

POWER DISTRIBUTION UNITS (PDUs) for CPI Rack and Cabinet Systems

KEY FEATURES

- Distribute power to multiple devices from a single power connection
- NEMA, California Style or IEC style plug and outlet receptacles
- Circuit breakers limit current to protect circuits from overload
- Available with local and networked current meters to provide easy current monitoring
- Available with switched outlets to allow remote power cycling and by-outlet current monitoring
- Select models integrate with Scalable Enterprise Management Application (SEMA) software providing real-time IP-based power monitoring across your entire enterprise

APPLICATIONS

- CPI's Power Distribution Units (PDUs) distribute single-phase power to multiple pieces of equipment from a single-phase or three-phase power connection.
- Use to monitor current use by attached equipment using local meters, networked meters or enterprise-wide with SEMA software.

USE WITH

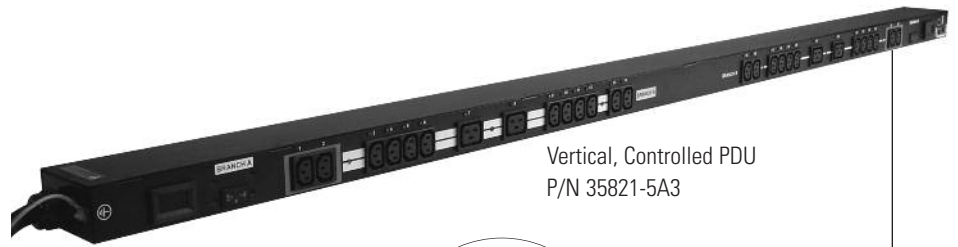
- CPI Cabinet Systems
- CPI Rack Systems
- SEMA
- CenterBridge
- LCD/KVM Console
- PowerScope In-Line Meter

RELATED ACCESSORIES

- Electronic Locking System
- Remote Infrastructure Management (RIM-600) System



PowerWedge, Controlled PDU
19" EIA, 4-Post Rack-Mount
P/N 35882-5A2



Vertical, Controlled PDU
P/N 35821-5A3



Controlled PDU with Local
Current Meter, IP Port Monitoring
and Environmental Port

CPI's rack-mount Power Distribution Units (PDUs) simplify power distribution into racks and cabinets in data centers and equipment rooms. Select models provide real-time power monitoring to help identify power problems and track power demand, allowing you to organize IT processes and equipment for the most efficient use of available power.

There are four progressive levels of PDUs: basic, metered, monitored and controlled. Basic PDUs feature electromagnetic circuit breakers which isolate power problems to a particular group of power outlets preventing disruption of power on other circuit segments. Metered PDUs include an in-line digital ammeter that displays the amount of current being used by attached equipment so that you can track current use and estimate remaining power on each circuit segment. Monitored PDUs include an Ethernet port that allows network-based monitoring of current use, temperature and humidity using a web browser or CPI's Scalable Enterprise Management Application (SEMA) software or another application via SNMP. An optional sensor (ordered separately) is required to measure temperature and humidity. Controlled PDUs feature switchable outlets for remote power cycling with port monitoring which lets you measure current use at each outlet. Additionally, some PDUs are available without circuit breakers.

Choose PDUs to match the voltage and current rating of the power connection. Single-phase or three-phase, vertical or horizontal PDUs with various outlet and plug combinations are available. Combine CPI monitored or controlled PDUs with SEMA software and CenterBridge products for real-time enterprise wide IP-based power monitoring and server access. Other PDUs can be upgraded for network monitoring with the PowerScope In-Line Meter.

See inside for product selection. Contact CPI Technical Support for configuration assistance. The Technical Support Team assists customers and partners to solve IT infrastructure problems in a timely and accurate manner by understanding their requirements and creating practical and suitable CPI Solutions.

SPECIFICATIONS

- Single- or dual-input, vertical or horizontal rack-mount PDUs
- For indoor use only, in environmentally controlled areas; may not be used outdoors, in harsh environments or in air-handling spaces
- Power Input:
 - Specific to PDU (see order tables)
 - Stated as maximum rated voltage and current of inlet/plug
 - 50/60 Hz
- Power Output:
 - Specific to PDU (see order tables)
 - Single-phase 3-wire configurations, same voltage/frequency as input
 - Three-phase 4-wire DELTA configurations, same voltage/frequency as input
 - Three-phase 5-wire WYE configurations, may have different voltage than input
- Power Inlet/Plugs:
 - Specific to PDU (see order tables)
 - NEMA, California Style or IEC power inlet/plug
- Power Cord:
 - Attached, 10'L (3.0 m)
 - Order cord separately for models with IEC60320 C-20 Inlets
 - Not rated for plenum use
- Power Outlet Receptacles:
 - Specific to PDU (see order tables)
 - NEMA or IEC outlets/receptacles
- Circuit Protection:
 - Specific to PDU (see order tables)
 - PDUs without breakers must be attached to a protected branch circuit
 - PDUs with breakers have magnetic (not thermal) breakers
 - One or two breaker(s) in-line with circuit segment(s) on single-phase PDUs
 - Three breakers in-line with each phase group (XY, YZ, ZX) on three-phase PDUs
- Current Metering:
 - Digital ammeter(s) are included on metered, monitored and controlled PDUs
 - There is a separate ammeter in-line with each circuit segment or phase group (XY, YZ, ZX)
 - Each ammeter has a 3-digit LED display
- Current Monitoring:
 - Network-based current monitoring is included on monitored and controlled PDUs
 - PDUs have a single 10/100 Mbps RJ-45 Ethernet connection and a single RJ-45 serial connection
 - Monitor PDUs through the Ethernet connection using a web browser (http), CPI's SEMA software or an application that supports SNMP v1 (PDUs can send alarms as SNMP traps)
 - Monitor PDUs through the serial connection with provided software; serial connection requires a Serial Setup Cable (P/N 35941-131) ordered separately
- Temperature/Humidity Monitoring Port:
 - Included on monitored and controlled PDUs
 - PDUs have an RJ-11 connection for an external temperature/humidity sensor (P/N 35941-132) that is ordered separately
- Controlled/Monitored Outlets:
 - Controlled/monitored outlets are included on controlled PDUs only
 - Turn outlets on and off and remotely cycle power to equipment
 - Set initial power on and cycle delays to power multiple outlets on at user defined intervals
 - Monitor current use at each outlet; SEMA software reports individual equipment power use
 - When used with SEMA software, users can define a current limit that will prevent unused outlets that are turned off from being turned on to prevent circuit overload
- Bonding/Grounding:
 - All PDUs have a grounded power inlet/plug
- Certifications:
 - PDUs are UL Listed, NWGQ.E212076; FCC, ICES-003 Class B; CE mark on all models
- Operating Conditions:
 - Temperature: 23 – 125°F (-5 – 52°C)
 - Relative Humidity: 10% – 90%, non-condensing
 - Elevation: 0 – 10,000 feet (0 – 3000 meters)
 - Shock, Vibration: 5 Hz – 500 Hz, 0.5 g (0.1 octave/min)
 - Heat Dissipation: 90 BTU/hr maximum
- Storage/Non-Operating Conditions:
 - Temperature: -13 – 149°F (-25 – 65°C)
 - Relative Humidity: 5% – 95%, non-condensing
 - Elevation: 0 – 30,000 feet (0 – 9,144 meters)
- Rack/Cabinet Mounting Brackets:
 - Horizontal PDUs include rack-mount brackets for 19"EIA racks
 - Vertical PDUs part numbers listed on this document do not include mounting brackets for racks and cabinets but do include tool-less mounting hardware that is spaced 64.75" (1645 mm) apart
 - Tool-less mounting hardware can be used to attach the vertical PDU to the PDU mounting bracket kit that is included with the 37U and taller F-Series TeraFrame Cabinet, GF-Series GlobalFrame Cabinet, M-Series MegaFrame Cabinet, C-Series SlimFrame Cabinet or the accessory power managers for these cabinets
 - To order individual mounting brackets for racks and cabinets, see Vertical PDU Mounting Brackets on page 6 or refer to the CPI Catalog for part numbers of the Vertical PDUs that include mounting brackets
- Finish: Black only

PLUG & RECEPTACLE CONFIGURATIONS

Locking Plugs (Single-Phase)	 NEMA L5-15P 125VAC/15A	 NEMA L5-20P 125VAC/20A	 NEMA L5-30P 125VAC/30A	 NEMA L6-15P 250VAC/15A	 NEMA L6-20P 250VAC/20A	 NEMA L6-30P 250VAC/30A
Locking Plugs (Three-Phase)	 NEMA L21-30P 120/208 VAC/30A	 NEMA L21-20P 120/208 VAC/20A	 NEMA L15-30P 250VAC/30A	 CALIFORNIA STYLE 250V/50A		
Straight Plugs	 NEMA 5-15P 125VAC/15A	 NEMA 5-20P 125VAC/20A	 NEMA 6-20P 250VAC/20A			
Power Receptacles	 NEMA 5-15R 125VAC/15A	 NEMA 5-20R 125VAC/20A	 NEMA 6-20R 250VAC/20A	 NEMA L6-20R 250 VAC/20A		
IEC Power Outlet/Inlet	 IEC 60320 C-13/C-14 125/250VAC/15A	 IEC 60320 C-19/C-20 125/250 VAC/20A	 IEC 60309/3-WIRE 250VAC/60A	 IEC 60309/4-WIRE 250 VAC/60A		

FEATURE SUMMARY:

Included Features	Basic PDU	Metered PDU	Monitored PDU	Controlled PDU
Tool-less Mounting on Vertical PDUs	•	•	•	•
Circuit Breakers	o	o	•	•
Digital Meters		•	•	•
Network Access			•	•
Temp/Humidity Sensor Port			•	•
SEMA-Compatible			•	•
Controlled Outlets				•
Monitored Outlets				•

Note: • means included
o means optional
PDUs rated above 20 Amperes require Circuit Breakers.

ORDERING INFORMATION

Single-Phase Vertical Power Distribution Units (PDUs) with No Mounting Brackets ¹													
Inlet			Outlets				Circuit Breaker (Magnetic)	Size ⁴	Part Numbers (NBK versions) ²				
Volts	Amps	Plug ³	Qty	Type ³	Qty	Type ³			Basic	Metered	Monitored	Controlled	
125	15	L5-15P	24	5-15R	-	-	1 x 15A	B	-	35841-2A1	-	-	
	20	5-20P	24	C13	-	-	-	I/A	35642-1A1	35642-2A1	-	-	
		L5-20P	24	5-15R	-	-	1 x 20A	B	-	35841-2B1	35841-3B1	-	
			24	5-20R	-	-	-	B	-	-	35642-3C1	-	
	30	L5-30P	24	C13	-	-	-	I/A	35642-1B1	35642-2B1	-	-	
			24	5-20R	-	-	2 x 20A	A	35643-1A1	35643-2A1	-	-	
250	20	6-20P	24	C13	-	-	-	I/A	35622-1A1	35622-2A1	-	-	
		L6-20P	24	C13	-	-	-	I/A	35622-1B1	35622-2B1	-	-	
			24	C13	-	-	1 x 20A	B	-	35821-2B1	35821-3B1	-	
	24		C13	4	C19	1 x 20A	A	-	-	35821-3B3	-		
	30	L6-30P	24	L6-15R	-	-	2 x 15A	B	-	35822-2C2	-	-	
			24	6-20R	-	-	2 x 20A	A	35623-1A1	35623-2A1	-	-	
			24	C13	-	-	2 x 15A	D	35822-1C1	35822-2C1	35822-3C1	-	
			24	C13	6	C19	2 x 20A	A	35623-1A2	35623-2A2	35623-3A2	-	
			24	C13	4	C19	2 x 20A	A	-	-	35822-3C3	-	
			24	C13	4	C19	2 x 15A	C	-	-	-	35822-5C3	
	230	16	C20*	20	C13	-	-	-	I/A	35652-1B2	35652-2B2	-	-
			IEC60309 2P+E	24	C13	-	-	-	I	35652-1A1	35652-2A1	-	-
24				C13	-	-	1 x 16A	B	-	35821-2A1	35821-3A1	-	
24				C13	6	C19	-	I	35652-1A3	35652-2A3	-	-	
24				C13	4	C19	1 x 16A	A	-	-	35821-3A3	-	
24		C13		4	C19	1 x 16A	C	-	-	-	35821-5A3		
32		IEC60309 2P+E	24	L6-15R	-	-	2 x 16A	B	-	35823-2G2	-	-	
			24	C13	-	-	2 x 16A	B	-	35823-2G1	35823-3G1	-	
			24	C13	6	C19	2 x 16A	A	35653-1C3	35653-2C3	-	-	
			24	C13	4	C19	2 x 16A	A	-	-	35823-3G3	-	
	24		C13	4	C19	2 x 16A	C	-	-	-	35823-5G3		

Notes:

- The Part Numbers in the order table above do not include Mounting Brackets for CPI Cabinets or Racks. Order mounting brackets separately.
- There is a different part number for Basic, Metered, Monitored and Controlled PDUs. The table on page 2 lists features for each type.
- NEMA plugs are LX-XXP or X-XXP. NEMA Outlets are X-XXR. IEC 60309 Plugs are 2P+E. IEC 60320 Inlets/Outlets are CXX. *Power cord not included on PDUs with C20 plug/inlet. All other PDUs have a 10'L (3 m) power cord.
- When there are two listings (ex: H/A), the Basic model is a different size (H).

Size = H x W x D: A = 68.5" x 2.0" x 3.8" (1740 mm x 51 mm x 97 mm) B = 68.5" x 1.8" x 3.8" (1740 mm x 46 mm x 97 mm) C = 70.5" x 2.0" x 3.8" (1791 mm x 51 mm x 97 mm)
 D = 68.5" x 2.0" x 3.5" (1740 mm x 51 mm x 89 mm) H = 68.5" x 1.8" x 2.0" (1740 mm x 46 mm x 51 mm) I = 68.5" x 2.0" x 2.0" (1740 mm x 51 mm x 51 mm)

Contact CPI Technical Support (800-834-4969) to request other options.

ORDERING INFORMATION

Three-Phase Vertical Power Distribution Units (PDUs) with No Mounting Brackets ¹												
Inlet			Outlets				Circuit Breaker (Magnetic)	Size ⁴	Part Numbers (NBK versions) ²			
Volts	Amps	Plug ³	Qty	Type ³	Qty	Type ³			Basic	Metered	Monitored	Controlled
120/208 120 Output	20	L21-20P	24	5-20R	-	-	-	A	35632-1A1	35632-2A1	35632-3A1	-
			24	C13	6	C19	-	A	35632-1A3	35632-2A3	35632-3A3	-
120/208 208 Output	20	L21-20P	24	6-20R	-	-	-	A	35632-1A2	35632-2A2	35632-3A2	-
			24	C13	6	C19	-	A	35632-1A4	35632-2A4	35632-3A4	-
120/208 120/208 Output	20	L21-20P	6	5-20R	12	C13	-	A	-	-	35632-3B8	-
			24	5-20R	6	L6-20	-	A	-	35632-2A7	-	-
120/208 120 Output	30	L21-30P	24	5-20R	-	-	3 x 20A	A	35633-1A1	35633-2A1	35633-3A1	-
			24	C13	6	C19	3 x 20A	A	35633-1A3	35633-2A3	35633-3A3	-
120/208 208 Output	30	L21-30P	24	6-20R	-	-	3 x 20A	B	35633-1B2	35633-2B2	35633-3B2	-
			24	C13	6	C19	3 x 20A	A	35633-1A4	35633-2A4	35633-3A4	-
250	20	L15-20P	24	C13	-	-	3 x 20A	B	-	35811-2A1	35811-3A1	-
			15	C13	9	C19	3 x 20A	B	35811-1A2	-	-	-
	30	L15-30P	24	C13	-	-	3 x 20A	B/C	-	35812-2B1	35812-3B1	35812-5B1
			24	C13	6	C19	3 x 20A	A	35633-1C4	35633-2C4	35633-3C4	-
	35	CS 3P/4W	30	C13	6	C19	3 x 20A	E	-	-	35613-3A1	-
			24	C13	-	-	3 x 20A	A	-	35814-2C1	-	-
	50	CS 3P/4W	42	C13	-	-	3 x 20A	A	35814-1C3	-	-	-
			15	C13	9	C19	3 x 20A	D/A	35814-1C2	-	35814-3C2	-
			12	C19	-	-	6 x 20A	D	35616-1A1	-	35616-3A1	-
	60	IEC60309 3P+E	24	C13	-	-	3 x 20A	B	-	35815-2G1	-	-
			42	C13	-	-	3 x 20A	B	35815-1G3	-	-	-
			15	C13	9	C19	3 x 20A	B	35815-1G2	-	35815-3G2	-

- Notes:
- The Part Numbers in the order table above do not include Mounting Brackets for CPI Cabinets or Racks. Order mounting brackets separately.
 - There is a different part number for Basic, Metered, Monitored and Controlled PDUs. The table on page 7-3 lists features for each type.
 - NEMA plugs are LXX-XXP. NEMA Outlets are X-XXR. IEC 60309 Plugs are 3P+E. IEC 60320 Outlets are CXX. California Style plugs are CS 3P/4W. All PDUs have a 10'L (3 m) power cord.
 - When there are two listings (ex: I/A), the Basic model is a different size (I). For listing (E/C), Controlled PDUs are size C.

Size = H x W x D: A = 68.5" x 2.0" x 3.8" (1740 mm x 51 mm x 97 mm) B = 68.5" x 1.8" x 3.8" (1740 mm x 46 mm x 97 mm) C = 70.5" x 2.0" x 3.8" (1791 mm x 51 mm x 97 mm)
 D = 68.5" x 2.0" x 3.5" (1740 mm x 51 mm x 89 mm) E = 70.5" x 2.4" x 3.8" (1791 mm x 61 mm x 97 mm) F = 68.5" x 2.4" x 3.5" (1740 mm x 61 mm x 89 mm)
 G = 68.5" x 1.8" x 2.4" (1740 mm x 46 mm x 61 mm) I = 68.5" x 2.0" x 2.0" (1740 mm x 51 mm x 51 mm)

Contact CPI Technical Support (800-834-4969) to request other options.

ORDERING INFORMATION

Single-Phase Horizontal Power Distribution Units (PDUs) with 19" W EIA Mounting Brackets ¹												
Inlet			Outlets				Circuit Breaker (Magnetic)	Size ⁴	Part Numbers (19" W EIA versions) ²			
Volts	Amps	Plug ³	Qty	Type ³	Qty	Type ³			Basic	Metered	Monitored	Controlled
125	20	5-20P	4	C13	4	C19	-	Y	35692-111	35692-211	-	-
		L5-20P	4	C13	4	C19	-	Y	35692-121	35692-221	-	-
	30	L5-30P	12	5-20R	-	-	2 x 20A	T	35693-112	35693-212	-	-
			20	5-20R	-	-	2 x 20A	U	35693-113	35693-213	-	-
			12	C13	-	-	2 x 20A	T	35693-111	35693-211	-	-
			20	C13	-	-	2 x 20A	U	35693-112	35693-212	-	-
250	20	6-20P	12	6-20R	-	-	1 x 20A	T	13653-701	13653-751	-	-
			4	C13	4	C19	-	Y	35682-111	35682-211	-	-
		L6-20P	12	6-20R	-	-	1 x 20A	T	13653-702	13653-752	-	-
			4	C13	4	C19	-	Y	35682-121	35682-221	-	-
	30	L6-30P	24	L6-15R	-	-	2 x 15A	V	-	-	35882-3A1	-
			12	C13	-	-	2 x 20A	T	35683-111	35683-211	-	-
			24	C13	-	-	2 x 15A	V	-	35882-2A2	35882-3A2	-
			24	C13	-	-	2 x 15A	W ⁵	-	-	-	35882-5A2
			12	C13	-	-	2 x 20A	T	35683-112	35683-212	-	-
			20	C13	-	-	2 x 20A	U	35683-113	35683-213	-	-
230	16	C20*	10	C13	-	-	-	Z	35662-112	35662-212	-	-
			16	C13	-	-	-	S	35662-111	35662-211	-	-
	32	IEC60309 2P+E	12	C13	-	-	2 x 16A	T	35663-111	35663-211	-	-
			24	C13	-	-	2 x 16A	W ⁵	-	-	-	35883-5B2
			12	C13	-	-	2 x 16A	T	35663-112	35663-212	-	-
			24	C13	-	-	2 x 16A	W ⁵	-	-	-	35883-5B2

Notes:

- The Part Numbers in the order table above include Mounting Brackets for 19" W EIA Cabinets or Racks.
- There is a different part number for Basic, Metered, Monitored and Controlled PDUs. The table on page 7-3 lists features for each type.
- NEMA plugs are LX-XXP or X-XXP. NEMA Outlets are X-XXR. IEC 60309 Plugs are 2P+E. IEC 60320 Inlets/Outlets are CXX. Power cord not included on PDUs with C20 plug/inlet. All PDUs have a 10'L (3 m) power cord.
- Size "W" PDUs require 4-post (front and rear) support with rails spaced 25"-31" (635 mm - 787 mm) apart.

Size= H x W x D: S = 1U x 19"EIA x 4.5" (114 mm) T = 1U x 19"EIA x 8.0" (203 mm) U = 2U x 19"EIA x 6.0" (152 mm) V = 2U x 19"EIA x 8.0" (203 mm)
 W = 1U x 19"EIA x 28" (711 mm) Y = 1U x 19"EIA x 1.9" (48 mm) Z = 1U x 19"EIA x 1.6" (41 mm)

Contact CPI Technical Support (800-834-4969) to request other options.



PowerWedge - Front & Rear View
 Mounts to Cabinets and 4-Post Racks
 P/N 35882-5A2

ORDERING INFORMATION

**Three-Phase Horizontal Power Distribution Units (PDUs)
with 19"W EIA Mounting Brackets¹**

Inlet			Outlets				Circuit Breaker (Magnetic)	Size ⁴	Part Numbers (19"W EIA versions) ²			
Volts	Amps	Plug ³	Qty	Type ³	Qty	Type ³			Basic	Metered	Monitored	Controlled
250	60	3P+E	12	C19	-	-	6 x 20A	X	35676-111	-	35676-311	-

Notes:

1. The Part Numbers in the order table above include Mounting Brackets for 19"W EIA Cabinets or Racks.
2. There is a different part number for Basic, Metered, Monitored and Controlled PDUs. The table on page 7-3 lists features for each type.
3. NEMA plugs are LX-XXP or X-XXP. NEMA Outlets are X-XXR. IEC 60309 Plugs are 3P+E. IEC 60320 Outlets are CXX. PDUs have a 10'L (3 m) power cord.

Size= H x W x D: X = 2U x 19"EIA x 9.0" (230 mm)

Contact CPI Technical Support (800-843-4969) to request other options.

ACCESSORIES

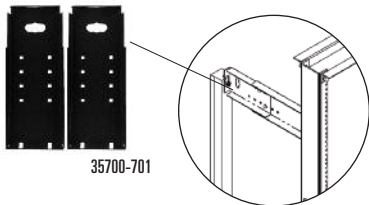


35941-131

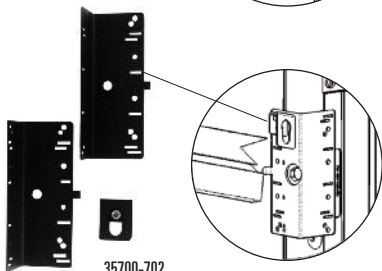
- The Serial Setup Cable (P/N 35941-131) is used to configure Monitored and Controlled PDUs for your network.
- Use one Environmental Sensor with any Monitored or Controlled PDU to remotely measure temperature and humidity.

Part Number	Description	Shipping Weight
35941-131	Serial Setup Cable, RJ-45 to DB9	2 lb (0.9 kg)
35941-132	Environmental Probe Assembly Temperature & Humidity Sensor, RJ11, 5'6"L (1.7 m) Cord	2 lb (0.9 kg)

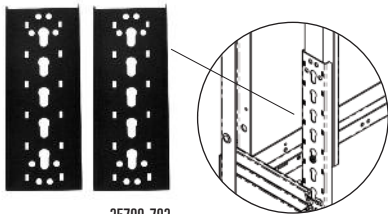
SERVICE PARTS



35700-701



35700-702



35700-703

Vertical PDU Mounting Brackets

There are several styles of mounting brackets for CPI's Vertical PDUs. The bracket kits listed below support one PDU. Select the kit to match your rack or cabinet model and the (size) of your PDU. Other styles are available.

- The Rack Systems (RBK) kits include a pair of standoffs that attach to one of the rack's vertical mounting rails/channels. The PDU is typically located behind the rack. The 2U brackets are placed 37U apart and extend in .875" (22 mm) increments between 8.5"D (216 mm) to 12"D (300 mm).
- The MegaFrame/SteelFrame (CBK) and TeraFrame (TBK) kits include a pair of brackets that attach to the top/bottom of the cabinet frame. Use in cabinets that are 72" H (1830 mm) or taller. The PDU is typically located behind the rear pair of equipment mounting rails.

Part Number			Description	Shipping Weight
Rack Systems (RBK)	MegaFrame SlimFrame (CBK)	F-Series TeraFrame (TBK)	Vertical PDUs	
35700-701	35700-702	35700-703	PDUs less or equal to 2"W (51 mm)	2 lb (0.9 kg)
35700-701	35700-704	35700-705	PDUs greater than 2"W (51 mm)	2 lb (0.9 kg)

Note: Finish is black. Brackets for Rack Systems do not include rack-mount hardware. Use rack-mount screws (P/N40605-005). Many CPI Cabinet Systems include mounting brackets for PDUs. Confirm that mounting brackets are required before ordering brackets for cabinets.

Tool-less Mounting Hardware

Used to attach PDUs to mounting brackets or power managers. Includes six buttons and screws. Kit will support three PDUs.

Part Number	Description	Shipping Weight
35700-706	Tool-less Mounting Hardware (NBK) for Vertical PDUs	1 lb (0.5 kg)

Please use CPI Website: www.chatsworth.com/power for user manual.

