



**CONNECT AND PROTECT**

# Smart Rack Technology

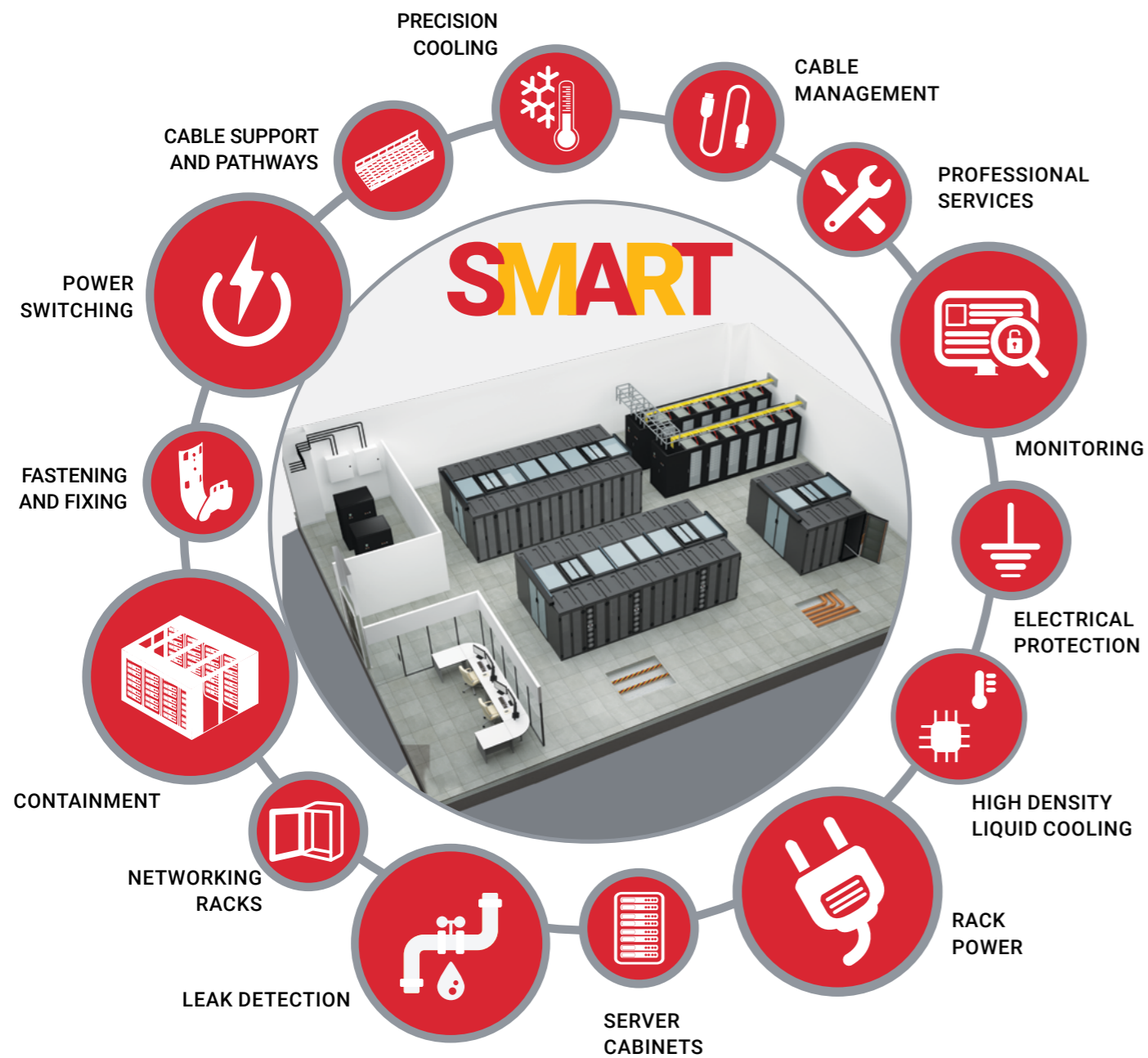
Power and Monitoring for Integrated Solutions





## nVent Support

Our smart rack solutions allows you to safely power, monitor, and support your smart infrastructure.



nVent CADDY includes fixing, fastening, and support products for high performance cabling systems designed to save installation time.

**CADDY**

**RAYCHEM**

nVent RAYCHEM TraceTek leak detection solutions pinpoint the source of water and fuel leaks, providing you with critical information to take swift action and avoid damage.

nVent ERICO offers a full range of facility electrical protection products to protect data centers, network and other facilities.

**ERICO**



nVent HOFFMAN offers a broad range of targeted networking enclosures and racks for protecting sensitive electronic equipment.

**HOFFMAN**

**SCHROFF**

nVent SCHROFF brand offers modular and scalable server cabinets, aisle containment systems and active cooling solutions to perfectly fit customers' data center requirements.



**80+**  
Manufacturing, service, sales and distribution centres

**30M+**  
nVent enclosures in use globally

**400+**  
Patents

**9000**  
Global Workforce

**Manufacturing Sites**

# Smart Rack Technology

## Power and Monitoring for Integrated Solutions



### INFRASTRUCTURE UNDER CONTROL

- Ensure Uptime
- Enjoy Flexibility
- Automate your Infrastructure Management

Features	RB0000	RP1000	RP2000	RP6000
Input Metered		✓	✓	✓
Outlet Switched			✓	✓
Outlet Metered				✓



### SMART RACKPOWER

- Intelligent PDUs (iPDUs) with advanced Network Management Card (NMC) for IP network connectivity
- High visibility interactive graphic display
- Single and three phase supporting regional voltages
- Local and remote power monitoring of single outlets and circuits showing data for current (A), voltage (V), power (kW), energy consumption (kWh) and power factor of entire PDU with metering accuracy of within  $\pm 1\%$

### SMART ENVIRONMENTAL MONITORING AND SECURITY

- Full range of Automatic Transfer Switches (ATS)
- RackPower Manager Software delivers a centralized remote management platform for the iPDUs in multiple IP-access groups
- Environmental monitoring and access control with plug and play support for up to 8 digital sensors
- Access security eHandles for added security and access control

**High Visibility Data Display**

Phase level      CB level

**USB - C**  
Future proof, local upgrades and expanded sensor support

**Gigabit Ethernet**  
Primary network connection

**Toolless Installation**  
Quick hot-swap replacement allows for high visibility and rotation of display support for top or bottom mounting orientation

**Critical Alarm Icons**

- ⚠ PDU ALARM
- 🔗 CASCADE ERROR
- 🌡 ENVIRONMENTAL ALARM
- 🔒 SECURITY ALARM
- 🔌 CIRCUIT BREAKER ALARM

**Interactive Display**

- Menu
- Select
- Scroll

**10/100 Ethernet**  
For redundant networks, dual network access, and high bandwidth cascading

**ADVANCED WEB PLATFORM**

**React**

Data Efficient & Native Mobile Device Support

**SOFTWARE INTEGRATION**  
Easy integration with most DCIM software

#### BEST-IN-CLASS MICROPROCESSOR



#### REMOTE CONNECTIVITY



#### POWERFUL OS PLATFORM



# Smart Rack Technology

## IPDU Feature Set



### Combo Outlets

Flexible and future-proof 2-in-1 and 4-in-1 outlets



### High Accuracy Metering

(V, A, VA, W, kWh, pf)  
Billing - grade accuracy



### Advanced Networking

For future proofing and redundancy



### Toolless Hot-Swap NMC

For maximum availability and future upgrades



### Environmental Monitoring and Access Control

With plug and play support for up to 8 digital sensors



### Best-In-Class Warranty

For investment protection



### Ultralow Profile Design

For easy equipment access



### User Defined Electronic Color Coding

For easy power source identification



### IP Cascading

Manage up to 64 PDUs through a single IP address



### DC Power Sharing

Two-way power sharing for an always-on network management and alarms



### Color Coded Outlets by Circuit Breaker

Visual phase and load bank identification for reduced human error



### IP CASCADING WITH DC POWER SHARE



# Smart Rack Technology

## Power and Monitoring for Integrated Solutions

Input Phase	Input Voltage	Input Current per phase	Input Plug Type	Apparent Power (kVA)	Outlet Count	Outlet Type	Length (mm)	Width (mm)	Depth (mm) at Outlet position	CB Depth (mm)	Product Range	Rack Power SKU
1-Phase	120V	20	NEMA L5-20P	1.92	16	(16)5-20R	817	52	53	NA	Basic PDU	RB0316
					16	(16)5-20R	817	52	53	NA	Input Metered	RP1316
					12	(12)5-20R	917	52	53	NA	Input Metered, Outlet Switched	RP2310
		30	NEMA L5-30P	2.9	22	(22)5-20R	817	52	53	NA	Basic PDU	RB0323
					24	(24)5-20R	1490	52	53	NA	Input Metered	RP1327
					18	(18)5-20R	1490	52	53	NA	Input Metered, Outlet Switched	RP2319
	208V	20	C20 w/L6-20P & 316P6	3.3	24	(20)C13, (4)C19	1490	52	53	NA	Input Metered	RP1326A
					24	(20)C13, (4)C19	1490	52	53	NA	Basic PDU	RB0324
		30	NEMA L6-30P	5.0	24	(20)C13, (4)C19	1490	52	53	NA	Input Metered	RP1324
					24	(20)C13, (4)C19	1750	52	53	NA	Input Metered, Outlet Switched	RP2324
	230V	20	C20 w/L6-20P & 316P6	3.68	22	(20)C13, (2)C19	817	52	53	NA	Basic PDU	RB0322A
					24	(20)C13, (4)C19	1490	52	53	NA	Input Metered, Outlet Switched	RP2326A
32		IEC 60309 332P6	7.4	30	(24)C13, (6)C19	1490	52	53	NA	Basic PDU	RB0328	
				24	(20)C13, (4)C19	1490	52	53	NA	Input Metered	RP1325	
				24	(20)C13, (4)C19	1750	52	53	NA	Input Metered, Outlet Switched	RP2325	
				24	(20)C13, (4)C19	1750	52	53	NA	Outlet Metered, Outlet Switched	RP6325	
3-Phase	208V	30	NEMA L21-30P	8.6	42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1780	56	55	75	Basic PDU	RB0851
					42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1780	56	55	75	Input Metered	RP1851
					48	(24)C13/C15 Combo, (24)C13/C15/C19/C21 Combo	1780	56	75	NA	Input Metered, Outlet Switched	RP2851
					48	(24)C13/C15 Combo, (24)C13/C15/C19/C21 Combo	1780	56	75	NA	Outlet Metered, Outlet Switched	RP6851
		60	IEC 60309 3P+E 9h 60A (IP44)	17.3	42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1780	56	75	NA	Basic PDU	RB0952
					42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1780	56	75	NA	Input Metered	RP1952
	42				(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1826	56	75	NA	Input Metered, Outlet Switched	RP2952	
	42				(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1780	56	75	NA	Outlet Metered, Outlet Switched	RP6952	
	400V	50(40)	CS8365	14.4	42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1780	56	75	NA	Input Metered	RP1951
					42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1826	56	75	NA	Input Metered, Outlet Switched	RP2951
					42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1780	56	75	NA	Outlet Metered, Outlet Switched	RP6951
		16/20 (16)	IEC 60309 3P+N+E 6h 16A/20A (IP44)	11.5/11.0	42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1490	56	55	NA	Basic PDU	RB0450
					42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1490	56	55	NA	Input Metered	RP1450
					42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1490	56	75	NA	Input Metered, Outlet Switched	RP2450
	400V	32/30 (24)	IEC 60309 3P+N+E 6h 32A/30A (IP44)	22.1/17.3	48	(24)C13/C15 Combo, (24)C13/C15/C19/C21 Combo	1490	56	75	NA	Outlet Metered, Outlet Switched	RP6450
					48	(24)C13/C15 Combo, (24)C13/C15/C19/C21 Combo	1780	56	55	75	Basic PDU	RB0850
					48	(24)C13/C15 Combo, (24)C13/C15/C19/C21 Combo	1780	56	55	75	Input Metered	RP1850
		63/60 (48)	IEC 60309 3P+N+E 6h 563P6/560P6 (IP44)	43.5/34.6	48	(24)C13/C15 Combo, (24)C13/C15/C19/C21 Combo	1780	56	75	NA	Input Metered, Outlet Switched	RP2850
48					(24)C13/C15 Combo, (24)C13/C15/C19/C21 Combo	1780	56	75	NA	Outlet Metered, Outlet Switched	RP6850	
42					(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1780	56	75	NA	Outlet Metered, Outlet Switched	RP6850	
400V	63/60 (48)	IEC 60309 3P+N+E 6h 563P6/560P6 (IP44)	43.5/34.6	42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1826	56	75	NA	Input Metered	RP1950	
				42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1826	56	75	NA	Input Metered, Outlet Switched	RP2950	
				42	(21)C13/C15 Combo, (21)C13/C15/C19/C21 Combo	1826	56	75	NA	Outlet Metered, Outlet Switched	RP6950	

# Smart Rack Technology

## Power and Monitoring for Integrated Solutions

### SECURITY ACCESS CONTROL

The security access control eHandle is an intelligent electromechanical locking system for server and networking cabinets. The eHandle seamlessly integrates with the network controller and RackPower iPDU to serve as a hub for access control and environmental monitoring.

Security Access eHandle	
EA9502	Security Access eHandle Supports Physical Key Entry + Electronics access
EA9500	Security Access eHandle Supports Physical Key Entry + Electronics access + RFID card reader + Keypad

eHandle Accessories	
EA9550	Security Access eHandle Supports Physical Key Entry + Electronics access
EA9551	Security Access eHandle Supports Physical Key Entry + Electronics access + RFID card reader + Keypad
EA9530	eHandle to RackPOWER iPDU Harness

Spare Components	
EA9530	eHandle PDU Harness

#### RFID Authentication SKU: EA9502



#### Dual Factor Authentication SKU: EA9500, RFID + User Pin



Supported RFID Cards	
MIFARE Classic 4k – UID	HIS iClass – UID
MIFARE Plus 2k – UID	HID 125 kHz Prox – CSN
MIFARE DESFire 4k – UID	EM125 kHz Prox – CSN

#### Environmental Monitoring

Enlogic sensors add comprehensive environmental monitoring to any RackPower intelligent PDU. Plug and play sensors seamlessly integrate with PDUs and monitoring software.



- External sensors include 2M (78.74 in.) cords
- Plug and play support for up to 8 digital sensors per PDU
- Low profile design with magnetic base for easy affixing to the cabinet

#### 1U LCD Console Drawer

- 17" and 19" widescreen LCD displays
- Varying resolution: 1080p to 4K
- Short depth design of 460 mm
- 104-key keyboard with either touchpad or trackball
- Light weight
- One person installation design



#### Environmental Sensors

Description	RackPOWER SKU
Temperature Sensor	EA9102
Temperature and Humidity Sensor	EA9103
(3) Temperature + (1) Humidity Sensor	EA9105
Sensor Input Hub (3 sensor inputs)	EA9106
Door switch sensor	EA9109
Dry Contact Cable	EA9110
Spot Fluid Leak Sensor	EA9111
Rope Fluid Leak Sensor	EA9112

Catalog	Description
LCD1U4K	4K LCD CONSOLE DRAWER
LCD1U1080	1080P LCD CONSOLE DRAWER
LCD1U900	WIDE SCREEN LCD CONSOLE DRAWER

\*KVM options available with custom order

#### Locking Power Cords

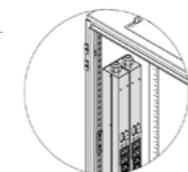
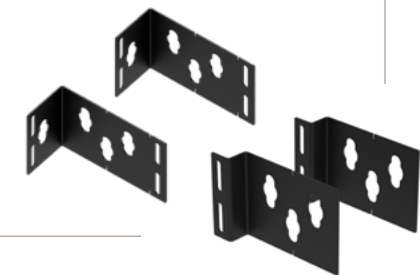
Secure dual W-Lock power cords provide enhanced cord retention between both the PDU and IT equipment. Both connections require deliberate action in order to release the locking buttons to prevent accidental detachment of power connections. Cords function with any corresponding standard IEC receptacle, but locking feature requires compatible W-lock or V-lock outlets.



Catalog Number	PDU Outlet Type	Equipment Input Connection Type	Power Cord Length	Power Cord Color	Power Cord Qty Per Box
EP1314024X150	Locking IEC C13	Locking IEC C14	0.6m	Black	150
EP1314048X125	Locking IEC C13	Locking IEC C14	1.2m	Black	125
EP1314072X100	Locking IEC C13	Locking IEC C14	1.8m	Black	100
EP1920024X100	Locking IEC C19	Locking IEC C20	0.6m	Black	100
EP1920048X75	Locking IEC C19	Locking IEC C20	1.2m	Black	75
EP1920072X50	Locking IEC C19	Locking IEC C20	1.8m	Black	50
EP1314B24X150	Locking IEC C13	Locking IEC C14	0.6m	Blue	150
EP1314B48X125	Locking IEC C13	Locking IEC C14	1.2m	Blue	125
EP1314B72X100	Locking IEC C13	Locking IEC C14	1.8m	Blue	100
EP1920B24X100	Locking IEC C19	Locking IEC C20	0.6m	Blue	100
EP1920B48X75	Locking IEC C19	Locking IEC C20	1.2m	Blue	75
EP1920B72X50	Locking IEC C19	Locking IEC C20	1.8m	Blue	50
EP1314R24X150	Locking IEC C13	Locking IEC C14	0.6m	Red	150
EP1314R48X125	Locking IEC C13	Locking IEC C14	1.2m	Red	125
EP1314R72X100	Locking IEC C13	Locking IEC C14	1.8m	Red	100
EP1920R24X100	Locking IEC C19	Locking IEC C20	0.6m	Red	100
EP1920R48X75	Locking IEC C19	Locking IEC C20	1.2m	Red	75
EP1920R72X50	Locking IEC C19	Locking IEC C20	1.8m	Red	50

#### PDU Mounting Bracket

- Button-hook style mounting bracket
- Flexible mounting configurations
- Single and dual (side-by-side) mounting options
- Front-facing and rear-facing configurations
- Breakaway tabs save space for single PDU mounting configurations
- Recessed mounting configuration



Dual Side-Facing Mounting



Single Rear-Facing Mounting

Catalog	Description
DPDU2	PDU Mounting Bracket
DPDU3	PDU Mounting Bracket

# Smart Rack Technology

## Power and Monitoring for Integrated Solutions

### iATS - Intelligent Automatic Transfer Switch

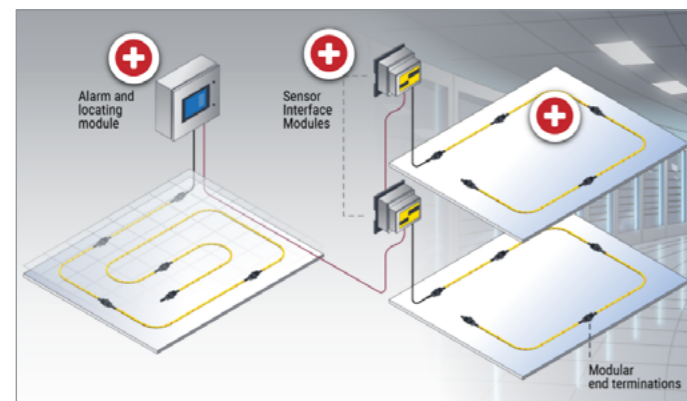
- ATS < 10ms transfer time – for equipment with one Power Supply Unit (PSU)
- Input preference switch for priority power feed
- Redundant power for single-corded equipment
- Auto-switching relay for seamless power transfer
- Variety of IEC and NEMA outlet configurations available. Custom configurations available upon request
- LED meter for true RMS local current monitoring
- 1U & 2U versions



Catalog	Description
NPATS11001	ATS WS 110V 15A 5-20Rx10
NPATS11002	ATS WS 110V 20A 5-20Rx10
NPATS11003	ATS WS 110V 20A 5-20Rx16
NPATS20801	ATS WS 208V 20A C13x12
NPATS20802	ATS WS 208V 20A C13x8 C19x1
NPATS20803	ATS WS 208V 30A L6-30Rx1
NPATS20804	ATS WS 208V 30A C13x16 C19x2

### SMART LEAK DETECTION

- Leak detection sensors: water, fuel, caustic chemicals, and hydrocarbons
- Robust and reliable conductive sensing cables
- Interchangeable components allows modular configurations
- Advanced control and alarm panels



**Order Info**  
Please contact Customer Service for order information

# Smart Rack Technology

## Power and Monitoring for Integrated Solutions

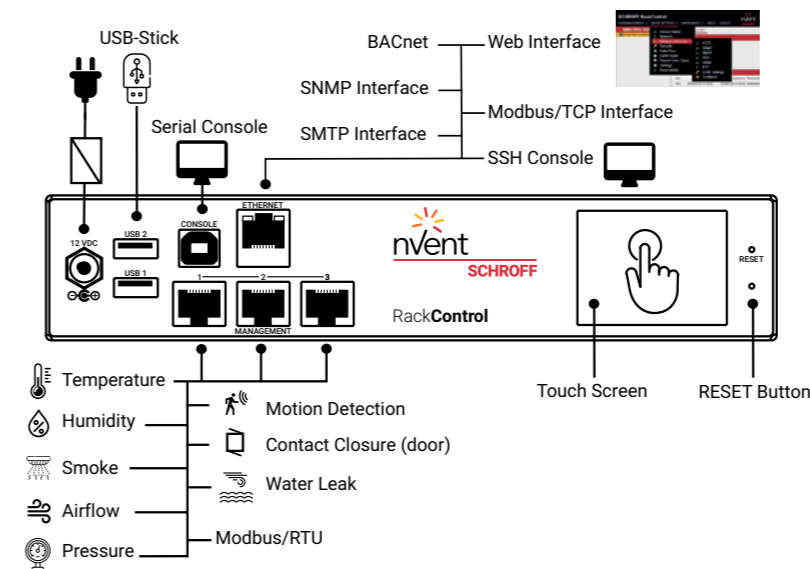
### GUARDIAN MANAGEMENT GATEWAY



#### Benefits and Features

- Data Center environmental monitoring platform
- Compact Design, fits anywhere in a data center rack
- Web browser GUI for setup, maintenance and monitoring
- Three management ports to connect external sensors and Modbus devices
- Up to 16 sensors/Modbus devices per management port with a cable length of 40 m
- Auto orientation LCD Touch Display
- Supports Industry standard network protocols (HTTPS, SNMP, SMTP, BACnet, Modbus/TCP, HPI, IPV4, and IPV6)

### INTERFACE OVERVIEW



- 1 USB interface (Console Type B)
- 3 Sensor management ports (RJ45)
- 2 USB interfaces (USB 1 and USB 2)
- 1 GBE Network interface (RJ45)
- 1 Auto orientation LCD touch display
- 1 Power Barrel Connector 2.1/5.5 mm

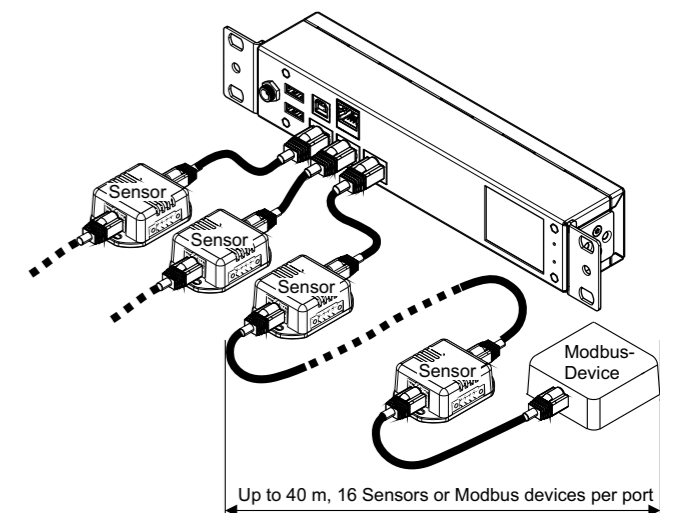
### SENSOR AND MODBUS DEVICE CONNECTION DIAGRAM

#### INFORMATION

Order Information	Article Number
nVent SCHROFF Guardian Management Gateway	11079-000
Including: Management Gateway Unit, 2 Mounting brackets, 1 Power supply with IEC320-C14 inlet (12 VDC Output, 100 - 240 V AC Input), Power cable not included	

#### Accessories

Power Cable IEC320-C13 to IEC320-C14, 2.5 m	60197-053
Multi Sensor (Temperature/Humidity/2x Digital Input)	21070-100
Multi Sensor (Temperature/Humidity)	21070-101
Temperature Sensor	21070-102
Digital Sensor 1 (2x Digital Input)	21070-103
19" Mounting Bracket	on request



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Warwick, Rhode Island	Tel: +1.401.732.3770

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Qingdao	Tel: +86.532.8771.6101

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