

IBM 47U and 42U 1200mm Deep Racks

IBM System x at-a-glance guide

IBM 42U and 47U 1200 mm Deep Rack offerings are industry-standard 19-inch server cabinets that are designed for high availability IBM System x and BladeCenter environments. They are optimized to help maximize floor space, expedite installation, simplify cable management, and increase accessibility for improved serviceability. With a depth of 1200 mm (approximately 47 inches), these racks offer expansive rear channels with tool-less button mounts for virtually effortless installation of up to six IBM 0U vertical rack strip power distribution units (PDU) or can easily accommodate vertical cable organizers or mounting other equipment. Figure 1 shows the IBM 42U 1200mm Deep Static Rack, 93614PX.



Figure 1. The front and rear view of the IBM 42U 1200mm Deep Static Rack, 93614PX

Did you know?

IBM Dynamic Racks enable you to receive your System x and BladeCenter solutions fully integrated in the rack and ready to instantly deploy into your data center. Dynamic Racks are designed to affordably, safely, and securely handle shipping fully loaded configurations up to 950 kg (2,100 lbs), which can help to increase your efficiency by reducing the time and cost that is associated with typical server deployments. However, if you do not need to ship the rack fully loaded, IBM offers cost-effective Static offerings that are ideal when doing on-site integration.

Part number information

Table 1 lists the available IBM 47U and 42U 1200mm Deep Racks.

Table 1. Ordering part numbers and feature codes

Description	Part number	Feature code
IBM 47U 1200mm Deep Static Rack	93624PX	9362RC4 fc 7653
IBM 47U 1200mm Deep Static Expansion Rack	93624EX	9362RC4 fc 7654
IBM 42U 1200mm Deep Static Rack	93614PX	9361RC4 fc 7651
IBM 42U 1200mm Deep Static Expansion Rack	93614EX	9361RC4 fc 7652
IBM 42U 1200mm Deep Dynamic Rack	93604PX	9360RC4 fc 7649
IBM 42U 1200mm Deep Dynamic Expansion Rack	93604EX	9360RC4 fc 7650

The part numbers contain the following items:

- One rack
- Rear and front doors
- Side panels (EX Expansion racks ship without side panels)
- Shipping pallet and ramp
- Removable outriggers (9360 42U Dynamic Racks only)
- Keys for the rack doors and side panels
- One front stabilizer bracket
- Two bolt down brackets /side stabilizers
- Hardware kit containing miscellaneous rack components
- Hardware kit for attaching the expansion rack to a rack suite (EX Expansion racks only)
- Documentation CD

Features

The features of the IBM 47U and 42U 1200mm Deep Racks include:

- **42U and 47U 600 mm x 1200 mm designs**
 - Cost-effective 42U static (non-ship loadable) and dynamic (fully ship loadable) models and 47U static models
 - 47U models feature an extra 5U of rack space versus traditional 42U cabinets to help increase your rack density and minimize your foot print
 - Designed for high availability IBM System x® and BladeCenter® environments
 - 600 mm standard single floor tile width to complement current raised floor data center designs
 - 1200 mm depth for improved cable management and air circulation
 - Compliance with the EIA-310-D industry standard for 19-inch, type A rack cabinets
- **Rear cable management channels**
 - Features expansive rear channels with tool-less button mounts for virtually effortless installation of up to six IBM 0U vertical rack strip power distribution units (PDU), or can easily accommodate vertical cable organizers or mounting other equipment.
 - Zero U mounting design conserves valuable EIA space for IT equipment, simplifies cable management, reduces installation time and increases accessibility.

- **Side pockets**
 - Six sidewall compartments to support installation of 1U PDUs and switches without unnecessarily taking up valuable rack space
- **Overhead cable access**
 - Front cable access portals and a large rear adjustable opening provide improved overhead cable management
- **Standard stabilizers**
 - Standard front and side stabilizers for static rack stability when equipment is routinely installed, removed, or accessed
- **Adjustable leveling pads**
 - Four easily adjustable leveling pads ensure stability and prevent rolling on casters
- **U markings**
 - Clear U markings on mounting rails to aide in space planning and installation
- **42U cabinets are less than 2 m height on casters**
 - Fixed front and rear swivel heavy duty casters that can easily accommodate the maximum load capacity, while still being less than 2 meters in height to allow the 42U rack models to fit under most doorways
- **Perforated doors**
 - Perforated front and rear doors for maximum airflow
- **Split rear doors**
 - Split rear door design for improved access and serviceability
- **Secure doors and panels**
 - Lockable doors and side panels provide a more secure environment for equipment and data
- **Quick release hinges**
 - Quick release hinge design allows the front door to easily be mounted on either side of the cabinet, which provides for flexible placement alternatives by allowing the door to open in either direction
- **42U Dynamic ship load offerings**
 - Affordable 42U dynamic rack models that support shipping ready for instant deployment fully integrated solutions up to 2,100 lbs
 - Robust frame, mounting rails, and shock re-usable packaging to help protect the heaviest loads in transit
 - Integrated outriggers for dynamic tilt stability and safety at maximum loads
- **Expansion cabinets**
 - All the primary IBM 1200mm Deep Rack offerings have corresponding expansion cabinets. These models ship without side panels and include buying kits for seamless creation of a suite of racks

Figure 2 shows the 42U Dynamic Rack on the reusable shock-resistant pallet ready for transport. The figure also shows the outriggers that aid the stability of the rack during movement, especially when the rack is fully loaded.

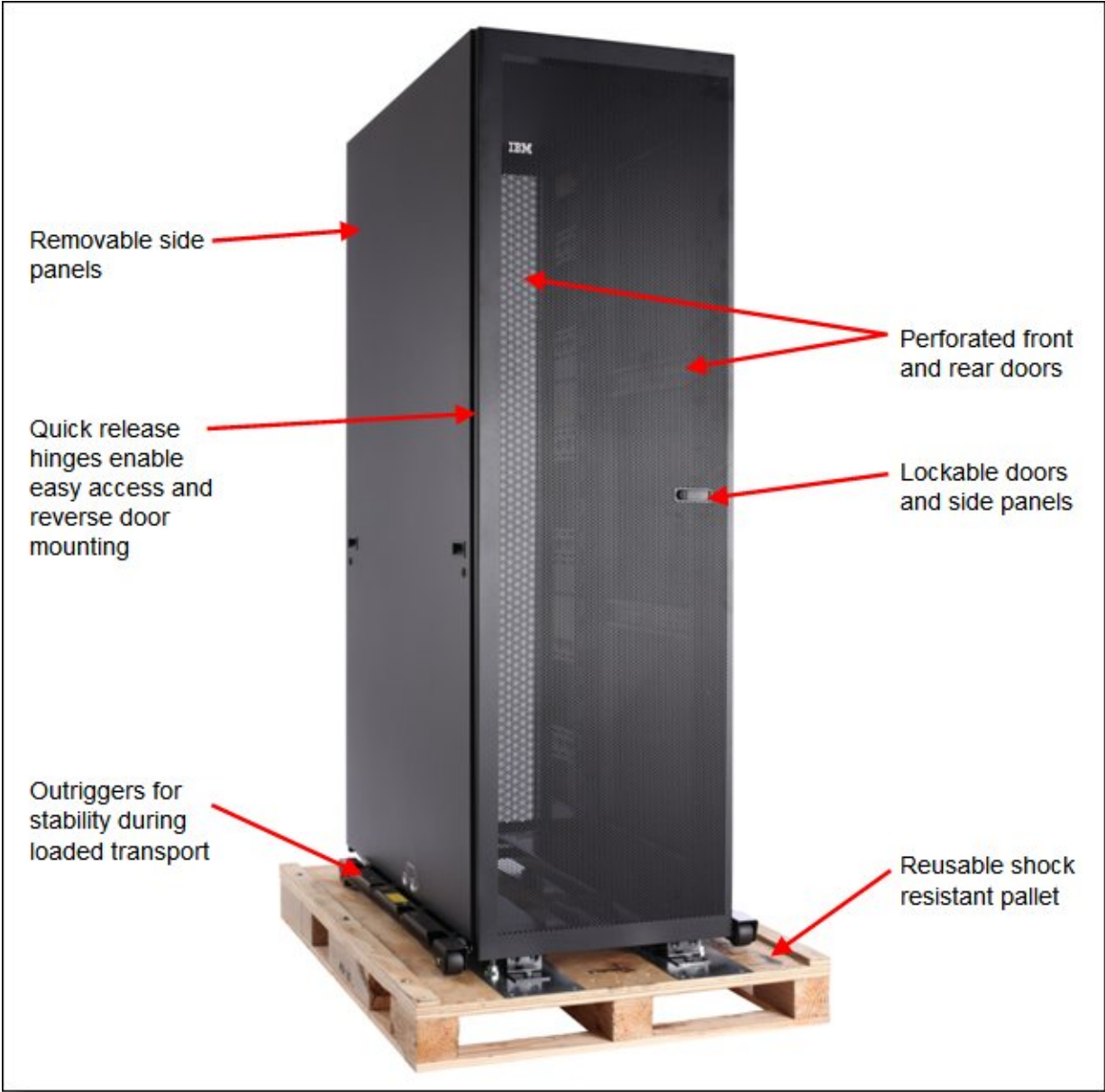


Figure 2. The 42U Dynamic Rack on the shipping pallet

Figure 3 shows the split rear doors plus the three of the six side-wall compartments (pockets) for 1U PDUs and switches.

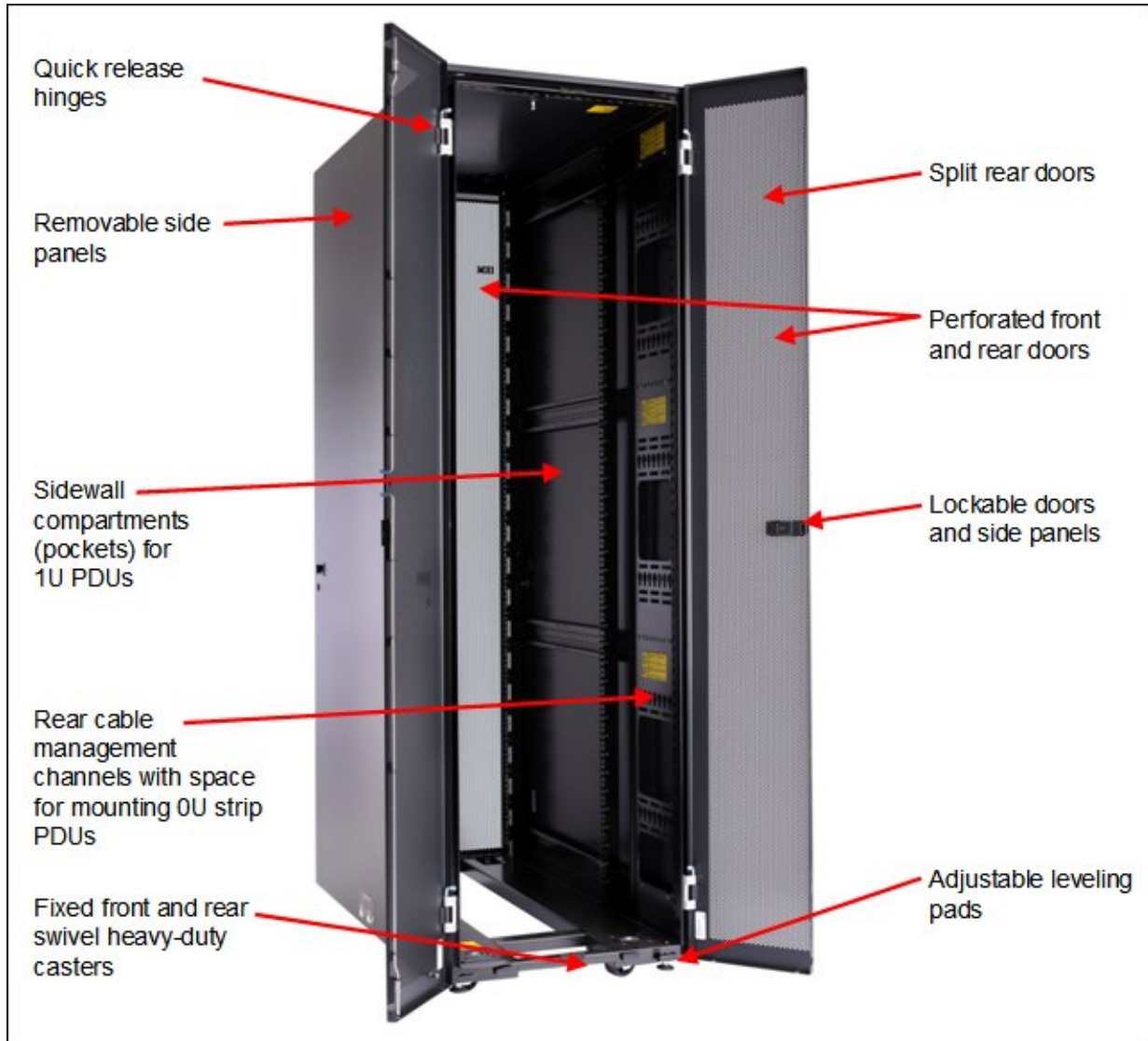


Figure 3. Rear view of the IBM 42U 1200mm Deep Static Rack, 93614PX

Table 2 compares the power specifications of the racks.

Table 2. Specifications

Description	IBM 47U 1200mm Deep Static Rack		IBM 42U 1200mm Deep Static Rack		IBM 42U 1200mm Deep Dynamic Rack	
	Base Rack	Expansion Rack	Base Rack	Expansion Rack	Base Rack	Expansion Rack
Part numbers	9362-4PX	9362-4EX	9361-4PX	9361-4EX	9360-4PX	9360-4EX
Height in rack units	47U		42U		42U	
Can be shipped with servers installed	No		No		Yes	
Removable lockable side panels	Yes	No	Yes	No	Yes	No
0U PDU tool-less mounting points	Six		Six		Six	
1U side-wall compartments (pockets)	Six		Six		Six	
External height	87.4 in / 2221 mm		78.7 in / 2000 mm		78.7 in / 2000 mm	
External depth	47.2 in / 1200 mm		47.2 in / 1200 mm		47.2 in / 1200 mm	
External width	23.8 in / 605 mm	23.6 in / 600 mm	23.8 in / 605 mm	23.6 in / 600 mm	23.8 in / 605 mm	23.6 in / 600 mm
Internal depth	46.8 in / 1189 mm		46.8 in / 1189 mm		46.8 / 1189 mm	
Rack weight (empty)	331 lb / 150 kg	243 lb / 110 kg	310 lb / 141 kg	229 lb / 104 kg	367 lb / 166 kg*	282 lb / 128 kg*
Static load capacity	2500 lb / 1134 kg		2100 lb / 953 kg		2100 lb / 953 kg	
Dynamic load capacity	Not supported		Not supported		2100 lb / 953 kg	

* Rack weight includes outriggers

The 1200mm Deep Racks support tool-less rear-channel mounting for up to six 0U PDUs that have a button-mount design. Figure 4 shows the location of IBM 0U 12 C19/12 C13 50A 3 Phase PDU in the rack.



Figure 4. Installation of an IBM 0U 12 C19/12 C13 50A 3 Phase PDU into a 1200mm Deep Rack

Figure 5 shows how the 0U PDUs are attached using the button-mount design.

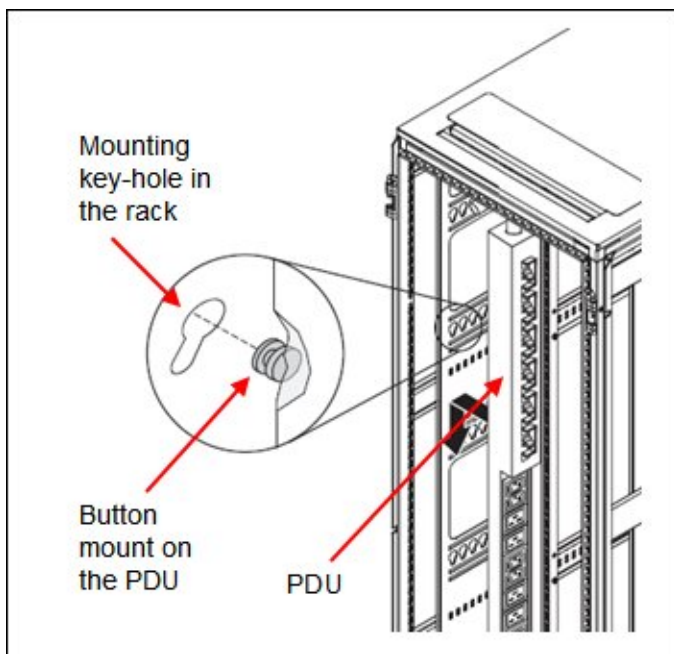


Figure 5. Installing the IBM 0U Basic PDU in a Deep Dynamic or Deep Static rack

Warranty

The IBM 47U and 42U 1200mm Deep Racks are offered with a three-year limited warranty.

Part of the IBM family of server cabinets

Table 3 lists the specifications of the other server cabinets available from IBM.

Table 3. Other racks available from IBM

Product Name	11U Office Enablement Kit	25U Static Standard	25U Dynamic Standard	42U S2 Static Standard	S2 42U Dynamic	42U Enterprise
Primary Cabinet model	201886X	93072PX	93072RX	93074RX	99564RX	93084PX
Rack U Height	11U	25U	25U	42U	42U	42U
Height (mm/in)	610 / 24	1344 / 53	1344 / 53	1999 / 78.7	1999 / 78.7	2020 / 79.5
Width (mm/in)	518 / 20.4	605 / 23.8	605 / 23.8	605 / 23.8	605 / 23.8	648 / 25.5
Depth (mm/in)	1156 / 45.5	1000 / 39.4	1000 / 39.4	1000 / 39.4	1000 / 39.4	1105 / 43.5
Lockable Perforated Front/Rear Doors	Yes	Yes	Yes	Yes	Yes	Yes
Removable Lockable Side Panels	No	Yes	Yes	Yes	Yes	Yes
Split Rear Doors	No	Yes	Yes	Yes	Yes	No
Side Pockets	No	2	2	6	6	4
Top Cable Exits	No	Yes	Yes	Yes	Yes	Yes
Bottom Cable Exits	No	Yes	Yes	Yes	Yes	Yes (Rear)
Side Stabilizers	No	No	No	Yes	Yes	No
Front Stabilizer	Yes	Yes	Yes	Yes	Yes	Yes
Acoustic Rear Door	Yes	No	No	No	No	Optional 40K9627
Ship Loadable	Yes	No	Yes	No	Yes	Yes
Load Capacity for Shipping (kg/lb)	182 / 401	0	567 / 1250	0	950 / 2094	950 / 2094
Maximum Loaded Weight (kg/lb)	222.8 / 491	667 / 1471	667 / 1471	1090 / 2403	1092 / 2407	1173 / 2586
Related Expansion Rack model	None	None	None	93074XX	99564XX	93084EX

Related publications

For more information, refer to the following documents:

- IBM Rack and Power Infrastructure Portfolio home page
<http://ibm.com/systems/x/hardware/options/>
- IBM Redbooks at-a-glance guide, IBM 0U Basic Power Distribution Units
<http://www.redbooks.ibm.com/abstracts/tips0797.html>
- IBM Redbooks at-a-glance guide, IBM 1U Switched and Monitored Power Distribution Units
<http://www.redbooks.ibm.com/abstracts/tips0775.html>
- Installation Guide, 42U 1200 mm Deep Static and Expansion Racks and 47U 1200 mm Deep Static and Expansion Racks
<http://ibm.com/support/entry/portal/docdisplay?Indocid=MIGR-5085536>
- Installation Guide, 42U 1200 mm Deep Dynamic Rack and 42U 1200 mm Deep Dynamic Expansion Rack
<http://ibm.com/support/entry/portal/docdisplay?Indocid=MIGR-5085539>
- IBM System x Configuration and Options Guide
<http://www.ibm.com/support/docview.wss?uid=psg1SCOD-3ZVQ5W>

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