U Systems

edp
Distribution

EDGE-3
SOUNDPROOF MICRO DATA CENTRE

Why EDGE Compute?

Global Cloud/Hyperscale Data Centers

Off-Premise
Regional Edge/Enterprise Data Centers

On-Premise
IT Room/
Edge Comptuing

IoT
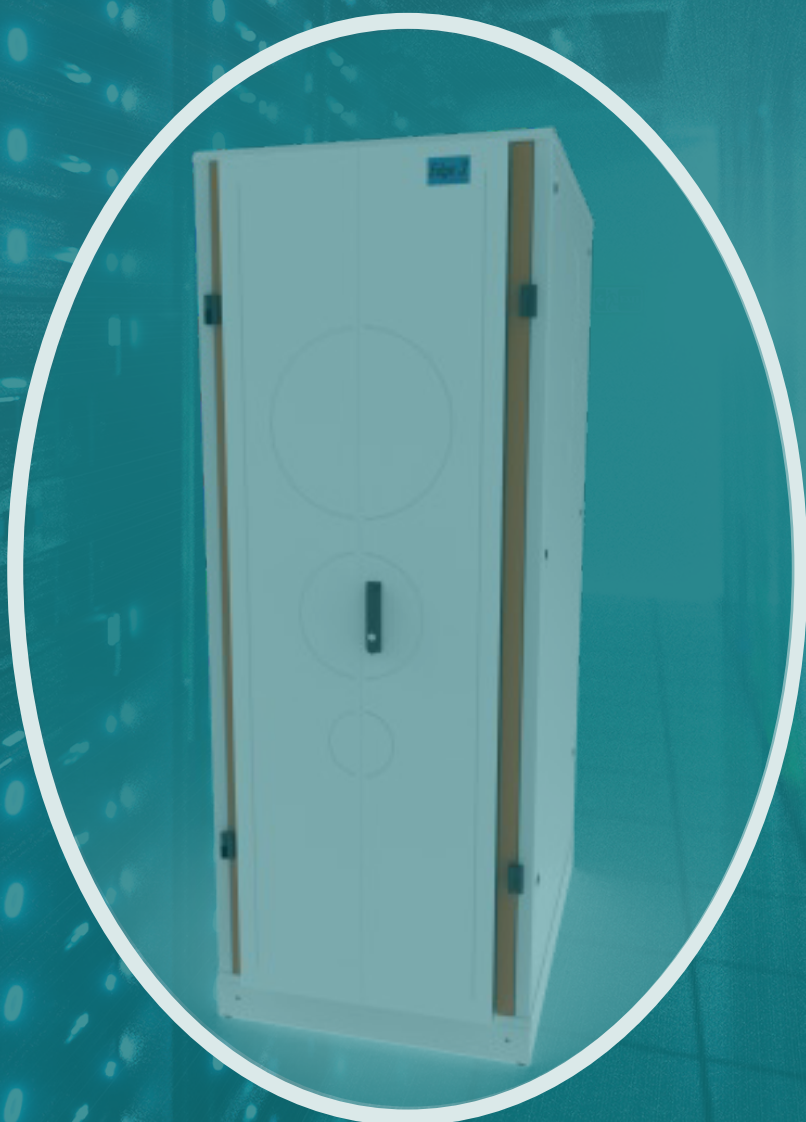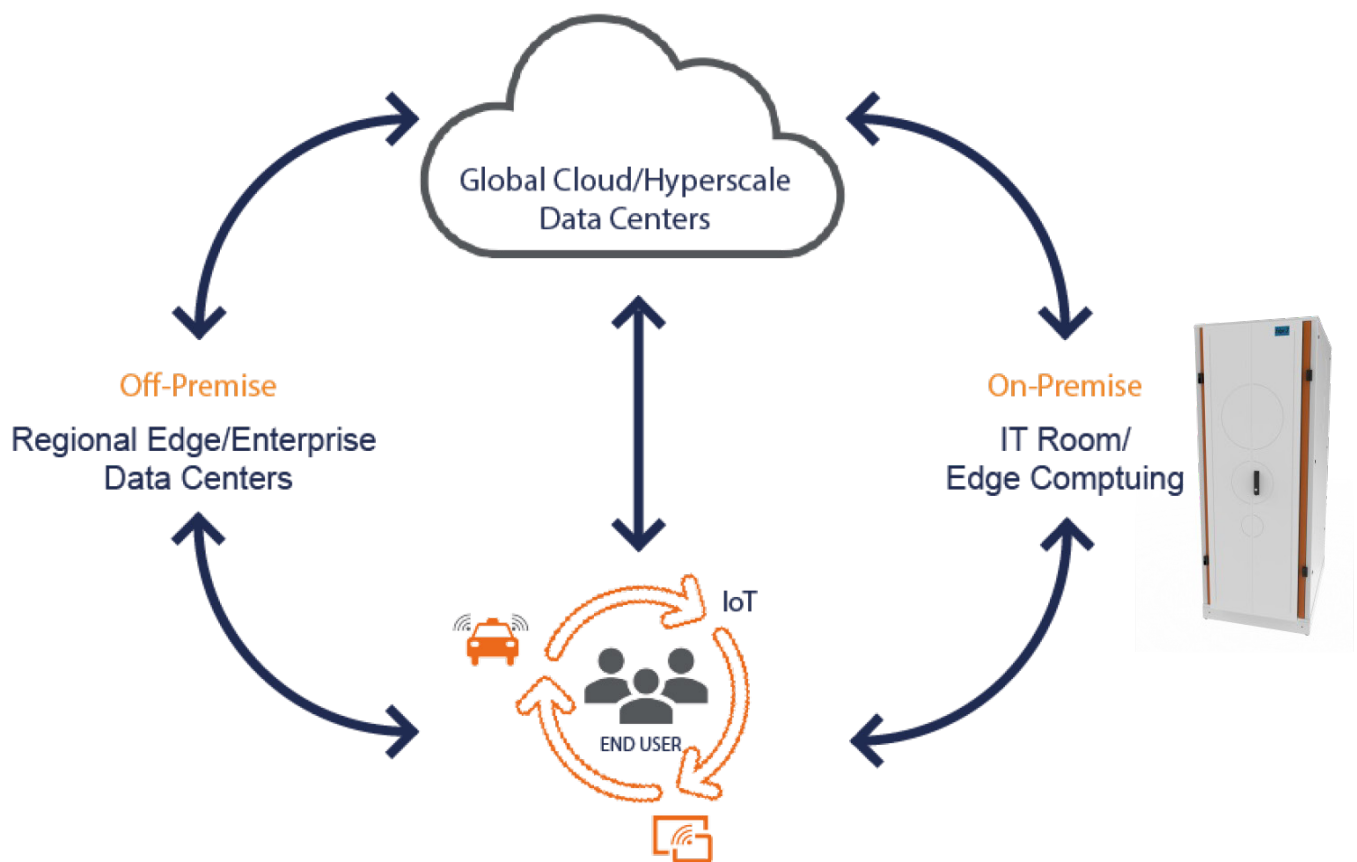
END USER

In our digital age more devices are connected to the internet utilising cloud based storage. The number of devices and users continue to increase which puts a strain on bandwidth causing latency.

The reduction in user bandwidth availability and the increase in latency could have dire consequences depending upon the application being used.

This latency and decrease in bandwidth can be overcome by introducing on-premise edge computing. This allows the user to access immediate computer power locally whilst using the cloud simply to store information.

This can be done in an environment other than a traditional data room thereby saving real estate and comms/data room build expense.

EDP Europe offer a broad range of self contained intelligent modular systems from USystems called EDGE to house localised computing, which can be deployed directly into factories, warehouses, offices, M2M, multiple users, businesses etc., either as a standalone cabinet or bayed together in a dedicated room.

Rapid Deployment Micro Data Centre

The EDGE-3 soundproof MDC is an exceptional range of enclosures with a combination of noise reduction and air-cooled thermal performance. The EDGE-3 is a superior alternative to a costly data and communications room, by allowing the deployment of servers and network equipment directly in the office and requires less than 1m² of valuable floor space. It allows for localised on premise computing in populated or more sensitive locations – especially where there might be a concern of server noise being a distraction or breaching ECC working noise guidelines.

The EDGE-3 will reduce equipment noise up to 28.5dBA (99.9%) of IT noise, while providing a thermal load capacity of 11.5kW.

The EDGE-3 is an excellent all round 19" data, comms and server cabinet, with adjustable front and rear mounting angles and 6 cable entry ports. Reducing energy bills is always desirable but expecting a standard server cabinet to assist in this aspect is virtually impossible. That is where the EDGE-3 is uniquely different in design, the two EC fans located in the rear doors maintain sufficient airflow throughout the enclosure, providing the required level of thermal dissipation, while optimising the level of 'ambient' background noise the cabinet itself generates and minimising power expenditure. To ensure maximum energy efficiency, it is controlled with variable fan speed controls and temperature sensors.

Peace of mind is provided by an on-board environmental and optional security monitoring system. Real time alarms and alerts, which can be viewed via the WebUI, will notify authorised personnel via email alarms relating to any issues with the cabinet. Meaning you know what's going on and can monitor who's coming and going 24/7. Advanced configurations are available for enhanced levels of security and redundancy.

The LCD touch display on the cabinet doors will change colour if the cabinet status changes, alerts (amber) or alarm (red). It will remain blue when working correctly. Touching the display will show environmental data from each temperature/humidity sensors or in the event of an alarm what that alarm specifically is.

Simple 'plug and play' EDGE-3 solution is supplied pre-configured from the factory with built in intelligence and an energy efficient air-cooling system for effortless installation and customer convenience.

7 Reasons To Buy

1. Cost-Effective & Green - server rooms are costly to build and run whereas EDGE-3 offer a fraction of the running costs and minimal initial investment.
2. Cool - innovative air-flow design for effective thermal dissipation of 11.5kW.
3. Soundproof - reduce equipment noise up to 28.5dBA (99.9%) of IT noise.
4. Lockable - security features keep your equipment safe.
5. Easy to Deploy - just plug and go.
6. Expandable – when you need extra capacity, just add another EDGE-3.
7. Portable - easily relocated to another room or building.

Typical Application Spaces:

- Staffed offices
- IT/comms rooms
- Studios
- Libraries
- Laboratories
- Receptions
- Surgeries
- Hospital wards
- Showrooms
- Classrooms
- Home offices

For safe running we recommend siting in a ventilated space, typically at 70°F/21°C and below but not warmer than 80.5°F/27°C

A Sound Investment!

Deploying active IT equipment into the middle of a working environment can be off-putting for visitors and detrimental to working conditions in terms of the constant evasive noise and excessive heat generated from the active equipment.

The EDGE-3 effortlessly removes these issues and stylishly blends into the working environment. The 42U cabinet effectively removes up to 28.5dBA (99.9%) of IT noise, which is tech speak for saying that it will reduce server noise down to a whisper.

Features & Benefits

EC Fan Technology
Energy saving and hot swappable

LCD Display
Displaying alarm state and major monitoring points

Swing Handle & Two Point Locking
Providing high security - electronic upgrade available
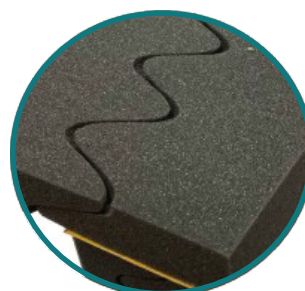
Foam Cable Entry System
Speedy installation without compromise to performance

Dynamic Load 750kg

**Static Load 1500kg

Heavy Duty Castors, Plinth corners, levelling feet (standard)
For safe rapid deployment

IP54 Upgrade Option
IP44 as standard for protection from dust ingress

Door Dust Filters
(optional upgrade)
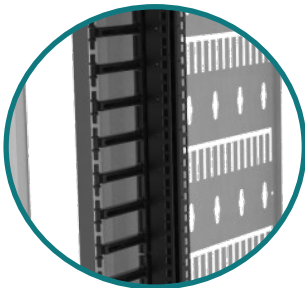Providing a dust free operational environment

EDGE Management System (EMS)
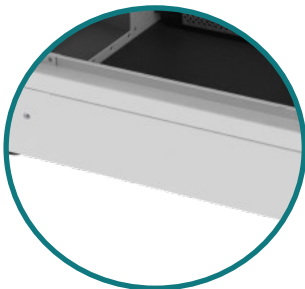Providing real time environmental monitoring

Anti Air-Recirculation Kit
Save energy and maintain hardware performance

Cable Management Fingers
(optional upgrade)
Ideal for tidy cabling and patching

Plinth Panels
(optional upgrade)
For that finishing touch

Cable Tray
(optional upgrade)
Ensure best cabling practice

ETL Listed
Proof of product compliance to published industry standards

Security Camera
(optional upgrade)
Captures video and images automatically when the door opens

Cable Entry
Generous access with three entries at the top and three at the bottom of the cabinet
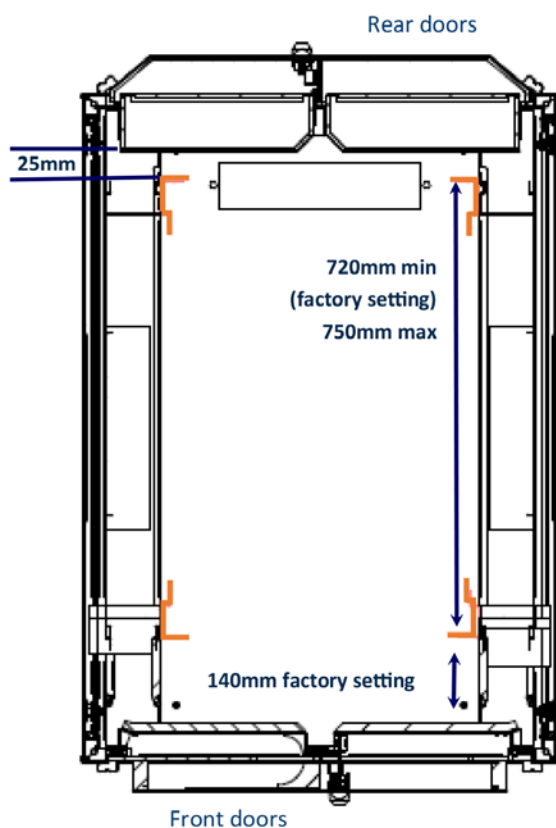
Technical Specifications

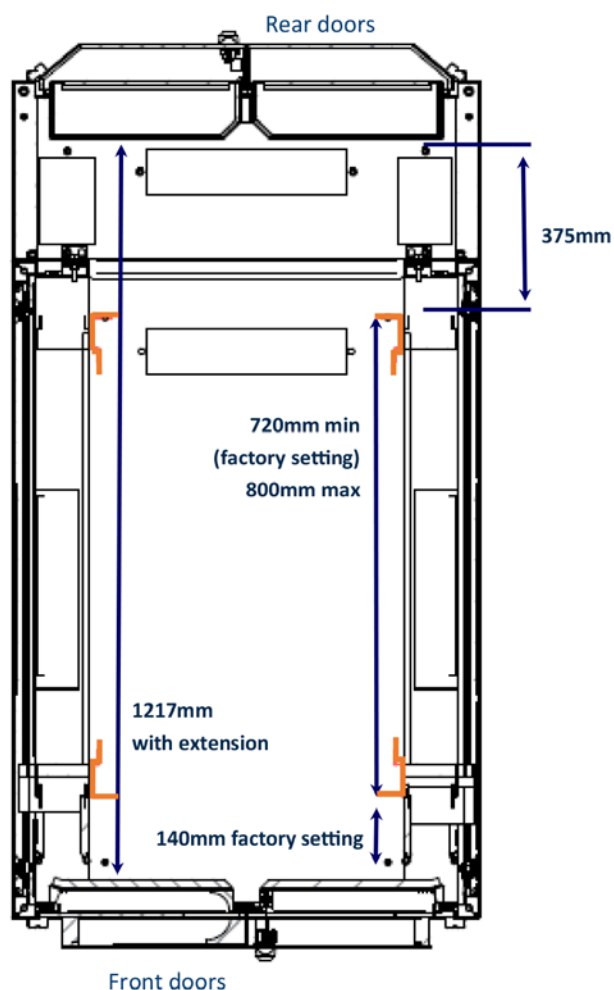| General		EDGE-3 12U	EDGE-3 24U	EDGE-3 42U
Order Code - 100 to 115v	Light Grey Black	91-E3G-1211-15 91-E3B-1211-15	91-E3G-2411-15 91-E3B-2411-15	91-E3G-4211-15 91-E3B-4211-15
Order Code - 200 - 240v	Light Grey Black	91-E3G-1211-24 91-E3B-1211-24	91-E3G-2411-24 91-E3B-2411-24	91-E3G-4211-24 91-E3B-4211-24
H x W x D	mm	720 x 780 x 1100	1154 x 780 x 1100	2054 x 780 x 1100
Weight (Cabinet)	kg/lbs	140/308	204/449	328/723
Weight (300mm Extension Frame)	kg/lbs	23/51	33/73	47/104
Dynamic load (on Castors) *inclusive of cabinet weight	kg/lbs	750/1653		
Static load *inclusive of cabinet weight	kg/lbs	750/1653 (on Castors) 1500/3307 (on Levelling Feet)		
**Index of Protection		IP44 - Upgrade to IP54 available		
Noise reduction of IT noise	dBA	28.5dBA (99%)		
Paint finish	Light Grey Black	Semi Gloss powder coat - Light Grey RAL7035 & Orange RAL2009 Semi Gloss powder coat - Black RAL9005		
Frame material	mm	1.5mm CR4 steel		
Passive & active doors materials	mm	1.0mm, 1.2mm & 2.0mm CR4 steel		
Top cover material	mm	1.2mm CR4 steel		
Mounting angles material	mm	2.0mm CR4 steel		
Foam	mm	Fire Retardant		
Intelligence				
Monitoring Function		On touch		
Touch Screen LCD display		Colour Alarm - Shows temperature & humidity, contact sensors		
EC Fan Control		Up to 2 - 2 set fan curves and custom option		
Temp + Humidity		Up to 4 sensors		
Door Status		Up to 6 dry contacts		
Alarming		SMTP & LCD Display alarms		
Reporting		Local reporting - Alarms Fan Speed Temperature & Humidity Contact Sensor Camera		
Alerts		Notify when service or filter is due		
Connectivity		SNMP V1, V2 & V3 out		
Cooling Capacity		EDGE-3 12U	EDGE-3 24U	EDGE-3 42U
Max. Thermal Load	kW	12	12	12
Fan Type		Backward curve EC Fan		
Cooling Type		Air Cooled		
Air cooling capacity 230v	kW	6.2	10.5	11.5
Air cooling capacity 115v	kW	6	9	10

*Dynamic Load Rating is the total rolling mass of the rack and includes the rack frame, cladding and any fitted equipment and accessories and is subject to the load being evenly distributed at 20U height and below. Dynamic load relates to the movement of a rack within the same data centre on a smooth floor clear of any ob-stacles. Not suitable for transportation on a vehicle when loaded to this weight.

**This figure will be affected if the filter is not fitted/regularly maintained

Drawings

Standard footprint internal dimensions

Rear doors

25mm

720mm min
(factory setting)
750mm max

140mm factory setting

Front doors

Internal dimensions with 300mm extension

Rear doors

375mm

720mm min
(factory setting)
800mm max

1217mm
with extension

140mm factory setting

Front doors

Materials & Finish

Frame , cladding and accessories
1.2, 1.5mm, 2.0mm & 3mm CR4 steel

Fans x 2
115v or 240v EC fan

Intelligence
EDGE Management System

Earth bonding kit
4mm diameter earth cable

Polyolefin film
NG25-0.1mm

Soundproof foam
DST0880 – density 26 to 32 kgm-3

Gasket
Fire retardant

Dust filter
Reticulated foam

Cable entry system
Fire retardant foam

Fixed plinth, HD castors and levelling feet
750kg dynamic load, 1500kg static load

Semi gloss powder coat

Light grey RAL 7035

Black RAL 9005
Option with extended lead

Orange RAL 2009
Accents Only

*Dynamic Load Rating is the total rolling mass of the rack and includes the rack frame, cladding and any fitted equipment and accessories and is subject to the load being evenly distributed at 20U height and below. Dynamic load relates to the movement of a rack within the same data centre on a smooth floor clear of any obstacles. Not suitable for transportation on a vehicle when loaded to this weight.

Compliance statement: Manufactured to IEC 602973 and EIA STD 310 for panels and racks housing electronic equipment

*This figure will be affected if the filter is not regularly maintained

EDGE Management System 'EMS'

Providing Complete Peace of Mind

A standard feature of the EDGE-3 is the inclusion of the Edge Management System EMS controlling the 2x EC Fans and the environmental status of the cabinet with up to 4 temperature and humidity reporting and alarming if over threshold is reached.

Additional contact sensors to notify of door access. Displayed on a easy to view Webui with SNMP trap send, V1, 2 and 3 available to send out data and alarms.

Because You Need To Know

Whilst it is the EMS which takes care of the energy efficient cooling, it is also the EMS which brings together the whole solution.

Alarms and alerts in real time will notify you of any issues with your cabinet. The LCD screen on the cabinet will also show an alarm status, touch will provide sensor data, fan status and contact sensor triggers.

Takes Up 1U Space, Saving Valuable Rack Space

Front View

Front View

Rear View

Accessories

General		EDGE-3 12U	EDGE-3 24U	EDGE-3 42U
300mm Deep Server Extension Kit (Factory Fitted)	Light Grey Black	91-E3G-1230-EX-AF 91-E3B-1230-EX-AF	91-E3G-2430-EX-AF 91-E3B-2430-EX-AF	91-E3G-4230-EX-AF 91-E3B-4230-EX-AF
300mm Deep Server Extension Kit (Packaged Accessory)	Light Grey Black	91-E3G-1230-EX-AA 91-E3B-1230-EX-AA	91-E3G-2430-EX-AA 91-E3B-2430-EX-AA	91-E3G-4230-EX-AA 91-E3B-4230-EX-AA
IP54 Upgrade Kit (Factory Fitted)		91-E3X-12-IP-AF	91-E3X-24-IP-AF	91-E3X-42-IP-AF
IP54 Upgrade Kit (Packaged Accessory)		91-E3X-12-IP-AA	91-E3X-24-IP-AA	91-E3X-42-IP-AA
Fixed Kick Plinth Kit (Packaged Accessory)	Light Grey Black	91-E3G-PK-AA 91-E3B-PK-AA		
Top Ducting Exhaust System (Factory Fitted)	Light Grey Black	N/A	91-E3G-DS-AF 91-E3B-DS-AF	
Top Ducting Exhaust System (Packaged Accessory)	Light Grey Black	N/A	91-E3G-DS-AA 91-E3B-DS-AA	
Cisco Side Venting Kit (Factory Fitted)*	Black	91-E3B-12-CK-AF	91-E3B-24-CK-AF	91-E3B-42-CK-AF
Cisco Side Venting Kit (Packaged Accessory)*	Black	91-E3B-12-CK-AA	91-E3B-24-CK-AA	91-E3B-42-CK-AA
75w Cable Tray (Factory Fitted)	Black	91-E3B-1275-CT-AF	91-E3B-2475-CT-AF	91-E3B-4275-CT-AF
75w Cable Tray (Packaged Accessory)	Black	91-E3B-1275-CT-AA	91-E3B-2475-CT-AA	91-E3B-4275-CT-AA
300w Cable Tray (Factory Fitted)	Black	91-E3B-1230-CT-AF	91-E3B-2430-CT-AF	91-E3B-4230-CT-AF
300w Cable Tray (Packaged Accessory)	Black	91-E3B-1230-CT-AA	91-E3B-2430-CT-AA	91-E3B-4230-CT-AA
Cable Management Fingers (Pair) (Factory Fitted)*	Black	91-E3B-12-CM-AF	91-E3B-24-CM-AF	91-E3B-42-CM-AF
Cable Management Fingers (Pair) (Packaged Accessory)*	Black	91-E3B-12-CM-AA	91-E3B-24-CM-AA	91-E3B-42-CM-AA
Passive Filter Replacement Kit (Pair) (Packaged Accessory)		91-E3X-12-PF-AA	91-E3X-24-PF-AA	91-E3X-42-PF-AA
Active Filter Replacement Kit (Pair) (Packaged Accessory)		91-E3X-AF-AA		
Camera Security Kit (Factory Fitted)		91-EXX-CS-AF		
Camera Security Kit (Packaged Fitted)		91-EXX-CS-AA		
Temperature & Humidity Sensor (Packaged Accessory)		91-EXX-TH-AA		
Contact Sensor (Packaged Accessory)		91-EXX-CO-AA		
Foam Cable Entry Block (Packaged Accessory)		91-EXX-CE-AA		

*Note - Cisco Side Venting Kit and Cable Management Kit will not both fit, please only select one per EDGE-3 Factory Fitted items must be ordered with EDGE-3 cabinet

EDGE Accessories
EDGE Air Ducting Kit Option

Best Practice Energy Saving Option

The EDGE air ducting kit offers massive cost savings by reducing the need for ambient air conditioning and heating.

It enables hot exhaust air to be directed outside the room or building, saves on energy and keeps the room cool and protects the ambient temperature.

- Save money, energy and power consumption on existing room air conditioning
- Divert and recycle waste hot air providing free heating to other rooms
- Helps prevent hardware and software failures
- Helps prevent any unnecessary downtime
- Access to rear of cabinet and door opening is not affected when the ducting kit is utilised
- Retrofittable to the 24U and 42U Edge-3 cabinet
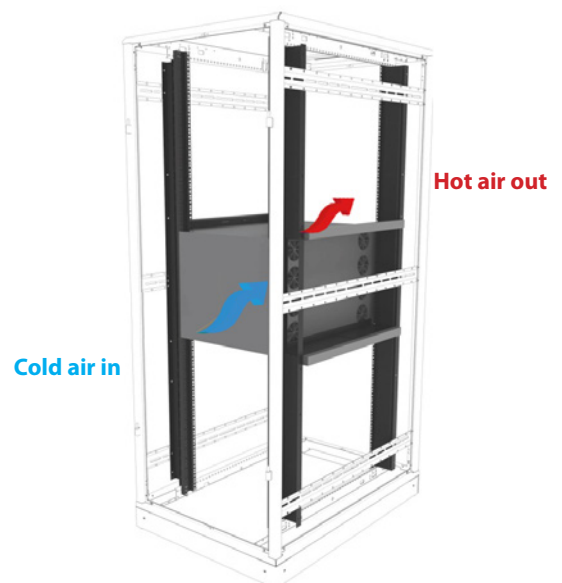- Can be directed to exhaust through wall, window or ceiling plenum

ROOM

Venting to ceiling

Venting to wall
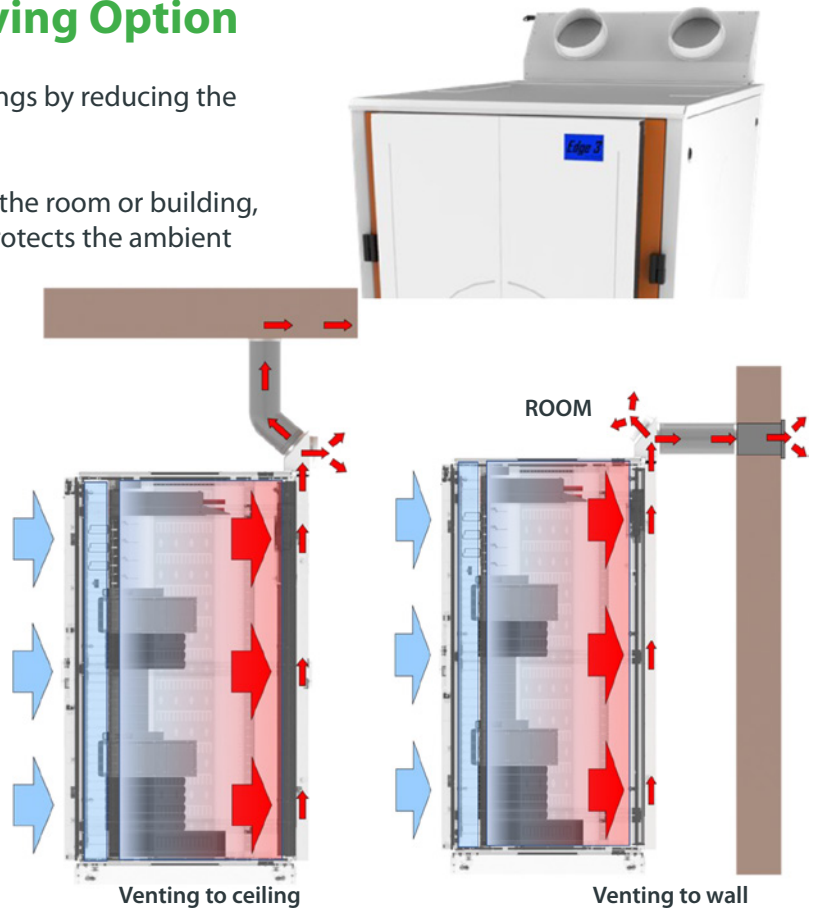
Cisco Side Venting Kit

Side venting kit for active IT equipment which cools from side to side such as Cisco switch gear etc.

Hot air out at rear of cabinet

Cool air in from front of cabinet

Hot air out

Cold air in
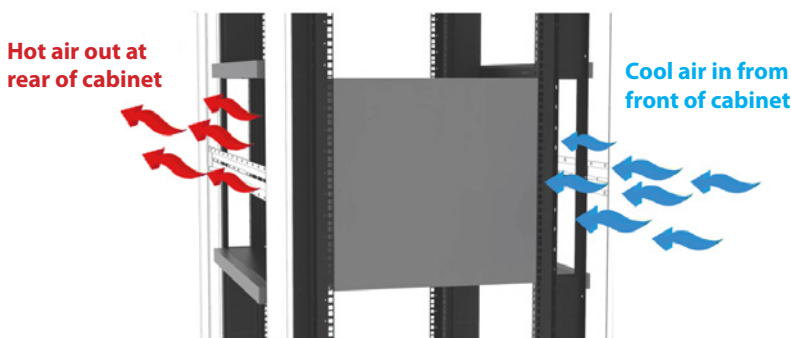
Side venting equipment—Cisco server

Modular side venting kit fitted to frame for illustration

Extra Depth Server Extension Kit

To accommodate greater depth IT equipment such as some of the latest high power servers.

The extension kit enables these to be housed in the EDGE-3 by giving an additional 300mm depth to accommodate this type of specialist, deeper equipment.

The extension kit is fully retrofittable and will not adversely affect the performance of the cabinet.

Extra 300mm usable depth
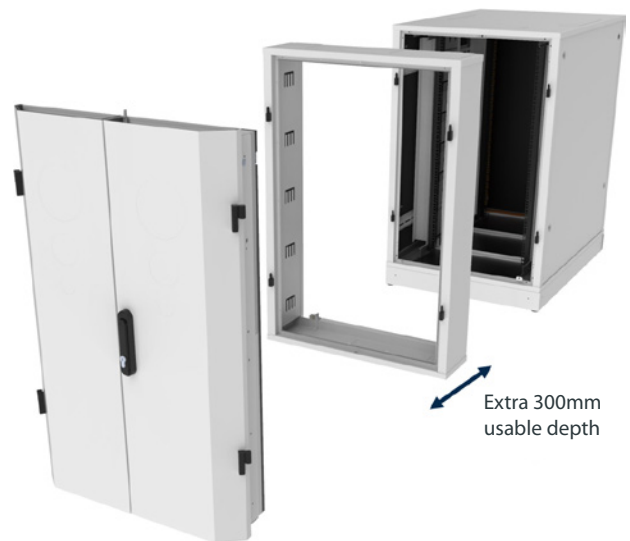
Intelligent Power

A full suite of fully specified intelligent power strips in a variety of entry levels, or bespoke-designed to meet your exact requirements.

Security

A full electronic access and security system, key pad, biometric etc.

Uninterruptible Power Supplies

Protection for hardware from unexpected power disruption.

Tel: 01376 510337 - E-mail: sales@edpeurope.com