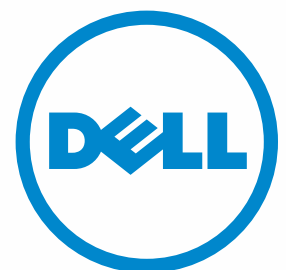# Rack Systems Solutions

Designed to simplify cable management and improve power distribution
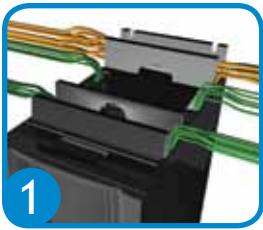
Engineered by APC™ by Schneider Electric™ for Dell,™ NetShelter™ SX is the next-generation rack enclosure solution designed to address current IT market trends for high-density server and networking applications. With a strong focus on cooling, power distribution, cable management, and environmental monitoring, the NetShelter SX provides a reliable rack-mounting environment for mission-critical equipment.
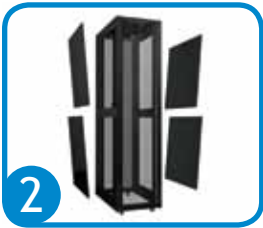
APC™
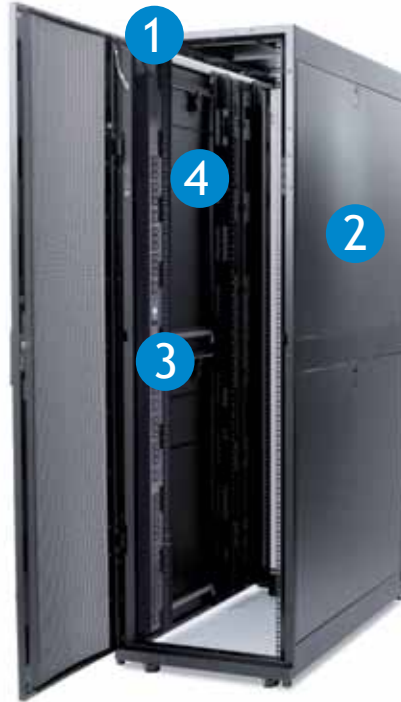by **Schneider** Electric

DELL

Step 1: Select your rack.

NetShelter SX offers multiple features that increase the flexibility and ease-of-use of the enclosure.

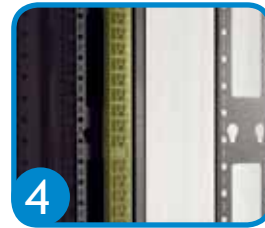## Cable Access Roof

- Toolless removal
- 8 large cable-entry slots
- Integration with overhead cable trough and partition system

Half-Height Side Panels

- Easy and safe handling
- Lockable

Easily Adjustable Vertical Mounting Rails

- Just turn bolt, no loose hardware
- 1/4 inch (6 mm) increments
- Automatic alignment

Rear Cable Channels

- Toollessly mount PDUs
- Toollessly mount vertical cable organizers

APC Item #	Dimensions (H x W x D)	Features	Mixed Equipment (servers, networking, and UPS in the same enclosure)	1U/2U Servers	Blade Servers	Networking Equipment
AR3100X717	42U x 600 x 1,070	Dell-branded standard premium enclosure	X	X		
AR3150	42U x 750 x 1,070	Wider for more cable management and improved rear access	X	X	X	X
AR3300	42U x 600 x 1,200	Deeper for improved rear access and more rear-mounted accessories		X	X	
AR3350	42U x 750 x 1,200	Deeper and wider	X	X	X	X
AR3107	48U x 600 x 1,070	Additional U spaces	X	X		
AR3157	48U x 750 x 1,070	Additional U spaces, and wider for more cable management and improved rear access	X	X	X	X
AR3307	48U x 600 x 1,200	Additional U spaces, and deeper for improved rear access and more rear-mounted accessories		X	X	
AR3357	48U x750 x 1,200	Additional U spaces, wider and deeper	X	X	X	X
AR3104X717	24U x 600 x 1,070	Dell-branded shorter rack for branch offices, tighter space and lower density	X	X		

Step 2: Select your rack power distribution.

Metered-by-Outlet with Switching Rack PDU

This PDU provides real-time remote monitoring of each individual outlet to empower IT professionals with the necessary tools for advanced data center energy management.

- Local and Web-based monitoring
- Comprehensive, real-time load monitoring at outlet level
- Remote control of individual outlets
- Outlet level grouping

APC Item #	Description	Mounting	Load Capacity	Voltage	Input	Cord Length	Output Connections
AP8641	Rack PDU 2G, Metered-by-Outlet with Switching, ZeroU, 30 A, 200/208 V, (21) C13 & (3) C19	Vertical	5.0 kW	208 V	NEMA® L6-30P	3.0 m	(21) IEC® 320 C13 (3) IEC 320 C19
AP8653	Rack PDU 2G, Metered-by-Outlet with Switching, ZeroU, 32 A, 230 V, (21) C13 & (3) C19	Vertical	7.4 kW	230 V	IEC 309 32A 2P+E	3.0 m	(21) IEC 320 C13 (3) IEC 320 C19
AP8659	Rack PDU 2G, Metered-by-Outlet with Switching, ZeroU, 20 A/208 V, 16 A/230 V, (21) C13 & (3) C19	Vertical	3.3 kW	100 – 240 V	IEC 320 C20	Inlet	(21) IEC 320 C13 (3) IEC 320 C19
AP8681	Rack PDU 2G, Metered-by-Outlet with Switching, ZeroU, 11 kW, (21) C13 & (3) C19	Vertical	11 kW	400 V	IEC 309 16A 3P+N+PE	1.8 m	(21) IEC 320 C13 (3) IEC 320 C19

Switched Rack PDU

The Switched Rack PDU provides advanced load monitoring combined with remote ON/OFF switching control of individual outlets for power cycling, delayed power sequencing, and outlet-use management.

- Local and Web-based monitoring
- Remote control of individual outlets
- Outlet power-up sequencing
- Lock unused outlets for power-use restrictions and access control

APC Item #	Description	Mounting	Load Capacity	Voltage	Input	Cord Length	Output Connections
AP8953	Rack PDU 2G, Switched, ZeroU, 32 A, 230 V, (21) C13 & (3) C19	Vertical	7.4 kW	230 V	IEC 309 32A 2P+E	3.0 m	(21) IEC 320 C13 (3) IEC 320 C19
AP8941	Rack PDU 2G, Switched, ZeroU, 30 A, 200/208 V (21) C13 & (3) C19	Vertical	5.0 kW	208 V	NEMA L6-30P	3.0 m	(21) IEC 320 C13 (3) IEC 320 C19

Metered Rack PDU

The Metered Rack PDU provides real-time remote monitoring of connected loads. User-defined alarms warn of potential circuit overloads before critical IT failures occur.

- Local and Web-based monitoring
- Active power metering at PDU level
- User-defined alarm thresholds
- Wide range of input and output connections

APC Item #	Description	Mounting	Load Capacity	Voltage	Input	Cord Length	Output Connections
AP7830	Rack PDU, Metered, ZeroU, 20 A, 120 V, (24) NEMA 5-20 R	Vertical	1.9 kW	120 V	NEMA L5-20P	3.0 m	(24) NEMA 5-20R
AP7832	Rack PDU, Metered, ZeroU, 30 A, 100 V, (24) NEMA 5-15 R	Vertical	2.9 kW	120 V	NEMA L5-30P	3.0 m	(24) NEMA 5-20R
AP8841	Rack PDU 2G, Metered, ZeroU, 30 A, 208 V, (36) C13 & (6) C19	Vertical	5.0 kW	208 V	NEMA L6-30P	3.0 m	(36) IEC 320 C13 (6) IEC 320 C19
AP8853	Rack PDU 2G, Metered, ZeroU, 32 A, 230 V, (36) C13 & (6) C19	Vertical	7.4 kW	230 V	IEC 309 32A 2P+E	3.0 m	(36) IEC 320 C13 (6) IEC 320 C19
AP8858	Rack PDU 2G, Metered, ZeroU, 20A/ 208 V 16 A/230 V, (18) C13 & (2) C19	Vertical	3.3 kW	100 – 240 V	IEC-320 C20	Inlet	(18) IEC 320 C13 (2) IEC 320 C19
AP8865	Rack PDU 2G, Metered, ZeroU, 8.6 kW, 208 V, (36) C13 & (6) C19 & (2) 5-20 R	Vertical	8.6 kW	208 V 3Ph	NEMA L21-30P	1.8 m	(36) IEC 320 C13 (6) IEC 320 C19 (2) NEMA 5-20R
AP8866	Rack PDU 2G, Metered, ZeroU, 17.2 kW, 208 V, (6) C13 & (12) C19	Vertical	17.3 kW	208 V 3Ph	IEC 309 60 A 3P+PE	1.8 m	(6) IEC 320 C13 (12) IEC 320 C19
AP8868	Rack PDU 2G, Metered, ZeroU, 10.0 kW, 208 V, (36) C13 & (6) C19	Vertical	10.0 kW	208 V 3Ph	CS8365C	1.8 m	(36) IEC 320 C13 (6) IEC 320 C19
AP8881	Rack PDU 2G, Metered, ZeroU, 11 kW, (36) C13 & (6) C19	Vertical	11 kW	400 V 3Ph	IEC 309 16 A 3P+N+PE	1.8 m	(36) IEC 320 C13 (6) IEC 320 C19
AP8886	Rack PDU 2G, Metered, ZeroU, 22.0 kW, (30) C13 & (12) C19	Vertical	22 kW	400 V 3Ph	IEC 309 32 A 3P+N+PE	1.83 m	(30) IEC 320 C13 (12) IEC 320 C19

Next Generation PDU Features (AP8000 series)

APC Exclusive Locking IEC Connectors

New Interactive LCD Display and Advanced Remote Management

Environmental Monitoring – Exc Sensor (AP9335T or AP9335TH)

Industry's First Ultra-Low-Profile Breakers

For More Information on Rack PDU and Rack PDU Selector

For assistance with selecting the correct Rack PDU, and to view the entire range, please visit: www.dellups.com/select-PDU.asp

Basic Rack PDU

The Basic Rack PDU provides reliable power distribution via a single input with multiple output receptacles and distributes power from low-amperage, single-phase circuits to higher-power 3-phase solutions.

• Reliable power distribution
• Wide range of input and output connections

APC Item #	Description	Mounting	Load Capacity	Voltage	Input	Cord Length	Output Connections
AP9559	Rack PDU, Basic, 1U, 16 A, 208 V/230 V, (10)C13 & (2)C19	Horizontal	3.7 kW	120 – 240 V	IEC-320 C20	2.5 m	(10) IEC 320 C13 (2) IEC 320 C19
AP9562	Rack PDU, Basic, 1U, 15 A, 120 V, (10) 5-15R	Horizontal	1.4 kW	100 – 120 V	NEMA 5-15P	3.6 m	(10) NEMA 5-15R
AP9565	Rack PDU, Basic, 1U, 16 A, 208/230 V, (12) C13	Horizontal	3.7 kW	100 – 240 V	IEC-320 C20	2.5 m	(12) IEC 320 C13
AP9571A	Rack PDU, Basic, 1U, 30 A, 208 V, (10) C13	Horizontal	5.0 kW	200 – 240 V	NEMA L6-30P	3.6 m	(10) IEC 320 C13
AP9572	Rack PDU, Basic, ZeroU, 16 A, 208/230 V, (15) C13	Vertical	3.6 kW	120 – 230 V	IEC-320 C20	2.5 m	(15) IEC 320 C13
AP7541	Rack PDU, Basic, ZeroU, 30 A, 200/208 V, (20)C13 & (4)C19	Vertical	5.0 kW	200 – 240 V	NEMA L6-30P	3.0 m	(20) IEC 320 C13 (4) IEC 320 C19
AP7553	Rack PDU, Basic, ZeroU, 32 A, 230 V, (20)C13 & (4)C19	Vertical	7.4 kW	230 V	IEC 309 32A 2P+E	3.05 m	(20) IEC 320 C13 (4) IEC 320 C19
AP7557	Rack PDU, Basic, ZeroU, 11 kW, (36) C13 & (6) C19	Vertical	11 kW	400V 3Ph	IEC 309 16A 3P+N+PE	0.91 m	(36) IEC 320 C13 (6) IEC 320 C19

Step 3: Select your cable management.

Vertical Cable Management

AR7707

Large capacity vertical cable management rings facilitate cable routing in typical networking environments, mounting to the front rails of the 29.5"-wide enclosures.

AR7710

This low-profile, toolless, vertical cable management accessory takes up ZeroU of space within an enclosure, occupying the entire rear-cable channel on one side.

AR8442

This toolless, vertical cable management accessory that allows for quick installation, and takes up ZeroU of space within the enclosure. It occupies one half of the rear-cable channel, enabling a vertical rack PDU to be mounted beside it.

APC Item #	Description	Cable Space (mm)	Cat6 Cable Qty
AR8442	Vertical Cable Organizer, 8 Cable Rings, ZeroU (qty. 2)	38 x 64	54
AR7710	NEW! Cable Containment Brackets with PDU Mounting Capability for NetShelter	38 x 108	91
AR7707	Cable Management Rings, 8-inch Deep, NetShelter SX, 750 mm Wide (qty. 8)	57 x 187	236

Step 3 (continued)

Horizontal Cable Management

AR8425A and AR8426A

This cable-management accessory helps to eliminate cable stress and maintain a neat, organized cable layout within an enclosure or a rack.
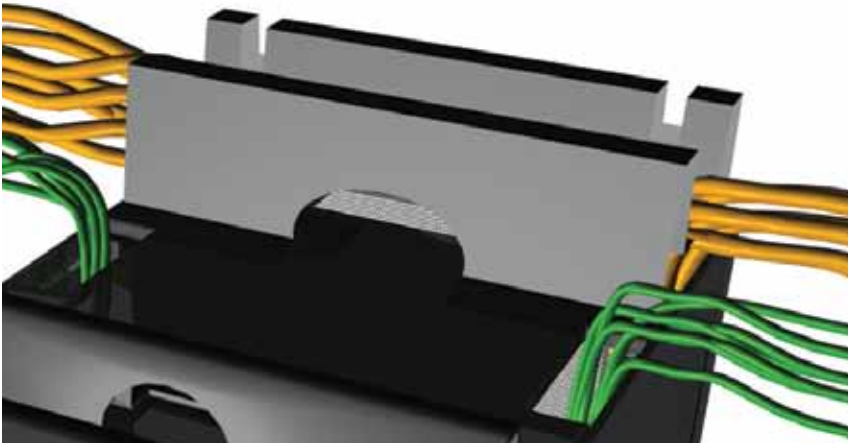

AR8428

AR8428 facilitates front-cable management while allowing cables to pass through to rear appliances, occupying 2U of rack space.

APC Item #	Description	U Height	Cable Space (mm)	Cat6 Cable Qty
AR8425A	Horizontal Cable Organizer 1U	1U	38 x 64	54
AR8426A	Horizontal Cable Organizer 2U	2U	70 x 64	99
AR8428	Horizontal Cable Organizer 2U w/Pass-through holes	2U	70 x 64	99

Overhead Cable Management

Power Cable Trough

Trough systems allow for overhead routing of power cables/whips on top of the NetShelter enclosures. The troughs attach without tools to the roof for ease of installation.

Data Cable Partition

The data cable partition allows overhead routing of networking cables on top of the NetShelter enclosures. Partitions toollessly attach to the roof in a variety of locations. The solid partition is designed to be mounted in the front for a clean look.

Cable Ladder

Cable ladders are available in 152-mm and 304-mm widths for routing power and data cables between rows and aisles. Includes hardware for toolless mounting to troughs and partitions.

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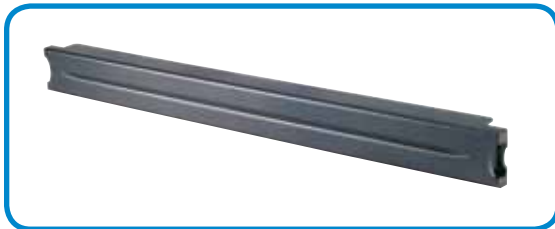| APC Item #	Width	Description
AR8162ABLK	600	Solid Data Cable Partition
AR8163ABLK	600	Data Cable Partition w/Pass-through
AR8172BLK	750	Solid Data Cable Partition
AR8173BLK	750	Data Cable Partition w/Pass-through
AR8164ABLK	152	Cable Ladder 6" (15 cm) Wide w/Attachment Kit
AR8165ABLK	304	Cable Ladder 12" (30 cm) Wide w/Attachment Kit
AR8560	600	Power Cable Trough, Open Bottom
AR8561	600	Power Cable Trough
AR8570	750	Power Cable Trough, Open Bottom
AR8571	750	Power Cable Trough
AR8567		Trough End Cap

For More Information on Cable Management

Visit the Dell/APC Technical Center site:

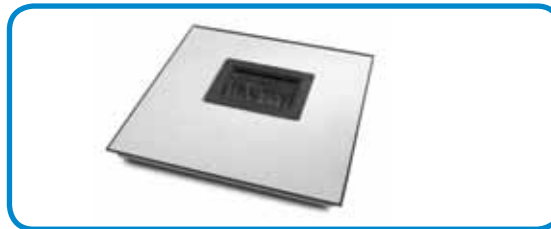Application Note 137: en.community.dell.com/techcenter/extras/m/white_papers/20237730.aspx

Application Note 133: en.community.dell.com/techcenter/extras/m/white_papers/20438208.aspx

Step 4: Select Airflow Management.

Blanking Panels

Modular toolless 1U Airflow Management Blanking Panel prevents air recirculation by occupying unused rack space.

KoldLok Raised Floor Grommets

These preconfigured cable-containment devices are used to cover cable cutouts in a raised-floor environment and assist in managing airflow while still allowing for ample cable pass-through.

APC Item #	Description	Rack Height
AR8136BLK	1U 19" Black Modular Toolless Airflow Management Blanking Panel (qty. 10)	10U
AR8136BLK200	1U 19" Black Modular Toolless Airflow Management Blanking Panel (qty. 200)	200U
AR8101BLK	Airflow Management Blanking Panel Kit (1U, 2U, 4U, 8U) Black	15U
AR7720	KoldLok Raised Floor Grommets	N/A

Step 5: Select Mounting Hardware.

Shelving

AR8122BLK and AR8105BLK
Fixed shelf enables mounting of tower units, monitors, and other equipment into the rack environment.

AR8123BLK and AR8128BLK
Sliding shelf enables mounting of tower units, monitors, and other equipment into the rack environment.

AR8126ABLK
Pull-out drawer design allows for easy access and out-of-the-way storage for all standard 17-inch keyboards.

Hardware and Mounting Kits

AR8100
M6 hardware allows for mounting equipment in enclosure with square-hole mounting rails (32 sets of M6 cage nuts, nylon washers, and slot/Phillips screws).

AR8006A
Ideal for mounting non-rack mountable equipment in a rack, these rails can support equipment measuring up to 16.75" (43 cm to 17.7" (45 cm) wide and has a maximum weight of 200 lb/91kg.

AR7701
Equipped with bolt-down brackets for NetShelter SX enclosures, AR7701 meets UBC Zone-4 seismic-anchoring requirements.

AR7700
Built-in stabilization plates prevent tip-over in stand-alone rack applications.

APC Item #	Description	Rack Height
AR8122BLK	Fixed Shelf 114 kg Black	1U
AR8105BLK	Fixed Shelf 22.7 kg Black	2U
AR8123BLK	Sliding Shelf 45.5 kg Black	1U
AR8128BLK	Sliding Shelf 91 kg Black	1U
AR8126ABLK	17" Keyboard Drawer Black	1U

APC Item #	Description
AR8100	M6 Hardware Kit
AR8006A	Equipment Support Rails for 600-mm-wide Enclosure
AR7701	NetShelter SX Bolt-down Kit
AR7700	NetShelter SX Stabilizer Plate

Step 6: Select Rackmount Consoles.

APC Item #	Description
AP5717	APC 17" Rack LCD Console
AP5719	APC 19" Rack LCD Console

APC Item #	Description
AP5808	APC 17" Rack LCD Console With Integrated 8-port KVM Switch
AP5816	APC 17" Rack LCD Console With Integrated 16-port KVM Switch
AP5821	KVM USB Cable 1.8 m
AP5822	KVM USB Cable 3.0 m
AP5823	KVM USB Cable 5.2 m

- Ultra-thin 17" or 19" LCD Monitor
- Integrated keyboard with number pad
- USB port for external media
- Space-saving 1U design
- Touchpad mouse
- Easy to install