

# F-SERIES TERAFRAME® HD CABINET SYSTEM

## KEY FEATURES

- Safely transports up to 3,000 lb (1360 kg) of electronic equipment from a factory integration site direct to a customer's data center
- Heavy-duty shock pallet and re-usable cushioned carton allows the cabinet to be reshipped after the equipment is loaded
- Heavy-duty welded steel ramp provides a safe method for unloading the cabinet from the pallet upon arrival at the installation site
- Cabinet moves easily on heavy-duty casters that provide superior long-term performance under load
- Minimize installation time with an optional bolt-down kit that securely anchors the cabinet to the floor structure and can be installed prior to the cabinet's arrival

## APPLICATIONS

- The F-Series TeraFrame® HD Cabinet System is used for high density server and storage applications that require up to 3,000 lb (1360 kg) of factory integrated equipment which will be shipped directly to an installation site

## USE WITH

- Air Dam Kit
- Snap-In Filler Panels
- Vertical Cable Managers
- Vertical Power Managers

## RELATED ACCESSORIES

- Saf-T-Grip® Straps
- Rack-Mount Cable Shelf
- Rack-Mount PDUs

### **Heavy-Duty Cabinet Design**

For safe transportation of up to 3,000 lb (1360 kg) of electronic equipment from a factory integration site to the data center.

### **Reusable Cushioned Carton**

Protects cabinet and equipment during shipment



The F-Series TeraFrame® HD Cabinet System helps organize, store and secure computer, data storage and network equipment in the data center, computer room or network environment. The heavy-duty structure is designed for safe transportation of up to 3,000 lb (1360 kg) of electronic equipment from a factory integration site direct to the customer's data center.

Every cabinet includes two pairs of sliding, continuously adjustable equipment mounting rails with square-punched mounting holes for compatibility with most rack-mount equipment. In addition, the F-Series TeraFrame HD Cabinet system includes heavy-duty casters with roller bearings for superior long-term performance under load, a shock pallet, and a re-usable cushioned carton for protection during shipment.

The top panel includes large brush-covered cable openings that will handle large bundles of cables while preventing hot air re-circulation and a removable cover plate allowing the use of a Vertical Exhaust Duct for high density applications. Side panels have a recessed locking spring-loaded latch and can be easily removed to access equipment. Doors are either solid or perforated (mesh). Doors feature a swing handle with keyed-lock for security.

Use the heavy-duty steel ramp at the installation site to unload the populated cabinet from the shock pallet, and the bolt-down kit to securely anchor the cabinet to the floor. The bolt-down kit can be installed prior to the cabinet's transport to minimize installation time.

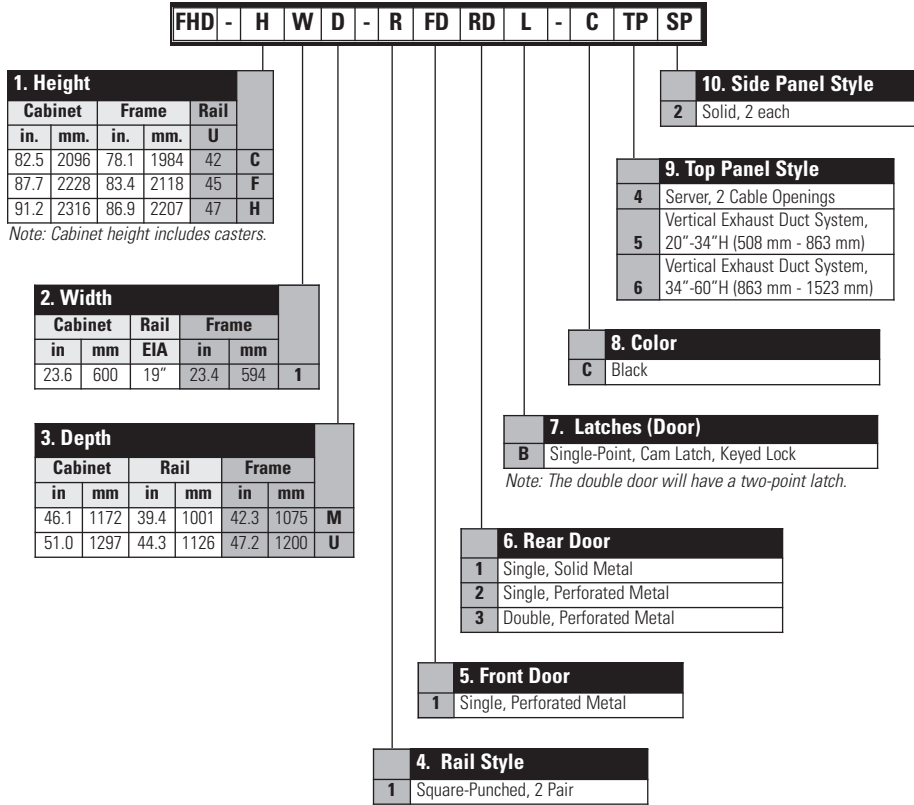
Combine the F-Series TeraFrame HD Cabinet with thermal, power and cable management accessories to create a custom solution that fits your exact needs. See inside for product details. Contact CPI Technical Support to specify your cabinet.



ORDERING INFORMATION

Use the part number matrix below to select a F-Series TeraFrame HD Cabinet. Choose the **Height**, **Width**, **Depth**, **Rail Style**, **Front Door**, **Rear Door**, **Latch**, **Color**, **Top Panel** and **Side Panel** style to form a part number. To order the cabinet with accessories installed, contact CPI Technical Support.

Example Part Number: *FHD-F1U-111B-C52*



**Ordering Notes:**

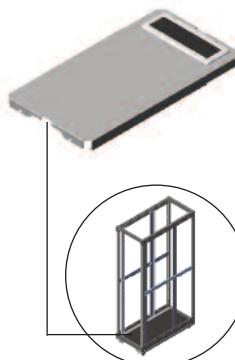
1. Height: Three heights are available. The cabinet height is the overall height of the cabinet with a top panel and casters. The frame height is the height of the internal frame without the top panel or casters. Casters add approximately 4.2 inches (107 mm) to the height of the frame and cabinet.
2. Width: Overall cabinet width with side panels is 23.6 inches (600 mm). The cabinet includes equipment mounting rails spaced for 19"EIA (482.6 mm) rack-mount equipment.
3. Depth: Two depths are available. Cabinet depth is the overall depth of the cabinet including doors. Frame depth is the outside depth of the frame excluding doors. Doors add approximately 3.8 inches (97 mm) to overall depth. Rail depth is the maximum front-to-rear spacing of equipment mounting rails. Rail depth is reduced (by an equipment mounting rail setback) when accessories are added.
4. Rail Style: Square-punched rails use snap-in cage nut hardware that can be changed to match equipment requirements. Order additional mounting hardware as required.
5. Front Door Style: The door matches the color of the cabinet and includes an anodized aluminum center beam.
6. Rear Door Style: Three rear door styles are available. The double door reduces the amount of aisle space required to access the rear of the cabinet. Double doors have two-point latches. A single solid metal door must be used when the Vertical Exhaust Duct System top panel style is selected.
7. Latches: All doors have a swing handle. Single doors have a single-point cam latch with keyed lock; the double door has a two-point cam latch with keyed lock. The keyed lock includes a physical key which matches the locks on the doors and side panels.
8. Color: The frame, doors, side panels and top panel are painted black. Mounting rails are zinc plated.
9. Top Panel Style: There are two styles of top panel available. Server Top Panels have two large brush-sealed cable openings and include a removable cover plate for the Vertical Exhaust Duct. The Vertical Exhaust Duct System includes a Server Top Panel, a top-mount Vertical Exhaust Duct, an Airflow Director and a Rear Door Sealing Kit. Select from duct height ranges: 20" to 34" (508 mm – 863 mm) or 34" to 60" (863 mm – 1523 mm) high to match ceiling height. Use with a single solid rear door.
10. Side Panel Style: Side panels are solid. Cabinets are bayed with side panels installed. Order baying kits separately.

**SPECIFICATIONS**

- Freestanding equipment cabinet provides front and rear support for 19"W (482.6 mm) EIA rack-mount equipment and shelves
- For indoor use only, in environmentally controlled area, not harsh environments or in air-handling spaces
- Includes:
  - Welded steel and bolted aluminum four-post frame
  - Equipment mounting rails, two pairs
  - Leveling feet and casters
  - Grounding/bonding kit
  - Top panel with two brush-sealed cable access ports
  - Vertical Exhaust Duct System (optional)
  - Locking, Solid Side Panels
  - Single, Perforated (mesh) Front Door
  - Rear Door (choice of style)
  - Bag of 25 Each M6 Cage Nuts and Screws
  - Shock pallet rated for 3000 lb (1360 kg) of equipment (excluding cabinet weight)
  - Re-usable cushioned carton
- Equipment space:
  - See Height, Width and Depth tables under Ordering Information
- Doors/latches:
  - Front door is curved, rear door is flat
  - Door panel/insert is perforated (79% open) or solid metal
  - Includes a single-point, cam latch with keyed lock
  - Easy to remove at 90° open position
  - Reversible to open from the right or left
  - Front door opens 150° when bayed
  - Rear door opens 175° when bayed
- Side panels:
  - Solid panels with two recessed locking spring-loaded latches
- Top panel:
  - Server Top Panel has two 3 inch by 11.75 inch (76 mm x 292 mm) brush sealed openings in the front corners and a removable cover for Vertical Exhaust Duct on the rear; the cover has two 3 inch (76 mm) diameter cable openings with grommets in the rear corners
  - Vertical Exhaust Duct System includes a Server Top Panel, a Vertical Exhaust Duct (P/N 34370-C0X), an Airflow Director (P/N 34570-C00) and a Rear Door Sealing Kit (P/N 34573-000). When the duct is used, the two 3 inch (76 mm) diameter cable openings with grommets in the top panel cannot be used and the cabinet must include a solid metal rear door
- Equipment support:
  - Two pairs of equipment mounting rails in the cabinet
  - 1-3/4 inch (44.45 mm) U spacing, marked and numbered bottom-to-top on all rails
  - 19" W, Universal 5/8 inch - 5/8 inch - 1/2 inch (15.9 mm - 15.9 mm - 12.7 mm) vertical hole spacing complies with CEA-310-E and EIA/ECA-310-E
  - Square-punched holes that accept cage nuts
  - Adjustable depth, rails slide front-to-rear; depth marks on frame for easy alignment
  - Includes 25 each M6 cage nuts and screws with square-punched rails
- Load capacity: 3000 lb (1360 kg), static and dynamic
- Grounding/Bonding: Mounting rails, top panel, side panels and doors are electrically bonded to the cabinet frame; a Ground Terminal Block is included to attach the frame to ground
- Certifications: Telecordia Technologies Generic Requirements GR-63-CORE, Issue 3, March 2006, Paragraph 5.4.3, Curve 1; ISTA 3E 2006, Test #3; ISTA 3E 2006, Test #4
- Material: Steel and aluminum extrusion
- Construction: Welded/bolted frame, mounting rails bolt to frame
- Finish: Epoxy-polyester hybrid powder coat in Black

**THERMAL MANAGEMENT ACCESSORIES**

Maintaining one-way cold-to-hot airflow through the cabinet is the key to improving thermal performance and efficiency in the data center. Thermal management accessories for F-Series TeraFrame HD Cabinet help guide airflow through the cabinet to prevent re-circulation of hot exhaust air through equipment.



**Air Dam Kit**

The Air Dam Kit blocks airflow around the top, bottom and sides of the rack-mount space inside the cabinet. Use Snap-In Filler Panels with Air Dam Kit to separate hot and cold air inside the cabinet. The kit requires a 1.7 inch (43 mm) to 2.5 inch (63 mm) equipment mounting rail setback. Select the height to match the cabinet.

Part Number	Description	Shipping Weight lb (kg)
16270-C02	For 42U Cabinets, Black	12 (5.4)
16270-C05	For 45U Cabinets, Black	13 (5.9)
16270-C07	For 47U Cabinets, Black	13 (5.9)

**Snap-In Filler Panel**

Use Snap-In Filler Panels to seal any open rack-mount spaces in the cabinet. Snap-In Filler Panels combine with Air Dam Kit to create a one-way airflow pathway within the cabinet that separates hot and cold air. Snap-In Filler Panels are available in 1U and 2U versions in single and multi-packs.

Part Number	Description	Shipping Weight lb (kg)
34537-000	1U x 19"EIA, 1 Each, Black	1 (0.5)
34537-001	1U x 19"EIA, 6 Each, Black	4 (1.8)
34537-002	1U x 19"EIA, 50 Each, Black	22 (10.0)
34538-000	2U x 19"EIA, 1 Each, Black	2 (0.9)
34538-001	2U x 19"EIA, 6 Each, Black	4 (1.8)
34538-002	2U x 19"EIA, 50 Each, Black	35 (15.9)

**Bottom Panel**

The Bottom Panel covers the bottom of the cabinet and blocks airflow into and out of the base of the cabinet. The two-piece telescoping design fits all F-Series TeraFrame HD Cabinets. The Bottom Panel includes one brush-sealed 3 inch by 11.75 inch (76 mm x 292 mm) cable access port located at the rear center of the panel. Use Bottom Panel with an Air Dam Kit and Snap-In Filler Panels to enhance front-to-rear or front-to-top airflow through TeraFrame HD Cabinets.

Part Number	Description	Shipping Weight lb (kg)
16278-C01	Bottom Panel, Black	19 (8.6)

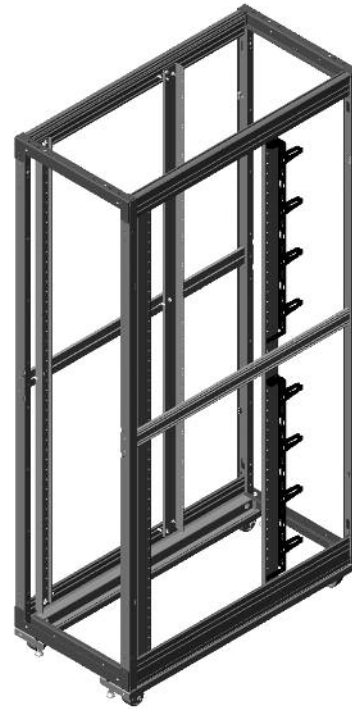
CABLE MANAGEMENT

Add cable management accessories to define specific separate pathways for network and power cabling, to help maintain required cable bend radii and to organize and store cable slack so that it does not interfere with airflow pathways. Cable management accessories are typically installed at the back of the cabinet behind the rear pair of equipment mounting rails. Several styles of cable management are available.

**Cable Lashing Bar**

Use the Cable Lashing Bar to secure a single network or power cable bundle within the cabinet using Saf-T-Grip® Straps or cable ties. The bar features notched edges to ensure Saf-T-Grips and cable ties do not slide and maintain their vertical position. The bar attaches to the cabinet frame and is only 1.5 inches (38 mm) wide allowing multiple bars to be placed side-by-side within the cabinet. The bar requires a minimum 2.5 inch (64 mm) equipment mounting rail setback. Select the bar to match cabinet height.

Part Number	Description	Shipping Weight lb (kg)
16272-C02	For 42U Cabinets, Black	7 (3.2)
16272-C05	For 45U Cabinets, Black	8 (3.6)
16272-C07	For 47U Cabinets, Black	8 (3.6)



F-Series TeraFrame HD Cabinet frame shown with Vertical Cable Ring Manager installed

**Cable Lashing Bracket**

Use the Cable Lashing Bracket to secure multiple network or power cable bundles within the cabinet using Saf-T-Grip Straps or cable ties. The bracket features U-shaped attachment points for Saf-T-Grips or cable ties. The bracket attaches to the cabinet frame and is 5.125 inches (130 mm) wide. The bracket requires a minimum 5 inch (127 mm) equipment mounting rail setback. Select the bracket to match cabinet height.

Part Number	Description	Shipping Weight lb (kg)
16273-C02	For 42U Cabinets, Black	12 (5.4)
16273-C05	For 45U Cabinets, Black	13 (5.9)
16273-C07	For 47U Cabinets, Black	14 (6.4)

**Power Strip Lashing Bracket**

Supports one 3.5 inch (89 mm) wide or two 2.3 inch (58 mm) wide CPI Vertical PDU/Power Strips for cabinets and provides multiple attachment points for fastening power cable bundles with Saf-T-Grip Straps or cable ties. The bracket attaches to the cabinet frame and is 8.375 inches (213 mm) wide. Power strip mounting holes are spaced 64.75 inch (1645 mm) or 36.75 inch (934 mm) apart. The bracket requires a minimum 5 inch (127 mm) equipment mounting rail setback. Select the bracket to match cabinet height.

Part Number	Description	Shipping Weight lb (kg)
16274-C02	For 42U Cabinets, Black	14 (6.4)
16274-C05	For 45U Cabinets, Black	15 (6.8)
16274-C07	For 47U Cabinets, Black	16 (7.3)

Note: -C05 or taller bracket required for 68.5"H (1740 mm) and 70.5"H (1791 mm) PDUs.

**Vertical Cable Ring Manager**

The Vertical Cable Ring Manager attaches to the side of the cabinet's equipment mounting rails to create a vertical pathway for cables. Plastic C-shaped cable management rings guide and manage cables. The rings are approximately 1.4 inches (36 mm) wide and 4 inches (100 mm) deep. The manager requires a minimum 4.8 inch (122 mm) equipment mounting rail setback. Select the manager to match cabinet height.

Part Number	Description	Shipping Weight lb (kg)
16275-C02	For 42U Cabinets, Black	5 (2.3)
16275-C05	For 45U Cabinets, Black	5 (2.3)
16275-C07	For 47U Cabinets, Black	6 (2.7)

**Dual Vertical Power Strip Manager**

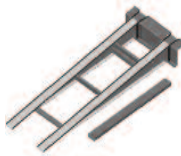
The Dual Vertical Power Strip Manager attaches to the cabinet frame and is 4.3 inches (110 mm) wide. The manager supports two 1.8 inch (45 mm) wide CPI Vertical PDU/Power Strips for cabinets. Power strip mounting holes are spaced 64.75 inch (1645 mm) or 36.75 inch (934 mm) apart. The bracket requires a minimum 6.3 inch (160 mm) equipment mounting rail setback. Select the bracket to match cabinet height.

Part Number	Description	Shipping Weight lb (kg)
34595-C02	For 42U Cabinets, Black	14 (6.4)
34595-C05	For 45U Cabinets, Black	15 (6.8)
34595-C07	For 47U Cabinets, Black	16 (7.3)

Note: -C05 or taller bracket required for 68.5"H (1740 mm) and 70.5"H (1791 mm) PDUs.

INSTALLATION ACCESSORIES

Order one Unloading Ramp per site to unload cabinets from the pallets. Pre-install Bolt-Down Kits to speed cabinet installation. Use baying kits and the Side Skirt to create a finished look and minimize bypass airflow underneath the cabinet.



**Unloading Ramp**

Safely remove a loaded cabinet from the shock pallet at the installation site with this re-usable, heavy-duty steel unloading ramp. The ramp is 78 inches (1981 mm) long, provides a 5° incline and has U-shaped narrow width tracks to capture casters and maintain straight travel. The ramp bolts to the shock pallet ensuring the ramp and pallet remain connected during unloading and includes multiple full-width shims to safely compensate for any settling of the shock pallet during shipping. Order one per customer site.

Part Number	Description	Shipping Weight lb (kg)
16280-C01	Unloading Ramp, Black	185 (83.9)



**Bolt-Down Kit**

Securely anchor F-Series TeraFrame HD Cabinets to the floor structure for stability with the Bolt-Down Kit. The kit includes two heavy-duty two-piece steel brackets that attach to the cabinet frame and provide a wide flange for floor mounting. The brackets can be installed prior to cabinet arrival. The two-piece design simplifies installation. Disassemble the brackets and mount the L-shaped floor flanges, roll cabinets into place and secure the cabinets to the floor flanges with the remaining bracket. Once installed, the Bolt-Down Kit covers the opening between the cabinet frame and floor at the front and rear of the cabinet concealing the casters and providing a barrier that minimizes air leakage underneath the cabinet. Order required floor anchor hardware separately.

Part Number	Description	Shipping Weight lb (kg)
16279-C01	Bolt Down Kit, Black	14 (6.4)



**Narrow Baying Kit**

Bay two F-Series TeraFrame HD Cabinets side-by-side over 600 mm wide (23.6 inch) raised access floor tiles. The kit includes two brackets and hardware to connect the cabinets together. Cabinets must be the same height.

Part Number	Description	Shipping Weight lb (kg)
35079-C02	Narrow Baying Kit, Black	1 (0.5)



**Side Skirt**

Use the Side Skirt with the Bolt-Down Kit (P/N 16279-X01) to cover the space along the side of the cabinet between the bottom of the cabinet frame and the floor. The Side Skirt attaches the Bolt-Down Kit, conceals the casters and provides a barrier that minimizes air leakage under the cabinet. Use one Side Skirt on each end of multi-cabinet rows. Each kit includes one cover and installation hardware. Select the depth to match the cabinet.

Part Number	Description Cabinet Frame Depth - in (mm)	Shipping Weight lb (kg)
16277-C11	For 42.3 (1075), Black	6 (2.7)
16277-C16	For 47.2 (1200), Black	6 (2.7)

Note: Must be used with a Bolt Down Kit (P/N 16279-C01).



**Baying & Fascia Kit**

Allows you to bay and center two F-Series TeraFrame HD Cabinets over 24 inch wide (610 mm) raised access floor tiles. The kit includes two brackets and hardware to space and connect the cabinets together and two fascias that cover and hide the 0.4 inch (10 mm) gap between the cabinets. Cabinets must be the same height and depth. Select the height to match the cabinet.

Part Number	Description	Shipping Weight lb (kg)
16271-C02	For 42U Cabinets, Black	10 (4.5)
16271-C05	For 45U Cabinets, Black	10 (4.5)
16271-C07	For 47U Cabinets, Black	10 (4.5)



**Equipment Mounting Hardware**

Order additional equipment mounting hardware as required. Three styles of cage nuts are available to match equipment requirements.

Part Number	Description	Shipping Weight lb (kg)
12637-001	Cage Nuts & Screws, M6, Gold	1 (0.5)
12638-001	Cage Nuts & Screws, #10-32, Zinc	1 (0.5)
12639-001	Cage Nuts & Screws, #12-24, Black	1 (0.5)

Note: Each part number listed is a pack of 25. Each cabinet includes one pack of M6 cage nuts and screws (P/N 12637-001).

