mm(1.5 in)	51mm(2 in)	25mm(1 in)	25mr	n(1 in)	
Service	466mm(18 in)	N/A	N/A	N/A		

- 1. Deskside width measurement includes the optional vertical stand.
- 2. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 3. Left and right measurements apply only when the system is used in the desktop position.
- 4. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 5. When placed in the vertical position, the system requires 25mm (1 in) at the bottom and top for proper air flow. The necessary bottom clearance is provided by the optional vertical stand.
- 6. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



Deskside Footprint Includes Pedestal

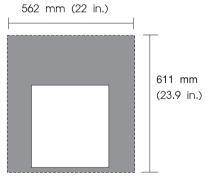
7007 POWERportable N40

Dimensions							
Height			51 mm 2.0 in.				
Width			290 mm 11.8 in.				
Depth			216 mm 8.5	5 in.			
Weight			3.13 kg 6.9	9 lbs			
Electrical							
Voltage range (V	ac)		90 to 240 (autose	nsing)			
Frequency (hertz))		50 or 60				
Power requirement	nts (typical)		55 watts				
Temperature Re	quirements		Operating				
		5 to 35.5°C					
		(41 to 95.5°F)					
Humidity Requir	ements		Operating				
(Noncondensing)		8 to 80%					
Wet Bulb			23°C (73.5F)				
Noise Emissions	S *	Ope	rating	Idle			
L_{WAd}		5.1	bels	4.8 bels			
Impulsive or prom	ninent		No No				
discrete tones							
Clearances	Front	Back	Left	Right			
Install/Air Flow	N/A	N/A	N/A	N/A			
*C "N-: F:	aian Nataa" an man	- 0 405 for definitions	of noise emissions posi				

7008 POWERstations M20, and M2A

Dimensions					
Height			413 mm 16.1	in	
Width			410 mm 16.0	****	
Depth			459 mm 17.9 i		
			400 111111 17.01	111	
Weight					
Minimum			23.5 kg 52 lb		
Maximum			23.5 kg 52 lb	S.	
Electrical					
Power source loa	ading		0.22		
(typical in kVA)					
Voltage range (V	ac)	100 to	o 127 or 200 to 240 (a	autoranging)	
Frequency (hertz	.)		50 or 60	:	
Thermal output (typical)		550 BTU/hr		
Power requireme	nts (typical)		160 watts		
Power factor			0.5 to 0.7		
Inrush current		20 amps at 120 V ac, 40 amps at 240 V ac			
Maximum altitude	•	2135 m (7000 ft.)		.)	
Temperature Requirements		Operatir	ng	Non-Operating	
		16 to 32	°C	10 to 43°C	
		(60 to 90	°F)	(50 to 110°F)	
Humidity Requir	rements	Operatir	ng	Non-Operating	
(Noncondensing)		8 to 809	%	8 to 80%	
Wet Bulb		23°C (73.	5F)	27°C (80.5F)	
Noise Emission	s ¹	Operatir	ng	Idle	
L_{WAd}		5.0 bels	S	5.0 bels	
L _{pAm}		38 dBA	A	38 dBA	
<l<sub>pA>_m</l<sub>		38 dB <i>A</i>	4	38 dBA	
Impulsive or pror	ninent	No		No	
discrete tones					
Clearances	Front	Back	Left	Right	
Install/Air	N/A	152 mm(6 in)	76 mm(3 in)	76 mm(3 in)	
Flow ²					
Flow ² Service	Install so that	it can be moved to an area	a providing 760 mm (30 in) on each side	

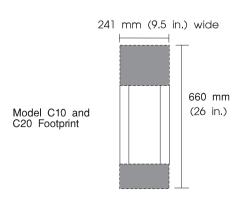
- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



Model M20 and M2A Footprint

7009 Compact Server C10, and C20

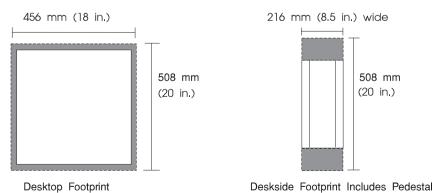
Dimensions							
Height			394 mm	15.5 in.			
Width			191 mm	7.5 in.			
Width with pedesta	I		241 mm	9.5 in.			
Depth			432 mm	17.0 in.			
Weight							
Minimum			16 kg	35.0 lbs.			
Maximum			18 kg	39.5 lbs.			
Electrical							
Power source load	ing		0.232				
(max. in kVA) Voltage range (V a	۵۱		100 to 127 o	r 200 to			
voitage range (v a	()		240 (switcha				
Frequency (hertz)			50 or 60	oic)			
Thermal output (ma	ax)		(C10) 512 B	ΓU/hr			
o.mar oarpat (me	~~,		(C20) 544 B				
Power requirement	s (max)		(C10) 150 wa				
,	, ,		(C20) 160 w				
Power factor			0.5 to 0.7				
Inrush current ³			75 amps at 120 V ac,				
		150 amps at 240 V ac					
Maximum altitude		2135 m (7000 ft.)					
Temperature Requ	uirements	Operati	ng	Non-Operating			
		16 to 32	2°C	10 to 43°C			
		(60 to 90)°F)	(50 to 110°F)			
Humidity Require	ments	Operati	ng	Non-Operating			
(Noncondensing)		8 to 80		8 to 80%			
Wet Bulb		23°C (73	B°F)	27°C (80°F)			
Noise Emissions ¹		Operati	ng	Idle			
L_{WAd}		5.7 be	ls	5.3 bels			
L_{pAm}		NA		NA			
<l<sub>pA>_m</l<sub>		41 dB	A	38 dBA			
Impulsive or promir	nent	No		No			
discrete tones							
Clearances	Front	Back	Left	Right			
Install/Air Flow ²	76 mm(3 in)	152 mm(6 in)	N/A	N/A			
Service	Install so that it ca 457 mm (18 in) o		a providing 457	7 mm (18 in) on the front and			
		e 2-125 for definitions unit during normal op		ons positions. ated by broken lines on the			



7011 POWERstation and POWERserver 220, and 230

Dimensions		ons Desktop		Deskside		
Height		84 mm	3.3 in.	432 mm	17.0 in.	
Width ¹		406 mm	16.0 in.	216 mm	8.5 in.	
Depth		419 mm	16.5 in.	419 mm	16.5 in.	
Weight						
Minimum			9.0 kg	20 lbs.		
Maximum			11.5 kg	25 lbs.		
Electrical						
Power source loa	ding		0.1	7		
(typical in kVA)						
Voltage range (V	,	100) to 127 or 200 to	` 0	ng)	
Frequency (hertz)			50 or			
Thermal output (t			340 B			
Power requireme	nts (typical)	100 watts				
Power factor		0.5 to 0.7				
Inrush current		50 amps at 120 V ac, 100 amps at 240 V ac				
Maximum altitude		2135 m (7000 ft.)				
Temperature Re	quirements	Operating Non-			erating	
		16 to 32°C 10 to 4				
		(60 to 90°F) (50 to 11)		110°F)		
Humidity Requir	ements	Operating		Non-Operating		
(Noncondensing)		8 to 80%		8 to	8 to 80%	
Wet Bulb		23°C (73°F)	27°C	(80°F)	
Noise Emissions	S ²	Opera	ating		lle	
L_{WAd}		5.2 bels		5.0 bels		
L _{pAm}		41 d			dBA	
<l<sub>pA>_m</l<sub>		39 d			dBA	
Impulsive or pron discrete tones	ninent	N	0	N	lo	
Clearances ³	Front	Back	Left	Rig	jht	
Install/ Air Flow ^{4,5}	35mm(1.5 in)	51mm(2 in)	25mm(1 ii	n) 25r	mm(1 in)	
Service	466mm(18 in)	N/A	N/A	N/A	4	

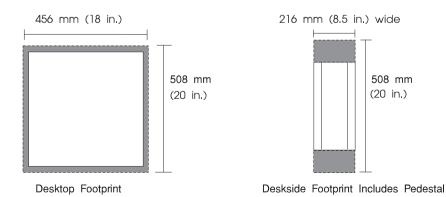
- 1. Deskside width measurement includes the optional vertical stand.
- 2. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 3. Left and right measurements apply only when the system is used in the desktop position.
- 4. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 5. When placed in the vertical position, the Model 220 requires 25 mm (1 in) at the bottom and top for proper air flow. The necessary bottom clearance is provided by the optional vertical stand.



7011 POWERstation and POWERserver 250

Dimensions		Desktop		Deskside		
Height		84 mm	3.3 in.	432 mm	17 in.	
Width ¹		406 mm	16 in.	216 mm	8.5 in.	
Depth		419 mm	16.5 in.	419 mm	16.5 in.	
Weight						
Minimum			9.0 kg	20 lbs.		
Maximum			11.5 kg	25 lbs.		
Electrical						
Power source loa	ading		0.18	35		
(typical in kVA)						
Voltage range (V	,	100) to 127 or 200 to	, -	ng)	
Frequency (hertz	,		50 or			
Thermal output (410 B			
Power requireme Power factor	ents (typicai)	120 watts 0.5 to 0.7				
Inrush current		50 amps at 120 V ac, 100 amps at 240 V ac				
Maximum altitude	2	2135 m (7000 ft.)				
		, ,			perating	
Temperature Requirements				•	43°C	
				110°F)		
Urmidity Domini		Operating		,		
Humidity Require (Noncondensing)		8 to 80%		Non-Operating 8 to 80%		
Wet Bulb					(80°F)	
			-		· /	
Noise Emission	S ²	Opera	•	Idle		
L _{WAd}		5.2 bels 41 dBA		5.0 bels		
L _{pAm}		41 dBA 39 dBA		40 dBA 38 dBA		
<l<sub>pA>_m Impulsive or pror</l<sub>	ninant	N.			lo	
discrete tones		14	,			
Clearances ³	Front	Back	Left	Rig	ght	
Install/Air Flow ^{4,5}	35 mm(1.5 in)	51 mm(2 in)	25 mm(1	in) 25	mm(1 in)	
Service	466mm (18 in)	N/A	N/A	N/A	4	

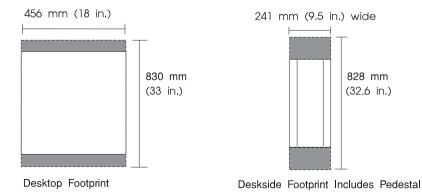
- 1. Deskside width measurement includes the optional vertical stand.
- 2. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 3. Left and right measurements apply only when the Model 250 is used in the desktop position.
- 4. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 5. When placed in the vertical position, the Model 250 requires 25 mm (1 in) at the bottom and top for proper air flow. The necessary bottom clearance is provided by the optional vertical stand.



7012 POWERstation and POWERserver 34H, 355, 360, 365, 370, and 375

Dimensions		Desktop	p	Deskside	
Height		162 mm 6	.4 in.	466 mm 18.3 in.	
Width (at pedestal		456 mm 18	i.0 in.	241 mm 9.5 in.	
for deskside)					
Depth		523 mm 20	.6 in.	523 mm 20.6 in.	
Weight					
Minimum		12.7 kg 28	B lbs.	12.7 kg 28 lbs.	
Maximum		15.4 kg 34	lbs.	15.4 kg 34 lbs.	
Electrical					
Power source loading			0.29	9	
(typical in kVA)					
Voltage range (V ac)		100 to	125 or 200 to	240 (autoranging)	
Frequency (hertz)			50 or	60	
Thermal output (typical)			585 BT	U/hr	
Power requirements (typical)		185 w	atts	
Power factor		0.5 to 0.7			
Inrush current		49 amps at 120 V ac, 98 amps at 240 V ac			
Maximum altitude		2135 m (7000 ft.)			
Temperature Requirement	s	Operating		Non-Operating	
		16 to 32°	C.	10 to 43°C	
		(60 to 90°	°F)	(50 to 110°F)	
Humidity Requirements		Operating		Non-Operating	
(Noncondensing)		8 to 80%		8 to 80%	
Wet Bulb		23°C (73°F)		27°C (80°F)	
Noise Emissions ¹		Operating		Idle	
L_{WAd}		5.7 bels	8	5.5 bels	
L_pAm		45 dBA	\	45 dBA(desktop)	
		N/A		N/A (deskside)	
<l<sub>pA>_m</l<sub>		41 dBA		41 dBA (desktop)	
•		38 dBA		38 dBA(deskside)	
Impulsive or prominent		No		No	
discrete tones					
Clearances Fron	t	Back	Left	Right	
Install/Air 152 r	mm(6 in)	152 mm(6 in)	N/A	N/A	
I IOW-					

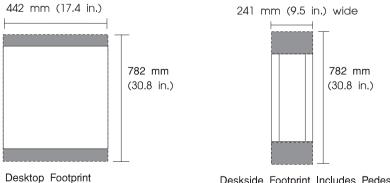
- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.



7012 POWERserver Models 380, 390, and 39H

Dimensions		Deskto	р	Deskside		
Height		162 mm 6	6.4 in.	452 mm 17.8 in.		
Width (at pedesta	ıl	442 mm 17	7.4 in.	241 mm 9.5 in.		
for deskside)						
Depth	Depth		3.8 in.	478 mm 18.8 in.		
Weight						
Minimum		18.1 kg 4		18.1 kg 40 lbs.		
Maximum		21.8 kg 4	8 lbs.	21.8 kg 48 lbs.		
Electrical						
Power source loa	ding		0.3	5		
(typical in kVA)						
Voltage range (V ac)		100 to		240 (autoranging)		
Frequency (hertz)			50 or			
Thermal output (t			770 BT			
Power requirements (typical)		225 watts				
Power factor		0.5 to 0.7				
Inrush current ³		42 amps at 120 V ac, 42 amps at 240 V ac				
Maximum altitude		2135 m (7000 ft.)				
Temperature Requirements		Operating		Non-Operating		
		16 to 32	-	10 to 43°C		
		(60 to 90°F)		(50 to 110°F)		
Humidity Requir	ements	Operating		Non-Operating		
(Noncondensing) Wet Bulb		8 to 80%		8 to 80%		
wet Buib		23°C (73°F)		27°C (80°F)		
Noise Emissions	\mathbf{S}^{1}	Operating		Idle		
L _{WAd}		5.5 bel	-	5.3 bels		
L _{pAm}		41 dBA (des	. /	41 dBA (desktop)		
		38 dBA (des		38 dBA (deskside)		
<l<sub>pA>_m</l<sub>		41 dBA (des		41 dBA (desktop)		
Impulsive or prom	ninent	38 dBA (deskside) No		38 dBA (deskside) No		
Impulsive or prominent discrete tones		NO		INO		
Clearances	Front	Back	Left	Right		
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	N/A		
Service	760 mm(30 in)	N/A	N/A	N/A		

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on

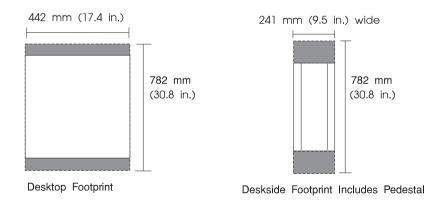


Deskside Footprint Includes Pedestal

7012 Model 397

Dimensions		Deskto	р	Deskside	
Height		162 mm 6	6.4 in.	452 mm 17.8 in.	
Width (at pedestal		442 mm 17	7.4 in.	241 mm 9.5 in.	
for deskside)					
Depth		478 mm 18	3.8 in.	478 mm 18.8 in.	
Weight					
Minimum		18.1 kg 4	0 lbs.	18.1 kg 40 lbs.	
Maximum		21.8 kg 4	8 lbs.	21.8 kg 48 lbs.	
Electrical					
Power source loading	ng		0.5		
(typical in kVA)					
Voltage range (V ac	:)	100 to		240 (autoranging)	
Frequency (hertz)			50 or		
Thermal output (typi	,	770 BTU/hr			
Power requirements	(typical)	250 watts			
Power factor		0.8 to 0.94			
Inrush current ³		20 amps at 120 V ac, 20 amps at 240 V ac			
Maximum altitude		2135 m (7000 ft.)			
Temperature Requi	irements	Operating		Non-Operating	
		16 to 32	-	10 to 43°C	
		(60 to 90	°F)	(50 to 110°F)	
Humidity Requirem	nents	Operating		Non-Operating	
(Noncondensing)		8 to 80%		8 to 80%	
Wet Bulb		23°C (73°F)		27°C (80°F)	
Noise Emissions ¹		Operating		Idle	
L _{WAd}		5.7 bel	-	5.5 bels	
L _{pAm}		46 dBA (des		46 dBA (desktop)	
<l<sub>pA>_m</l<sub>		48 dBA (desktop)		47 dBA (desktop)	
Impulsive or promine	ent	No		No	
discrete tones					
Clearances	Front	Back	Left	Right	
	152 mm(6 in)	152 mm(6 in)	N/A	N/A	
Install/Air Flow ²					

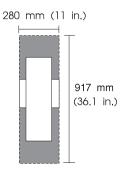
- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



7012 Models G30, G40, and G02

Dimensions		G30 & 0	940	G	02
Height		450 mm	17.75 in.	450 mm	17.75 in
Width		173 mm	6.9 in.	173 mm	6.9 in.
Width (at pedesta	al)	280 mm	11 in.	280 mm	11 in.
Depth		613 mm	24.1 in.	613 mm	24.1 in
Weight		G30 & 0	340	G	02
Minimum		19 kg	43 lbs.	19 kg	43 kg
Maximum		25 kg	55 lbs.	25 lbs.	55 lbs.
Electrical		G30 & 0	§40	G	02
	iding (typical in kVA)	0.45		0.	.2
Voltage range (V	ac)	100 to 125 o			or 200 to
		240 (autora	nging)	240 (auto	oranging)
Frequency (hertz	Frequency (hertz)		60	50 c	r 60
Thermal output (typical)		1380 BT	U/hr	615 BTU/hr	
Power requirements (typical)		405 watts		180 watts	
Power factor		0.8 to 1.0		0.8 to 1.0	
Inrush current ³		35 amps at 120 V ac		35 amps at 120 V ac	
		70 amps at 2			t 240 V ac
Maximum altitude		2135 m (70	000 ft.)	2135 m	(7000 ft.)
Temperature Requirements		Operati	U	Non-Op	•
		16 to 32°C			43°C
		(60 to 90)°F)	(50 to 110°F)	
Humidity Requir (Noncondensing)		Operati	ng	Non-Op	erating
Without tape		8 to 80	0/_	8 to	80%
With tape di		20 to 80%			80%
Wet Bulb Requi		20 10 00	770	20 10	0070
Without tap		27°C (80°F)		27°C (80°F)	
With tape of		27°C (80°F) 23°C (73°F)		27°C (80°F)	
Noise Emissions		Operati	· ·	Id	,
L_{WAd}		5.8 be	•	5.5 bels	
L _{pAm}		39 dBA		37 dBA	
<l<sub>pA>_m</l<sub>		39 dB	A	37 (dΒA
Impulsive or pron	ninent discrete tones	No		N	0
Clearances	Front	Back	Left	Rig	ht
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	N/A	

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.

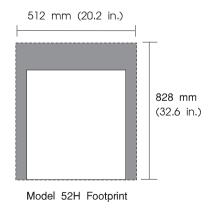


Deskside Footprint Includes Pedestal

7013 POWERstation and POWERserver 52H

Dimensions				
Height			610 mm	24.0 in.
Width			360 mm	14.2 in.
Depth			675 mm	26.6 in.
Weight				
Minimum			36.7 kg	81 lbs.
Maximum		53.1 kg 117 lbs.		117 lbs.
Electrical				
Power source loa	ading	0.4		
(typical in kVA)				
Voltage range (V	ac)	100 to	125 or 200 to 24	40 (autoranging)
Frequency (hertz	2)		50 or 60	0
Thermal output (1	typical)		975 BTU	/hr
Power requireme	ents (typical)		285 wat	ts
Power factor		0.8 to 1.0		
Inrush current		22 amps	at 120 V ac, 44	amps at 240 V ac
Maximum altitude	Э	2135 m (7000 ft.)		
Temperature Re	quirements	Operating	3	Non-Operating
		16 to 32°C		10 to 43°C
		(60 to 90°F	=)	(50 to 110°F)
Humidity Requir	rements	Operating	3	Non-Operating
(Noncondensing)				
Without tap	e drive	8 to 80%		8 to 80%
With tape of		20 to 80%	, D	20 to 80%
Wet Bulb Requi	rements			
Without tap	oe drive	27°C (80°F)		27°C (80°F)
With tape of	drive	23°C (73°F	=)	27°C (80°F)
Noise Emission	S¹	Operating	3	ldle
L_{WAd}		5.7 bels		5.5 bels
L _{pAm}		N/A		N/A
<l<sub>pA>_m</l<sub>		39 dBA		38 dBA
Impulsive or pror	minent	No		No
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow ²	N/A	152mm(6 in)	76mm(3 in)	76mm(3 in)
Service	Install so that	it can be moved to an area	providing 760 m	ım (30 in) on each side.

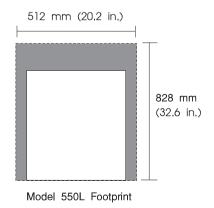
- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7013 POWERstation and POWERserver 550L

Service	Install so that	it can be moved to an area providi	ng 760 mm (30 in) on each side		
Install/Air Flow ²	N/A	152 mm(6 in) 76	mm(3 in) 76 mm(3 in)		
Clearances	Front	Back Lef	t Right		
discrete tones					
Impulsive or pror	ninent	No	No		
-pam <l<sub>pA>_m</l<sub>		39 dBA	38 dBA		
L _{pAm}		N/A	N/A		
L _{WAd}	-	5.7 bels	5.5 bels		
Noise Emission	S ¹	Operating	Idle		
With tape of	drive	23°C (73°F)	27°C (80°F)		
Without tap		27°C (80°F)	27°C (80°F)		
Wet Bulb Requi	rements				
With tape of		20 to 80%	20 to 80%		
Without tap		8 to 80%	8 to 80%		
Humidity (Nonc	ondensina)	Operating	Non-Operating		
		(60 to 90°F)	(50 to 110°F)		
-		16 to 32°C	10 to 43°C		
Temperature Range		Operating	Non-Operating		
Maximum altitude	9	21:	2135 m (7000 ft.)		
Inrush current		•	V ac, 44 amps at 240 V ac		
Power factor			0.8 to 1.0		
Power requireme	ents (typical)		285 watts		
Thermal output (975 BTU/hr		
Frequency (hertz			50 or 60		
Voltage range (V		100 to 125 or	200 to 240 (autoranging)		
(typical in kVA)					
Power source loa	ading		0.4		
Electrical					
Maximum		53.1 k	g 117 lbs.		
Minimum		36.7 F	g 81 lbs.		
Weight					
Depth		675 m	m 26.6 in.		
Width		360 m	m 14.2 in.		
Height		610 m	m 24.0 in.		

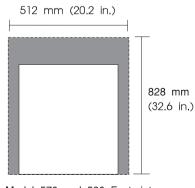
footprint.



7013 POWERstation and POWERserver 570, and 580

Flow ²				
Install/Air	N/A	152 mm(6 in)	76 mm(3 i	
Clearances	Front	Back	Left	Right
discrete tones				
Impulsive or pron	ninent	39 dBA 38 dBA No No		
L _{pAm} <l<sub>pA>_m</l<sub>		39 dBA	* *** *	
		N/A		N/A
L _{WAd}	•	5.7 bels		5.5 bels
Noise Emission	g1	Operating	n	Idle
With tape of		23°C (73°F	23°C (73°F)	
Without tap	e drive	27°C (80°F)		27°C (80°F)
Wet Bulb Requi				
With tape of		20 to 80%		20 to 80%
Without tap		8 to 80%		8 to 80%
Humidity (Nonce	ondensing)	Operating	a	Non-Operating
		(60 to 90°F	F)	(50 to 110°F)
-		16 to 32°0	C	10 to 43°C
Temperature Range		Operating	g	Non-Operating
Maximum altitude)	2135 m (7000 ft.)		
Inrush current		34 amps		68 amps at 240 V ac
Power factor		0.8 to 1.0		
Power requirements (typical)			425 w	
Thermal output (t			1450 B	
Frequency (hertz			50 or	
Voltage range (V		100 to		240 (autoranging)
(typical in kVA)				
Power source loa	ding	0.43		
Electrical				
Maximum			53.1 kg	117 lbs.
Minimum			36.7 kg	81 lbs.
Weight			00.71	0.4 !!
<u>'</u>			0/3 111111	20.0 111.
Depth			675 mm	26.6 in.
Height Width			610 mm 360 mm	24.0 in. 14.2 in.
Dimensions			040	04.0 %

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

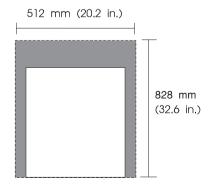


Model 570 and 580 Footprint

7013 Models 58H, 590, 59H, 591, and 595

Dimensions					
Height			10 mm	24 in.	
Width			60 mm	14.2 in.	
Depth		67	75 mm	26.6 in.	
Weight					
Minimum		36	6.7 kg	81 lbs.	
Maximum		50	3.1 kg	117 lbs.	
Electrical					
Power source load	ing		0.5		
(typical in kVA)					
Voltage range (V a	ıc)	100 to 12	25 or 200 to 2	240 (autoranging)	
Frequency (hertz)			50 or 6	60	
Thermal output (typ	pical)		1620 BT	U/hr	
Power requirement	ts (typical)		550 wa	itts	
Power factor			0.8 to 1		
Inrush current		34 amps at		8 amps at 240 V ac	
Maximum altitude			2135 m (7000 ft.)		
Temperature Range		Operating		Non-Operating	
		16 to 32°C		10 to 43°C	
		(61 to 90°F)		(50 to 110°F)	
Humidity (Noncor	ndensing)	Operating	Operating		
Without tape	media	8 to 80%		8 to 80%	
With tape me	edia	20 to 80%	20 to 80%		
Wet Bulb Require					
Without tape		27°C (80°F)	, ,		
With tape me	edia	23°C (73°F)	23°C (73°F)		
Noise Emissions ¹	<u>!</u>	Operating	Operating		
L_{WAd}		5.8 bels	5.8 bels		
L _{pAm}		N/A	N/A		
<l<sub>pA>_m</l<sub>		39 dBA	39 dBA		
Impulsive or promi	nent	No	No		
discrete tones					
Clearances	Front	Back	Left	Right	
Install/Air Flow²	N/A	152 mm(6 in)	76 mm(3 in	76 mm(3 in)	
	Install so that it can be moved to an area providing 760 mm (3 in) on each side.				

footprint.

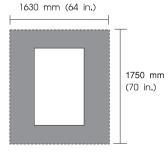


Models 58H, and all 59x Models Footprint

7013 Models J30, J40, and J01

Dimensions		J30 & J	40	Jo	1	
Height		610 mm	24 in.	610 mm	24 in.	
Width		360 mm	14.2 in.	360 mm	14.2 in	
Depth		750 mm	29.5 in.	750 mm	29.5 in	
Weight		J30 & J	40	Jo	1	
Minimum		67 kg	148 lbs.	67 kg	148 lbs.	
Maximum		84 kg	185 lbs.	84 kg	185 lbs.	
Electrical		J30 & J	40	Jo	1	
Power source load	ding	0.9		0.	6	
(typical in kVA)						
Voltage range (V	ac)	100 to 125 o		100 to 125		
		240 (autora		240 (auto		
Frequency (hertz)		50 or 6	-	50 o		
Thermal output (typical)		2765 BTI		1843 E		
Power requiremen	its (typical)	810 wa		540		
Power factor		0.8 to 1.0			0.8 to 1.0	
Inrush current ³		35 amps at 120 V ac			35 amps at 120 V ac	
		70 amps at 2		70 amps a		
Maximum altitude		2500 m (8202 ft.)		2500 m (8202 ft.)	
Temperature Ran	ige	Operating		Non-Op	•	
		10 to 32°C		5 to \$	50°C	
		(50 to 90°F)		(41 to	122°F)	
Humidity (Nonco		Operating		Non-Op	•	
Without tape		8 to 80%		5 to		
With tape dr		20 to 80%		20 to	80%	
Wet Bulb Require		(
Without tape		24°C (75°F)		28°C (82°F)		
With tape dr	ive	23°C (73°F)		27°C (80°F)		
Noise Emissions	1,4	Operating		ldle		
L_{WAd}		5.8 bels		5.5 bels		
L _{pAm}		NA dBA		NA d	BA	
<l<sub>pA>_m</l<sub>		No		N	0	
Impulsive or prom	inent					
discrete tones						
Clearances	Front	Back	Left	Rig	ht	
Install/Air Flow²	500mm(20 in)	500mm(20 in)	500mm(20 in	500	mm(20 in)	
Service	500mm(20 in)	N/A	N/A	N/A		

- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
- 4. The values for <L_{pA}>m not available at the time of publishing.

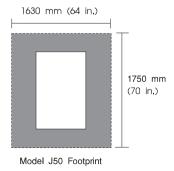


Models J01, J30, and J40 Footprint

7013 Model J50

Dimensions					
Height			610 mm	24 in.	
Width		360 mm		14.2 in.	
Depth			750 mm	29.5 in.	
Weight					
Minimum			67 kg	148 lbs.	
Maximum			84 kg	185 lbs.	
Electrical					
Power source loading	g		0.6	3	
(typical in kVA)					
Voltage range (V ac)		100 to		240 (autoranging)	
Frequency (hertz)			50 or		
Thermal output (typic			1843 B		
Power requirements	(typical)		540 w		
Power factor		0.8 to 1.0			
Inrush current		35 amps at 120 V ac, 70 amps at 240 V ac			
Maximum altitude		2500 m (8202 ft.)			
Temperature Requirements		Operatin		Non-Operating (Power Off	
		10 to 32°C		10 to 43°C	
		(50 to 90°F)		50 to 109°F)	
Humidity Requirem	ents	Operating		Non-Operating (Power Off	
(Noncondensing)					
Without tape d		8 to 80%		8 to 80%	
With tape drive		20 to 80%		8 to 80%	
Wet Bulb Requirem	ents	23°C (73°F)		27°C (80°F)	
Noise Emissions ^{1,4}		Operating		ldle	
L _{WAd}		5.8 bels	-	5.5 bels	
L_pAm		NA dBA		NA dBA	
<l<sub>pA>_m</l<sub>		No No		No	
Impulsive or promine	ent				
discrete tones					
Clearances	Front	Back	Left	Right	
Install/Air Flow ²	500mm(20 in)	500mm(20 in)	500mm(20	0 in) 500mm(20 in)	
Service	500mm(20 in)	N/A	N/A	N/A	

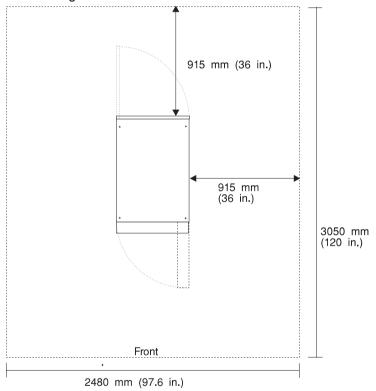
- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
- 4. The values for <L_{pA}>m not available at the time of publishing.



7014 Model S00 Rack

Dimensions						
Height			1577 mm 62.	.0 in.		
Width		650 mm 25.5 in.				
Depth		1019 mm 40.1 in.				
Weight* (Base Rac	k)		159 kg 349	9 lbs.		
Electrical		(see specifications for drawers or enclosures)				
Temperature Rang	(see specifications for drawers or enclosures)					
Humidity Requiren	ents (see specifications for drawers or enclosures)					
Noise Emissions		(see specifications for drawers or enclosures)				
Clearances	Front	Back	Left	Right		
Install/Air Flow	Maintenance of a p	Maintenance of a proper service clearance should allow proper air flow.				
Service	1650mm(65 in)	915mm(36 in)	915mm(36 in)	915mm(36 in)		
* Configuration depe	endent, base weight p	lus weight of drawers.				

The amount of space needed by the unit during service operation is indicated by the lines on the footprint. For multiple racks placed side by side, the left and right clearances apply only to the leftmost and rightmost rack.



Note: Rack units are large and heavy and are not easily moved. Because maintenance activities require access at both the front and back, extra room needs to be allowed. The footprint shows the radius of the swinging doors on the I/O rack. The illustration shows the minimum space required.

7015 POWERserver 970B, and 980B

Dimensions					
Height			1578 mm	62.0 in.	
Width			650 mm	25.5 in.	
Depth			921 mm	36.0 in.	
Weight					
Minimum			205kg	450 lbs.	
Maximum			441kg	970 lbs.	
Electrical ⁵		Maximum E	intry	Maximum	
		Configurat	ion	Configuration	
Power source loading (max)		1.0		2.4	
Voltage range (V a	ic)	200 to 240 or -	48V dc	200 to 240 or -48V dc	
Frequency (hertz)	,	50 or 60)	50 or 60	
Thermal output (ma	ax)	2165 BTU	/hr	4100 BTU/hr	
Power requirement	s (max)	634 watts	S	1200 watts	
Power factor⁴		0.5 to 0.7	7	0.5 to 0.7	
Inrush current6		125 amps		125 amps	
Maximum altitude		2135 m (7000 ft.)		2135 m (7000 ft.)	
Temperature Rang	ge	Non-Opera	ting		
10 to 40°C	0 to 40°C		10 to 52°C		
(50 to 104°F)		(50 to 125°F)			
Humidity (Noncon	ndensing)	Operatin	g	Non-Operating	
Without tape	drive	8 to 80%		8 to 80%	
With tape driv	ve	20 to 80%	%	20 to 80%	
Wet Bulb Require	ments				
Without tape		27°C (80°F)		27°C (80°F)	
With tape driv	ve	23°C (73°F)		27°C (80°F)	
Noise Emissions ¹	,2	Operating		ldle	
L_{WAd}		6.4 bels		6.2 bels	
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		49 dBA		47 dBA	
Impulsive or promir	nent	No		No	
discrete tones					
Clearances ³	Front	Back	Left	Right	
Install/Air Flow	Maintenance of a p	oroper service clearanc	e should allow	proper air flow	
Service	1650mm(65 in)	760mm(30 in)	915mm(36	3 in) 915mm(36 in)	

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. Noise emissions data for the 7015 system unit is based on the following configuration: a processor drawer with eight memory cards and eight I/O cards, a SCSI device drawer with four SCSI devices, the second eight I/O slots with eight asynchronous cards, two SCSI disk drawers with four SCSI devices each, and a Battery Back up Unit. Noise emissions data for the SCSI disk drawer is therefore included in the data.
- 3. For multiple racks placed side by side, the left and right clearances apply only to the leftmost and rightmost rack. For five to six racks placed side by side, the left and right clearances need to be increased to 1525 mm (60 in). Having more than six racks side by side is not recommended. See "7015 System Rack R00" on page 2-23 for additional clearance information.
- 4. Power factor is 0.7 to 0.9 without a Battery Back up Unit.
- The figures for power source loading, thermal output, and power requirement represent maximums. Please work with your sales or service representative to determine the typical figures for your configuration.
- 6. Inrush currents occur only at initial application of power, no inrush occurs during normal use.

7015 POWERserver 990

Dimensions					
Height		1578 mm		62.0 in.	
Width			650 mm	25.5 in.	
Depth			921 mm	36.0 in.	
Weight					
Minimum		205 kg		450 lbs.	
Maximum		441 kg		970 lbs.	
Electrical⁵		Maximum Entry		Maximum	
		Configurat	ion	Configuration	
Power source loadi	ng (max)	1.0		2.4	
Voltage range (V a	c)	200 to 240 or -	48V dc	200 to 240 or -48V dc	
Frequency (hertz)		50 or 60		50 or 60	
Thermal output (ma	ax)	2165 BTU	/hr	4100 BTU/hr	
Power requirements	s (max)	634 watts		1200 watts	
Power factor ⁴		0.5 to 0.7		0.5 to 0.7	
Inrush current ⁶		125 amps		125 amps	
Maximum altitude		2135 m (7000 ft.)		2135 m (7000 ft.)	
Temperature Range		Operating		Non-Operating	
		16 to 32°C		10 to 43°C	
		(60 to 90°	F)	(50 to 110°F)	
Humidity (Noncon	densing)	Operatin	g	Non-Operating	
Without tape drive		8 to 80%		8 to 80%	
With tape drive		20 to 80%		20 to 80%	
Wet Bulb Require	ments	23°C (73°	F)	27°C (80°F)	
Noise Emissions ^{1,2}		Operating		ldle	
L _{WAd}		6.4 bels		6.2 bels	
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		49 dBA		47 dBA	
Impulsive or prominent discrete tones		No		No	
Clearances ³	Front	Back	Left	Right	
Install/Air Flow	Maintenance of a p	Maintenance of a proper service clearance should allow proper air flow			
Service	1650mm(65 in)	760mm(30 in)	915mm(36	6 in) 915mm(36 in)	
		'()	(01	, , , , , , , , , , , , , , , , , , , ,	

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. Noise emissions data for the 7015 system unit is based on the following configuration: a Processor Drawer with eight memory cards and eight I/O cards, a SCSI Device Drawer with four SCSI devices, the second eight I/O slots with eight asynchronous cards, two SCSI Disk Drawers with four SCSI devices each, and a Battery Back up Unit. Noise emissions data for the SCSI Disk Drawer is therefore included in the data.
- 3. For multiple racks placed side by side, the left and right clearances apply only to the leftmost and rightmost rack. For five to six racks placed side by side, the left and right clearances need to be increased to 1525 mm (60 in). Having more than six racks side by side is not recommended. See "7015 System Rack R00" on page 2-23 for additional clearance information.
- 4. Power factor is 0.7 to 0.9 without a Battery Back up Unit.
- The figures for power source loading, thermal output, and power requirement represent maximums. Please work with your sales or service representative to determine the typical figures for your configuration.
- 6. Inrush currents occur only at initial application of power, no inrush occurs during normal use.

7015 SCSI Disk and Device Drawers

Dimensions				
Height	171 mm	6.7 in.		
		(4 EIA units)		
Width	443 mm	17.4 in.		
Depth	686 mm	27.0 in.		
Weight				
Minimum	25 kg	55 lbs.		
Maximum	48 kg	105 lbs.		
Electrical				
Power source loading	0	.34		
(typical in kVA)				
Voltage range (V ac)	200 t	o 240		
Frequency (hertz)	50 (or 60		
Thermal output (typical)	580 E	BTU/hr		
Power requirements (typical)	170	watts		
Power factor	0.5	0.5 to 0.7		
Inrush current*	39 amps			
Maximum altitude	2135 m (7000 ft.)			
Temperature Requirements	Operating	Non-Operating		
	10 to 40°C	10 to 52°C		
	(50 to 104°F)	(50 to 125°F)		
Humidity (Noncondensing)	Operating	Non-Operating		
Without tape drive	8 to 80%	8 to 80%		
With tape drive	20 to 80%	20 to 80%		
Wet Bulb Requirements				
Without tape drive	27°C (80°F)	27°C (80°F)		
With tape drive	23°C (73°F)	27°C (80°F)		
Noise Emissions				
Data included with calculations for the 70	15 POWERservers.			
* Inrush currents occur only at initial appli cycle.	cation of power, no inrush occurs do	uring normal power off-on		

1/2-Inch 9-Track Tape Drive Drawer

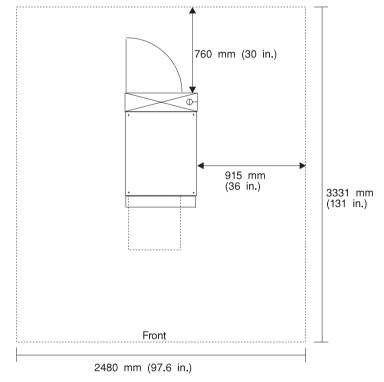
Dimensions			
Height	222 mm	8.75 in.	
		(6 EIA units)	
Width	483 mm	19.00 in.	
Depth	679 mm	26.75 in.	
Weight			
Minimum	48.2 kg	106 lbs.	
Maximum	48.2 kg	106 lbs.	
Electrical			
Power source loading	0.2		
(typical in kVA)			
Voltage range (V ac)	100 to 125 or 200 to 240 (selectable)		
Frequency (hertz)	50 or 60		
Thermal output (typical)	410 BTU/hr		
Power requirements (typical)	120 watts		
Power factor	0.5 to 0.7		
Maximum altitude	2135 m (7000 ft.)		
Temperature Requirements	Operating	Non-Operating	
	16 to 32°C	10 to 43°C	
	(60 to 90°F)	(50 to 110°F)	
Humidity Requirements	Operating	Non-Operating	
(Noncondensing)	20 to 80%	20 to 80%	
Wet Bulb	23°C (73°F)	27°C (80°F)	

7015 System Rack R00

Dimensions				
Height			1578 mm 6	62.0 in.
Width		650 mm 25.5 in.		25.5 in.
Depth with Std. Doo	r	921 mm 36.0 in.		36.0 in.
Depth with SMP Door			1060 mm 4	41.8 in.
Weight 130 kg 286 lbs.			286 lbs.	
Electrical	(see specifications for drawers or enclosures)			
Temperature Rang	remperature Range (see specifications for drawers or enclosures)			or enclosures)
Humidity Requirem	y Requirements (see specifications for drawers or enclosures)			or enclosures)
Noise Emissions	Noise Emissions (see specifications for drawers or enclosures)			or enclosures)
Clearances	Front	Back	Left	Right
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.			
Service	1650mm(65 in)	760mm(30 in)	915mm(36 in)	915mm(36 in)

The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

For multiple racks placed side by side, the left and right clearances apply only to the leftmost and rightmost rack. For five to six racks placed side by side, the left and right clearances need to be increased to 1525 mm (60 in). Having more than six racks side by side is not recommended.



Note: Rack units are large and heavy and are not easily moved. Because maintenance activities require access at both the front and back, extra room needs to be allowed. The footprint shows the radius of the swinging door on the rear of the rack and a drawer in the extended position. The illustration shows the minimum space required.

7015 Models R10, R20, and R21 CPU Drawers

Dimensions						
Height			266.7 mm	10.5 in.		
Width			445.5 mm	17.5 in.		
Depth			610.0 mm	24.0 in.		
Weight						
Minimum			30.3 kg	65 lbs.		
(Configuration depe	ndant)					
Electrical						
Power source loading	ng		0.29KVA			
(typical in kVA)						
Voltage range (V ac	c)		200 to 240			
Frequency (hertz)			50 oi	r 60		
Thermal output (typ	ical)		850 B	TU/hr		
Power requirements	s (typical)		250 watts (Model R10)		
			280 watts (I	Model R20)		
Power factor			0.85 min			
Inrush current ³			20 amps			
Maximum altitude			2135 m (7000 ft.)			
Temperature Rang	je	Оре	erating	Non-Operating		
,		10 t	o 40°C	10 to 40°C		
		(50 to	104°F)	(50 to 104°F)		
:hp2Humidity (Noncondensing)		Оре	erating	Non-Operating		
Without tape	drive					
With tape drive		8 t	o 80%	8 to 80%		
Wet Bulb Requirements		20 1	o 80%	20 to 80%		
Without tape	drive					
With tape driv	re	27°C	(80°F)	27°C (80°F)		
		23°C	(73°F)	27°C (80°F)		
Noise Emissions ^{1,}	2	Оре	rating	ldle		
L _{WAd}		6.4	bels	6.2 bels		
L _{pAm}			N/A	N/A		
<l<sub>pA>_m</l<sub>		49	dBA	47 dBA		
Impulsive or prominent			No	No		
discrete tones						
Clearances	Front	Back	Left	Right		
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.					
Service	(See service clearances for the R00 System Rack)					
		page 2-125 for definiti R10 and R20 CPU D		ons positions. on a processor drawer mounte		
in a R00 Syster				,		
2 Inruch ourronto	accur anly at initi	al application of nowe	no inrush occurs	during normal power off-on		

cycle.

7015 Model R24

Dimensions							
Height			445.5 mm	17.5 in.			
Width			445.5 mm	17.5 in.			
Depth			710.0 mm	28.0 in.			
Weight							
Minimum			51.3 kg	112 lbs.			
(Configuration de	ependent)						
Electrical							
Power source loa	ading		0.68	85			
(typical in kVA)							
Voltage range (V			200 to 240	or -48V dc			
Frequency (hertz	,		50 oı				
Thermal output (t	, ,		2100 B	= :			
Power requireme	nts (typical)		615 w				
Power factor			0.8 to 1.0				
Inrush current ³			68 amps				
Maximum altitude	9		2135 m (7000 ft.)				
Temperature Ra	nge		erating	Non-Operating			
		-	o 40°C	10 to 40°C			
		(50 to	104°F)	(50 to 104°F)			
Humidity (Nonce	ondensing)		erating	Non-Operating			
Without tap		8 t	o 80%	8 to 80%			
With tape of		20 1	o 80%	20 to 80%			
Wet Bulb Requi							
Without tap			; (80°F)	27°C (80°F)			
With tape of	drive	23°C	; (73°F)	27°C (80°F)			
Noise Emission	s 1,2	•	erating	Idle			
L _{WAd}			l bels	6.2 bels			
L _{pAm}			N/A	N/A			
<l<sub>pA>_m</l<sub>		49	dBA	47 dBA			
Impulsive or prominent			No	No			
discrete tones							
Clearances	Front	Back	Left	Right			
Install/Air Flow	Maintenance of	f a proper service cle	arance should allov	v proper air flow.			
Service	(See service c	learances for the R00	System Rack)				

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. Noise emissions data for the Model R24 CPU Media Enclosure are based on the following configuration: the enclosure is mounted in a R00 System Rack with three 2.0GB SCSI Disk drives are installed, two SCSI Disk Drawers with three 2.41GB disk drives installed, a power distribution unit is installed in the rack and the system is operating in a nominal environment of 25°C (78 °F)
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.

7015 Model R30, R40, and R50

Dimensions							
Height		267	0 mm	10.5 in.			
Width			5 mm	17.5 in.			
Depth			0 mm	36.4 in.			
· ·							
Weight Minimum		50.7	ka	132 lbs.			
(Configuration dep	andant)	59.7	kg	132 105.			
`	endent)						
Electrical							
Power source load	ling		0.8				
(typical in kVA)							
Voltage range (V a	ac)	200) to 240 or -				
Frequency (hertz)			50 or 60				
Thermal output (ty			2457 BTU				
Power requirements (typical)			720 wat				
Power factor			0.8 to 1.				
Inrush current ³			amps at 24				
			mps at 240				
			redundant power option				
Maximum altitude		2	2135 m (7000 ft.)				
Temperature Requirements		Operating	1	Non-Operating (Power Off)			
		10 to 40°C		10 to 40°C			
		(50 to 104°F)		(52 to 125°F)			
Humidity (Nonco	ndensing)	Operating	1	Non-Operating (Power Off)			
Without tape	drive	8 to 80%		8 to 80%			
With tape dr	ive	20 to 80%		8 to 80%			
Wet Bulb Require							
Without tape	drive	27°C (80°F)		27°C (80°F)			
With tape dr	ive	27°C (80°F)		27°C (80°F)			
Noise Emissions	1,2,4	Operating		Idle			
L_{WAd}		6.4 bels		6.0 bels			
L _{pAm}		N/A		N/A			
<l<sub>pA>_m</l<sub>		49 dBA		47 dBA			
Impulsive or promi	nent	No		No			
discrete tones							
Clearances	Front	Back L	.eft	Right			
Install/Air Flow	Maintenance of	of a proper service clearance sho	ould allow p	roper air flow.			
Service	(See service c	learances for the R00 System R	ack)				
Noise emission following configure installed in the	ns data for the Mooguration: the enclo	page 2-125 for definitions of nois dels R30, R40, and R50 CPU Me isure is mounted in a R00 Syste em is operating in a nominal envi al application of power, no inrush	edia Enclosom Rack and ironment of	ure are based on the d a power distribution unit is 25°C (78 °F)			

Enterprise Server S70 (7017, 7013, 7015)

System Rack

		1577 mm	62.0 in.		
		567 mm	22.3 in.		
		1041 mm	40.9 in.		
		400 kg	880 lbs.		
dant)					
3		1.887	KVA		
		200 to	240		
		50 -	60		
		5796 E	BTU/hr		
(Maximum)		1698 watts			
		0.9			
		102 amps			
		2135 m (7000 ft.)			
		•	Non-Operating		
4			1 to 60°C		
	(50 to	100°F)	(34 to 140°F)		
	•	•	Non-Operating		
•			8 to 80%		
ents ⁵	23°C	(73°F)	23°C (73°F)		
	•	•	Idle		
			7.0 bels		
			N/A		
	= 1		N/A No		
nt	ı	No			
Front	Back	Left	Right		
	Maintenance of a proper service clearance should allow proper air flow.				
Maintenance of	of a proper service clea	arance should allow	w proper air flow.		
	imum) (Maximum) 4 ensing) ents ⁵	Ope	567 mm 1041 mm 400 kg dant) g		

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. Noise emissions data for Model S70 System is based on a system with the doors closed.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
- 4. The upper limit of the dry bulb temperature must be derated 1 degree C per 137M (450 ft.) above 1295M (4250 ft.)
- 5. The upper limit of the wet bulb temperature must be derated 1 degree C per 274M (882 ft.) elevation above 1370M (4500 ft.)

S70 SCSI I/O Drawer 7 EIA

Dimensions					
Height			306.2 mm	12.1 in.	
Width			442.4 mm 17.4 in.		
Depth			748.2 mm	29.5 in.	
Weight					
Minimum configuratio			43 kg 95 lbs.		
Maximum configuration	on		61 kg	135 lbs.	
Electrical		Α		DC	
Power source loading		0.	4	0.4	
(typical in kVA)					
Power source loading		1.	0	1.0	
(maximum in kVA)					
Voltage range		200 to 2	40 V ac	40 to 60 VDC	
Frequency (hertz)		50 /	60	N.A	
Thermal output (typic	al)	1228 E	TU/hr	1365 BTU/hr	
Thermal output (maxi	mum)	3071 E	TU/hr	3412 BTU/hr	
Power requirements (typical)		360 v	vatts	400 watts	
Power requirements (maximum)		900 \	vatts	1000 watts	
Power factor		0.	9	N/A	
Inrush current ³		120 a	mps	300 amps	
Maximum altitude		2135 m (7000 ft.)	2135 m (7000 ft.)	
Temperature Requir	ements	Oper	•	Non-Operating	
		10 to	10°C⁴	10 to 52°C	
		(50 to	104°F)	(50 to 125.6°F)	
Humidity (Nonconde	•	Oper	ating	Non-Operating	
Without tape dr	ve	8 to	80%	8 to 80%	
With tape drive		20 to	80%	20 to 80%	
Wet Bulb Requireme	ents				
Without tape dr	ve	27°C (80°F)	27°C (80°F)	
With tape drive		23°C (73°F)	27°C (80°F)	
Noise Emissions ^{1,2}		Oper	ating	ldle	
L_{WAd}		5.9	els	5.8 bels	
L _{pAm}		1	I A	NA	
<l<sub>pA>_m</l<sub>		39 (BA	38 dBA	
Impulsive or prominent		ı	1 0	No	
discrete tones					
Clearances	Front	Back	Left	Right	
Install/Air Flow	Maintenance o	f a proper service clear	ance should allow	w proper air flow.	
Service	(See "Service (Clearances for System'	on page 2-29)		
		•	,		

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- Noise emissions data for the Model S70 SCSI I/O Drawer are based on the I/O drawer mounted in a rack. See "S70 I/O rack" on page 2-29.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
- Use of the PCI SSA Multi-Initiator/RAID EL in this S70 I/O Drawer limits the system usage to a 28°C (82°F) environment maximum.

S70 I/O rack

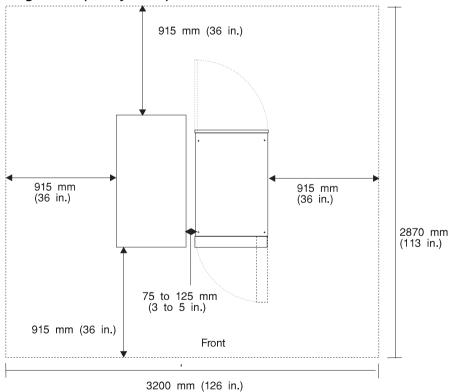
Dimensions						
Height			1577 mm	62.0 in.		
Width			650 mm	25.5 in.		
Depth			1019 mm	40.1 in.		
Weight1 (Base Rac	k)		159 kg	349 lbs.		
Electrical		(see specifications for drawers or enclosures)				
Temperature Rang	(see specifications for drawers or enclosures)					
Humidity Requiren	ments (see specifications for drawers or enclosures)					
Noise Emissions		(see specifications for drawers or enclosures)				
Clearances	Front	Back	Left	Right		
Install/Air Flow	Maintenance	e of a proper service cleara	nce should allov	v proper air flow.		
Service	See "Service	e Clearances for System."				
1. Configuration de	ependent, base	weight plus weight of draw	ers.			

Service Clearances for System

The amount of space needed by the units during service is indicated by large box of the footprint.

For multiple racks placed side by side, the left and right clearances apply only to the leftmost and rightmost rack.

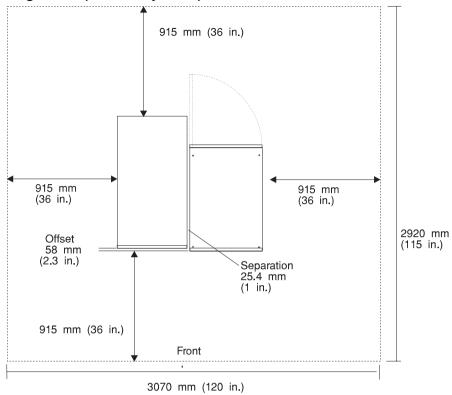
Rack Configuration (AC Systems)



Note: Rack units are large and heavy and are not easily moved. Because maintenance activities require access at both the front and back, extra room needs to be allowed. The

footprint shows the radius of the swinging doors on the I/O rack. The illustrations show the minimum space required.

Rack Configuration (-48v DC Systems)

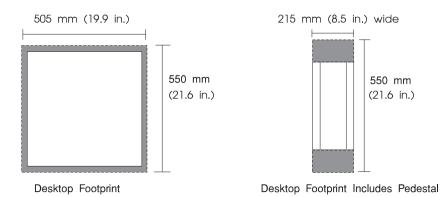


Note: Rack units are large and heavy and are not easily moved. Because maintenance activities require access at both the front and back, extra room needs to be allowed. The footprint shows the radius of the swinging doors on the I/O rack. The illustrations show the minimum space required.

7020 Entry Workstation Model 40P

Dimensions		Desk	top	Desi	kside	
Height		124 mm	4.9 in.	477 mm	18.8 in.	
Width ¹		454 mm	17.9 in.	215 mm	8.5 in.	
Depth		447 mm	17.6 in.	447 mm	17.6 in.	
Weight						
Minimum configur	ation		12 kg	26 lbs.		
Maximum configu	ration		14.5 kg	32 lbs.		
Electrical						
Power source loa (typical in kVA)	ding		0.5	2		
Voltage range (V	ac)	10	0 to 127 or 200 t	o 240 (switchabl	e)	
Frequency (hertz)			50 oi	,	-,	
Thermal output (ty	ypical)		290 B	ΓU/hr		
Power requirement		185 watts				
Power factor		0.5 to 0.7				
Inrush current ⁶		23 amps at 120 V ac and at 240 V ac				
Maximum altitude	1	2135 m (7000 ft.)				
Temperature Red	quirements	Operating Non-Ope				
		16 to 32°C			43°C	
		(60 to	(50 to	110°F)		
Humidity Require	ements	Operating			perating	
(Noncondensing)		8 to 80%		8 to 80%		
Wet Bulb		23°C (73°F)		27°C	27°C (80°F)	
Noise Emissions	3 ²	Operating		Idle		
L _{WAd}		5.1 bels		4.8 bels		
L _{pAm}		43 dBA		43 dBA		
<l<sub>pA>_m</l<sub>		40 dBA		40 dBA		
Impulsive or prominent		No No				
discrete tones						
Clearances ³	Front	Back	Left	Riç	ght	
Install/Air Flow ^{4,5}	35mm(1.5 in)	51mm(2 in)	25mm(1 i	n) 25r	mm(1 in)	
Service	466mm(18 in)	N/A	N/A	N/A	4	

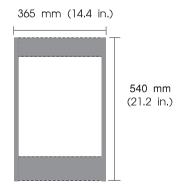
- 1. Deskside width measurement includes the optional vertical stand.
- 2. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 3. Left and right measurements apply only when the system is used in the desktop position.
- 4. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 5. When placed in the vertical position, the system requires 25 mm (1 in) at the bottom and top for proper air flow. The necessary bottom clearance is provided by the optional vertical stand.
- 6. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



7024 Entry Deskside PowerPC Server E Series

Dimensions				
Height			648 mm 25.5	****
Width ¹			315 mm 12.4	****
Depth			450 mm 17.7	in.
Weight				
Maximum			25 kg 55 lb	os.
Electrical				
Power source loading			0.17	
(typical in kVA)				
Voltage range (V ac)		100 to	127 or 200 to 240	(switchable)
Frequency (hertz)			50 or 60	
Thermal output (typical)			375 BTU/hr	
Power requirements (typical)			110 watts	
Power factor		0.5 to 07		
Inrush current ⁴		75 amps at 120 V ac, 150 amps at 240 V ac		
Maximum altitude		2135 m (7000 ft.)		
Temperature Requirements		Operating		Non-Operating
		16 to 32°C		10 to 43°C
		(60 to 90°F)		(50 to 110°F)
Humidity Requir	ements	Operating		Non-Operating
(Noncondensing)		8 to 80%		8 to 80%
Wet Bulb		23°C (73°F)		27°C (80°F)
Noise Emissions	3 ²	Operating		Idle
L_{WAd}		5.2 bels		5.0 bels
L _{pAm}		41 dBA		38 dBA
<l<sub>pA>_m</l<sub>		36 dBA		34 dBA
Impulsive or prominent		No No		No
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow³	35mm(1.5 in)	51mm(2 in)	25mm(1 in)	25mm(1 in)
Service	466mm(18 in)	N/A	N/A	N/A

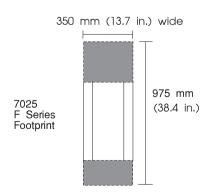
- 2. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 3. The amount of space needed by the unit during normal operation is indicated by broken lines on the
- 4. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



7025 Deskside F30 Series

Dimensions						
Height			620 mm 24.3	3 in.		
Width			245 mm 9.6	in.		
Width with Pedesta	al		350 mm 13.7 in.			
Depth		695 mm 27.3 in.				
Depth with Pedest	al		745 mm 29.3	3 in.		
Weight						
Minimum configura	ation		30 kg 65 lb	S.		
Maximum configur	ation	50 kg 110 lbs.				
Electrical						
Power source loading			0.56			
(max. in kVA)						
Voltage range (V a	ac)	100 to	127 or 200 to 240	(autoranging)		
Frequency (hertz)			50 or 60			
Thermal output (maximum)			1535 BTU/hi	f		
Power requirements (maximum)		450 watts				
Power factor		0.8				
	Inrush current ³		30 amps at 120 V ac, 60 amps at 240 V ac			
Maximum altitude		2135 m (7000 ft.)				
Temperature Req	uirements	Operating		Non-Operating		
			16 to 32°C 10 to 43°C			
		(60 to 90°	°F)	(50 to 110°F)		
Humidity Require	ments	Operatir		Non-Operating		
(Noncondensing)		8 to 80%		8 to 80%		
Wet Bulb		23°C (73°	°F)	27°C (80°F)		
Noise Emissions	ı	Operatir	•	Idle		
L_{WAd}		5.8 bels		5.5 bels		
L _{pAm}		NA		NA		
<l<sub>pA>_m</l<sub>		41 dBA	1	38 dBA		
Impulsive or promi discrete tones	nent	No		No		
Clearances	Front	Back	Left	Right		
Install/Air Flow ²	76mm(3 in)	152mm(6 in)	51mm(2 in)	51mm(2 in)		
Service	Install so that it can be moved to an area providing 457mm (18 in.) on the front and 457 mm (18 in) on the left side.					

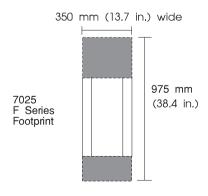
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



7025 Deskside F40 Series

Dimensions						
Height			620 mm 24.3	3 in.		
Width				3 in.		
Width with Pedesta	al			7 in.		
Depth	۸۱		695 mm 27.3 in.			
Depth with Pedestal				3 in.		
	<u> </u>		730 11111 2010	7 1111		
Weight Minimum configura	ation		30 kg 65 lb	20		
			•			
Maximum configura	ation		50 kg 110 lb)S.		
Electrical						
Power source load			0.41			
	ding maximum in kVA		0.56			
Voltage range (V a	ac)	100 to 1	27 or 200 to 240	(autoranging)		
Frequency (hertz)			50 or 60			
Thermal output (ty			1125 BTU/h			
Thermal output (maximum)			1535 BTU/h	r		
Power requirements (typical)			330 watts			
Power requirements (maximum)			450 watts			
Power factor			0.8 - 0.96			
Inrush current ³	Inrush current ³		30 amps at 120 V ac, 60 amps at 240 V ac			
Maximum altitude			2135 m (7000 ft.)			
Temperature Req	uirements	Operating	Operating			
		16 to 32°C		10 to 43°C		
		(60 to 90°F))	(50 to 110°F)		
Humidity Require	ments	Operating		Non-Operating		
(Noncondensing)		8 to 80%				
Wet Bulb		23°C (73°F)	23°C (73°F)			
Noise Emissions	1	Operating		Idle		
L _{WAd}		5.8 bels		5.5 bels		
L _{pAm}		NA				
<l<sub>pA>_m</l<sub>		41 dBA				
Impulsive or promi	inent	No No		38 dBA No		
discrete tones	none			110		
Clearances	Front	Back	Left	Right		
Install/Air	76mm(3 in)	152mm(6 in)	51mm(2 in)	51mm(2 in)		
Flow ²	7011111(0 111)	10211111(0 111)	J 111111(2 111)	J 1111111(2 111)		
Service	Install so that it ca	an be moved to an area p	providina 457 mm	(18 in.) on the front and		
	457 mm (18 in) or			(10 11.1)		
1. See "Noise En	nission Notes" on pag	e 2-125 for definitions of r	noise emissions p	oositions.		
	, ,	unit during normal operat				
footprints.	.,	3		,		
				g normal power off-on		

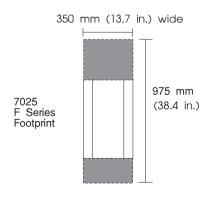
cycle.



7025 Deskside F50 Series

Dimensions			000 044	2.1-
Height				3 in.
Width Width with Pedest	ol.			3 in. 7 in.
	aı			
Depth	·al	695 mm 27.3 in. 745 mm 29.3 in.		
Depth with Pedest	.aı		745 mm 29.3) III.
Weight				
Minimum configura			30 kg 65 lb	
Maximum configur	ation		55 kg 120 lk	OS.
Electrical				
Power source loading typical in kVA			0.52	
Power source loading maximum in kVA			0.56	
Voltage range (V ac)		100 t	o 127 or 200 to 240	(autoranging)
Frequency (hertz)			50 or 60	
Thermal output (typical)			975 BTU/hr	
Thermal output (maximum)			2050 BTU/h	r
Power requirements (typical)		285 watts		
Power requirements (maximum)		600 watts		
Power factor		0.8 - 0.96		
Inrush current ³		50 amps		
Maximum altitude		2135 m (7000 ft.)		
Temperature Req	uirements	Operating		Non-Operating
		16 to 32°C		10 to 43°C
		(60 to 90)°F)	(50 to 110°F)
Humidity Require	ements	Operati	ng	Non-Operating
(Noncondensing)		8 to 80%		8 to 80%
Wet Bulb		23°C (73°F)		27°C (80°F)
Noise Emissions	1	Operati	na	Idle
L_{WAd}		5.8 bel	•	5.5 bels
L _{pAm}		NA		NA
<l<sub>pA>_m</l<sub>		41 dBA		38 dBA
Impulsive or promi	inent	No		No
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow ²	76mm(3 in)	152mm(6 in)	51mm(2 in)	51mm(2 in)
Service	Install so that it can be moved to an area providing 457 mm (18 in.) on the front and 457 mm (18 in) on the left side.			

- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



7026 Model H10 Drawer

Dimensions						
Height				12.1 in.		
Width				17.4 in.		
Depth			748.2 mm 29.5 in			
Weight						
Minimum configuration	on		42 kg 92 lbs.			
Maximum configurat	ion		57 kg 126	ibs.		
Electrical						
Power source loadin	g		0.41			
(typical in kVA)						
Power source loading			0.56			
(maximum in kVA)						
Voltage range (V ac))		200 to 24	10		
Frequency (hertz)			50 or 60			
Thermal output (typic	,		683 BTU			
Thermal output (max			1365 BTU			
Power requirements	· • · · ·		200 watt			
Power requirements	(maximum)		400 watts			
Power factor		0.8 - 0.96				
Inrush current ³			60 amps at 240 V ac			
Maximum altitude			2135 m (700)0 ft.)		
Temperature Requi	rements	Opera	•	Non-Operating		
		10 to 4		10 to 52°C		
		(50 to 1	04°F)	(50 to 125.6°F)		
Humidity (Noncond	lensing)	Opera	iting	Non-Operating		
Without tape d		8 to 8		8 to 80%		
With tape drive		20 to	80%	20 to 80%		
Wet Bulb Requirem						
Without tape d		27°C (8	,	27°C (80°F)		
With tape drive	9	23°C (73°F)	27°C (80°F)		
Noise Emissions1,2	2	Opera	ating	Idle		
L _{WAd}		5.9 b	els	5.8 bels		
L _{pAm}		N	IA.	NA		
<l<sub>pA>_m</l<sub>		39 dBA		38 dBA		
Impulsive or promine	ent	N	No No			
discrete tones						
Clearances	Front	Back	Left	Right		
Install/Air Flow	Maintenance of a proper service clearance should allow proper air flow.					
Service	(See service clearances for the "7015 System Rack R00" on page 2-23)					

- 2. Noise emissions data for the Model H10 CPU Drawer is based on the processor drawer mounted in a "7015 System Rack R00" on page 2-23.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.

7026 Model H50 (Enterprise Server)

Dimensions			050 40.0	•-
Height			350 mm 13.8 443 mm 17.5	
Width				
Depth			844 mm 33.2	in.
Weight				
Minimum configurati			71 kg 157 lb	
Maximum configurat	ion		89 kg 195 lb	S.
Electrical				
Power source loading	g typical in kVA		0.4	
Power source loading maximum in kVA			0.63	
Voltage range (V ac)		200 to 240 (autorar	nging)
Frequency (hertz)			50 or 60	
Thermal output (typical)			1296BTU/hr	
Thermal output (maximum)			2460 BTU/hr	
Power requirements (typical)		380 watts		
Power requirements (maximum)		600 watts		
Power factor		0.8 - 0.96		
Inrush current ²		50 amps		
Maximum altitude ³		915 m (3000 ft.)		
Temperature Requi	rements ³	Operating		Non-Operating
		10 to 40°C		10 to 43°C
		(50 to 1	04°F)	(50 to 110°F)
Humidity Requirem	ents	Operating		Non-Operating
(Noncondensing)		8 to 80%		8 to 80%
Wet Bulb		23°C (73°F)		27°C (80°F)
Noise Emissions ¹		Opera	tina	Idle
L _{WAd}		6.2 bels		5.9 bels
L _{pAm}		NA		NA
<l<sub>pA>_m</l<sub>		43 dBA		40 dBA
Impulsive or promine	ent	No No		No
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow	Maintence of prope	per service clearances should allow proper air flow.		

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
- 3. For altitudes above 915 meters, the maximum temperature limit is derated by 1 degree C for every 137 meters of elevation above 915 meters.

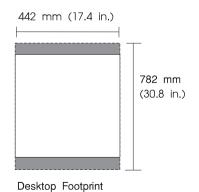
7027 Model HSC

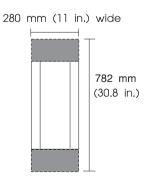
Dimensions				
Height	307 mm	12.1 in.		
		7 (EIA units)		
Width	445 mm	17.5 in.		
Depth	748 mm	29.5 in.		
Weight				
Empty	35 kg	75 lbs.		
Maximum Configuration	80 kg	175 lbs.		
Electrical				
Power source loading (kVA)	0.18 plus 0.027 for ea	ch additional disk drive		
Voltage range (V ac)	100 to 127 or 200 to 240			
Frequency (hertz)	50 or 60			
Thermal output (BTUs/hr)	580 plus 89 for each additional disk drive			
Power requirements (watts)	170 plus 27 for each additional disk drive			
Power factor	0.95			
Maximum altitude	2135m ((7000 ft.)		
Temperature Requirements	Operating	Non-Operating		
	10 to 40°C	1 to 52°C		
	(50 to 110°F)	(34 to 125°F)		
Humidity Requirements	Operating	Non-Operating		
(Noncondensing)	8% to 80%	8% to 80%		
Wet Bulb	23°C (73°F)	27°C (80°F)		
Noise Emissions*	Operating	Idle		
L _{WAd}	5.8 bels	5.5 bels		
L _{pAm}	NA	N/A		
<l<sub>pA>_m</l<sub>	48 dBA	47.5 dBA		
Impulsive or prominent	No	No		
discrete tones				

7030 POWERstations 3AT, 3BT, and 3CT

Height	Desk	Desktop		kside		
	162 mm	6.4 in.	452 mm	17.8 in.		
Width	442 mm	17.4 in.	280 mm	11.0 in.		
(at pedestal for deskside)						
Depth	478 mm	18.5 in.	478 mm	18.8 in.		
Weight						
Minimum			40 lbs.			
Maximum	21.8 kg 48 lbs.					
Electrical						
Power source loading (typical in kVA)	0.35					
Voltage range (V ac)	100	100 to 125 or 200 to 240 (autoranging)				
Frequency (hertz)	50 or 60			·3/		
Thermal output (typical)	770 BTU/hr					
Power requirements (typical)		225	watts			
Power factor		0.5 to 0.7				
Inrush current ³	42 am	42 amps at 120 V ac, 42 amps at 240 V ac				
Maximum altitude		2135 m	(7000 ft.)			
Temperature Requirements		Operating		erating		
				43°C		
	(60 to 9	(60 to 90°F) (50 to 11				
Humidity Requirements		Operating		erating		
(Noncondensing)		8 to 80% 8 to				
Wet Bulb	23°C (7	73°F)	27°C (80°F)			
Noise Emissions ¹		Operating		Idle		
L _{WAd}		5.5 bels		bels		
L _{pAm}	41 d		41 dBA (desktop)			
	38 d		38 dBA (deskside) 41 dBA (desktop)			
<l<sub>pA>_m</l<sub>	41 d					
Impulaivo or prominent		38 dBA 38 dBA (dec				
Impulsive or prominent discrete tones	INC	No No				
41301616 101163	Back	Left	Rig	ıht		
Clearances Erent	Dack	Leit	Kig	Jiit		
Clearances Front	450 (61)	N1/A				
Clearances Front Install/Air 152 mm(6 in) Flow ²	152 mm(6 in)	N/A	N/A	\ 		

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



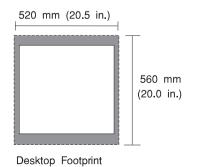


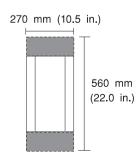
Deskside Footprint Includes Pedestal

7043 43P Series Model 140

Dimensions		Desl	top	Deskside		
Height		165 mm	6.5 in.	450 mm	17.7 in.	
Width		420 mm	16.5 in.	165 mm	6.5 in.	
Width⁴				235 mm	9.25 in.	
Depth		460 mm	18.0 in.	460 mm	18.0 in.	
Weight						
Minimum configurati			14.5 kg (32 lbs.		
Maximum configurat	tion		18.2 kg	40 lbs.		
Electrical						
Power source loading (typical in kVA)			0.2			
	ng (maximum in kVA)		0.4			
	c) - US and World Trade		0 to 127 or 200 to	,	,	
Voltage range (V ac	:) - Japan	100	to 127 or 200 to	240 (autorangir	ıg)	
Frequency (hertz)			50 or			
Thermal output (typi			425 BT	J/hr		
Thermal output (ma:			850 BT			
Power requirements	(typical)	125 watts				
Power requirements	,	250 watts				
Power factor - US a	nd World Trade	0.6				
Power factor - Japan	n	0.98				
Inrush current ³		less than 70 amps at 120 V ac and at 240 V ac				
Maximum altitude			2135 m (70	000 ft.)		
Temperature Requ	irements	Operating		Non-Operating		
		16 to 32°C		10 to 43°C		
		(60 to	90°F)	(50 to	110°F)	
Humidity Requiren	nents	Opera	•	Non-Operating		
(Noncondensing)				8 to		
Wet Bulb		23°C (73°F)	27°C	(80°F)	
Noise Emissions ¹		Operating			ldle	
L _{WAd}			5.3 bels		bels	
L _{pAm}		43 dBA 43 dBA				
<l<sub>pA>_m</l<sub>		40 dBA 40 dBA				
Impulsive or promine	ent discrete tones	No		No		
Clearances	Front	Back	Left	Rig	ht	
Install/Air Flow ²	50mm(2 in)	50mm(2 in)	50mm(2 in)) 50r	nm(2 in)	
Service		can be taken to an area providing 457mm(18 in) on the front and in the left side.				

- footprints.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
- 4. Width measurement includes the optional verticle stand.



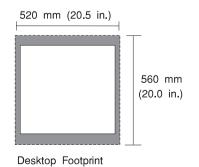


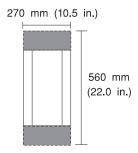
Deskside Footprint Includes Pedestal

7043 43P Series Model 240

Dimensions		Desi	top	Deskside		
Height		165 mm	6.5 in.	450 mm	17.7 in	
Width		420 mm	16.5 in.	165 mm	6.5 in.	
Width⁴				235 mm	9.25 in	
Depth		460 mm	18.0in.	460 mm	18.0 in	
Weight						
Minimum configurati		14.5 kg 32 lbs.				
Maximum configurat	ion	18.2 kg 40 lbs.				
Electrical						
Power source loading (typical in kVA)			0.2			
	ng (maximum in kVA)		0.4			
) - US and World Trade		0 to 127 or 200 to 2	,	,	
Voltage range (V ac) - Japan	10) to 127 or 200 to 2	40 (autorangir	ng)	
Frequency (hertz)			50 or 6	-		
Thermal output (typi			425 BTU			
Thermal output (max		850 BTU/hr				
Power requirements (typical)		125 watts				
Power requirements (maximum)		250 watts				
Power factor - US a		0.6				
Power factor - Japai	n	0.98				
Inrush current ³		less than 70 amps at 120 V ac and at 240 V ac				
Maximum altitude			2135 m (70	00 ft.)		
Temperature Requi	irements	Operating			erating	
		16 to			43°C	
		(60 to	90°F)	(50 to	110°F)	
Humidity Requirem	nents	Operating		Non-Operating		
(Noncondensing)		8 to 80% 23°C (73°F)		8 to 80%		
Wet Bulb				27°C (80°F)		
Noise Emissions ¹		Oper	•	Idle		
L _{WAd}			5.2 bels		bels	
L _{pAm}		Ukn dBA		Unk dBA		
<l<sub>pA>_m</l<sub>	and Paragraphs	39 (dBA	
Impulsive or promine	ent discrete tones	No No		10		
Clearances	Front	Back	Left	Rig	jht	
Install/Air Flow ²	50mm(2 in)	50mm(2 in)	50mm(2 in)	50r	nm(2 in)	
Service		rall so that it can be taken to an area providing 457mm(18 in) on the front and rmm(18 in) on the left side.				

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.
- 4. Width measurement includes the optional verticle stand.



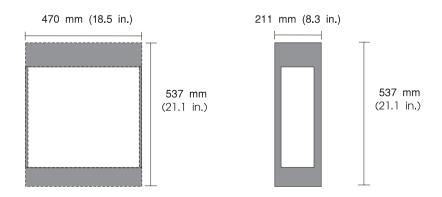


Deskside Footprint Includes Pedestal

7248 Model 43P

Dimensions		Desk	top	Deskside		
Height		160 mm	6.3 in.	420 mm	16.5 in.	
Width ¹		420 mm	16.5 in.	160 mm	6.3 in.	
Depth		454 mm	17.7 in.	454 mm	17.7 in.	
Weight						
Minimum			13.2 kg 2	9 lbs.		
Maximum			15.9 kg 3	5 lbs.		
Electrical						
Power source loa	ding		0.23			
(typical in kVA)						
Voltage range (V	ac)	10	0 to 127 or 200 to 2	40 (switchable	e)	
Frequency (hertz))		50 or 60)		
Thermal output (r			510 BTU/	hr		
Thermal output (r			225 BTU/	hr		
Power requirement	nts (maximum)	150 watts				
Power factor		0.5 to 0.7				
Inrush current ⁶		23 amps at 120 V ac, 23 amps at 240 V ac				
Maximum altitude	l .	2135 m (7000 ft.)				
Temperature Re	quirements	Operating		Non-Op	erating	
	•		16 to 32°C		10 to 43°C	
			(60 to 90°F) (50 to 110		110°F)	
Humidity Requir	ements	Operating		Non-Op	erating	
(Noncondensing)		8 to 80% 8 to 8		80%		
Wet Bulb		23°C (73°F)		27°C (80°F)		
Noise Emissions	S ¹	Operating		Idle		
L_{WAd}		5.2 bels		5.0 bels		
L _{pAm}		41 dBA 3		38 (dBA	
<l<sub>pA>_m</l<sub>		36 d	BA	34 (dBA	
Impulsive or prom	ninent	No No		0		
discrete tones						
Clearances ³	Front	Back	Left	Rig	ht	
Install/Air Flow ⁴⁵	35mm(1.5 in)	51mm(2 in)	25mm(1 in)	25n	nm(1 in)	
Service	466mm(18 in)	N/A	N/A	N/A	Ī	

- 1. Width measurement includes the optional vertical stand.
- 2. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 3. Left and right measurements apply only when the system is used in the desktop position.
- 4. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints
- 5. When placed in the vertical position, the system requires 25 mm (1 in) at the bottom and top for proper air flow. The necessary bottom clearance is provided by the optional vertical stand.
- 6. Inrush currents occur only at initial application of power, no inrush occurs during normal power off-on cycle.



Physical Characteristics for External Devices

The following information can help you plan for your external devices. You only have to do physical planning for the devices you have ordered. Footprints are not drawn to scale.

If you want to use full-sized footprints of the devices, use the measurements provided to construct them out of folded newspaper or sheets of construction paper. You can then use them to plan a layout within the actual office space.

Where a footprint is shown, the figure represents a top view of the device.

POWERdisplay 17 and POWERdisplay 20

POWERdisplay 17 (featuring a Trinitron (TM) CRT with a maximum viewable image size of 409 mm (16.1 inches) measured diagonally).

POWERdisplay 20 (featuring a Trinitron (TM) CRT with a maximum viewable image size of 486 mm (19.1 inches) measured diagonally).

Dimensions						
POWERdisplay 17						
Height		414 mm	16.3 in			
Width		404 mm	15.9 in			
Depth		450 mm	17.7 in			
POWERdisplay 20						
Height		474 mm	18.6 in			
Width		480 mm	18.9 in			
Depth		505 mm	19.9 in			
Weight						
POWERdisplay 17		22.5 kg	49.5 lbs			
POWERdisplay 20		30.0 kg	66.3 lbs			
Electrical						
Power source loading		.38				
(typical in kVA)						
Voltage range (V ac)		100 to 120 or 200 to 240 (autoranging)				
Frequency (hertz)		50 or 60				
Thermal output (typical)		480 BTI				
Power requirements (typica	1)	140 wa				
Power factor		0.7				
Maximum altitude		3048 m (10	,000 π.)			
Temperature Requiremen		Operating	Non-Operating			
		0 to 40°C	1 to 60°C			
	(5)	0 to 104°F)	(35 to 140°F)			
Humidity Requirements		Operating	Non-Operating			
(Noncondensing)		3 to 80 %	8 to 80 %			
Noise Emissions*	(Operating	Idle			
L_{WAd}		3.5 bels	3.5 bels			
Clearances Fro	t Back	Left	Right			
Service Inst	II so that air vents are not bl	ocked.				

6091 Color Display Model 19i

6091 Color Display Model 19i (with a Trinitron (TM) CRT that has a fixed image size of 439 mm (17.3 inches) measured diagonally).

Dimensions				
Height	485 mm	19.1 in		
Width	480 mm	18.9 in		
Depth	506 mm	19.9 in		
Weight	34 kg	75 lbs		
Electrical				
Power source loading		38		
(typical in kVA)				
Voltage range (V ac)	100 to 120 or 200	to 240 (autoranging)		
Frequency (hertz)	50 (or 60		
Thermal output (typical)	480 BTU/hr			
Power requirements (typical)	185 watts			
Power factor	().7		
Maximum altitude	2135 m	(7000 ft.)		
Temperature Requirements	Operating	Non-Operating		
	10 to 40°C	1 to 60°C		
	(50 to 104°F)	(35 to 140°F)		
Humidity Requirements	Operating	Non-Operating		
(Noncondensing)	8 to 80 %	8 to 80 %		
Noise Emissions*	Operating	Idle		
L_WAd	3.5 bels	3.5 bels		
Clearances Front	Back Left	Right		
Service Install so that a	at air vents are not blocked.			
* See "Noise Emission Notes" on page	e 2-125 for definitions of noise emissio	ns positions.		

9516 TFT LCD Color Monitor

9516 TFT LCD Color Monitor that has a fixed viewable image size of 408 mm (16.1 inches) measured diagonally.

Dimensions				
Height (Display only)	431 m	nm 17.0 in		
(Display with Tilt/Swivel)	511 m			
Width	408 mm 16.1 in			
Depth	250 m	nm 9.8 in		
Weight	9.9 kg	21.8 lbs		
Electrical				
Voltage range (V ac)		100 to 240		
Frequency (hertz)		50 or 60		
Thermal output (maximum)		188 BTU/hr		
Power requirements				
(in active mode VESA Standby)	18 watts			
(in enegry saving mode VESA off)	8 watts			
Maximum altitude	21	35 m (7000 ft.)		
Temperature Requirements	Operating	Non-Operating		
	10 to 40°C	10 to 43°C		
	(50 to 104°F)	(50 to 110°F)		
Humidity Requirements	Operating	Non-Operating		
(Noncondensing)	5 to 80 %	5 to 80 %		
Noise Emissions*	Operating	Idle		
L_{WAd}	4.5 bels	NA bels		
Clearances Front	Back Le	ft Right		
Service Install so that air	vents are not blocked.			

P50 15" Display, P70 17" Display, P200 and P201 20" Displays

P50 15" display (featuring a Trinitron (TM) CRT with a maximum viewable image size of 345 mm (13.6 inches) measured diagonally).

P70 17" display (featuring a Trinitron (TM) CRT with a maximum viewable image size of 403 mm (15.9 inches) measured diagonally).

P200 20" display (featuring a Trinitron (TM) CRT with a maximum viewable image size of 486 mm (19.1 inches) measured diagonally).

P201 20" display (featuring a Trinitron (TM) CRT with a maximum viewable image size of 486 mm (19.1 inches) measured diagonally).

Dimensions						
P50 display						
Height			•	14.7 in		
Width				14.5 in		
Depth			390 mm	15.3 in		
	P70 display					
Height				16.3 in		
Width				15.9 in		
Depth			453 mm	17.8 in		
P200 and P201 d	lisplay					
Height				18.6 in		
Width				18.6 in		
Depth			505 mm	19.9 in		
Weight			4401	20.0 lb-		
P50			J	30.8 lbs		
P70			3	50.6 lbs		
P200			30.0 kg 66.3 lbs			
P201			31.5 kg	69.4 lbs		
Electrical	allia a		.38			
Power source load	aing		.30			
(typical in kVA)	201	100 to	100 to 120 or 200 to 240 (autoranging)			
Voltage range (V		50 or 60				
Frequency (hertz) Thermal output (ty		480 BTU/hr				
Power requirement		D	460 610/1 50=110 watts, P70			
Power requiremen	its (typical)		00=110 watts, P70			
Power factor		FZC	0.85 0.85	71=130 Walls		
Maximum altitude			3048 m (1000)O ft \		
iviaximum ailituue			3040 111 (1000	70 II.)		
Temperature Rec	quirements	-	Operating			
		10 to 40°	-	0 to 60°C		
		(50 to 104	ŀ°F)	(32 to 140°F)		
Humidity Require	ements	Operatir	ng	Non-Operating		
(Noncondensing)		8 to 80 °	•	5 to 90 %		
Noise Emissions	<u>*</u>		Operating			
L _{WAd}		3.5 bels	3	3.5 bels		
Clearances	Front 152mm (6 in)	Back 152mm (6 in)	Left 152mm (6 in)	Right 152mm (6 in)		
Service	Install so that air v	rents are not blocked.				
* See "Noise Emi	ssion Notes" on page 2		noise emissions no	neitione		
OCC INDISC CITIES	ooioii ivoleo oli page 2	- 123 101 UCIIIIIIU0115 01 1	ioise emissions po	J31110113.		

3490E Enhanced Magnetic Tape Subsystem C11 and C22

Dimensions					
Height			622 mm	24.5 in	
Width			479 mm		
Depth			885 mm	34.9 in	
Weight					
C11			90 kg	198 lbs	
C22			118 kg	260 lbs	
Electrical					
Power source loading	g				
(typical in kVA)					
C11			0.57		
C22			0.90		
Temperature Requir	Temperature Requirements		Operating		
		16 to 32	°C	10 to 43°C	
		(60 to 90	°F)	(50 to 110°F)	
Humidity Requireme	ents	Operation	Operating		
(Noncondensing)		20 to 80	20 to 80 %		
Wet Bulb		25.6°C (7	25.6°C (78°F)		
Noise Emissions*		Operati	ng	ldle	
L_{WAd}				5.8 bels	
C11		****	6.1 bels		
C22		6.4 bel	6.4 bels		
Clearances	Front	Back	Left	Right	
Service	Install so tha	t it can be moved to an area	a providing 76	0 mm (30 in) on each side.	
* See "Noise Emission	n Notes" on pa	age 2-125 for definitions of	noise emissior	ns positions.	

3490E Enhanced Magnetic Tape Subsystem E01 and E11

Dimensions E01	(Table Top)						
Height			268 mm	10.8 in			
Width			220 mm	8.8 in			
Depth			801 mm	32.0 in			
Dimensions E01	(Rack Mounted)						
Height	` ,		336 mm	13.5 in			
Width			220 mm	8.8 in			
Depth			758 mm	30.3 in			
Weight							
E01			25.9 kg	57 lbs			
E11			36.0 kg	80 lbs			
Electrical							
Power source load	lina						
(typical in kVA)	3						
E01			0.39				
E11			0.	39			
Thermal Output (m	nax)		540 B	BTU/hr			
Temperature Req	uirements	Opera	iting	Non-Operating			
		16 to 3		10 to 40°C			
		(60 to	90°F)	(50 to 104°F)			
Humidity Require	ments	Opera	iting	Non-Operating			
(Noncondensing)		8 to 8	0 %	8 to 80 %			
Wet Bulb		27°C (8	0.6°F)	27°C (80.6°F)			
Noise Emissions'	k	Opera	iting	Idle			
E01		58 d	BA	53 dBA			
E11		58 d	BA	53 dBA			
Clearances	Front	Back	Left	Right			
Service	Install so that	t it can be moved to an a	rea providing 76	0 mm (30 in) on each side.			
* See "Noise Emis	sion Notes" on pa	age 2-125 for definitions of	of noise emission	ns positions.			

3514 Models 212, and 213

Dimensions						
Height			610 mm	24 in		
Width			0.0	<u> </u>		
Enclosure			260 mm	10.3 in		
Base			345 mm	13.5 in		
Depth			800 mm	31.5 in		
Weight						
Minimum			58 kg	128 lbs		
Maximum			64 kg	140 lbs		
Electrical						
Power source loa	iding		.33	•		
(typical in kVA)						
Voltage range (V	,	100		240 (autoranging)		
Frequency (hertz)			50 or			
Thermal output (t			1024 BTU/hr			
Power requireme	nts (typical)	300 watts				
Power factor			0.91			
Maximum altitude)		2135 m (7	7000 ft.)		
Temperature Re	quirements**	Operating		Non-Operating		
		16 to 3	32°C	10 to 43°C		
		(50 to 9	90°F)	(50 to 110°F)		
Noise Emissions	s*	Opera	ting	Idle		
L_{WAd}		5.7 bels		5.5 bels N/A		
L _{pAm}		N/A	N/A			
<l<sub>pA>_m</l<sub>		38 dE	38 dBA			
Impulsive noise of	or	No		No		
prominent discret	e tones					
Clearances	Front	Back	Left	Right		
Install/Air Flow	1 mm(40 in)	50 mm(2 in)	25 mm(1 i	n) 25 mm(1 in)		
Service	•	e reasonable service access to front and rear of unit. Recommended ovides enough room to slide unit forward for access to rear.				
* See "Noise	Emission Notes" on pa	ge 2-125 for definition	ns of noise emiss	sions positions.		
**/Polow 04.4	m (2000 ft) altituda an	- varatina rango io autor	adad ta 25°C/05°	- E\		
(Delow 914	m (3000 ft) altitude, op	eraung range is exter	ided to 35°C(95°	Γ)		

3570 Models B00, and C00

Dimensions		Horizont	al	Verti	cal
Height		112 mm 4.	4 in.	320 mm	12.6 in.
Width		320 mm 12	.6 in.	112 mm	4.4 in.
Depth		338 mm 13	.3 in.	338 mm	13.3 in.
Weight					
Minimum		8.4 kg 18.5	5 lbs.	8.4 kg - ′	18.5 lbs.
Maximum (with sta	and)	8.5 kg 18.7	7 lbs.	8.5 kg <i>′</i>	18.7 lbs.
Electrical					
Power source load	ding		0.06	5	
(typical in kVA)					
Voltage range (V		100 to		240 (autoranging	g)
Frequency (hertz)			50 or		
Thermal output (typical)			205 BT		
Power requirements(typical)			60 wa		
Power factor		0.99 (100 V ac) or 0.95 (200 V ac)			
Inrush current		30 amps at 100 V ac, 40 amps at 220 V ac			
Maximum altitude		2135 m (7000 ft.)			
Temperature Requirements		Operatin	•	Non-Operating	
		16 to 32°	-	10 to 4	
		(61 to 90°F)		(50 to 109°F)	
Humidity Require	ements	Operatin	•	Non-Ope	_
(Noncondensing)		8 to 80%		8 to 80%	
Wet Bulb		26°C(79°F)		27°C(81°F)	
Noise Emissions	1	Operating		Idle	
L_{WAd}		5.5 bels		5.5 bels	
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		37dBA		37dBA	
Impulsive noise		None		None	
Prominent discrete	e tones	None		None	
Clearances	Front	Back	Left	Righ	nt
Install	76 mm (3 in)	76 mm (3 in)	None	Non	e
Air Flow ²					
Service	No additional clea	rance is needed for ser	vice.		

3570 Models B01, and C01

	No additional clearance is needed for service.				
Install Air Flow²	76 mm (3 in)	76 mm (3 in)	None	None	
Clearances	Front	Back	Left	Right	
Prominent discrete tones		None		None.	
Impulsive noise		None		None	
<l<sub>pA>_m</l<sub>		41dBA		36dBA	
PAm		N/A		N/A	
-WAd		5.7 bels		5.3 bels	
Noise Emission	S¹	Operatii	ng	Idle	
Wet Bulb		26°C(79°	°F)	27°C(81°F)	
(Noncondensing)	1	8 to 80%		8 to 80%	
Humidity Requi		Operatii	•	Non-Operating	
		(61 to 90	°F)	(50 to 109°F)	
		16 to 32	-	10 to 43°C	
Temperature Requirements		Operatii	ng	Non-Operating	
Maximum altitude		2135 m (7000 ft.)			
Inrush current		30 amps at 120 V ac, 40 amps at 240 V ac			
Power factor			0.99 (100 V ac) or 0.95 (200 V ac)		
Power requirements(typical)			70 watts		
Thermal output (239 B7	ΓU/hr	
Frequency (hertz			50 or	`	
Voltage range (V	ac)	100 to	o 127 or 200 to	240 (autoranging)	
(typical in kVA)	J				
Power source loa	ading		0.0	7	
Electrical	······································				
Maximum (with s	stand)		39.8 kg	87.7 lbs	
Weight Maximum			35.0 kg	77.1 lbs	
<u>'</u>			771 111111	30.4 III.	
vviatn Depth			483 mm 771 mm	19.0 in. 30.4 in.	
Height (with stan Width	d)		242.4 mm	9.5 in.	
9					
Dimensions Height Hoight (with stan	d)		217 mm	8.5 in.	

2. Air flow is 25 CFM

3570 Model B02, and C02

Dimensions					
Height			217 mm	8.5 in.	
Height (with stand	i)		242.4 mm	9.5 in.	
Width			483 mm	19.0 in.	
Depth			771 mm	30.4 in.	
Weight					
Maximum			40.0 kg	88.2 lbs	
Maximum (with sta	and)		44.8 kg	98.7 lbs	
Electrical					
Power source load	ding		0.1	13	
(typical in kVA)					
Voltage range (V	,	100 to		o 240 (autoranging)	
Frequency (hertz)			50 o		
Thermal output (ty	. ,		444 B		
Power requiremer Power factor	its(typical)	0.00	130 / 20) 0		
Inrush current ¹		0.99 (100 V ac) or 0.95 (200 V ac) 30 amps at 120 V ac, 40 amps at 240 V ac			
Maximum altitude		2135 m (7000 ft.)			
			· · · · · · · · · · · · · · · · · · ·		
Temperature Requirements		Operation	•	Non-Operating	
		16 to 32	-	10 to 43°C	
		(61 to 90°F)		(50 to 109°F)	
Humidity Require	ements	Operation	Operating		
(Noncondensing)		8 to 80%		8 to 80%	
Wet Bulb		26°C(79°F)		27°C(81°F)	
Noise Emissions	j ²	Operating		Idle	
L _{WAd}		5.8 bels		5.5 bels	
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		43dBA		38dBA	
Impulsive noise		None		None	
Prominent discrete tones		None		None	
Clearances	Front	Back	Left	Right	
Install/Air Flow³	76 mm (3 in)	76 mm (3 in)	None	None	
Service	No additional clearance is needed for service.				

3. Air flow is 50 CFM.

3570 Models B11, and C11

Dimensions						
Height			217 mm	8.5 in.		
ŭ				(5EIA units)		
Width			444 mm	17.5 in.		
Depth			714 mm	28.1 in.		
Weight						
Maximum			24.0 kg	52.8 lbs		
Electrical						
Power source load	ing		0.0	07		
(typical in kVA)						
Voltage range (V a	c)	10		o 240 (autoranging)		
Frequency (hertz)			50 o			
Thermal output (typ	oical)		239 B	TU/hr		
Power requirement	s(typical)		70 watts			
Power factor			0.99 (100 V ac) or 0.95 (200 V ac)			
Inrush current		30 a	30 amps at 120 V ac, 40 amps at 240 V ac			
Maximum altitude 2135 m (7000 ft.)			7000 ft.)			
Temperature Requirements		•	rating	Non-Operating		
			32°C	10 to 43°C		
		(61 to	90°F)	(50 to 109°F)		
Humidity Require	ments	-	rating	Non-Operating		
(Noncondensing)			80%	8 to 80%		
Wet Bulb		26°C	(79°F)	27°C(81°F)		
Noise Emissions*		-	rating	ldle		
L_{WAd}			bels	5.1bels		
L _{pAm}			I/A	N/A		
<l<sub>pA>_m</l<sub>			dBA	34 dBA		
Impulsive noise		* *	one	None		
Prominent discrete	tones	N	one	None		
Clearances	Front	Back	Left	Right		
Install/Air Flow	Maintenance of	of a proper service clea	rance should allow	w proper air flow.		
Service	See service of	clearances for the "701	5 System Rack R0	00" on page 2-23.		
* See "Noise Emiss	sion Notes" on pag	ge 2-125 for definitions	of noise emission	ns positions.		
				•		

3570 Models B12, and C12

Dimensions						
Height	Height		7 mm 8.5 in.			
			(5EIA units)			
Width			l mm 17.5 in.			
Depth		714	1 mm 28.1 in.			
Weight						
Maximum		29.0	0 kg 63.9 lbs			
Electrical						
Power source loadi	ng		0.13			
(typical in kVA)						
Voltage range (V a	c)	100 to 127	or 200 to 240 (autoranging)			
Frequency (hertz)			50 or 60			
Thermal output (typical)			444 BTU/hr			
Power requirements(typical)		//-	130 watts			
Power factor			0.99 (100 V ac) or 0.95 (200 V ac)			
Inrush current¹			30 amps at 120 V ac, 40 amps at 240 V ac			
Maximum altitude			2135 m (7000 ft.)			
Temperature Requirements		Operating	Non-Operating			
		16 to 32°C	10 to 43°C			
		(61 to 90°F)	(50 to 109°F)			
Humidity Requirer	nents	Operating	Non-Operating			
(Noncondensing)		8 to 80%	8 to 80%			
Wet Bulb		26°C(79°F)	27°C(81°F)			
Noise Emissions ²		Operating	Idle			
L_{WAd}		5.6bels	5.3bels			
L_pAm		N/A	N/A			
<l<sub>pA>_m</l<sub>		41 dBA	36 dBA			
Impulsive noise		None	None			
Prominent discrete	tones	None	None			
Clearances	Front	Back	Left Right			
Install/Air Flow	Maintenance of	of a proper service clearance sh	ould allow proper air flow.			
Service	See service cl	earances for the "7015 System	Rack R00" on page 2-23.			
		This model has two line cords.				

Dimensions					
Height	Height		991 mm	39 in.	
Width	Width		355 mm	14 in.	
Depth			836 mm	37.9 in.	
Weight					
Maximum			71 kg	157 lbs	
Electrical					
Power source load	ling		0.175		
(typical in kVA)					
Voltage range (V a	ac)		100 to 127 or 2	00 to 240	
Frequency (hertz)			50 or 6	0	
Thermal output (typical)			600 BTU	/hr	
Power requirements(typical)			175 wat	ts	
Power factor		0.99			
Maximum altitude		2135 m (7000 ft.)			
Temperature Requirements		Operation	ng	Non-Operating	
		16 to 32	-	10 to 43°C	
		(60 to 90°F)		(50 to 110°F)	
Humidity Require	ments	Operation	•	Non-Operating 8 to 80%	
(Noncondensing)			8 to 80%		
Wet Bulb		26°C(79°F)		27°C(80°F)	
Noise Emissions*	•	Operating		ldle	
L_{WAd}		6.6 bels		5.6 bels	
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		47dBA		34dBA	
Impulsive noise		Yes		Yes	
Prominent discrete tones		No		No	
Clearances	Front	Back	Left	Right	
Install/Air Flow	76 mm (3 in)	76 mm (3 in)	76 mm (3 in) 76 mm (3 in)	
Service	Install so that it ca	an be moved to an area	a providing 760 m	nm (30 in) on each side.	
* Coo "Noice Emic	cion Notos" on page (2-125 for definitions of	noise emissions r	nositions	

10 86 12	09 mm 1 mm	40.5 in. 39.7 in. 33.9 in. 280 lbs		
12	1 mm 7 kg 0.28 0 to 127 or 20	33.9 in. 280 lbs		
12	7 kg 0.28 0 to 127 or 20	280 lbs		
	0.28 0 to 127 or 20			
	0.28 0 to 127 or 20			
100	0 to 127 or 20	0 to 240		
100	0 to 127 or 20	0 to 240		
100		0 to 240		
100		0 to 240		
	50 or 60	•		
	850 Btu/h			
	250 watts	3		
0.89				
2135 m (7000 ft.)				
Operating		Non-Operating		
16 to 32°C		10 to 43°C		
(60 to 90°F)		(50 to 110°F)		
Operating		Non-Operating		
		8 to 80%		
26°C(79°F)		27°C(80°F)		
Operating		ldle		
		5.9 bels		
		N/A		
		34dBA		
Yes		Yes		
No		No		
ack	Left	Right		
6 mm (3 in)	76 mm (3 in)	76 mm (3 in)		
Install so that it can be moved to an area providing 760 mm (30 in) on each side.				
loved to an area pro		(55 11) 511 54511 5146.		
3	8 to 80% 26°C(79°F) Operating 6.7 bels N/A 47dBA Yes No	8 to 80% 26°C(79°F) Operating 6.7 bels N/A 47dBA Yes No ack Left 6 mm (3 in) 76 mm (3 in)		

Dimensions					
Height			1029 mm	40.5 in.	
Width	Vidth		1009 mm	39.7 in.	
Depth			861 mm	33.9 in.	
Weight					
Maximum			132 kg	290 lbs	
Electrical					
Power source load	ding		0.45	5	
(typical in kVA)					
Voltage range (V	ac)		100 to 127 or	200 to 240	
Frequency (hertz)			50 or	60	
Thermal output (typical)			1200 BT	U/hr	
Power requirements(typical)			350 wa	atts	
Power factor		0.78			
Maximum altitude		2135 m (7000 ft.)			
Temperature Requirements		Operatin	Operating		
		16 to 32°	C	10 to 43°C	
		(60 to 90°F)		(50 to 110°F)	
Humidity Require	ements		Operating		
(Noncondensing)		8 to 80%	8 to 80%		
Wet Bulb		26°C(79°F)		27°C(80°F)	
Noise Emissions	*	Operating		Idle	
L _{WAd}		6.8 bels		6.2 bels	
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		47dBA		34dBA	
Impulsive noise				Yes	
Prominent discrete tones		No No		No	
Clearances	Front	Back	Left	Right	
Install/Air Flow	76 mm (3 in)	76 mm (3 in)	76 mm (3 i	n) 76 mm (3 in)	
		istall so that it can be moved to an area providing 760 mm (30 in) on each side.			

Thermal output (typical) Power requirements(typical)			1200 Btu 350 wat		
Power requirements(typical) Power factor			350 watts		
Maximum altitude			0.78 2135 m (7000 ft.)		
			•		
Temperature Requirements		Operation	•	Non-Operating	
		16 to 32	-	10 to 43°C	
		(60 to 90°F)		(50 to 110°F)	
Humidity Require	ements	Operatii	ng	Non-Operating	
(Noncondensing)		8 to 80°	8 to 80%		
Wet Bulb		26°C(79°F)		27°C(80°F)	
Noise Emissions	*	Operatio	Operating 6.8 bels		
L _{WAd}		•			
1		N/A		6.2 bels N/A	
LpAm		47dBA		34dBA	
<l<sub>pA>_m Impulsive noise</l<sub>		Yes		Yes	
		No No			
Prominent discrete tones		INO		INO	
Clearances	Front	Back	Left	Right	
	76 mm (3 in)	76 mm (3 in)	76 mm (3 in) 76 mm (3 in)	
Install/Air		` '	ζ-	, (- ,	
Install/Air Flow	, ,				
Flow		on he mound to or	n novidina 700	om (20 in) on oach side	
Flow Service	Install so that it ca	an be moved to an area		nm (30 in) on each side.	

Dimensions					
Height			1480 mm	58.3 in.	
Width	Nidth		1009 mm	39.7 in.	
Depth			861 mm	33.9 in.	
Weight					
Maximum			203 kg	446 lbs	
Electrical					
Power source load	ding		0.4	5	
(typical in kVA)					
Voltage range (V	ac)		100 to 127 or	200 to 240	
Frequency (hertz)			50 or	60	
Thermal output (typical)			1200 B	ΓU/hr	
Power requirements(typical)			350 w	atts	
Power factor		0.78			
Maximum altitude		2135 m (7000 ft.)			
Temperature Requirements		Operating	Operating		
		16 to 32°0	C	10 to 43°C	
			(60 to 90°F)		
Humidity Require	ements		Operating		
(Noncondensing)		8 to 80%			
Wet Bulb		26°C(79°F)		27°C(80°F)	
Noise Emissions	*	Operating		ldle	
L_{WAd}		6.8 bels		6.2 bels	
L_{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		47dBA		34dBA	
Impulsive noise		Yes		Yes	
Prominent discrete tones		No		No	
Clearances	Front	Back	Left	Right	
Install/Air Flow	76 mm (3 in)	76 mm (3 in)	76 mm (3	in) 76 mm (3 in)	
		Install so that it can be moved to an area providing 760 mm (30 in) on each side.			

3995 Model 063

Dimensions						
Height		6	81 mm	26.8 in.		
Width		~		14.8 in.		
Depth		8	05 mm	31.7 in.		
Weight						
Minimum		9	3 kg	205 lbs		
Maximum		N	I/A	N/A		
Electrical						
Power source loa	iding		0.16			
(typical in kVA)						
Voltage range (V		100 to 1		40 (selectable)		
Frequency (hertz)			50 or 60			
Thermal output (t	* ' '		350 BTU/	• • •		
Power requirements (typical)		100 watts				
Power factor		0.63				
Maximum altitude)	2135 m (7000 ft.)				
Temperature Re	quirements	Operating				
		10 to 38°C				
			(50 to 100	°F)		
Humidity Requir	ements	Operating		Non-Operating		
(Noncondensing)		8 to 80%		8 to 80%		
Wet Bulb		23°C(73°F)		27°C(80°F)		
Noise Emissions	S*	Operating		Idle		
L_{WAd}		6.0 bels		5.5 bels		
L_{pAm}		N/A		N/A		
<l<sub>pA>_m</l<sub>		43 dBA		37 dBA		
Impulsive noise		Yes		No		
Prominent discrete tones		No		No		
Clearances	Front	Back	Left	Right		
Install/Air Flow	1020mm(40 in)	1020mm(40 in)	559mm(22 in	559mm(22 in)		
Service	Install so that it car	be moved to an area p	roviding 760 m	m(30 in) on each side.		
* See "Noise Emi	ssion Notes" on page 2-	125 for definitions of noi	se emissions p	ositions.		
			<u>.</u>			

3995 Model 163

Dimensions							
Height			1800 mm	70.9 in.			
Width		692 mm		27.3 in.			
Depth	Depth		943 mm	37.1 in.			
Weight							
Minimum			408 kg 900				
Maximum	Maximum		N/A	N/A			
Electrical							
Power source loa	Power source loading		0.2	5			
(typical in kVA)							
	Voltage range (V ac)		200 to	-			
	Frequency (hertz)		50 or				
	Thermal output (typical)		750 BT				
Power requirements			220 watts				
Power factor		0.89					
Inrush current		10 amps					
Maximum altitude	Maximum altitude		2135 m (7000 ft.)				
Temperature Re	quirements	Operating		Non-Operating			
		16 to 32°C		10 to 43°C			
		(60 to 90°F)		(50 to 110°F)			
Humidity Requir	ements	Operating	J	Non-Operating			
(Noncondensing)		8 to 80%		8 to 80%			
Wet Bulb		23°C(73°F)		27°C(80°F)			
Noise Emissions	s *	Operating		ldle			
L _{WAd}		6.5 bels		5.5 bels			
L _{pAm}		N/A		N/A			
<l<sub>pA>_m</l<sub>		46 dBA		42 dBA			
Impulsive noise		Yes		No			
Prominent discrete tones		No		No			
Clearances	Front	Back	Left	Right			
Install/Air Flow	1020mm(40 in)	1020mm(40 in)	559mm(22	2 in) 559mm(22 in)			
Service	Install so that it car	n be moved to an area p	providing 760	mm(30 in) on each side.			
* See "Noise Emi	ssion Notes" on page 2-	125 for definitions of no	oise emissions	s positions.			
				•			

3995 Model A63

Dimensions					
Height			492 mm	19.38 in.	
Width			220 mm	8.70 in.	
Depth			711 mm	28.00 in.	
Weight					
Minimum			32.2 kg	75.5 lbs	
Maximum			N/A	N/A	
Electrical					
Power source loa	ading		0.11		
(typical in kVA)					
Voltage range (V ac)			100 to 127 or		
Frequency (hertz)			50 or	* *	
Thermal output (typical)			250 BTI		
Power requirements(typical) Power factor		60 watts			
Maximum altitude		0.6 (100-127 V ac) or 0.55 (200-240 V ac) 2135 m (7000 ft.)			
			,		
Temperature Re	quirements		Operating		
		16 to 32°C		10 to 43°C	
		(60 to 90°F)		(50 to 110°F)	
Humidity Requir	rements	•	Operating		
(Noncondensing)		8 to 80%		8 to 80% 27°C(80°F)	
Wet Bulb		23°C(73	23°C(73°F)		
Noise Emissions	s*	•	Operating		
L_{WAd}		6.4 bels		5.1 bels	
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		47dBA		34dBA	
Impulsive noise		Yes		Yes	
Prominent discrete tones		No		No	
Clearances	Front	Back	Left	Right	
Install/Air Flow	76 mm (3 in)	76 mm (3 in)	76 mm (3 i	n) 76 mm (3 in)	
Service	Install so that it ca	an be moved to an are	a providing 760	mm (30 in) on each side.	
* See "Noise Em	ission Notes" on page 2	2-125 for definitions of	noise emissions	positions.	
				•	

Service	Install so that it can be moved to an area providing 760 mm (30 in) on each side.				
Install/Air flow	leave open for operator panel	76 mm (3 in)	76 mm (3 ir	n) 76 mm (3 in)	
Clearances	Front	Back	Left	Right	
Prominent discrete tones		No		No	
Impulsive noise		Yes		Yes	
−pam <l<sub>pA>_m</l<sub>		N/A		N/A	
L _{WAd} L _{pAm}		N/A		N/A	
		6 bels		5.5 bels	
Noise Emissions	*	Operatir		Idle	
Wet Bulb		25.8°C(78.4°F)		27°C(80°F)	
(Noncondensing)	monto	8 to 80%		8 to 80%	
Humidity Require	ments	Operating		Non-Operating	
		(50 to 100.4°F)		10 to 52°C (50 to 125.6°F)	
remperature Requirements			10 to 38°C		
Temperature Requirements		Operating		Non-Operating	
Maximum altitude		2135 m (7000 ft.)			
Power requirements(typical)		80 watts			
Thermal output (ty			275 BTL		
Voltage range (V : Frequency (hertz)	,		50 or 6		
(typical in kVA) @			100 to 127 or 2	200 to 240	
Power source load			0.14		
Electrical					
Typical weight of cartridge			0.32 kg	0.7 lbs	
Maximum (with 20 cartridges)			34.1 kg	75 lbs	
Minimum (w/o car	o ,		28.0 kg	61 lbs	
Weight					
Depth			737 mm	29.0 in.	
Width			216 mm 8.5		
Height			457 mm	18.0 in.	

Dimensions						
Height			991 mm	39.0 in.		
Width		355 mm 1		14.0 in.		
Width (with stabil	izers)		464 mm	18.3 in.		
Depth			737 mm	29.0 in.		
Weight						
Minimum (w/o ca	rtridges)		69 kg	152 lbs		
Maximum (with 5	Maximum (with 52 cartridges)		85.6 kg	188.4 lbs		
Typical weight of cartridge			0.32 kg	0.7 lbs		
Electrical						
Power source loa	iding		0.16	6		
(typical in kVA) @ 120 V ac						
Voltage range (V ac)			100 to 127 or	200 to 240		
Frequency (hertz)			50 or			
Thermal output (typical)			310 BTU/hr			
Power requirements (typical)		90 watts				
Maximum altitude		2135 m (7000 ft.)				
Temperature Requirements			Operating			
		10 to 38°C		10 to 52°C		
		(50 to 100	(50 to 100.4°F)			
Humidity Requir	ements	Operati	Operating			
(Noncondensing)		8 to 80%		8 to 80%		
Wet Bulb		25.8°C(78.4°F)		27°C(80°F)		
Noise Emissions	s*	Operating		Idle		
L_{WAd}		6 bels		5.5 bels		
L _{pAm}		N/A		N/A		
<l<sub>pA>_m</l<sub>		N/A		N/A		
Impulsive noise		Yes		Yes No		
Prominent discrete tones		No	No			
Clearances	Front	Back	Left	Right		
Install/Air	leave open for	76 mm (3 in)	76 mm (3	in) 76 mm (3 in)		
flow	operator panel					
Service	Install so that it ca	n be moved to an area	a providing 760	mm (30 in) on each side.		
* See "Noise Fmi	ssion Notes" on page 2	-125 for definitions of	noise emissions	s positions.		
200 110100 E1111	20.0 110.00 011 page 2			, p. c		

Service	Install so that it ca	n be moved to an area p	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			
Install/Air flow	leave open for operator panel	76 mm (3 in)	76 mm (3 in	76 mm (3 in)		
Clearances	Front	Back	Left	Right		
Prominent discrete tones		No		No		
mpulsive noise		Yes		Yes		
L _{DA} > _m		N/A		N/A		
-pAm		N/A		N/A		
-WAd	-	6 bels		5.5 bels		
Noise Emission	s*	Operating		Idle		
Wet Bulb		25.8°C(78.4°F)		27°C(80°F)		
(Noncondensing)		8 to 80%		8 to 80%		
Humidity Requir	rements	Operating		Non-Operating		
		(50 to 100.4°F)		(50 to 125.6°F)		
-	-	10 to 38°C		10 to 52°C		
Temperature Requirements		Operating		Non-Operating		
Maximum altitude		2135 m (7000 ft.)				
Power requirements(typical)		100 watts				
Thermal output (typical)			340 BTU	/hr		
Frequency (hertz	,		50 or 6	0		
Voltage range (V		10	00 to 127 or 2	00 to 240		
(typical in kVA)	0		0.11			
Electrical Power source loa	adina		0.17			
Electrical			שיי =			
Typical weight of	o ,		.32 kg	0.7 lbs		
Minimum (w/o cartridges) Maximum (with 104 cartridges)			25 kg 58 kg	348 lbs		
Weight Minimum (w/o.ca	rtridaes)	1	25 kg	275 lbs		
<u>'</u>			104 11111	JU.U III.		
Depth			813 mm 32.0 in. 762 mm 30.0 in.			
Height Width			029 mm	40.5 in. 32.0 in.		
Dimensions		4	000	40 F :		

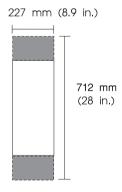
Height Width			1029 mm 813 mm	40.5 in. 32.0 in.	
Depth			762 mm	30.0 in.	
Weight					
Minimum (w/o cartrid	dges)		125 kg	275 lbs	
Maximum (with 156 cartridges)			175 kg	384 lbs	
Typical weight of car	rtridge		0.32 kg	0.7 lbs	
Electrical					
Power source loading			0.31	1	
(typical in kVA) @ 1			100 / 10=	000 / 040	
Voltage range (V ac))		100 to 127 or		
Frequency (hertz) Thermal output (typic	cal)		50 or 475 BT		
Power requirements		475 BTO/III 140 watts			
Maximum altitude		2135 m (7000 ft.)			
Temperature Requirements		Operating		Non-Operating	
		10 to 38°C		10 to 52°C	
		(50 to 100.4°F)		(50 to 125.6°F)	
Humidity Requirem	ients	Operating		Non-Operating	
(Noncondensing)		8 to 80%		8 to 80%	
Wet Bulb		25.8°C(78.4°F)		27°C(80°F)	
Noise Emissions*		Operating		ldle	
L_{WAd}		6 bels		5.5 bels	
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		N/A		N/A	
Impulsive noise		Yes		Yes	
Prominent discrete tones		No		No	
	Front	Back	Left	Right	
Clearances		()	70 (0	in) 76 mm (3 in)	
Install/Air flow	leave open for operator panel	76 mm (3 in)	76 mm (3	70 11111 (3 111)	

	Install so that it can be moved to an area providing 760 mm (30 in) on each side.			
leave open for operator panel	76 mm (3 in)	76 mm (3 in)	76 mm (3 in)	
Front	Back	Left	Right	
e tones	No		No	
	Yes		Yes	
	N/A		N/A	
			N/A	
•			5.5 bels	
*	, ,		Idle	
	25.8°C(78.4°F)		27°C(80°F)	
	8 to 80%		8 to 80%	
ements	Operating		Non-Operating	
	(50 to 100.4°F)		(50 to 125.6°F)	
4	10 to 38°C		10 to 52°C	
guirements	Operating		Non-Operating	
	2135 m (7000 ft.)			
, , ,	140 watts			
		475 BTU/l		
,	100			
	100	to 127 or 20	0 to 240	
0		0.31		
dina		0.24		
carmuye	0.32	ry (U.1 ID9	
• ,		J	606 lbs 0.7 lbs	
• ,		•	425 lbs	
	762	∠ mm :	30.0 in.	
			32.0 in.	
			58.3 in.	
	leave open for	#tridges) 193 58 cartridges) 275 cartridge 0.33 ding ② 120 V ac ac) 100 ypical) hts(typical) quirements Operating 10 to 38°C (50 to 100.4°F) ements Operating 8 to 80% 25.8°C(78.4°F) s* Operating 6 bels N/A N/A Yes e tones No Front Back leave open for 76 mm (3 in)	### 813 mm 762 mm #### 762 mm 0.31 #### 30 of 00 ### 30 of 00 #### 30 of 00 #	

4869 Model 002 5 1/4-Inch 1.2MB External Diskette Drive

Dimensions					
Height			62.5 mm	2.5 in.	
Width			227.0 mm	8.9 in.	
Depth			408.0 mm	16.0 in.	
Weight					
Minimum			2.1 kg	4.6 lbs.	
Maximum		2.1 kg		4.6 lbs.	
Electrical					
Power source loading			0.0	02	
(typical in kVA)					
Voltage range (V		100 to		o 240 (autoranging)	
Frequency (hertz		50 or 60			
Thermal output (t			35 B	· •/···	
Power requirements (typical)		10 watts			
Power factor		N/A			
Maximum altitude			2135 m (7000 ft.)		
Temperature Requirements		Operation		Non-Operating	
		10 to 40	-	10 to 52°C	
		(50 to 104°F)		(50 to 125°F)	
Humidity Requir		Operation	ng	Non-Operating	
(Noncondensing)					
ANSI Media		8 to 80		5 to 95%	
ISO Media		20 to 80%		5 to 95%	
Wet Bulb		23°C (73°F)		27°C (80°F)	
Noise Emissions	S ¹	Operating		ldle	
L_{WAd}		6.0 bels		N/A	
L_pAm		54 dBA		N/A	
<l<sub>pA>_m</l<sub>		42 dBA		N/A	
Impulsive or prominent		Yes		No	
discrete tones					
Clearances	Front	Back	Left	Right	
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	N/A	
Service	152 mm(6 in)	N/A	N/A	N/A	

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

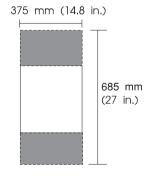


4869 Model 002 Footprint

7010 Xstation 130

Dimensions						
Height			72 mm	2.9 in.		
Width		375 mm 14.8 in.		14.8 in.		
Depth	epth		380 mm	15.0 in.		
Weight						
Minimum			7.7 kg	17 lbs.		
Maximum			9.5 kg	21 lbs.		
Electrical						
Power source loading			0.1	100		
(max. in kVA)						
Voltage range (V ac)			100 to	125 or		
Frequency (hertz)			200 to 240 (autoranging)		
Thermal output (typical)		50 or 60				
Power requirements (peak)		222 BTU/hr				
Power factor		65 watts				
Maximum altitude		0.5 to 0.7				
		2135 m (7000 ft.)				
Temperature Red	quirements	Operating		Non-Operating		
		16 to 32°	°C	10 to 43°C		
		(60 to 90°	°F)	(50 to 110°F)		
Humidity Require	ements	Operatir	•	Non-Operating		
(Noncondensing)		8 to 80%		8 to 80%		
Wet Bulb		23°C (73°	°F)	27°C (80°F)		
Noise Emissions	;1	Operatir	ng	ldle		
L_{WAd}		5.0 bels	S	4.8 bels		
L _{pAm}		40 dBA		39 dBA		
<l<sub>pA>_m</l<sub>		37 dBA		36 dBA		
Impulsive or prominent		No		No		
discrete tones						
Clearances	Front	Back	Left	Right		
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	N/A		

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

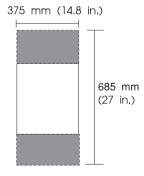


Xstation 130 Footprint

7010 Xstation 140, and 150

nstall/Air Flow²	152 mm(6 in)	152 mm(6 in)	N/A	N/A	
Clearances	Front	Back	Left	Right	
liscrete tones					
Impulsive or prominent		No No			
-pam <l<sub>pA>_m</l<sub>		31 dBA		31 dBA	
-vvAa -pAm		33 dBA		33 dBA	
-WAd	-	4.7 bel	•	4.7 bels	
loise Emission	S ¹	Operatir	na	Idle	
Vet Bulb		23°C (73°F)		27°C (80°F)	
Noncondensing)		8 to 80%		8 to 80%	
lumidity Requir	ements	Operating		Non-Operating	
		(60 to 90°	°F)	(50 to 110°F)	
		16 to 32°	°C	10 to 43°C	
emperature Re	quirements	Operatir	•	Non-Operating	
Maximum altitude		2135 m (7000 ft.)			
Power factor		0.5 to 0.7			
Power requirements (peak)		65 watts			
hermal output (i		222 BTU/hr			
Frequency (hertz)				or 60	
			200 to 240 (0 0,	
/oltage range (V	ac)			125 or	
max. in kVA)					
Power source loa	iding		0.	100	
Electrical					
/laximum			8.6 kg	19 lbs.	
/linimum			7.3 kg	16 lbs.	
Veight					
<u> </u>			300 11111	15.0 III.	
Viairi Depth			375 mm 14.8 in. 380 mm 15.0 in.		
leight Vidth			72 mm 375 mm	2.9 in. 14.8 in.	
Dimensions			70	0.0 in	

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

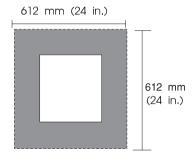


Xstation 140 and 150 Footprint

7010 Xstation Model 160

Install/Air	152 mm(6 in)	152 mm(6 in)	152 mm(6 i	in) 152 mm(6 in)	
Clearances	Front	Back	Left	Right	
discrete tones					
Impulsive or prominent		No		No	
<l<sub>pA>_m</l<sub>		41 dBA		41 dBA	
L _{pAm}		37 dBA		37 dBA	
L _{WAd}	•	4.3 bels		4.3 bels	
Noise Emissions	1	Operatii		Idle	
Wet Bulb		23°C (73°F)		27°C (80°F)	
(Noncondensing)		8 to 80%		8 to 80%	
Humidity Require	ements	Operation	ng	Non-Operating	
		(60 to 90	°F)	(50 to 110°F)	
•	-	16 to 32	°Č	10 to 43°C	
Temperature Rec	quirements	Operating		Non-Operating	
Maximum altitude		2135 m (7000 ft.)			
Power factor		0.715			
Power requiremen	nts (peak)	50 watts			
Thermal output (m		143 BTU/hr			
Frequency (hertz)			50 or 6		
5 5 (,		200 to 240 (au	toranging)	
Voltage range (V	ac)		100 to 1	25 or	
(max. in kVA)	· ·		•		
Power source load	ding		0.12	1	
Electrical					
Maximum			4.5 kg	9 lbs.	
Minimum			4.1 kg	10 lbs.	
Weight					
Depth			306 mm	12.00 in.	
Width			306 mm	12.00 in.	
Height			68 mm	2.75 in.	

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

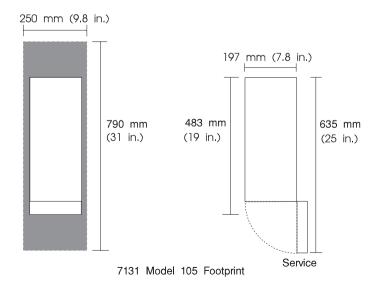


Xstation 160 Footprint

7131 Model 105 SCSI Multi-Storage Tower

Dimensions					
Height			407 mm 16	6.0 in.	
Width (at pedestal	l)	197 mm 7.8 in.			
Depth			483 mm 19	9.0 in.	
Weight					
Minimum			15.4 kg 34	1 lbs.	
Maximum			20.0 kg 44	1 lbs.	
Electrical					
Power source load	ding		0.76 to 0.96		
(typical in kVA)					
Voltage range (V	ac)		100 to 125 or 20	00 to	
			240 (selectabl	e)	
Frequency (hertz)			50 or 60		
Thermal output (m		1638 BTU/hr			
Power requirements (max)		480 watts			
Power factor		0.5			
Maximum altitude		2135 m (7000 ft.)			
Temperature Rec	quirements	Operatir	•	Non-Operating	
		16 to 32°	-	10 to 43°C	
		(60 to 90°F)		(50 to 110°F)	
Humidity Require	ements	Operatir	ng	Non-Operating	
(Noncondensing)		20 to 80%		20 to 80%	
Wet Bulb		23°C (73°	°F)	27°C (80°F)	
Noise Emissions	1	Operatir	ng	Idle	
L _{WAd} (5 devices)		6.0 bels		5.6 bels	
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		50 dBA		46 dBA	
Impulsive or prominent		No No		No	
discrete tones					
Clearances	Front	Back	Left	Right	
Install/Air	152 mm(6 in)	152 mm(6 in)	25 mm(1 in)	25 mm(1 in)	
Flow ²					

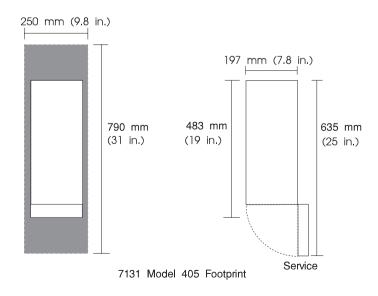
- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7131 Model 405 SSA Multi-Storage Tower

Dimensions						
Height			407 mm	16.0 in.		
Width (at pedesta	al)		197 mm 7.8 in.			
Depth	,		483 mm	19.0 in.		
Weight						
Minimum			15.4 kg	34 lbs.		
Maximum			18.0 kg	40 lbs.		
Electrical						
Power source loa	ading		0.39			
(typical in kVA)						
Voltage range (V	ac)		100 to 125 or 2			
_			240 (selecta	•		
Frequency (hertz	•		50 or 60			
Thermal output (,	785 BTU/hr				
Power requireme	ents (max)	230 watts				
Power factor	_	0.5				
Maximum altitude		2135 m (7000 ft.)				
Temperature Re	quirements		Operating Non-Oper			
		16 to 32°C		10 to 43°C		
		(60 to 90°F)		(50 to 110°F)		
Humidity Requir	rements	Operatii	ng	Non-Operating		
(Noncondensing)		20 to 80		20 to 80%		
Wet Bulb		23°C (73°F)		27°C (80°F)		
Noise Emission	S ¹	Operating		ldle		
L _{WAd} (5 devices	s)	6.0 bels		5.6 bels		
L _{pAm}		N/A		N/A		
<l<sub>pA>_m</l<sub>		50 dBA		46 dBA		
Impulsive or prominent		No No		No		
discrete tones						
Clearances	Front	Back	Left	Right		
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	25 mm(1 in)	25 mm(1 in)		
Service	152 mm(6 in)	N/A	N/A	25mm(1in)		

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7133 Models 010 and 020 Rack-Mounted SSA Subsystem

Dimensions			
Height	171 mm	6.7 in.	
		(4 EIA units)	
Width	444 mm	17.5 in.	
Depth	665 mm	26.2 in.	
Weight			
Minimum	36 kg	79 lbs.	
Maximum	50 kg	110 lbs.	
Electrical			
Power source loading:			
Maximum start-up	0.657	′ kVA	
Maximum operating	0.499) kVA	
Maximum idling	0.45	kVA	
Power factor	greater than 0.95		
Voltage range (V ac)	100 to	o 240	
Voltage optional (V dc)	240 to	o 375	
Frequency (hertz)	50 or 60		
DC Power Supply -48 V dc (Model 020 only)	-40 to -60		
Thermal output (Maximum)	2074 BTU/hr	` ,	
Maximum altitude	2135 m	(7000 ft.)	
Temperature Requirements	Operating	Non-Operating	
	10 to 40°C	10 to 52°C	
	(50 to 104°F)	(50 to 125°F)	
	(See note 2)		
Humidity Requirements	Operating	Non-Operating	
(Noncondensing)	8% to 80%	8% to 80%	
Wet Bulb	27°C (80°F)	27°C (80°F)	
Noise Emissions*	Operating	Idle	
L _{WAd}	6.15 bels	6.1 bels	
L _{pAm}	N/A	N/A	
<l<sub>pA>_m</l<sub>	48 dBA	45 dBA	
Impulsive or prominent	No	No	
discrete tones			

^{*} See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.

- 1. Each 7133 rack-mounted unit requires an air flow of 2.46 cubic meters/minute (87 CFM). When racks containing many 7133 units are to be installed together, the following requirements must be met to ensure that the 7133 units are adequately cooled:
 - . The airflow is in at the front of the rack and out at the back. To avoid moving exhaust air to the intake of another piece of equipment, racks should be positioned in alternate rows, back-to-back and front-to-front.
 - The front of racks should be positioned on floor-tile seams, with a full line of perforated tiles immediately in front of the racks. Each perforated tile should have an air flow of at least 11.34 m³/min (400 CFM). The underfloor temperature must be at most 15°C (60°F).
 - · Where racks are in rows front-to-front or back-to-back, there should be a gap of at least 1220 mm (48 in) separating the rows.
 - · To ensure proper air flow within each rack, the rack filler plates must be installed in unused positions. Also, all the gaps in the front of the racks must be sealed, including the gaps between the 7133 units.
- 2. The recommended operating temperature is 22°C (72°F) or lower. At lower temperatures, the risk of failure in the unit is reduced. If the operating temperature is above 22°C (72°F) for long periods of time, the unit will be exposed to a greater risk of failure from external causes.

7133 Models 500 and 600 Deskside SSA Subsystem

Flow ²	132 11111(0 111)	132 11111(0 111)	IN/A	IV/A	
Clearances Install/Air	152 mm(6 in)	152 mm(6 in)	Left N/A	Right N/A	
discrete tones					
TpATm Impulsive or pror	ninent	No		No	
L _{pAm} <l<sub>pA>_m</l<sub>			59 dBA	45 dBA 56 dBA	
L _{WAd}		N/A		N/A	
L 10/0 -1		•	S.8 bels	5.5 bels 6.6 bels	
NOISE EIIISSIOII	ა-	Avg.	Max.	Avg. Max.	
Noise Emission	c 1	Operating		ldle	
Wet Bulb		23°C (73°F)		27°C (80°F)	
(Noncondensing)		8 to 80%		8 to 80%	
Humidity Requi	rements	Operati	ina	Non-Operating	
		(See note)		(00.1001)	
		(60 to 90°F)		10 to 43°C (50 to 110°F)	
remperature Re	quireillellis	•	16 to 32°C		
Temperature Requirements		Onoroti	Operating		
Maximum altitude		2135 m (7000 ft.)			
Thermal output (50 or 60 2074 BTU/hr			
Frequency (hertz	,				
Voltage range (V	'ac)		•	o 240	
Power factor	y		greater t		
Maximum idlin				kVA	
Maximum opei				kVA 9 kVA	
Maximum start	•		0.657	7 k\/A	
Electrical Power source loa	ndina:				
			72.0 kg	100 100.	
Maximum			72.5 kg	160 lbs.	
Minimum			58.5 kg	129 lbs.	
 Weight					
Depth	۵.,		820 mm	32.3 in.	
Width (at pedestal)			210 mm	8.3 in.	
Dimensions Height			610 mm	24.0 in.	

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

Note: The recommended operating temperature is 22°C (72°F) or lower. At lower temperatures, the risk of failure in the unit is reduced. If the operating temperature is above 22°C (72°F) for long periods of time, the unit will be exposed to a greater risk of failure from external causes.

7134 Model 010 High-Density SCSI Disk Subsystem

Dimensions				
Height	171 mm	6.7 in.		
		(4EIA units)		
Width	444 mm	17.4 in.		
Depth	665 mm	26.2 in.		
Weight				
Minimum	69 kg	31.5 lbs.		
Maximum	129 kg	58.5 lbs.		
Electrical				
Power source loading (kVA)	0.021 plus 0.024 for	each 2GB Disk Drive,		
	or 0.028 for each	4.5GB Disk Drive		
Voltage range (V ac)	100 to 125 or 200 t	o 240 (autoranging)		
Frequency (hertz)	50 c	or 60		
Thermal output (max)	68 BTU/hr plus 7	7 BTU/hr for each		
	2GB Disk Drive or 90 BTU/hr for each 4.5			
	GB Dis	sk Drive		
Power requirements	20 watts plus 22.5 watts for each 2GB			
•	Disk Drive or 26.5 watts for each 4.5GB			
		Drive		
Power factor	0.95 m	inimum		
Maximum altitude	2135 m			
Temperature Requirements	Operating	Non-Operating		
	10 to 40°C	10 to 52°C		
	(50 to 110°F)	(50 to 125°F)		
Humidity Requirements	Operating	Non-Operating		
(Noncondensing)	8% to 80%	8% to 80%		
Wet Bulb	27°C (80°F)	27°C (80°F)		
Noise Emissions*	Operating	Idle		
L _{WAd}	5.8 bels	5.6 bels		
L _{pAm}	N/A	N/A		
<l<sub>pA>_m</l<sub>	46 dBA	46 dBA		
Impulsive or prominent	No	No		

7135 RAIDiant Array

Dimensions			
Height (control unit)	82 mm	3.4 in.	
		(2 EIA units)	
Height (disk drive units)	171 mm	6.7 in.	
		(4 EIA units)	
Width	444 mm	17.4 in.	
Depth	665 mm	26.2 in.	
Weight			
Empty	50.0 kg	110 lbs.	
Maximum Configuration	128.5 kg	283 lbs.	
Electrical			
Power source loading (kVA)	0.2 plus 0.03 for	each disk drive	
Voltage range (V ac)	100 to 125 or 200 to 240 (autoranging)		
Frequency (hertz)	50 or 60		
Thermal output	648 BTU/hr plus 92 BTU/hr each disk drive		
Power requirements	190 watts plus 27 watts each disk drive		
Power factor	0.0	95	
Maximum altitude	2135 m	(7000 ft.)	
Temperature Requirements	Operating	Non-Operating	
	10 to 40°C	1 to 52°C	
	(50 to 110°F)	(34 to 125°F)	
Humidity Requirements	Operating	Non-Operating	
(Noncondensing)	8% to 80%	8% to 80%	
Wet Bulb	23°C (73°F)	27°C (80°F)	
Noise Emissions*	Operating	Idle	
L_{WAd}	6.35 bels	6.05 bels	
L _{pAm}	NA	N/A	
DAIII	48 dBA	47.5 dBA	
<l<sub>pA>_m</l<sub>	40 UDA	47.5 UDA	
<pre> <lpa>m Impulsive or prominent</lpa></pre>	No No	No No	

7135 RAIDiant Array Deskside Mini-Rack

Dimensions				
Height		610 mm		24.0 in.
Width			560 mm	23.1 in.
Depth			750 mm	29.5 in.
Weight				
Empty			54.5 kg	120 lbs.
Maximum Configu	uration		177.0 kg	390 lbs.
Electrical ^{1,3}				
Power source load	O ()			r each disk drive
Voltage range (V a	ac)	100 to	o 125 or 200 to	o 240 (autoranging)
Frequency (hertz)			50 o	
Thermal output (ma	ax)	648	•	2 BTU/hr for each
			disk	
Power requirement	ts (max)	190 watts plus 27 watts for each		
		disk drive		
Power factor		0.95		
Maximum altitude		2135 m (7000 ft.)		
Temperature Requ	uirements	Operating		Non-Operating
		16 to 32°C		10 to 43°C
		(60 to 90°F)		(50 to 110°F)
Humidity Require	ments	Operatir	U	Non-Operating
(Noncondensing)		20% to 80		8% to 80%
Wet Bulb		23°C (73°F)		27°C (80°F)
Noise Emissions ²	2,3	Operating		Idle
L_{WAd}		N/A		0 bels
L _{pAm}		N/A		N/A
<l<sub>pA>_m</l<sub>		N/A		0 dBA
Impulsive or prominent discrete tones		No		No
Clearances	Front	Back	Left	Right
Install/Air	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Flow				

- 1. The Mini-Rack has a 10A fuse, these values indicate the maximum values for the Mini-Rack with installed devices. The actual values depend on which devices are installed.
- 2. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 3. Dependant on the devices installed in the 7135 Mini-Rack.

7137 Disk Array Subsystem Models 412, 413, 414, and 415

imensions			
Height	610 mm	24.0 in.	
Width			
Enclosure	210 mm	8.3 in.	
Base	310 mm	12.2 in.	
Depth	820 mm	32.3 in.	
Weight			
Empty	49 kg	109 lbs.	
Maximum Configuration	54 kg	119 lbs.	
Electrical			
Power source loading (kVA)	0.	33	
Voltage range (V ac)	100 to 125 d	or 200 to 240	
Frequency (hertz)	50 0	or 60	
Thermal output	1050 BTU/hr		
Power requirements	308 watts		
Power factor	0.9		
Maximum altitude	2134m ((7000 ft.)	
Temperature Requirements	Operating	Non-Operating	
	10 to 40°C	1 to 52°C	
	(50 to 110°F)	(34 to 125°F)	
Humidity Requirements	Operating	Non-Operating	
(Noncondensing)	8% to 80%	8% to 80%	
Wet Bulb	23°C (73°F)	27°C (80°F)	
Noise Emissions*	Operating	Idle	
L _{WAd}	5.9 bels	5.8 bels	
L _{pAm}	NA	N/A	
<l<sub>pA>_m</l<sub>	37 dBA	37 dBA	
(4.5GB)	43 dBA	No	
Impulsive or prominent	No		
discrete tones			

7137 Disk Array Subsystem Models 512, 513, 514, and 515

Dimensions			
Height	178 mm	7.0 in.	
Width			
Enclosure	483 mm	19.0 in.	
Depth	716 mm	28.2 in.	
Weight			
Empty	32 kg	70 lbs.	
Maximum Configuration	35 kg	76 lbs.	
Electrical			
Power source loading (kVA)	0.	33	
Voltage range (V ac)	100 to 125 d	or 200 to 240	
Frequency (hertz)	50 (or 60	
Thermal output	1050 BTU/hr		
Power requirements	308	watts	
Power factor	0	.9	
Maximum altitude	2134m (7000 ft.)		
Temperature Requirements	Operating	Non-Operating	
	10 to 40°C	1 to 52°C	
	(50 to 110°F)	(34 to 125°F)	
Humidity Requirements	Operating	Non-Operating	
(Noncondensing)	8% to 80%	8% to 80%	
Wet Bulb	23°C (73°F)	27°C (80°F)	
Noise Emissions ^{1,2}	Operating	Idle	
L _{WAd}	5.9 bels	5.8 bels	
L _{pAm}	NA	N/A	
<l<sub>pA>_m</l<sub>	39 dBA	38 dBA	
(4.5GB)	44 dBA	(See Note 2)	
Impulsive or prominent	No	No	
discrete tones			

^{2.} The value for <L_{pA}>_m not available at the time of publishing.

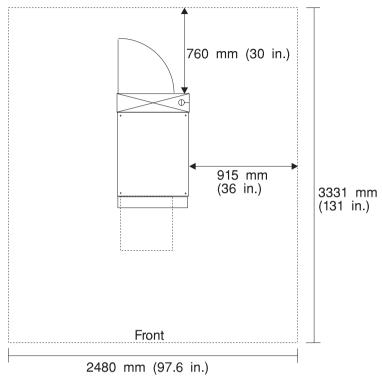
7202 Model 900 Expansion Rack

Dimensions						
Height		1578 mm 62.0		62.0 in.		
Width			650 mm	25.5 in.		
Depth			921 mm	36.0 in.		
Weight						
Minimum			136 kg	300 lbs.		
Maximum			470 kg	1035 lbs.		
Electrical ¹						
Power source loadi	ng		0.00	04		
(typical in kVA)						
Voltage range (V ac	C)		200 to 240 c	or -48V dc		
Frequency (hertz)			50 or	60		
Thermal output (typ	ical)		15 BTI	U/hr		
Power requirements	s (typical)	4 watts				
Power factor		0.5 to 0.7				
Maximum altitude		2135 m (7000 ft.)				
Temperature Requ	irements	Operating		Non-Operating		
		10 to 40°C		10 to 52°C		
		(50 to 104	·°F)	(50 to 125°F)		
Humidity Requirer	nents	Operatin	ng	Non-Operating		
(Noncondensing)		8 to 80	%	8 to 80%		
Wet Bulb		27°C (8	0°F)	27°C (80°F)		
Noise Emissions ²	3	Operating		ldle		
L_{WAd}		6.2 bels		6.0 bels		
L _{pAm}		N/A		N/A		
<l<sub>pA>_m</l<sub>		48 dBA		46 dBA		
Impulsive or prominent		No		No		
discrete tones						
Clearances	Front	Back	Left	Right		
		a proper service clearance should allow proper air flow.				
Install/Air Flow	Maintenance of a p	roper service clearand	ce should allow	proper all flow.		

- 1. No features installed.
- 2. See "Noise Emission Notes" on page 2-125 for definitions of emissions positions.
- 3. Noise emissions data for the 7202 Model 900 is based on the following configuration:
 - two 9334 Model 10 Drawers with two disk drives in each and
 - two 9334 Model 10 Drawers with three disk drives in each.

The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

For multiple racks placed side by side, the left and right clearances apply only to the leftmost and rightmost rack. For five to six racks placed side by side, the left and right clearances need to be increased to 1525 mm (60 in). Having more than six racks side by side is not recommended.



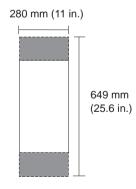
Footprint for the 7202 Model 900

Note: Rack units are large and heavy and are not easily moved. Because maintenance activities require access at both the front and back, extra room needs to be allowed. The footprint shows the radius of the swinging door on the rear of the rack and a drawer in the extended position. The illustration shows the minimum space required.

7203 Model 001 External Portable Disk Drive

Dimensions Height Width Depth		160 mm 6.3 in. 280 mm 11.0 in. 345 mm 13.6 in.			
·			343 11111	13.0 III.	
Weight Minimum Maximum			g 13.5 lbs.(without) lbs.(with a 355 o	out module) or 670MB module)	
Electrical					
Power source loa	ading		80.0	3	
(typical in kVA)					
Voltage range (V		100 to		240 (autoranging)	
Frequency (hertz	•		50 or		
Thermal output (Power requirement	· ,	155 BTU/hr 45 watts			
Power factor	ints (typical)	0.5 to 0.7			
Maximum altitude	е	2135 m (7000 ft.)			
Temperature Re	auiromonte	Operation	ng ·	Non-Operating	
remperature Ne	quirements	16 to 32		10 to 43°C	
		(60 to 90°F)		(50 to 110°F)	
Humidity Requi	rements	Operation	na	Non-Operating	
(Noncondensing)		8 to 80	•	8 to 80%	
Wet Bulb		23°C (73°F)		27°C (80°F)	
Noise Emission	S ¹	Operating		Idle	
L _{WAd}		5.8 bels		5.6 bels	
L _{pAm}		N/A		N/A	
-pan <l<sub>pA>_m</l<sub>		42 dBA		41 dBA	
	Impulsive or prominent			No	
Clearances	Front	Back	Left	Right	
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	N/A	
Service	152 mm(6 in)	N/A	N/A	N/A	

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

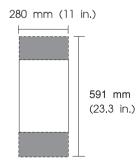


7203 Model 001 Footprint

7204 Model 010 1GB External Disk Drive

Dimensions				
Height		79 mm		3.13 in.
Width			280 mm	11.0 in.
Depth			287 mm	11.3 in.
Weight				
Minimum			3.9 kg	8.45 lbs.
Maximum			3.9 kg	8.45 lbs.
Electrical				
Power source load	ding		0.	.07
(typical in kVA)				
Voltage range (V		100 to		o 240 (autoranging)
Frequency (hertz)				or 60
Thermal output (ty			_	BTU/hr
Power requirement	nts (typical)		_	vatts
Power factor		0.5 to 0.7		
Maximum altitude		2135 m (7000 ft.)		
Temperature Red	quirements	Operating		Non-Operating
		16 to 32°C		10 to 43°C
		(60 to 90°F)		(50 to 110°F)
Humidity Require	ements	Operatin	Operating	
(Noncondensing)		8 to 80%		8 to 80%
Wet Bulb		23°C (73°	°F)	27°C (80°F)
Noise Emissions	;1	Operating		ldle
L_{WAd}		5.3 bels		5.3 bels
L _{pAm}		N/A		N/A
<l<sub>pA>_m</l<sub>		45 dBA		44 dBA
Impulsive or prom	ninent	No No		No
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow ²	152 mm (6 in)	152 mm (6 in)	N/A	N/A
Service	152 mm (6 in)	N/A	N/A	N/A

2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



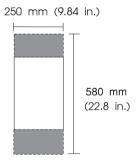
7204 Model 010 Footprint

7204 Models 112, 113, 114, 317, and 325 External Disk Drives

Dimensions							
Height		60 mm		2.36 in.			
Width			250 mm 9.84 in.				
Depth			275 mm	10.8 in.			
Weight							
Minimum			3.3 kg	7.3 lbs.			
Maximum			3.3 kg	7.3 lbs.			
Electrical							
Power source loa	iding		0.0	02			
(typical in kVA)							
Voltage range (V	ac)	100 to	125 or 200 t	o 240 (autoranging)			
Frequency (hertz)			or 60			
Thermal output (t			225 B	BTU/hr			
Power requireme	nts (typical)		46 watts				
Power factor		0.5 to 0.7					
Maximum altitude)	2135 m (7000 ft.)					
Temperature Re	quirements	Operating		Non-Operating			
	·		°Č	10 to 43°C			
		(60 to 90°F)		(50 to 110°F)			
Humidity Requir	ements	Operatir	ng	Non-Operating			
(Noncondensing)		8 to 80%	%	8 to 80%			
Wet Bulb		23°C (73°F)		27°C (80°F)			
Noise Emissions	S ¹	Operating		Idle			
L_{WAd}		5.3 bels		5.3 bels			
L_{pAm}		N/A		N/A			
<l<sub>pA>_m</l<sub>		45 dBA		44 dBA			
Impulsive or pron	ninent	No No		No			
discrete tones							
Clearances	Front	Back	Left	Right			
Install/Air Flow ²	152 mm (6 in)	152 mm (6 in)	N/A	N/A			
Service	152 mm (6 in)	N/A	N/A	N/A			
N1 4							

Notes:

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

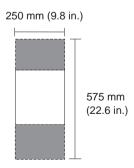


7204 Model 112, 113, 114, 317 and 325 Footprint

7204 Models 118 and 418 18.0GB External Disk Drives

Dimensions						
Height			55 mm	2.2 in.		
Width			250 mm	9.8 in.		
Depth		275 mm 10.8 in.				
Weight						
Minimum			3.5 kg	7.8 lbs.		
Maximum		3.5 kg 7.8 lbs.		7.8 lbs.		
Electrical						
Power source loa	ading		0.05 @	120 V ac		
(typical in kVA)						
Voltage range (V	ac)	100 to	o 125 or 200 t	o 240 (autoranging)		
Frequency (hertz		50 or 60				
Thermal output (typical)		95 B	TU/hr		
Power requireme	ower requirements (typical)		28 watts			
Power factor		0.4 to 0.6				
Inrush Current ³		51 amps at 120 Vac, 99 amps at 208 Vac				
Maximum altitude		3048 m (10000 ft.)				
Temperature Re	quirements			Non-Operating		
		10 to 40°C		10 to 52°C		
		(50 to 104°F)		(50 to 126°F)		
Humidity Requir		Operation	•	Non-Operating		
(Noncondensing)		20 to 80%		8 to 80%		
Wet Bulb		23°C (73°F)		27°C (81°F)		
Noise Emission	S ¹	Operation	•	ldle		
L_{WAd}		5.52 bels		5.48 bels		
L _{pAm}		N/A		N/A		
<l<sub>pA>_m</l<sub>		39 dBA		38.9 dBA		
Impulsive or prominent		No No		No		
discrete tones						
Clearances	Front	Back	Left	Right		
0.00.000						
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	N/A		
Install/Air	152 mm(6 in)	152 mm(6 in)	N/A N/A	N/A N/A		

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint
- 3. Inrush currents occur only at initial application of power, no inrush occurs during a normal power off-on cycle.

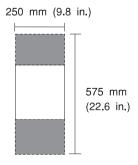


7204 Models 118, and 418 Footprint

7204 Models 139, and 339 9.1GB External Disk Drives

Dimensions Height			55 mm	2.2 in.
Width			250 mm	9.8 in.
Depth			275 mm	10.8 in.
Weight				
Minimum			3.5 kg	7.8 lbs.
Maximum			3.5 kg	7.8 lbs.
Electrical				
Power source loa	ading		0.05 @	120 V ac
(typical in kVA)				
Voltage range (V	,	100 to		o 240 (autoranging)
Frequency (hertz		50 or 60		
Thermal output (t				TU/hr
Power requirements (typical)		28 watts		
Power factor		0.4 to 0.6		
Inrush Current ³		51 amps at 120 Vac, 99 amps at 208 Vac		
Maximum altitude		3048 m (10000 ft.)		
Temperature Requirements		Operating		Non-Operating
		10 to 40	-	10 to 52°C
		(50 to 10 ⁴	1°F)	(50 to 126°F)
Humidity Requir		Operatii		Non-Operating
(Noncondensing)		20 to 80%		8 to 80%
Wet Bulb		23°C (73°F)		27°C (81°F)
Noise Emission	S ¹	Operating		ldle
L_{WAd}		5.52 bels		5.48 bels
L _{pAm}		N/A		N/A
<l<sub>pA>_m</l<sub>		39 dBA		38.9 dBA
Impulsive or prominent		No		No
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during a normal power off-on cycle.

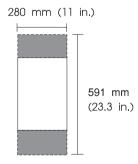


7204 Model 139, and 339 Footprint

7204 Models 215 and 315 External Disk Drives

Service	152 mm (6 in)	N/A	N/A	N/A
Install/Air Flow²	152 mm (6 in)	152 mm (6 in)	N/A	N/A
Clearances	Front	Back	Left	Right
discrete tones		NO		140
`∟рА′т Impulsive or pror	ninent	No.		No.
L _{pAm} <l<sub>pA>_m</l<sub>		45 dBA		44 dBA
L _{WAd}		N/A		N/A
	3	5.3 bels		5.3 bels
Noise Emission	e1	Operating		Idle
Wet Bulb		23°C (73°F)		27°C (80°F)
(Noncondensing)		8 to 80%		8 to 80%
Humidity Requir	rements	Operatin	na	Non-Operating
		(60 to 90°F)		(50 to 110°F)
•	•	16 to 32°	•	Non-Operating 10 to 43°C
Temperature Re	emperature Requirements		Operating	
Maximum altitude		2135 m (7000 ft.)		
Power factor		0.5 to 0.7		
Power requirements (typical)			32 v	vatts
Thermal output (typical)			110 B	BTU/hr
Frequency (hertz)		50 c	or 60
Voltage range (V	ac)	100 to	125 or 200 t	o 240 (autoranging)
(typical in kVA)	J		-	
Power source loa	ading		0.	07
Electrical				
Maximum			4.2 kg	9.25 lbs.
Minimum		4.2 kg 9.25 lbs.		9.25 lbs.
Weight				
Depth			287 mm	11.3 in.
Width		280 mm 11.		11.0 in.
Height			79 mm	3.13 in.

- See Noise Emission Notes on page 2-125 for definitions of noise emissions positions.
 The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

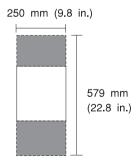


7204 Model 215 and 315 Footprint

7204 Models 402, and 404 External Disk Drives

Dimensions							
Height			55 mm	2.2 in.			
Width		250 mm 9.8 in.					
Depth			275 mm	10.8 in.			
Weight							
Minimum			3.0 kg	6.6 lbs.			
Maximum			3.4 kg	7.5 lbs.			
Electrical							
Power source loading	ng		0.06 @	120 V ac			
(typical in kVA)							
Voltage range (V ac	:)	10		to 240 (autoranging)			
Frequency (hertz)				or 60			
Thermal output (typi				BTU/hr			
Power requirements	(typical)		31.5 watts				
Power factor		0.5 to 0.6					
Inrush Current ³		47.6 amps at 120 Vac, 85.7 amps at 208 Vac					
Maximum altitude		2135 m (7000 ft.)					
Temperature Requi	irements	Operating		Non-Operating			
		16 to 32°C		10 to 43°C			
		(60 to 90°F)		(50 to 110°F)			
Humidity Requirem	nents	Operat	•	Non-Operating			
(Noncondensing)		8 to 8		8 to 80%			
Wet Bulb		23°C (73°F)		27°C (80°F)			
Noise Emissions ¹		Operating		ldle			
L_{WAd}		5.5 bels		5.5 bels			
L _{pAm}		N/A		N/A			
<l<sub>pA>_m</l<sub>		38 dBA		38 dBA No			
Impulsive or prominent		No	No				
discrete tones							
Clearances	Front	Back	Left	Right			
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	N/A			
Service	152 mm(6 in)	N/A	N/A	N/A			

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.
- 3. Inrush currents occur only at initial application of power, no inrush occurs during a normal power off-on cycle.

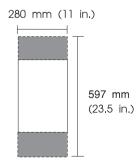


7204 Models 402, and 404 Footprint

7205 Model 311 External DLT Tape Drive

Service	152 mm(6 in)	N/A	N/A	N/A
nstall/Air Flow²	152mm(6 in)	152mm(6 in)	N/A	N/A
Clearances	Front	Back	Left	Right
Impulsive or prominent discrete tones		No		No
<l<sub>pA>m</l<sub>		42 dBA		39 dBA
_pAm		N/A		N/A
WAd		5.8 bels		5.5 bels
Noise Emission	S¹	•	Operating	
Wet Bulb		23°C (73°F)		27°C (80°F)
(Noncondensing)			20 to 80%	
Humidity Requi		•	Operating	
		(60 to 90		(50 to 110°F) Non-Operating
		16 to 32°C		10 to 43°C
Temperature Re	equirements	Operation		Non-Operating
Maximum aititude				,
Power factor Maximum altitude		0.8 2135 m (7000 ft.)		
Power requirements (typical) Power factor		61 watts		
Thermal output (typical)			208 B	
Frequency (hertz			50 o	
Voltage range (V	,	100 to		o 240 (autoranging)
(typical in kVA)	(\)	400 /	- 407 000 :	- 040 (
Power source loa	ading		0.1	135
Electrical				
Maximum			6.63 kg	15 lbs.
Minimum			6.63 kg	15 lbs.
Weight				
<u>'</u>			292 mm	11.5 in.
Width Depth				
Height			114 mm	4.8 in. 11.0 in.
Dimensions				

- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

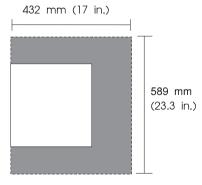


7205 - Model 311 Footprint

7206 Model 005 External 4-mm Tape Drive

Dimensions				
Height			80 mm	3.3 in.
Width			280 mm	11.0 in.
Depth			285 mm	11.3 in.
Weight				
Minimum			5 kg	11 lbs.
Maximum			5 kg	11 lbs.
Electrical				
Power source loa	ading		0	0.08
(typical in kVA)				
Voltage range (V		100 t		to 240 (autoranging)
Frequency (hertz	,			or 60
Thermal output (t				BTU/hr
Power requireme	ents (typical)	32 watts		
Power factor Maximum altitude	•	0.5 to 0.7		
waximum aititude	=======================================	2135 m (7000 ft.)		
Temperature Re	quirements	Operating		Non-Operating
		16 to 32°C		10 to 43°C
		(60 to 90°F)		(50 to 110°F)
Humidity Requir	rements	Operati	ng	Non-Operating
(Noncondensing)		20 to 80%		20 to 80%
Wet Bulb		23°C (73°F)		27°C (80°F)
Noise Emission	S¹	Operating		Idle
L_{WAd}		5.9 bels		5.5 bels
L _{pAm}		N/A		N/A
<l<sub>pA>_m</l<sub>		46 dBA		40 dBA
Impulsive or prominent		No		No
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow ²	152mm(6 in)	152mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

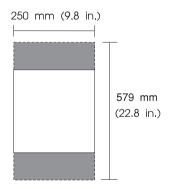


7206 Model 005 Footprint

7206 Model 110 External 4-mm DDS-3 Tape Drive

Dimensions				
Height			55 mm	2.2 in.
Width			250 mm 9.8 in.	
Depth			275 mm	10.8 in.
Weight				
Minimum	•		3.7 kg	8 lbs.
Maximum		•		
Electrical				
Power source loa	ding		0.	.07
(typical in kVA)				
Voltage range (V	ac)	100 to	o 127 or 200 to	o 240 (autoranging)
Frequency (hertz))		50 o	
Thermal output (a	average)		100 B	TU/hr
Power requirements (typical)		30 watts		
Power factor		0.3 to 0.5		
Maximum altitude		2135 m (7000 ft.)		
Temperature Requirements		Operating		Non-Operating
		16 to 32°C		10 to 43°C
		(60 to 90°F)		(50 to 110°F)
Humidity Requir	ements	Operati	Operating	
(Noncondensing)		20 to 80%		20 to 80%
Wet Bulb		23°C (73°F)		27°C (80°F)
Noise Emissions	31	Operating		Idle
L_{WAd}		5.9 bels		5.5 bels
L _{pAm}		N/A		N/A
<l<sub>pA>_m</l<sub>		46 dBA		40 dBA
Impulsive or prominent		No No		
discrete tones	discrete tones			
Clearances	Front	Back	Left	Right
Install/Air Flow²	152mm(6 in)	152mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

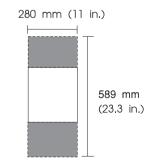


7206 Model 110 Footprint

7207 Model 012 1.2GB External 1/4-Inch Cartridge Tape Drive

Dimensions				
Height			80 mm	3.3 in.
Width			280 mm 11.0	
Depth			285 mm	11.3 in.
Weight				
Minimum			4.5 kg	10.0 lbs.
Maximum			4.5 kg	10.0 lbs.
Electrical				
Power source loa	ading		0.	07
(typical in kVA)				
Voltage range (V		100 t		o 240 (autoranging)
Frequency (hertz	•			or 60
Thermal output (t				BTU/hr
Power requireme	nts (typical)	40 watts		
Power factor		0.5 to 0.7		
Maximum altitude	9	2135 m (7000 ft.)		
Temperature Re	Temperature Requirements		Operating	
		16 to 32°C		10 to 43°C
		(60 to 90°F)		(50 to 110°F)
Humidity Requir		Operati	•	Non-Operating
(Noncondensing)		20 to 80		20 to 80%
Wet Bulb		23°C (73°F)		27°C (80°F)
Noise Emission	S ¹	•	Operating	
L_{WAd}		6.6 bels		5.3 bels
L _{pAm}		N/A		N/A
<l<sub>pA>_m</l<sub>		46 dBA		40 dBA
Impulsive or prominent		No No		No
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

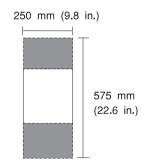


7207 Model 112 Footprint

7207 Model 315 13GB External 1/4-Inch Cartridge Tape Drive

Noise Emission L_{WAd}	S¹	Operating 5.48 bels		Idle 5.3 bels
	- 1			. ,
(Noncondensing) Wet Bulb		23°C (73°F)		20 to 80% 27°C (80°F)
Humidity Require (Noncondensing)		Operating 20 to 80%		Non-Operating 20 to 80%
				, ,
		(60 to 90°F)		(50 to 110°F)
remperature Ne	quirements	16 to 32°C		10 to 43°C
Temperature Re	auiromonts	Operating		Non-Operating
Maximum altitude		2135 m (7000 ft.)		
Power Factor		0.3 to 0.5		
Power requirements (typical)		16 watts		
Thermal output (typical)			50 B	TU/hr
Frequency (hertz)				or 60
Voltage range (V ac)		100 to	o 125 or 200 t	o 240 (autoranging)
(typical in kVA)	ading		0.020 @	120 1 40
Power source loading			0 029 @	120 V ac
Electrical				
Maximum			3.6 kg	7.9 lbs.
Minimum			3.6 kg 7.9 lbs.	
Weight				
Depth			275 mm 10.8 in.	
Width			250 mm 9.8 in.	
Height			55 mm	2.2 in.

2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

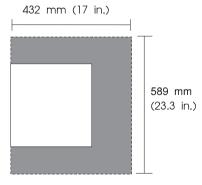


7207 Model 315 Footprint

7208 Model 001 2.3GB External 8-mm Tape Drive

Dimensions					
Height			123 mm	4.8 in.	
Width			280 mm 11		
Depth			285 mm	11.3 in.	
Weight					
Minimum			6 kg	13.3 lbs.	
Maximum			6 kg	13.3 lbs.	
Electrical					
Power source loa	ading		0.	06	
(typical in kVA)					
Voltage range (V		100 t		o 240 (autoranging)	
Frequency (hertz	,			or 60	
Thermal output (* '			BTU/hr	
Power requirements (typical)		35 watts			
Power factor		0.5 to 0.7			
Maximum altitude		2135 m (7000 ft.)			
Temperature Re	equirements	Operating		Non-Operating	
		16 to 32	-	10 to 43°C	
		(60 to 90°F)		(50 to 110°F)	
Humidity Requir		Operati	•	Non-Operating	
(Noncondensing))	20 to 80		20 to 80%	
Wet Bulb		23°C (73°F)		27°C (80°F)	
Noise Emission	S¹	Operating		Idle	
L_{WAd}		5.9 bels		5.5 bels	
L _{pAm}		N/A		N/A	
<l<sub>DA>_m</l<sub>		46 dBA		40 dBA	
Impulsive or prominent		No No		No	
discrete tones					
Clearances	Front	Back	Left	Right	
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	152 mm(6 in)	
Service	152 mm(6 in)	N/A	N/A	N/A	

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

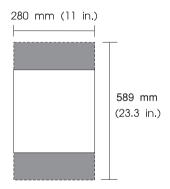


7208 Model 001 Footprint

7208 Model 011 5/10GB External 8-mm Tape Drive

Height Width			80 mm 280 mm	3.3 in. 11.0 in.
Depth				
<u> </u>			203 11111	11.3 in.
Weight			4.7.1	40.0 lb.
Minimum Maximum			4.7 kg 4.7 kg	10.3 lbs. 10.3 lbs.
			4.7 kg	10.3 ibs.
Electrical			_	
Power source loa	ding		0.	06
(typical in kVA)	\	400.1	- 405 000 (- 040 (
Voltage range (V		100 to		o 240 (autoranging) or 60
Frequency (hertz) Thermal output (ty				BTU/hr
Power requirement			_	vatts
Power factor		0.5 to 0.7		
Maximum altitude		2135 m (7000 ft.)		
Temperature Requirements		Operating		Non-Operating
remperature ite	quirements	16 to 32°C		10 to 43°C
		(60 to 90°F)		(50 to 110°F)
Humidity Require	ements	Operati	Operating	
(Noncondensing)		20 to 80%		Non-Operating 20 to 80%
Wet Bulb		23°C (73°F)		27°C (80°F)
Noise Emissions	S ¹	Operation	Operating	
L_{WAd}		5.9 bels		5.5 bels
L _{pAm}		N/A		N/A
<l<sub>pA>_m</l<sub>		46 dBA		40 dBA
Impulsive or prominent		No No		
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow ²	152mm(6 in)	152mm(6 in)	N/A	N/A
Service	152mm(6 in)	N/A	N/A	N/A

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

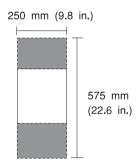


7208 Model 011 Footprint

7208 Model 341 20/40GB External 8-mm Tape Drive

Dimensions					
Height			55 mm	2.2 in.	
Width	Width		250 mm	9.8 in.	
Depth			275 mm	10.8 in.	
Weight					
Minimum			5 kg	11 lbs.	
Maximum			5 kg	11 lbs.	
Electrical					
Power source loa	ading		0.0	041	
(typical in kVA)					
Voltage range (V	,	100		to 240 (autoranging)	
	Frequency (hertz)			or 60	
Thermal output (t				TU/hr	
Power requireme	nts (typical)	20 watts			
Power factor		0.58			
Maximum altitude	9	2135 m (7000 ft.)			
Temperature Re	Temperature Requirements		Operating		
		16 to 32°C		10 to 43°C	
		(60 to 90°F)		(50 to 110°F)	
Humidity Requir	rements	Operat	ing	Non-Operating	
(Noncondensing)		20 to 80%		20 to 80%	
Wet Bulb		23°C (73°F)		27°C (80°F)	
Noise Emissions	S ¹	Operating		Idle	
L_{WAd}		5.6 bels		5.5 bels	
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		38 dBA		38 dBA	
Impulsive or prominent		No		No	
discrete tones					
Clearances	Front	Back	Left	Right	
Install/Air Flow ²	152mm(6 in)	152mm(6 in)	N/A	N/A	
Service	152mm(6 in)	N/A	N/A	N/A	
	•				

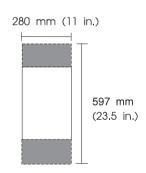
- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7208 Model 341 Footprint

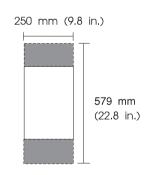
7209 Model 002 External Rewritable Optical Disk Drive

Dimensions							
Height			4.8 in.				
Width			280 mm	11.0 in.			
Depth			290 mm	11.5 in.			
Weight							
Minimum			6.3 kg	14 lbs.			
Maximum			6.3 kg	14 lbs.			
Electrical							
Power source loa	nding		0.0	053			
(typical in kVA)							
Voltage range (V		100 t		o 240 (autoranging)			
Frequency (hertz				or 60			
Thermal output (typical)				STU/hr			
Power requireme	nts (typical)		33 watts				
Power factor		0.5 to 0.7					
Maximum altitude		2135 m (7000 ft.)					
Temperature Requirements		Operating		Non-Operating			
		16 to 32	-	1 to 60°C			
		(60 to 90)°F)	(34 to 140°F)			
Humidity Requir		Operating		Non-Operating			
(Noncondensing)		10 to 80%		10 to 80%			
Wet Bulb		23°C (73°F)		27°C (80°F)			
Noise Emissions	s*	Operating		Idle			
L_{WAd}		5.5 bels		5.5 bels			
L _{pAm}		N/A		N/A			
<l<sub>pA>_m</l<sub>		45 dBA		45 dBA			
Impulsive or pron	ninent	No		No			
discrete tones							
Clearances	Front	Back	Left	Right			
Install/Air Flow	152 mm(6 in)	152 mm(6 in)	N/A	N/A			
Service	152 mm(6 in)	N/A	N/A	N/A			
* See "Noise Emi	ission Notes" on page 2	2-125 for definitions of	noise emissior	ns positions.			
230 140100 E111	Total Notes on page 2	. 120 101 0011111110113 01	110.00 0111100101	io positiono.			



7209 Model 003 External 2.6GB Rewritable Optical Disk Drive

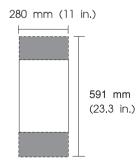
Dimensions					
Height			55 mm	2.2 in.	
Width			250 mm	9.8 in.	
Depth			275 mm	10.5 in.	
Weight	/eight				
			4.0 kg	8.8 lbs.	
Electrical					
Power source load	ding (kVA)		0.045 @	120 Vac	
Voltage range (V	ac)	100 to	125 or 200 to	240 (auto-ranging)	
Frequency (hertz)			50 o	r 60	
Thermal output (m	naximum)		100 BTU/hr	@ 230 Vac	
Thermal output (ty	rpical)		55 B	TU/hr	
Power requiremen	its (typical)		16 w	atts // atts	
Power factor		0.4 to 0.6			
Maximum altitude		2135 m (7000 ft.)			
Temperature Requirements		Operating		Non-Operating	
		16 to 32°C		10 to 52°C	
		(60 to 90°F)		(50 to 126°F)	
Humidity Require	ements	Operatii	ng	Non-Operating	
(Noncondensing)		20 to 80%		8 to 80%	
Wet Bulb		27°C (80°F)		27°C (80°F)	
Noise Emissions	*	Operating		Idle	
L_{WAd}		5.5 bels		5.5 bels	
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		45 dBA		45 dBA	
mpulsive or prominent		No No		No	
discrete tones					
Clearances	Front	Back	Left	Right	
Install/Air Flow	152 mm(6 in)	152 mm(6 in)	N/A	N/A	



7210 Model 001 External CD-ROM Drive

Dimensions					
Height		80 mm		3.3 in.	
Width			280 mm	11.0 in.	
Depth			285 mm	11.3 in.	
Weight					
Minimum			4.9 kg	10.8 lbs.	
Maximum			4.9 kg	10.8 lbs.	
Electrical					
Power source loa	ding		0.	05	
(typical in kVA)					
Voltage range (V	ac)	100 to		o 240 (autoranging)	
Frequency (hertz)				or 60	
Thermal output (t	, ,		85 B	TU/hr	
Power requirement	nts (typical)	25 watts			
Power factor		0.5 to 0.7			
Maximum altitude		2135 m (7000 ft.)			
Temperature Requirements		Operatir		Non-Operating	
		16 to 32°C		10 to 43°C	
		(60 to 90°F)		(50 to 110°F)	
Humidity Requir	ements	•	Operating		
(Noncondensing)		10 to 80%		10 to 80%	
Wet Bulb		23°C (73°F)		27°C (80°F)	
Noise Emissions	31	Operating		ldle	
L_{WAd}		5.1 bels		5.1 bels	
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>		36 dBA		36 dBA	
Impulsive or prominent		No No		No	
discrete tones					
Clearances	Front	Back	Left	Right	
Install/Air Flow²	152 mm(6 in)	152 mm(6 in)	N/A	N/A	
	52 mm(6 in)	N/A	N/A	N/A	

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



7210 Model 001 Footprint

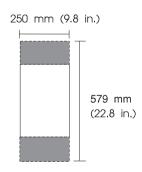
7210 Model 005 External CD-ROM Drive

Dimensions						
Height			50 mm 1.94 in.			
Width			183 mm	7.2 in.		
Depth			312 mm	12.3 in.		
Weight						
Minimum			2.0 kg	4.4 lbs.		
Electrical						
Power source loa	ading		0.	03		
(typical in kVA)						
Voltage range (V	,			o 240 (autoranging)		
Frequency (hertz				or 60		
Thermal output (•			TU/hr		
Power requireme		18 watts				
Power factor (mir		0.6				
Maximum altitude	9	2135 m (7000 ft.)				
Temperature Re	Temperature Requirements		erating	Non-Operating		
			to 32°C	10 to 43°C		
		(60 to 90°F)		(50 to 110°F)		
Humidity Requir	rements	Operating		Non-Operating		
(Noncondensing)		10 to 80%		10 to 80%		
Wet Bulb		23°C (73°F)		27°C (80°F)		
Noise Emissions	S ¹	Operating		Idle		
L_{WAd}		4.7 bels		4.7 bels		
Impulsive or pron	ninent	No		No		
discrete tones						
Clearances	Front	Back	Left	Right		
Install/Air	N/A	N/A	N/A	N/A		
Flow						
Service	152 mm(6 in)	N/A	N/A	N/A		
1. See "Noise E	mission Notes" on page	2-125 for definit	ions of noise emiss	sions positions.		
				r =================================		

7210 Model 010 External Quad Speed CD-ROM Drive

Dimensions				
Height		55 mm 2.2 in.		
Width			250 mm	9.8 in.
Depth			275 mm	10.8 in.
Weight				
			3.6 kg	7.9 lbs.
Electrical				
Power source load	ling		0.0)7
(typical in kVA)				
Voltage range (V a	ac)	100 to	125 or 200 to	o 240 (autoranging)
Frequency (hertz)			50 o	
Thermal output (ty	pical)		110 B	TU/hr
Power requiremen	ts (max)		18 v	
Power factor		0.5 to 0.7		
Maximum altitude		2135 m (7000 ft.)		
Temperature Requirements		Operating		Non-Operating
		16 to 32°C		10 to 43°C
		(60 to 90°F)		(50 to 110°F)
Humidity Require	ments	Operating		Non-Operating
(Noncondensing)		10 to 80%		10 to 80%
Wet Bulb		23°C (73°F)		27°C (80°F)
Noise Emissions	1	Operating		Idle
L_{WAd}		5.1 bels		5.1 bels
L _{pAm}		N/A		N/A
<l<sub>pA>_m</l<sub>		36 dBA		36 dBA
Impulsive or promi	nent	No		No
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Flow ²				

- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

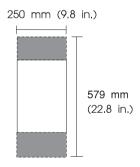


7210 Model 010 Footprint

7210 Model 015 External 8X Speed SCSI-2 CD-ROM Drive

Dimensions						
Height			55 mm	2.2 in.		
Width		250 mm 9.8 in.				
Depth			275 mm	10.8 in.		
Weight						
			3.2 kg	7.1 lbs.		
Electrical						
Power source loa	iding (kVA)		0.023 @	120 Vac		
Voltage range (V	ac)	100 to	125 or 200 to	240 (auto-ranging)		
Frequency (hertz)		50 or	60		
Thermal output (r	maximun)		42 BTU/hr	@240 Vac		
Power requireme	,		06 w			
Power requirements (typical seek/read)		18 watts				
Power factor		0.4 to 0.6				
Maximum altitude)	2135 m (7000 ft.)				
Temperature Re	quirements	Operating		Non-Operating		
		16 to 32°C		10 to 52°C		
		(60 to 90°F)		(50 to 126°F)		
Humidity Requir	ements	Operating		Non-Operating		
(Noncondensing)		20 to 80%		8 to 80%		
Wet Bulb		27°C (80°F)		27°C (80°F)		
Noise Emissions	S ¹	Operating		ldle		
L_{WAd}		4.8 bels		4.5 bels		
L _{pAm}		N/A		N/A		
Impulsive or prominent discrete tones		No No		No		
Clearances	Front	Back	Left	Right		
Install/Air	152 mm(6 in)	152 mm(6 in)	N/A	N/A		
Flow ²	, ,					

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

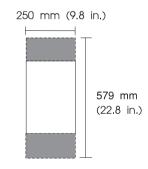


7210 Model 015 Footprint

7210 Model 015 External SCSI-2 CD-ROM Drive

Dimensions				0.01	
Height		55 mm 2.2 in.			
Width			250 mm	9.8 in.	
Depth			275 mm	10.8 in.	
Weight					
			3.2 kg	7.1 lbs.	
Electrical					
Power source load			0.023 @	120 Vac	
Voltage range (V a	ac)	100 to	125 or 200 to	o 240 (auto-ranging)	
Frequency (hertz)			50 c	or 60	
Thermal output (m	aximun)		42 BTU/hr	@240 Vac	
Power requiremen	, ,			vatts	
•	ts (typical seek/read)			vatts	
Power factor		0.4 to 0.6			
Maximum altitude		2135 m (7000 ft.)			
Temperature Requirements		Operating		Non-Operating	
		16 to 32°C		10 to 52°C	
		(60 to 90°F)		(50 to 126°F)	
Humidity Require	ements	Operating		Non-Operating	
(Noncondensing)		20 to 80%		8 to 80%	
Wet Bulb		27°C (80°F)		27°C (80°F)	
Noise Emissions	1	Operating		Idle	
L_{WAd}		4.8 bels		4.5 bels	
L _{pAm}		N/A		N/A	
Impulsive or promi	inent	No No		No	
discrete tones					
Clearances	Front	Back	Left	Right	
Install/Air Flow²	152 mm(6 in)	152 mm(6 in)	N/A	N/A	
	152 mm(6 in)	N/A	N/A	N/A	

footprint.

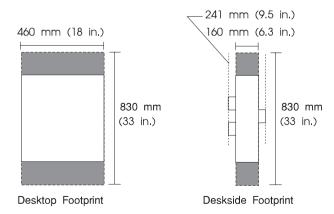


7210 Model 015 Footprint

7235 POWER GTO Models 01i and 02i Graphics Subsystem

Dimensions		Deskto	p	Desk	side	
Height		160 mm 6	.3 in.	466 mm	18.3 in.	
Width		460 mm 18	i.0 in.	160 mm	6.3 in.	
Width at pedestal	(deskside)			241 mm	9.5 in.	
Depth		525 mm 21	.0 in.	525 mm	21.0 in.	
Weight						
Minimum		16 kg 35	lbs.	16 kg	35 lbs.	
Maximum		16 kg 35	lbs.	16 kg	35 lbs.	
Electrical						
Power source load	ding		0.5	;		
(typical in kVA)						
Voltage range (V	,	100 to		240 (autorangin	g)	
Frequency (hertz)			50 or			
Thermal output (ty			850 BT			
Power requirement	nts (typical)	250 watts				
Power factor		0.5 to 0.7				
Maximum altitude		2135 m (7000 ft.)				
Temperature Red	quirements	Operating		Non-Op		
		16 to 32°	-	10 to		
		(60 to 90°F)		(50 to 110°F)		
Humidity Require	ements	Operatin	•	Non-Op	•	
(Noncondensing)		8 to 80%		8 to 80%		
Wet Bulb		23°C (73°F)		27°C (80°F)		
Noise Emissions	; ¹	Operating		ldle		
L_{WAd}		5.8 bels		5.5 bels		
L _{pAm}		N/A		N/A		
<l<sub>pA>_m</l<sub>		54 dBA		N/		
Impulsive or prominent		No No		0		
discrete tones						
Clearances	Front	Back	Left	Rig	ht	
Install/Air	152 mm(6 in)	152 mm(6 in)	N/A	N/A		
Flow ²						

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.



7250 POWER GXT1000 Graphics Accelerator

Dimensions		Deskto	p	Deskside		
Height		160 mm 6	.3 in.	466 mm 18.3 in.		
Width		460 mm 18	3.0 in.	160 mm 6.3 in.		
Width (at pedestal				241 mm 9.5 in.		
for deskside)	,					
Depth		525 mm 21	.0 in.	525 mm 21.0 in.		
Weight						
Minimum		13.6 kg 30	lbs.	13.6 kg 30 lbs.		
Maximum		13.6 kg 30	lbs.	13.6 kg 30 lbs.		
Electrical						
Power source loading	ng		0.5			
(typical in kVA)						
Voltage range (Vac)	2	100 to 125 or 200 to 240 (autoranging)				
Frequency (Hertz)		50 or 60				
Thermal output (typi		850 BTU/hr				
Power requirements	(typical)	250 Watts				
Power factor		0.5 to 0.7				
Maximum altitude		2135 m (7000 ft.)				
Temperature Requ	irements	Operating		Non-Operating		
		16 to 32°	-	10 to 43°C		
		(60 to 90°	°F)	(50 to 110°F)		
Humidity Requiren	nents	Operatir	ng	Non-Operating		
(Noncondensing)		8 to 80%		8 to 80%		
Wet Bulb		23°C (73°F)		27°C (80°F)		
Noise Emissions ¹		Operating		ldle		
L_{WAd}		5.2 bels		5.2 bels		
L _{pAm}		N/A		N/A		
Impulsive or prominent		No No		No		
discrete tones						
Noise Emissions ¹						
<l<sub>pA>_m</l<sub>			36.8 d	ВА		
Clearances	Front	Back	Left	Right		

N/A 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.

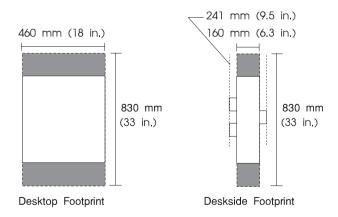
152 mm(6 in)

2. The power supply may be autoranging or switchable. The switchable type has a red voltage selection switch near the power cord connector.

N/A

N/A

3. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.

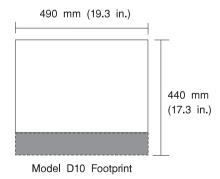


Service

7317 Model D10

Flow ²	150mm(6 in)	U	U	U		
Clearances Install/Air	Front	Back 0	Left 0	Right 0		
discrete tones						
Impulsive or prominent		None None		None		
<l<sub>pA>_m</l<sub>		47 dBA		47 dBA		
pAm		N/A dBA		N/A dBA		
-WAd		6.0 bels		6.0 bels		
Noise Emissions	S ¹	Operating		ldle		
		27*0	C (80°F)			
Wet Bulb Requir	rements	8 to 80%				
Humidity (Nonco		Operating				
			· · · · · · · · · · · · · · · · · · ·	(30 to 123 F)		
Class C			o 104°F)	(50 to 125°F)		
Temperature Range			erating to 40°C	Non-Operating 10 to 52°C		
	· · · · · · · · · · · · · · · · · · ·	,				
	(operating) class c	0 to 2133 m (0 to 7000 ft.)				
Power requireme Power requireme	,	106 watts 176 watts				
Thermal output (r	,	600 BTU/hr				
Thermal output (t	• • • •		360 B			
Voltage range (V			-40 to			
(typical in kVA)	1. \			0.5		
Power source loa	ding		N/	A		
Electrical						
Maximum			45.4 kg	100 lbs.		
Minimum			31.8 kg	70 lbs.		
Weight						
Depth with device	nancies		269 11111	1 1.4 III.		
	handlaa		490 mm 289 mm	19.3 in. 11.4 in.		
Height Width			464 mm 490 mm	18.3 in. 19.3 in.		
Dimensions			40.4	40.0		

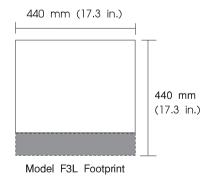
- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 3. All service is performed at the front of the machine.



7317 Model F3L

Dimensions		w/o	Media	with Media			
Height		746 mm	29.4 in.	823 mm	32.4 in.		
Width		440 mm	17.3 in.	440 mm	17.3 in.		
Depth with device	e handles	289 mm	11.4 in.	289 mm	11.4 in.		
Weight		w/o	Media	with I	Media		
Minimum		45.5 kg	100 lbs.	50 kg	110 lbs.		
Maximum		72.6 kg	160 lbs.	72.6 kg	160 lbs.		
Electrical							
Power source loa (typical in kVA)	ading		N	/A			
Voltage range (V	dc)		-40 t	o -65			
Thermal output (770 I	BTU/hr			
Thermal output (,		1100	BTU/hr			
Power requireme	ents (typical)	225 watts					
Power requireme	ents (maximum)	322 watts					
Maximum altitude	e (operating)	0 to 2133 m (0 to 7000 ft.)					
Temperature Ra	inge	•	erating	Non-Op	•		
Class C		10 to 40°C		10 to 52°C			
			o 104°F)	(50 to 125°F)			
Humidity (Nonce with tape	ondensing)	Оре	erating	Non-Op	erating		
without tap	е	8 t	o 80%				
Wet Bulb Requi	rements	20 to 80%					
		28°C (82°F)					
Noise Emission	S ¹	Operating		Idle			
L _{WAd}		6.0 bels N/A		6.0 bels			
L _{pAm}			N/A ′ dBA	NA dBA			
<l<sub>pA>_m</l<sub>	ninant	47	No	47 dBA No			
Impulsive or prominent discrete tones		NO NO			· · · · · · · · · · · · · · · · · · ·		
Clearances	Front	Back	Left	Rig	ht		
Install/Air Flow ²	150mm(6 in)	0	0	0			
Service ³	500mm(20 in)	0	0	0			

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprints.
- 3. All service is performed at the front of the machine.



7318 Serial Communications Network Server Models P10, and S20

Dimensions	44 mm	1.73 in.
Height Width	381 mm	1.73 in. 15.00 in.
· · · · · · ·	**	
Depth	229 mm	9.00 in.
Weight		
Maximum	2.6 kg	5.7 lbs.
Electrical		
Power source loading	0.0	085
(typical in kVA)		
Voltage range (V ac)	100 to 125 or 200 t	o 240 (autoranging)
Frequency (hertz)	50 or 60	
Thermal output (typical)	170 BTU/hr	
Power requirements (max)	50 watts	
Maximum altitude	2135 meters (7000 ft.)	
Temperature Requirements	Operating	Non-Operating
•	16 to 32°C	0 to 50°C
	(60 to 90°F)	(50 to 125°F)
Humidity Requirements	Operating	Non-Operating
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	23°C (73°F)	27°C (80°F)
Noise Emissions*	Operating	Idle
L_{WAd}	4.9 bels	4.9 bels
LpAm	N/A	N/A
<l<sub>pA>_m</l<sub>	54 dBA	54 dBA
Impulsive or prominent	No	No
discrete tones		

7319 Model 100, and 110 Fibre Channel Switch

Dimensions			
Height	86 mm	3.39 in.	
Width	483 mm	19.00 in.	
Depth	495 mm	19.50 in.	
Weight			
Maximum	12.2 kg	27 lbs.	
Electrical			
Power source loading	0.1	8	
(typical in kVA)			
Voltage range (V ac)	100 to 125 or 200 to	240 (autoranging)	
Frequency (hertz)	50 or	60	
Thermal output (typical)	570 BTU/hr		
Power requirements (typical)	170 watts		
Power factor	0.98		
Maximum altitude	2135 m (7000 ft.)		
Temperature Requirements	Operating	Non-Operating	
	0 to 40°C	0 to 50°C	
	(32 to 104°F)	(50 to 125°F)	
Humidity Requirements	Operating	Non-Operating	
(Noncondensing)	0 to 90%	0 to 90%	
Wet Bulb	27°C (80°F)	27°C (80°F)	
Noise Emissions*	Operating	ldle	
L _{WAd}	4.9 bels	4.9 bels	
L _{pAm}	N/A	N/A	
Impulsive or prominent	No	No	
discrete tones			

7331 Model 205 140/280GB or Model 305 400/800GB 8-mm Tape Library

imensions	627.0	25.1 in.	
Height	637.0 mm		
Width	322.5 mm		
Depth	723.0 mm	28.5 in.	
Weight			
Minimum	45 kg	92.5 lbs.	
Maximum	45 kg	92.5 lbs.	
Electrical			
Power source loading (kVA)	0.3	34	
Voltage range (V ac)	100 to 125 or 200 to	240 (autoranging)	
Frequency (hertz)	50 oi	r 60	
Thermal output	580 BTU/hr for two drives		
Power requirements	340 watts		
Power factor	0.9	0.95	
Maximum altitude	3048 m (10,000 ft.)		
Temperature Requirements	Operating	Non-Operating	
	5 to 40°C	5 to 32°C	
	(41 to 110°F)	(40 to 90°F)	
Humidity Requirements	Operating	Non-Operating	
(Noncondensing)	20% to 80%	20% to 80%	
Wet Bulb	26°C (79°F)	26°C (79°F)	
Noise Emissions*	Operating	Idle	
L _{WAd}	6.2 bels	5.5 bels	
LpAm	NA	NA	
<l<sub>DA>_m</l<sub>	46 dBA	43 dBA	
Impulsive or prominent	No	No	
discrete tones			

7332 Model 005 4-mm DDS-2 Autoloading Tape

Dimensions				
Height	122 mm	4.8 in.		
Width	280 mm	11.0 in.		
Depth	290 mm	11.5 in.		
Weight	6.4 kg	14 lbs.		
Electrical				
Power source loading (kVA)	0.0	07		
Voltage range (V ac)	100 to 125 or 200 to	o 240 (autoranging)		
Frequency (hertz)	50 o	r 60		
Thermal output (average)	120 B	120 BTU/hr		
Power requirements	35 watts			
Power factor	0.3 to 0.6			
Maximum altitude	2135 m (7000 ft.)			
Temperature Requirements	Operating	Non-Operating		
	16 to 32°C	10 to 43°C		
	(60 to 90°F)	(50 to 110°F)		
Humidity Requirements	Operating	Non-Operating		
(Noncondensing)	20 to 80%	20 to 80%		
Wet Bulb	23°C (73°F)	27°C (80°F)		
Noise Emissions*	Operating	Idle		
L _{WAd}	5.3 bels	5.3 bels		
L _{pAm}	NA	NA		
<l<sub>pA>_m</l<sub>	39 dBA	39 dBA		
Impulsive or prominent	No	No		
parente en preminent				

7332 Model 110 4-mm DDS-3 Autoloading Tape

eight	122 mm	4.8 in.
Width	280 mm	11.0 in.
Depth	290 mm	11.5 in.
Weight	6.4 kg	14 lbs.
Electrical		
Power source loading (kVA)	0.	07
Voltage range (V ac)	100 to 125 or 200 t	o 240 (autoranging)
Frequency (hertz)	50 0	or 60
Thermal output (average)	120 BTU/hr	
Power requirements (typcial)	35 watts	
Power factor	0.3 to 0.6	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	Operating	Non-Operating
	16 to 32°C	10 to 43°C
	(60 to 90°F)	(50 to 110°F)
Humidity Requirements	Operating	Non-Operating
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73°F) 27°C (80°F)	
Noise Emissions*	Operating	Idle
L_{WAd}	5.3 bels	5.3 bels
L _{pAm}	NA	NA
<l<sub>pA>_m</l<sub>	39 dBA	39 dBA
Impulsive or prominent	No	No
discrete tones		

7336 Model 205 4-mm Tape Library

Dimensions		
Height	637.0 mm	25.1 in.
Width	322.5 mm	12.7 in.
Depth	723.0 mm	28.5 in.
Weight		
Minimum	45 kg	92.5 lbs.
Maximum	45 kg	92.5 lbs.
Electrical		
Power source loading (kVA)	0.3	4
Voltage range (V ac)	100 to 125 or 200 to	240 (autoranging)
Frequency (hertz)	50 or 60	
Thermal output	580 BTU/hr for two drives	
Power requirements	340 watts	
Power factor	0.95	
Maximum altitude	3048 m (10000 ft.)	
Temperature Requirements	Operating	Non-Operating
	5 to 40°C	5 to 32°C
	(41 to 110°F)	(40 to 90°F)
Humidity Requirements	Operating	Non-Operating
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	26°C (79°F)	26°C (79°F)
Noise Emissions*	Operating	ldle
L _{WAd}	6.2 bels	5.5 bels
L _{pAm}	NA	NA
<l<sub>DA>_m</l<sub>	46 dBA	43 dBA
Impulsive or prominent	No	No
discrete tones		

7337 Model 305 DLT Tape Library

limensions leight	23.5 mm	9.25 in.
Vidth	47.9 mm	18.9 in.
Depth	67.3 mm	26.5 in.
<u> </u>	07.5 111111	20.3 111.
Weight		
Minimum	41.8 kg	92 lbs.
Maximum	41.8 kg	92 lbs.
Electrical		
Power source loading (kVA)	0.3	34
Voltage range (V ac)	100 to 240 (a	autoranging)
Frequency (hertz)	50 o	r 60
Thermal output	445 BTU/hr for two drives	
Power requirements	130 watts	
Power factor	TBD	
Maximum altitude	2438 m (6000 ft.)	
Temperature Requirements	Operating	Non-Operating
	10 to 35°C	5 to 32°C
	(50 to 95°F)	(40 to 90°F)
Humidity Requirements	Operating	Non-Operating
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73.4°F)	46°C (114°F)
Noise Emissions*	Operating	ldle
L_{WAd}	5.5 bels	5.14 bels
L _D Am	NA	NA
<l<sub>DA>_m</l<sub>	TBD dBA	TBD dBA
Impulsive or prominent	No	No
discrete tones		

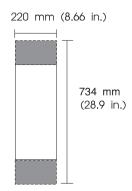
7337 Model 306 DLT Tape Library

Dimensions	00.0	0.75 :
Height	22.2 mm	8.75 in.
Width	48.0 mm	18.9 in.
Depth	67.3 mm	26.5 in.
Weight		
Maximum	33 kg	72 lbs.
Electrical		
Power source loading (kVA)	0.3	34
Voltage range (V ac)	100 to 240 (a	autoranging)
Frequency (hertz)	50 o	r 60
Thermal output	445 BTU/hr for two drives	
Power requirements	130 watts	
Power factor	TBD	
Maximum altitude	1828 m (6000 ft.)	
Temperature Requirements	Operating	Non-Operating
·	10 to 35°C	5 to 32°C
	(50 to 95°F)	(40 to 90°F)
Humidity Requirements	Operating	Non-Operating
(Noncondensing)	20 to 80%	20 to 80%
Wet Bulb	23°C (73.4°F)	46°C (114°F)
Noise Emissions*	Operating	ldle
L_{WAd}	5.3 bels	6.0 bels
L _{pAm}	NA	NA
<l<sub>pA>_m</l<sub>	TBD dBA	TBD dBA
Impulsive or prominent	No	No
discrete tones		

9291 Models 10, and 20 Single Digital Trunk Processors

Dimensions				
Height			110 mm	4.33 in.
Width			220 mm	8.66 in.
Depth			430 mm	16.9 in.
Weight				
Minimum			7.5 kg	16.5 lbs.
Maximum			7.5 kg	16.5 lbs.
Electrical				
Power source loa	ading		0.	06
(typical in kVA)				
Voltage range (V		100 to		to 240 (autoranging)
Frequency (hertz	•			or 60
Thermal output (* '			BTU/hr
Power requireme	ents (typical)			watts
Power factor		0.5 to 0.8		
Maximum altitude	9	2135 m (7000 ft.)		
Temperature Requirements		Operation		Non-Operating
		10 to 40	-	10 to 43°C
		(50 to 104	4°F)	(50 to 110°F)
Humidity Requir		Operation	•	Non-Operating
(Noncondensing)	1	8 to 80°		8 to 80%
Wet Bulb		27°C (80	ı°F)	27°C (80°F)
Noise Emission	S ¹	Operating		ldle
L_{WAd}		4.8 bels		4.8 bels
L _{pAm}		N/A		N/A
<l<sub>pA>_m</l<sub>		40 dBA		40 dBA
Impulsive or prominent		No No		No
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

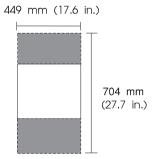


9291 Single Digital Trunk Processor Footprint

9295 Multiple Digital Trunk Processor With AC Power Supply

Dimensions	Base l	Jnit	Each T1 or feature	CEPT	Second Power Supply feature
Height	266 mm	10.5 in.	264 mm 10).3 in.	264.0 mm 10.3 in.
Width		17.6 in.		.9 in.	69.5 mm 2.7 in.
Depth	400 mm	15.7 in.	373 mm 14	1.6 in.	373.0 mm 14.6 in.
Weight					
Minimum	13.2 kg	29.2 lbs.	2.1 kg 4.6	3 lbs.	5.0 kg 11.0 lbs.
Maximum	13.2 kg	29.2 lbs.	2.1 kg 4.6	6 lbs.	5.0 kg 11.0 lbs.
Electrical					
Power source loa	ading				0.40
per power supply	/ (kVA)				
(typical in kVA)					
Voltage range (V			100 to		to 240 (autoranging)
Frequency (hertz	<u>z</u>)				or 60
Thermal output				1030) BTU/hr
per power supply					
Power requirements		300 watts			
per power supply	/				
	Power factor		0.5 to 0.8		
Maximum altitude	e 			2135 n	n (7000 ft.)
Temperature Re	equiremen	ts	Operatii		Non-Operating
			10 to 40		10 to 43°C
			(50 to 104°F)		(50 to 110°F)
Humidity Requi			Operatii	•	Non-Operating
(Noncondensing))		8 to 80%		8 to 80%
Wet Bulb			27°C (80°F)		27°C (80°F)
Noise Emission	S¹		Operating		Idle
L _{WAd}			6.0 bels		6.0 bels
L _{pAm}		N/A		N/A	
<l<sub>pA>_m</l<sub>				42 dBA	
Impulsive or prominent		No		No	
discrete tones					
Clearances	Fron	nt	Back	Left	Right
Install/Air Flow²	152	mm(6 in)	152 mm(6 in)	N/A	N/A
Service	150	mm(6 in)	N/A	N/A	N/A

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

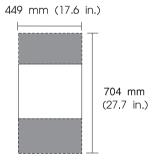


9295 Multiple Digital Trunk Processor Footprint

9295 Multiple Digital Trunk Processor With DC Power Supply

Dimensions	Base Unit	Each T1 or CEPT	Second Power			
		feature	Supply feature			
	266 mm 10.5 in	264 mm 10.3 in.	264.0 mm 10.3 in.			
	449 mm 17.6 in	50 mm 1.9 in.	69.5 mm 2.7 in.			
Depth	400 mm 15.7 in	373 mm 14.6 in.	373.0 mm 14.6 in.			
Weight						
Minimum	13.2 kg 29.2 lb	2.1 kg 4.6 lbs.	5.0 kg 11.0 lbs.			
Maximum	13.2 kg 29.2 lb	2.1 kg 4.6 lbs.	5.0 kg 11.0 lbs.			
Electrical						
Voltage range (V	dc)	-48	8 to -60 Vdc			
Thermal output		10	030 BTU/hr			
per power supply						
Power requirements		300 watts				
per power supply						
Maximum altitude		2135 m (7000 ft.)				
Temperature Red	quirements	Operating Non-Operating				
•		10 to 40°C	10 to 43°C			
		(50 to 104°F)	(50 to 110°F)			
Humidity Require	ements	Operating	Non-Operating			
(Noncondensing)		8 to 80%	8 to 80%			
Wet Bulb		27°C (80°F)	27°C (80°F)			
Noise Emissions	1	Operating	Idle			
L_{WAd}		6.0 bels	6.0 bels			
L _{pAm}		N/A	N/A			
<l<sub>pA>_m</l<sub>		42 dBA	42 dBA			
Impulsive or prom	inent	No	No			
discrete tones						
Clearances	Front	Back Left	Right			
Install/Air Flow ²	152 mm(6 in	152 mm(6 in) N/A	N/A			

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



9295 Multiple Digital Trunk Processor Footprint

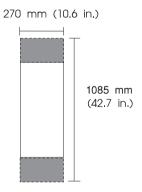
9333 Models 010, and 011 Drawer High-Performance Subsystem

Dimensions		
Height	171 mm	6.7 in.
		(4 EIA units)
Width	443 mm	17.4 in.
Depth	686 mm	27.0 in.
Weight		
Minimum	25 kg	55 lbs.
Maximum	49 kg	108 lbs.
Electrical		
Power source loading	0	.36
(typical in kVA)		
Voltage range for Model 010 (V ac)	200 t	o 240
Voltage range for Model 011	200 to 240 V	ac or -48 V dc
Frequency (hertz)	50 or 60	
Thermal output (typical)	680 BTU/hr	
Power requirements (typical)	200 watts	
Power factor	0.5 to 0.7	
Maximum altitude	2135 m (7000 ft.)	
Temperature Requirements	Operating	Non-Operating
	10 to 40°C	10 to 52°C
	(50 to 104°F)	(50 to 125°F)
Humidity Requirements	Operating	Non-Operating
(Noncondensing)	8 to 80%	8 to 80%
Wet Bulb	27°C (80°F) 27°C (80	
Noise Emissions*	Operating	Idle
L _{WAd}	5.5 bels	5.2 bels
L _{pAm}	N/A	N/A
<l<sub>pA>_m</l<sub>	42 dBA	40 dBA
Impulsive or prominent	No	No
discrete tones		

9333 Models 500, and 501 Deskside High-Performance Subsystem

Dimensions				
Height			610 mm	24.0 in.
Width (at pedestal)			270 mm	10.6 in.
Depth			780 mm	30.7 in.
Weight				
Minimum			39 kg	85 lbs.
Maximum			63 kg	138 lbs.
Electrical				
Power source loadin	g	0.37		
(typical in kVA)				
Voltage range (V ac)	100		to 240 (selectable)
Frequency (hertz)		50 or 60		
Thermal output (typic			680 B	
Power requirements	(typical)	200 watts		
Power factor		0.5 to 0.7		
Maximum altitude		2135 m (7000 ft.)		
Temperature Requirements		Operating		Non-Operating
		16 to 32°C		10 to 43°C
		(60 to 90	°F)	(50 to 110°F)
Humidity Requirem	ents	Operatii	ng	Non-Operating
(Noncondensing)		8 to 80%		8 to 80%
Wet Bulb		23°C (73°F)		27°C (80°F)
Noise Emissions ¹		Operatii	ng	Idle
L _{WAd}		5.5 bels		5.3 bels
L _{pAm}		N/A		N/A
<l<sub>pA>_m</l<sub>		44 dBA		42 dBA
Impulsive or prominent		No No		No
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	N/A
1 10W-				

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



9333 Model 500 and 501 Footprint

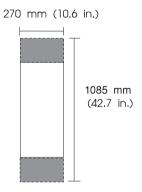
9334 Models 010, and 011 Drawer Expansion Units

Dimensions			
Height	171 mm	6.7 in.	
		(4 EIA units)	
Width	443 mm	17.4 in.	
Depth	686 mm	27.0 in.	
Weight			
Minimum	25 kg	55 lbs.	
Maximum	43 kg	95 lbs.	
Electrical			
Power source loading	0	.34	
(typical in kVA)			
Voltage range for Model 010 (V ac)	200 t	o 240	
Voltage range for Model 011	200 to 240 V ac or -48 V dc		
Frequency (hertz)	50 or 60		
Thermal output (typical)	580 BTU/hr		
Power requirements (typical)	170	170 watts	
Power factor	0.5 to 0.7		
Maximum altitude	2135 m (7000 ft.)		
Temperature Requirements	Operating	Non-Operating	
	10 to 40°C	10 to 52°C	
	(50 to 104°F)	(50 to 125°F)	
Humidity Requirements	Operating	Non-Operating	
(Noncondensing)	8 to 80%	5 to 80%	
Wet Bulb	27°C (80°F)	27°C (80°F)	
Noise Emissions*	Operating	Idle	
L _{WAd}	5.5 bels	5.2 bels	
L _{pAm}	N/A	N/A	
<l<sub>pA>_m</l<sub>	42 dBA	40 dBA	
Impulsive or prominent	No	No	
discrete tones			

9334 Models 500, and 501 Deskside Expansion Units

Dimensions				
Dimensions Height			610 mm	24.0 in.
Width (at pedestal)			270 mm	10.6 in.
Depth			780 mm	30.7 in.
<u> </u>				
Weight			39 kg	85 lbs.
Minimum Maximum			65 kg	142 lbs.
			03 kg	142 105.
Electrical			_	
Power source los	ading	0.4		
(typical in kVA)				
Voltage range (V		100		to 240 (selectable)
Frequency (hertz	,			or 60
Thermal output (650 BTU/hr		
Power requirements (typical)		190 watts		
Power factor		0.5 to 0.7		
Maximum altitude		2135 m (7000 ft.)		
Temperature Requirements		Operating		Non-Operating
		16 to 32°C		10 to 43°C
		(60 to 90)°F)	(50 to 110°F)
Humidity Requirements		Operating		Non-Operating
(Noncondensing)		8 to 80%		8 to 80%
Wet Bulb		23°C (73°F)		27°C (80°F)
Noise Emission	IS ¹	Operating		Idle
L _{WAd}		5.5 bels		5.3 bels
L _{pAm}		N/A		N/A
<l<sub>pA>_m</l<sub>		44 dBA		42 dBA
Impulsive or prominent		No No		No
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow ²	152 mm(6 in)	152 mm(6 in)	N/A	N/A
Service	152 mm(6 in)	N/A	N/A	N/A

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.

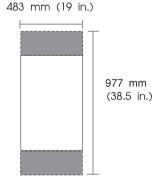


9334 Model 500 and 501 Footprint

9348 Model 012 Magnetic Tape Unit

Temperature Requirements		Operating		Non-Operating
		16 to 32°C		10 to 43°C
		(60 to 90	_' °F)	(50 to 110°F)
Humidity Requir	ements	Operation	na	Non-Operating
	ements	20 to 80%		20 to 80%
(Noncondensing)				
Wet Bulb		23°C (73	°F)	27°C (80°F)
Noise Emission	. 1	•	· · · · · · · · · · · · · · · · · · ·	· ,
Noise Emissions	S ¹	Operating		Idle
L_{WAd}		7.0 bels ²		6.8 bels
		N/A		N/A
L _{pAm}				
<l<sub>pA>_m</l<sub>		51 dBA ²		50 dBA
Impulsive or prominent		No		No
•		INO		INO
discrete tones				
Clearances	Front	Back	Left	Right
Install/Air Flow ³	152mm(6 in)	152mm(6 in)	N/A	N/A
			305mm(1	2 in) 305mm(12 in)

- 1. See "Noise Emission Notes" on page 2-125 for definitions of noise emissions positions.
- 2. Data applies when the tape unit is in streaming operating mode.
- 3. The amount of space needed by the unit during normal operation is indicated by broken lines on the footprint.



9348 Model 012 Footprint

Noise Emission Notes

- 1. L_{WAd} is the declared sound power emission level for a production series of machines.
- 2. L_{pAm} is the mean value of the sound pressure emission levels at the operator position (if any) for a production series of machines.
- 3. <L_{pA}>_m is the mean value of the space-averaged sound pressure emission levels at the one-meter positions for a production series of machines.
- 4. N/A = Not Applicable (no operator position).
- 5. All measurements are made in accordance with ISO DIS 779 and reported in conformance with ISO DIS 7574/4.

Chapter 3. Power Cords and Electrical Needs

General Considerations

In planning for your electrical needs, consider the following:

- You must have adequate power to meet the requirements of the devices.
- Electrical receptacles must be near enough to be reached by the power cords supplied with the devices.
- Electrical outlets must be compatible with the electrical plugs supplied with the devices
- Electrical outlets must be functional and properly grounded.
- · Paths of power cords.
- Depending on the computing environment, you may need surge protection devices.
- Radio, radar, or other strong radio frequency transmitters close to your location may cause computer malfunctions. Consult your sales representative if abnormally high radio frequency noise is anticipated.
- Functionality of uninterruptible power source (UPS), if used.
- Varying magnetic fields from high current electrical power distribution systems, elevators, or equipment employing high currents or magnets may cause annoying motion on video displays. Check for acceptable operation of video displays if varying magnetic fields may be encountered.

Power Cords

Power cords with attached plugs are provided for most AC powered systems. Power cords are 1.8 m (6 ft.) minimum length. Machine types 7012, 7013 and 7030 are supplied with 2.8 m (9 ft.) power cords. Types 7015 and 7202-900 racks are supplied with 4.3 m (14 ft) power cords. All products shipped to Chicago, are provided with 1.8 m (6 ft.) power cords to comply with local electrical standards

The power cord that is supplied with the system has an attached plug. The plug that is provided corresponds to the power-outlet receptacle most commonly used in the country to which the product is being shipped. A different plug may be selected by specifying its feature code from the following table when the product is ordered. You, the customer, must supply the corresponding power outlet receptacles.

Plugs

The table at the end of this section presents information concerning system unit plugs for various countries. The plugs are listed in order of feature code. Consult your sales representative for information on which type of plug is used in your area or country.

Notes:

- 1. Feature codes 6113, 6114, 6173, 6174, 9113, 9114, 9173 and 9174 are for a rack mounted power distribution units that include a power cord and plug. These codes indicate that the power distribution unit includes a power cord; therefore you do not need to order one separately. Unless otherwise noted, the system units have a 9111 power distribution unit, which does not include a power cord.
- 2. In the United States, raised floor installations involving racks may require a Russell and Stoll (R & S) watertight plug/connector/receptacle (feature code 9801 or 9987).

Electrical Considerations

Most of these electrical considerations apply to all system units, except for the "Power Phase Imbalance" and "Power Phase Rotation" sections, which apply only to the rack mounted or large systems.

Primary Computer Power Service

While a dedicated power supply is not necessary, for maximum reliability the computer power panel should connect to feeders that do not serve other loads. Connect electrical noise-producing devices to panels separate from those feeding the system units.

Grounding

A system unit or device must be properly grounded. It is recommended that an insulated green wire ground, the same size as the phase wire, be installed between the branch circuit panel and the receptacle.

To ensure proper grounding, a licensed electrician should check the grounding and receptacles for conformance with the country electrical codes.

Computer Room Emergency Power-Off Controls

As a safety precaution, you should provide room emergency power-off controls for disconnecting the main service wiring that supplies the computer equipment. Install these controls at a convenient place for the operator and next to the main exit doors of the room.

Lightning Protection

You should install lightning protection devices when:

- An overhead power service supplies the primary power.
- The area is subject to electrical storms or equivalent-type power surges.

Power Phase Imbalance

Three versions of rack power distribution units are available. The single-phase unit, feature code 9111, has a detachable line cord and can accept single-phase power or power from one phase of a three-phase source. The two multiphase units, feature codes 9113 and 9114, have attached line cords and connect to two and three phases, respectively, of a three-phase power source.

Systems with any of the power distribution units can cause a load imbalance when connected to a three-phase power source. You should consult a licensed electrician to properly balance the loads when new or additional systems are to be connected to a three-phase source.

Power Phase Rotation

The phase rotation (sequence) is not critical for the rack multiphase power distribution units (feature codes 9113 and 9114). The system will operate correctly with a multiphase distribution unit connected to a 200- to 240-volt single-phase power source (all phases connected to one side of the power source, neutral to the other). Note, however, that the 9114 unit does not have a neutral line circuit breaker and must only be connected to power sources that have a grounded (earthed) neutral.

Desktop and Deskside System Unit Power Plugs

Feature Code	Plug	Standard Compliance or Type
9116 9800 9986		NEMA WD-1 5-15P 125 V, 15 A
9820		CEE7 VII 250 V, 16 A
9821		Afsnit 107 250 V, 10 A
9825		BS 1363 250 V, 13 A
9827		SII-32-1971 250 V, 16 A
9828	•••	SEV 1011.1959 250 V, 10 A
9829	• •	SABS 164, BS 546 250 V, 16 A

Feature Code	Plug	Standard Compliance or Type
9830	•••	CEI 23-16/VII 250 V, 10 A
9831		AS 3122-1981 250 V, 10 A
9833		NEMA WD-1 6#15P 250 V, 15 A
9834		IEC 83-A5 1957 250 V, 10 A

Rack-Type System Unit Power Plugs

Feature Code	Plug	Standard Compliance or Type
6113 6173 9113 9173		IEC 309 380-415 V, 32 A
6114 6174 9114 9174		IEC 309 380-415 V, 16 A
9800 9824 9986		NEMA WD-5 L6-30P 250 V, 30 A
9801 9987		R & S 3750 250 V, 30 A
9822		Wilco Weatherproof WIP130 250 V, 30 A
9823		IEC 309 220 to 240 V, 32 A
9826		PDL Insulated 56PA330 250 V, 30 A

Chapter 4. Cable Planning

Before shipment, the customer is asked to provide specific planning information concerning the physical layout of the installation.

This section can help you plan your layout by presenting planning information on some cables used to interconnect the system units and devices. This chapter includes information on cable length and measuring techniques and some sample cable planning charts. Other cable planning charts can be laid out as necessary. The *Adapters, Devices, and Cable Information (ADCI) for Micro Channel Bus Systems*, order number SA23-2764 or *ADCI for Multiple Bus Systems*, order number SA23-2778 has detailed information on cable feature codes, part numbers, and pin-out charts for cables available to be purchased and customer-supplied cables.

You must plan the type of cable, cable path, and cable length. Consider not only your current needs, but also your anticipated growth and the relocation of personnel.

You should note cable paths on your office layout as this will assist with the installation of your system.

The customer is responsible for planning for the installation of interconnecting cables including the proper lightning and surge protection as necessary and should contact the appropriate contractor for guidance and assistance as requireed. If the cables discussed in the cable publication do not meet your needs, you should talk to your sales representative or cabling vendor about custom cabling alternatives.

General Considerations

In preparing for cabling, consider the following:

- Where applicable, electrical and physical specifications of cables you currently have and plan to use with the new system must be compatible with the standards mentioned in this book. If no standard is specifically mentioned in this book, the standards for the interface on that adapter must be met.
- Lengths and paths of cables. See "Cable Measuring" on page 4-2.
- Communication signal cables should be installed away from power lines or other sources of electrical interference.
- Toroid and special shielding considerations. The following cables, whether purchased from a vendor or supplied by you, must use a toroid: Lighted Programmable Function Keyboard, Dials, or Tablet Attachment Cable, the PC Parallel Printer Cable, the Display Adapter Cable, and the 7235 Signal Cable.
- Labeling of cables and ports you currently have in order to indicate which devices you
 want attached to them. See "Cable Labeling" on page 5-1.
- Electrostatic discharge (ESD) considerations. In particular, unprotected patch panels, punch blocks, or other intermediate routing or switching devices used in cabling can allow ESD into the network.

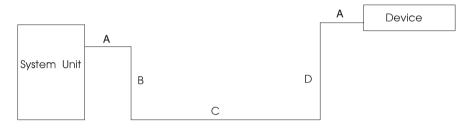
Note: Lightning protection must be provided on any cable which travels outside of the building in which the system or device such as a terminal or printer is installed. Contact a cabling vendor about providing lightning protection for those cables. Fiber-optic cables do not require lightning protection.

Cable Measuring

Accurate measuring of cables is critical to a successful and efficient installation. Do not guess or estimate your cable lengths.

In determining the cable lengths you need, be sure to consider the following:

- A=length allowed for service access, 51 mm (2 ft.) on both system unit and device ends.
- B=length from system unit to floor.
 - Tabletop to floor for desktop models.
 - 46 mm (1.5 ft.) for deskside units.
 - See "7015 Considerations" for rack-mounted system units.
- C=horizontal and vertical cable runs. Be sure to route cables around furniture to avoid tripping hazards.
- D=distance from floor to device. (This can include distance between floors, between buildings, etc., depending on complexity of installation.)

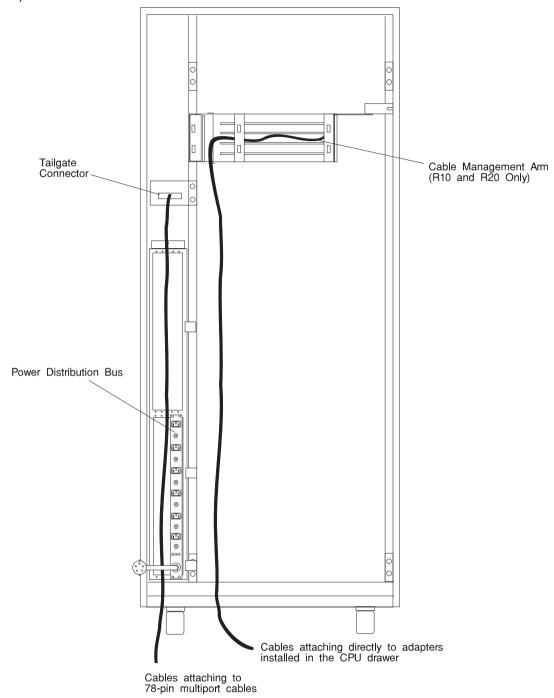


7015 Considerations

The 78-pin multiport interface cables for the 8-or 16-port Async Adapters when used with the 7015 Models R10 and R20 attach to the system tailgate connect rather than to the adapter itself. Internal cables not shown in the cable diagram run from the adapter through the cable management arm to the tailgate connector. You should begin your cable measurements at the tailgate connector for the 8-or 16-port Async Adapter multiport cables.

Other cables used with the 7015 Models R10 and R20 are routed through a cable management arm. The management arm is designed to ensure that the cables do not kink, stretch, or accidentally disconnect when a drawer is pulled out for service.

When planning the necessary lengths of cables routed through this arm, add 2.3 m (7.5 ft.) to the measured distance from the base of the rack.



Rear view of a 7015 system unit, showing system tailgate connector and cable management arm (Models R10 and R20). The EIA scale, which provides a standard unit of measure, is located on the inside right of the rack.

Cable Planning Charts

Cable planning charts help your electrician or cable vendor understand your master plan for cabling. These are particularly useful for large, complex installations.

For information about the cables see the following publications:

- Adapters, Devices and Cable Information, for Micro Channel Bus Systems, order number SA23-2764.
- Adapters, Devices and Cable Information, for Multiple Bus Systems, order number SA23-2778.
- For more information on asynchronous communications software, hardware, and cabling see *Asynchronous Communications Guide* order number SC23-2488.

Your responsibilities are as follows:

- Fill in each chart, except for the shaded areas, which will be completed by the
 electrician or cable vendor installing your system. You can make copies of the charts
 as needed. To help you complete the charts, samples are provided on the following
 pages.
- Verify that the proper cabling has been ordered and installed.
- Prepare and attach cable labels using the information from the completed charts.
- Once you have completed your sections, give the charts to your electrician or cable vendor who can use them to understand your cabling needs.

Note: Following the installation, the charts should be kept to help you remember the cabling scheme. These charts, in addition to the cable labels that are available (see Chapter 5), will be invaluable in the future as you move system units or devices and need to keep cabling in order.

There are four unique charts, one for each of the following adapters or adapter types:

- · Asynchronous adapters
- Standard I/O adapters
- 4-Port Multiprotocol Communications Controller
- · Other adapters

Asynchronous Adapter Planning Charts Example

Async Adapter Computer Room Lo	Cable Planni			
Shaded areas to Be filled in by the installation person Adapter Type 3-1	Length <u>25 ft.</u> ID <u>A1</u>	Port	Length	Device Type Device ID Location Telephone
System A EIA Slot		Port	Length	Device Type Device ID Location Telephone
Connector Tailgate		Port 2	Length_100 ft.	Device Type ASCII terminal Device ID tty48 Location RM 3-487 Telephone 5-3822

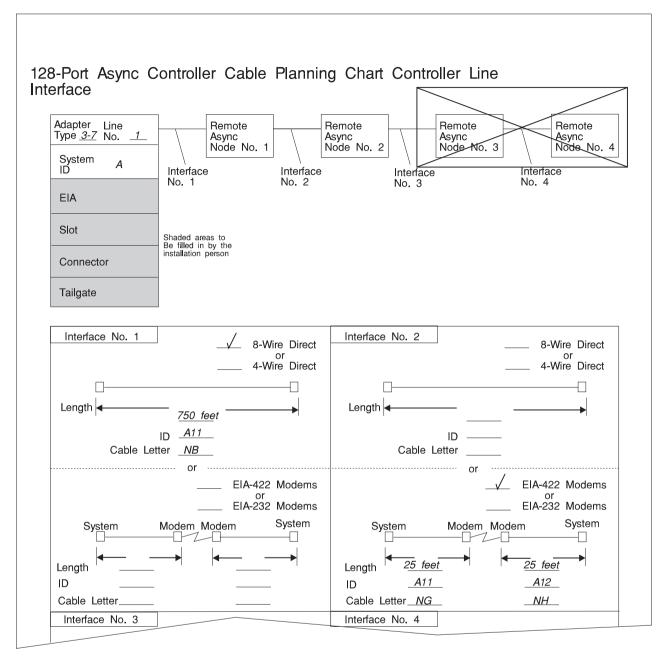
An example of an Async Cable Planning Chart for the 8 port async adapter complete for an ASCII terminal. In this example, the terminal is attached to Port 2. This chart can be used for 8-port or 16-port asynchronous adapters.

Async Adapter Cable Planning Chart

Computer Room Location

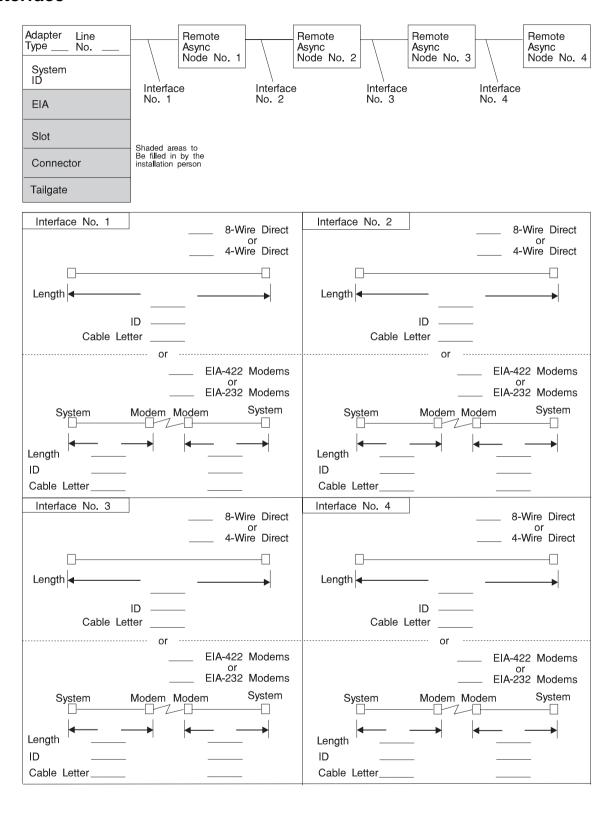
			_	
Shaded areas to Be filled in by the installation person		Port	Length	Device Type
installation person	Length		ID	Device ID
Adapter Type	ID			Location
				Telephone
System ID		Port	Length	Device Type
EIA			ID —	Device ID
				Location
Slot				Telephone
Connector		Port	Length	Device Type
Tailgate			ID	Device ID
rangate				Location
				Telephone
		Port	Length	Device Type
			ID	Device ID
				Location
				Telephone
Fan-Out Box No.	•	_		Device Type
Location		Port	Length ID	
				Device ID Location
				Telephone
				тетернопе
		Port	Length	Device Type
			ID	Device ID
				Location
				Telephone
		Port	Length	Device Type
			ID	Device ID
				Location
				Telephone
		Port	Length	Device Type
			ID	Device ID
				Location
				Telephone

128-Port Async Controller Cable Planning Chart Example



An example of a 128-Port Async Controller Cable Planning Chart, Controller Line Interface, completed for two interfaces. In this example, interface number 1 uses a 750-foot 8-wire cable, and interface number 2 uses two EIA-422 synchronous modems and associated cables. Cable IDs are assigned by the customer. For information about the cables represented by the cable letters shown in the example above, see "Adapters and Cabling Chapters" for the 128-Port Async Controller in the Adapters, Devices and Cable Information, for Micro Channel Bus Systems, order number SA23-2764 or Adapters, Devices and Cable Information, for Multiple Bus Systems, order number SA23-2778.

128-Port Async Controller Cable Planning Chart Controller Line Interface



128-Port Async Device Cable Planning Chart Example

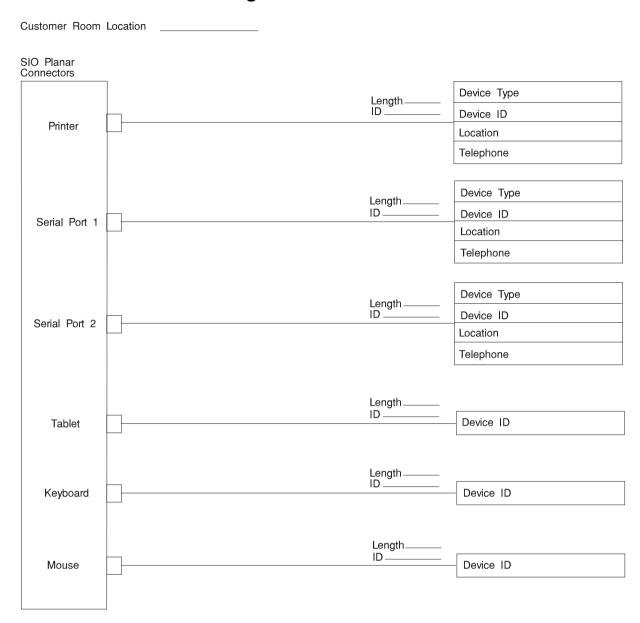
128-Port Async Device Remote Async Node No.			Chart		
Location Room 231					
Device Type 2381 Proprinter Device ID LP44	Cable: Length <u>200 ft.</u> ID <u>B</u>	Port	Port	Cable: Length ID	Device Type Device ID
Location Room 522		0			Location
Telephone 5-7152					Telephone
Device Type 3151 ASCII Term. Device ID TTY45 Location Room 487	Cable: Length <u>100 ft.</u> ID <u>A</u>	Port 1	Port	Cable: Length ID	Device Type Device ID Location
Telephone <i>5-8317</i>					Telephone
Device Type Device ID Location Telephone	Cable: Length ID	Port	Port	Cable: Length ID	Device Type Device ID Location Telephone

An example of a 128-Port Async Device Cable Planning Chart, Remote Async Node, completed for a 2381 Proprinter and a 3151 ASCI terminal. In this example, the terminal is attached to Port 1 on Remote Async Node number 1, and the printer is connected to port 0. Cable IDs are assigned by the customer.

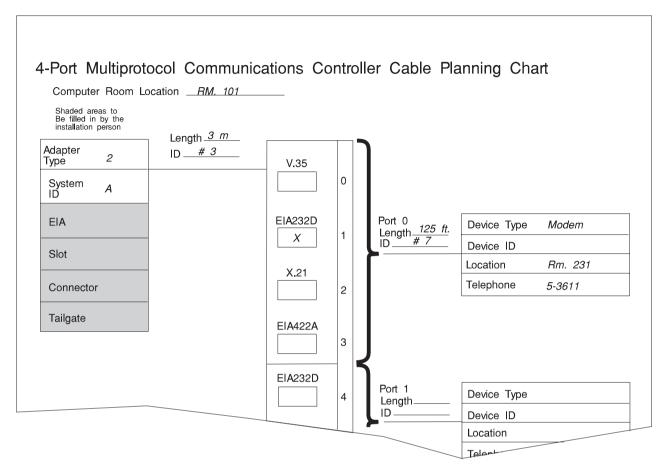
128-Port Async Device Cable Planning Chart

Remote Async Node No.					
Location					
Device Type	Cable: Length	Port	Port	Cable:	Device Type
Device ID	ID	Toll	TOIL	ID	Device ID
Location					Location
Telephone					Telephone
Device Type	Cable: Length	Port	Port	Cable: Length	Device Type
Device ID	ID ———			ID	Device ID
Location					Location
Telephone					Telephone
Device Type	Cable: Length	Port	Port	Cable: Length	Device Type
Device ID	ID			ID	Device ID
Location					Location
Telephone					Telephone
Device Type	Cable:			Cable:	Device Type
Device ID	Length	Port	Port	Length	Device ID
Location					Location
Telephone					Telephone
Device Type	Cable: Length	Б.	. .	Cable:	Device Type
Device ID	ID —	Port	Port	Length	Device ID
Location					Location
Telephone					Telephone
Device Type	Cable:		_	Cable:	Device Type
Device ID	Length ID	Port	Port	Length——— ID ———	Device ID
Location					Location
Telephone					Telephone
Device Type	Cable:			Cable:	Device Type
Device ID	Length	Port	Port	Length	Device ID
Location					Location
Telephone	-				Telephone
Device Type	Cable:	_	_	Cable:	Device Type
Device ID	Length	Port	Port	Length ——— ID ———	Device ID
Location					Location
Telephone			_		Telephone
(ee.	J			_	lessesse

Standard I/O Cable Planning Chart

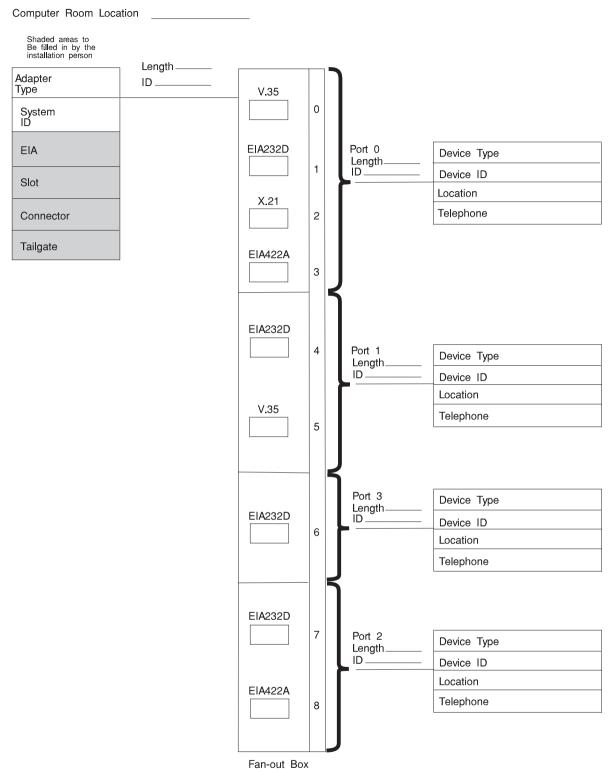


4-Port Multiprotocol Communications Controller Cable Planning Chart **Example**



An example of a 4-Port Multiprotocol Communications Controller Cable Planning Chart completed for a modem. In this example, the terminal is attached to Port 0. Protocol type, in this case EIA-232D, is noted with an X.

4-Port Multiprotocol Communications Controller Cable Planning Chart

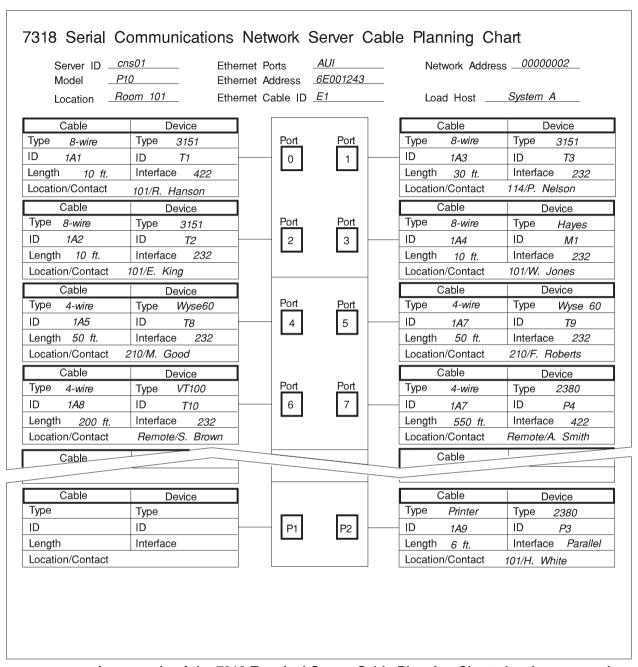


Note: Select only one interface per port.

Cable Planning Chart Other Adapters

haded areas to Be filled in by the installation	•	
Adapter Type	Length ID	
		Device Type
System ID	Interface	Device ID
_	X.21 V.24	Location
Drawer	V.24 V.35	Telephone
Slot		
Tailgate		
dapter Name		
dapter No of		
Adapter	Length	
Typė	ID	Device Type
System ID	Interface	Device ID
	X.21	Location
Drawer	V.24 V.35	Telephone
Slot	v.33	·
Siot		
Tailgate		
dapter Name		
dapter No of	 Length	
Adapter Type		
System		Device Type
ID	Interface	Device ID
Drawer	X.21 V.24	Location
Diawei	V.35	Telephone
Slot		
Tailgate		
dapter Name		
dapter No of	_	
Adapter	Length	
Type	ID	Device Type
System	Interface	Device ID
	X.21	Location
IĎ		
	V.24	Telephone
IĎ		

7318 Models P10 and S20 Cable Planning Chart Example



An example of the 7318 Terminal Server Cable Planning Chart showing connection of six terminals, 1 modem, 1 serial printer, and 1 parallel printer. The IDs assigned in the example above are assigned by the configuration planner. Refer to the 7318 Serial Communications Network Server Guide and Reference, order number SC23-2542 for information about slew rates, interface types and 7318 configurations.

7318 Serial Communications Network Server Cable Planning Chart

		Ethernet			Network Address	Network Address ————		
		Ethernet			-			
Location —		Ethernet	Cable ID _		Load Host			
Cable	Device				Cable	Device		
Type	Type		Port	<u>Port</u>	Type	Type		
ID	ID			1	ID	ID		
Length	Interface				Length	Interface		
Location/Contact	mionacc				Location/Contact	monaco		
Cable	Davisa				Cable	Dovine		
Туре	Type Device		Port	Port	Type	Device Type		
ID	ID		2	3	ID	ID		
Length	Interface			3	Length	Interface		
Location/Contact	Interiace				Location/Contact	Intenace		
Cable	Device		Port	Dowt	Cable	Device		
Туре	Туре			Port	Туре	Туре		
ID	ID .		4	5	ID In the second	ID		
Length	Interface				Length	Interface		
Location/Contact					Location/Contact			
Cable	Device			Б.	Cable	Device		
Туре	Туре		Port	Port	Туре	Туре		
ID	ID		6	7	ID ID	ID		
Length	Interface				Length	Interface		
Location/Contact					Location/Contact			
Cable	Device				Cable	Device		
Туре	Туре		Port	Port	Туре	Туре		
ID	ID		8	9	—— ID	ID		
Length	Interface				Length	Interface		
Location/Contact					Location/Contact			
Cable	Device				Cable	Device		
Туре	Туре		Port	Port	Туре	Туре		
ID	ID		10	11	ID	ID		
Length	Interface				Length	Interface		
Location/Contact					Location/Contact			
Cable	Device				Cable	Device		
Туре	Туре		Port	Port	Туре	Туре		
ID	ID		12	13	ID	ID		
Length	Interface			ш	Length	Interface		
Location/Contact					Location/Contact			
Cable	Device				Cable	Device		
Туре	Туре		Port	<u>Port</u>	Type	Туре		
ID	ID		14	15	ID	ID		
Length	Interface				Length	Interface		
Location/Contact					Location/Contact			
Cable	l B. i.					De te		
Type	Device				Cable	Device		
	Туре		D4		Туре	Туре		
ID	ID		P1	P2 -	ID Lameth	ID Interfere		
Length	Interface				Length	Interface		
Location/Contact					Location/Contact			

Chapter 5. Cable Labeling

Reasons for Labeling Cables

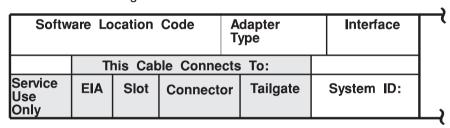
For system installations requiring cabling between rooms and use a variety of different interfaces, cable labelling is especially important. This is because there are several different interfaces that have cable connectors which are identical in appearance. Cable labeling can help you keep track of how each cable is being used and provide correct location data. By attaching a cable label to each end of a cable, you can always know the source and destination of any cable. This information will facilitate installation and the inevitable moving of devices that occurs in any office.

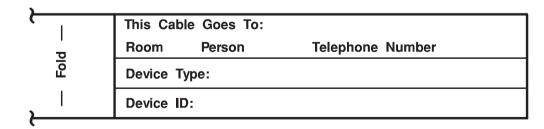
Cable labels can be ordered using order number GX23-0819 from your sales representative. The 7015 system units have several sheets of cable labels shipped with them. However, if you would like to label the cables before your system arrives, they will need to be ordered. If you attach the cable labels in advance, the installer can make connections to match your cable planning charts. See Chapter 4, "Cable Planning" on page 4-1 for more details on cable planning charts.

Process for Labeling Cables

As a customer, you are primarily interested in the side of the label that describes the cable's destination. However, each side is shown and explained so you can understand the labels.

The cable label is designed to fold around a cable and stick to itself.





Cable labels can be ordered using order number GX23-0819.

The following topics describe the information in each area of the label.

This Cable Goes To:

Prior to shipment, the customer is asked to provide specific planning information concerning the physical layout of the installation.

This task includes tagging each of the cables that are installed prior to the system unit installation. The cables should be identified with information describing the type and location of the device it attaches.

Use that information to fill out the right hand side of the label.

Room The room number, or other information about the physical location

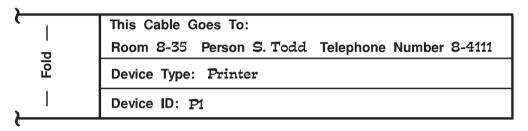
of the device.

Person The name of the person who uses the device. Telephone # The nearest telephone number to the device.

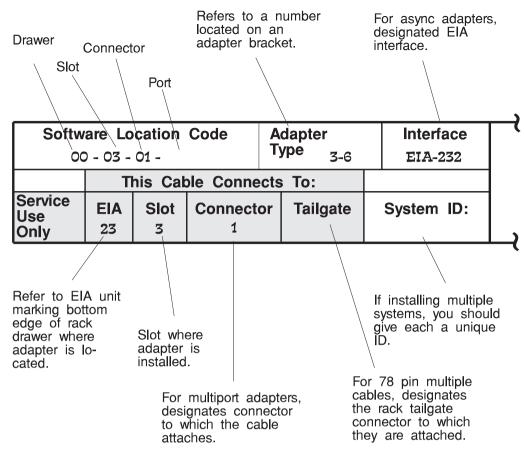
Device Type This could be a printer, plotter, TTY, or similar device.

Device ID The device ID is determined at the time the software is configured

on the system.



The right side of the cable label.



The left side of the cable label, which has shaded areas, is primarily for use by the customer engineer installing your system.

Software Location Code

The software location code is the link between the hardware and software. This code appears in the software configuration menus and in the hardware diagnostic menus.

Note: Refer to the Diagnostic Information manual for your system:

- Diagnostic Information for Micro Channel Bus Systems, order number SA23-2765 (formally Common Diagnostics Information Manual).
- Diagnostics Information for Multiple Bus Systems, order number SA23-2769

for specific location code information.

Because the same diagnostic programs are used on all of the system units, a software location code is used to physically locate a failing device or unit. The software location code is displayed along with the service request number (SRN) when the diagnostic programs isolate a failure. The information you are instructed to record appears in the software configuration menus and in the hardware diagnostics menus. The software location code identifies the path from the adapter in the system unit through the signal cables to the device. Without this information it may be difficult to determine which adapter controls a device.

There are two types of software location codes:

- The non-SCSI device location code. These include all built-in adapters and all other adapters except the SCSI controller.
- The SCSI device location code. This is used to identify SCSI devices.

Adapter Type

The adapter type is two digits separated by a hyphen. This number is on a label attached to the end of the adapter. Refer to chapter1 of one *Adapters, Devices, and Cable Information for Multiple Bus Systems*, order number SA23-2778 or *Adapters, Devices, and Cable Information for Micro Channel Bus Systems*, order number SA23-2764 for a listing of adapter types.

Note: Some of the adapters in the multiple bus systems do not have an adapter type.

Interface The name of the asynchronous adapters, and some network adapters, generally includes the name of the interface.

Since several different types of cables have the same kind of connectors, it is easy to connect them incorrectly because the connectors match. Therefore, it becomes an important check to write the name of the interface on the label. Examples of common interfaces are X.25, EIA-232, and EIA-422.

The EIA number is used in a rack-type system unit to identify the physical location of the drawer within the rack. There is a label along the right side of the rack (with rear cover open) numbered from 1, at the bottom, to 32, at the top of the rack. The number at the bottom right corner of the drawer is the EIA location for this drawer.

The slot number is the physical position within the system unit or drawer where the adapter is located. Each adapter slot is identified by a single digit number. Usually, the number is embossed in the adapter mounting frame.

Connector This is the connector number on the adapter. Most adapters have only one connect so this number is 1. Refer to Chapter 8 in this book for more information about the adapter you are connecting.

Tailgate This number is only used on a rack-type system unit. Record the number of the tailgate connector to which this cable is attached.

System ID If an installation has more than one system unit, each one must be identified to prevent connecting devices to the wrong system unit. The customer should determine the System ID.

Attaching the Cable Label

- 1. Type or print the information for the labels you need for a given set of cables.
- 2. Peel the label off of the sheet and place it on the cable with the words "-Fold -" parallel to the cable; then fold the label around and stick it to itself.

Note: The glue on the label is designed to pull apart if you need to remove and reinstall the label when the cable is exchanged.

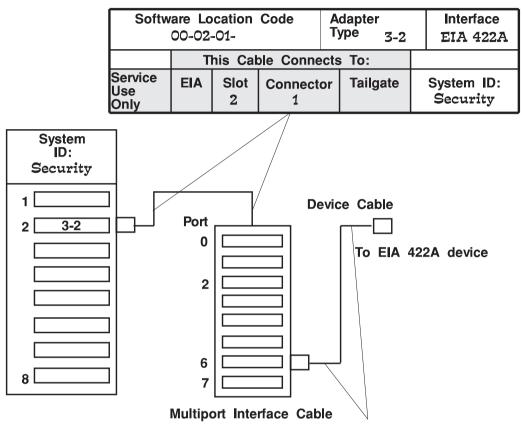
Softw	are Lo	cation	Code		dapter ype	Interface	(
	TI	nis Cab	ole Conne				
Service Use Only	EIA	Slot	Connect	or	Tailgate	System ID:	

	This Cable Goes To:						
- Б	Room Person	Telephone Number					
징	Device Type:						
,	Device ID:						

Example of 8-Port Async Adapter EIA-422A in Slot 2

This example shows the filled-in cable labels for a Multiport Interface Cable attached to an 8-Port Async Adapter EIA-422A in slot 2. The second cable label has the port number for the interface cable added to the software location code.

You may want to use a label at each end of a cable (as shown here) if the cable is long.



Software Location Code 00-02-01-06					dapte /pe	r 3-2	Interface EIA 422A
	Т	ole Conne	cts	To:			
Service Use Only	EIA	Slot 2	Connect	or	Tail	gate	System ID: Security

Chapter 6. Additional Planning Considerations

The following topics provide guidance for additional planning steps that may be necessary.

Create or Modify Communications Networks

If you intend to use the system in a network environment, appoint a central site or system administrator to help design and maintain a system that provides maximum availability of all devices in the network. The system administrator may need to consider the following:

- Types of networks with which your network users must communicate (for example, local and wide area networks, asynchronous, coaxial).
- Types of communications functions your network users need (for example, file transfer, mail, 3278/79 emulation, X-Window server support, data conversion, printing).
- Communications software that is required to communicate between systems within your own network and with systems on external networks.
- International language considerations, if any, between communicating systems.
- Network management functions that you wish to use within your network, including error isolation procedures and performance and monitoring tools.
- Information needed to properly configure your system. The following list provide some of the types of information needed:
 - Transmission speed (in bits per second)
 - Parity checking (whether none, odd, or even)
 - Pacing protocols required or allowed by remote system
 - Dialing or calling protocols, such as autoanswer and autocall, and information such as phone numbers (including back-up phone numbers in case no connection is possible)
 - Times you can call and communicate with the remote systems
 - Naming and addressing requirements within your network and between your systems and remote systems
 - Security relationships within your network and between your systems and remote systems
 - Gateway or bridge requirements
 - Information needed to configure the system software for correct operation in the network.
- · Any necessary cables, control units, or other specialized communications hardware.
- · Preparation of communications lines:
 - Number of concurrent communications users
 - Amount of data to be transmitted
 - Communications software licensing restrictions.

Perform Building Alterations as Needed

Perform any building alterations that you determine are necessary to accommodate your new computing equipment. These may include the following:

- · Electrical wiring modifications to accommodate the added computing equipment.
- Network cabling additions to accommodate the replaced or added computing equipment.
- · Fire protection measures to protect your data and equipment.
- · Antistatic measures to protect your data and equipment.
- · Radio or radar shields if you are installing near transmitters.
- Installation of uninterruptable power source (UPS), if required.
- · Air conditioning installation.

Prepare Maintenance, Recovery, and Security Plans

Maintenance, recovery, and security plans can help protect your investment and maximize productivity. The system administrator may need to formulate the following plans:

- · System maintenance program for both hardware and software
- · System recovery and availability plan
- · Logical security plan
- · Physical security plan.

Develop an Education Plan

Depending on the applications you will be using, your employees may need formal and/or informal training. The *AIX and Related Products Documentation Overview*, order number SC23-2456, provides a list of publications available with the system.

Order Any Needed Supplies

You may need to order some of the following items:

- Publications *AIX and Related Products Documentation Overview*, order number SC23-2456, lists publications available for AIX and the system.
- InfoExplorer, a hypertext database of documentation that provides an alternative to hardcopy books, is also described in the AIX and Related Products Documentation Overview, order number SC23-2456.
- Tapes or diskettes for backing up software and data.
- Printer supplies (paper, printer toner, printer ribbons).
- Plotter supplies (paper, vellum, film, pens).

Note: Where x.x.x is the current level of AIX.

Prepare for System Delivery

Once your system unit arrives, you are responsible for moving it to the installation location. Some systems such as Machine Types 7006, 7009 and 7011, you are also responsible for setting up the system unit. Check your system information or with your sales representative to find out who sets up your system. This section explains how to both identify and inventory your shipment.

Identifying Your Shipment

If you have more than one machine being delivered at the same time, it is import to keep their components separate. Your order, for example, may come from various locations, software from one place and hardware from another.

The shipping label on each box has several numbers that will help you keep everything organized. No matter where they come from, the parts of the order, from the display to the system unit, have the same system number. The serial number identifies all components that come with a particular system unit's processor. The figure below is an example of a shipping Label, with the system number and the serial number indicated.

Customer No.	Sched Date	CL	System Number	Mach Type	Serial No.	Br. Off
			340045		2600512	

If you have any difficulty identifying your order or which products are for a particular system, contact your sales representative.

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