



UCoustic

Soundproof Rack



we engineer for a sustainable tomorrow

Contents



The UCoustic Rack

The UCoustic Soundproof Rack delivers the ultimate combination of noise reduction and air-cooled thermal performance. It removes the need for a costly comms room and can be used in any area including; offices, receptions, hallways, and cupboards, without concern for noise or temperature issues. The UCoustic Rack acts as a 1m² server room and allows for a safe and secure deployment of IT equipment whenever and wherever it is needed, saving space, cost, and deployment time.

The UCoustic Soundproof Rack is available in 3 different heights, 780mm wide and 1100mm deep with the ability to increase the depth by 300mm with the extension frame. The active rack has two EC fans in the rear doors to deal with higher heat loads and to ensure maximum energy efficiency, they are controlled with variable fan speed controllers with a dedicated fan curve.

Save Money, Time and Space

- Cost Effective and Green
 - No need for dedicated comms room
- Cool
 - Innovative air-flow design means you can dissipate up to 12kW of heat with no special cooling requirements
- Easy to deploy
 - With our exclusive ramp solution, delivery to site is as easy as plug and play
- Expandable
 - Deploy another UCoustic when required
- Portable
 - Easy to relocate to another room or building

Typical Applications

- Offices and Meeting Rooms
- Hallways and Cupboards
- Banks
- Hospitals and GPS
- Manufacturing Plants
- Laboratories
- Schools
- Hotels

A Sound Investment



Removes 99.9% of IT Noise

A driving force behind deploying active IT equipment into the middle of a working environment is saving money, however it can be off-putting and potentially detrimental to working conditions in terms of the constant evasive noise and excessive heat generated from the active equipment.

The UCoustic Soundproof Rack effectively removes up to 28.5dBA (99.9%) of IT noise, turning server noise into a whisper.

Unrivaled Air Cooling



12kW Heat Dissipation

After choosing your IT equipment the second most important decision is how to protect it. By clever design the UCoustic unique cooling system enables the remove of up to 12kW of heat load in a 42U rack.

The UCoustic can also remove the exhaust heat rejected into the room from the rack via a ducting kit, again making for a pleasant and controlled working environment.

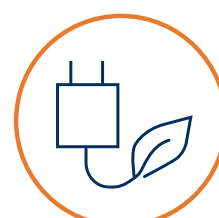
Energy and Space Saving



No costly comms room required

Reducing energy bills is always desirable but expecting a standard server rack to assist in this aspect seems impossible. USystems UCoustic Soundproof Rack is uniquely different in design. Incorporating EC fan technology as standard, which means an immediate energy reduction.

Rapid Deployment



Exclusive Ramp Solution

To avoid unnecessary delays on site, the UCoustic Rack is shipped on a heat treated pallet and ramp system to allow for the safe, quick and easy movement of the UCoustic rack to the floor. The ramp system also protects the top of the rack against minor transport damage.

Key Features

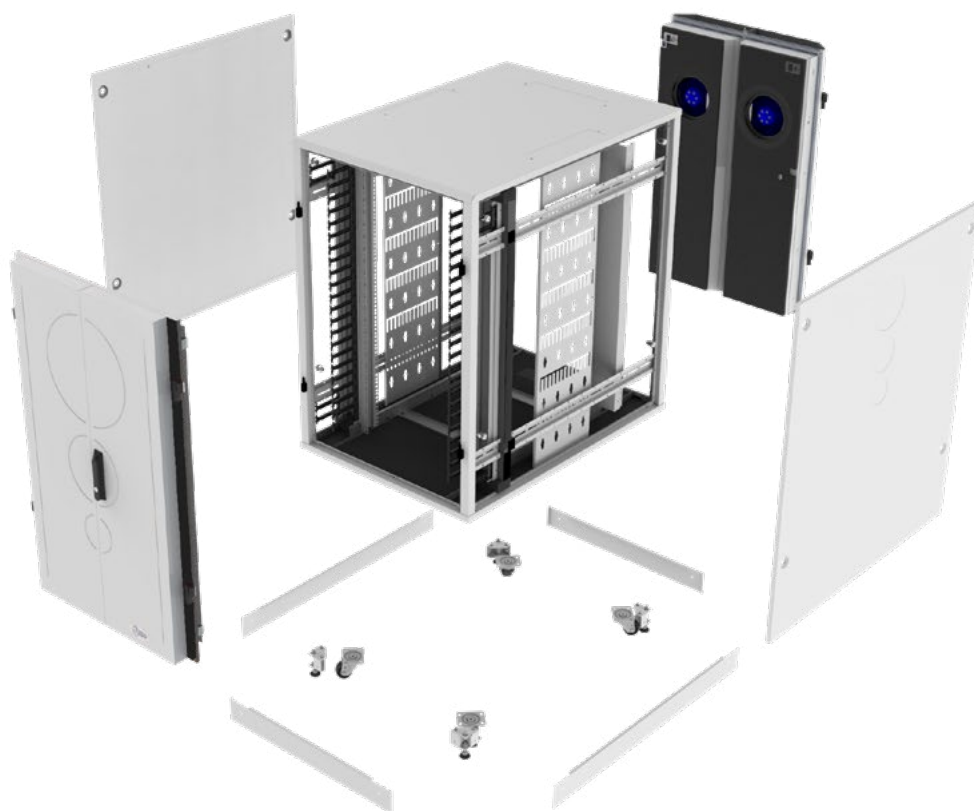
- In-Line Fan Speed Controller
 - Pre-set fan curve for efficient and controlled cooling
- Temperature controller
 - EC Fan Technology
- Energy saving and hot swappable
 - Fully adjustable 19" mounting angles fitted front and rear
- Single handle and two-point locking
 - Providing high security – electronic upgrade available
- Heavy duty castors, plinths, and levelling feet
 - For safe and rapid deployment
- IP44 Rated
 - IP54 Upgrade Option
- Foam Cable Entry System
 - Speedy installation without compromise to performance
- Anti air-recirculation kit
 - Saves energy and maintain hardware performance
- Cable Entry
 - Three entry points at the top and bottom of the rack.
- All doors and panels are easy to remove and refit
 - Supports maintenance of IT equipment
- Racks are finished in Black RAL9005 or Light Grey RAL7035



Optional Upgrades

- Door Dust Filters
 - Providing a dust free operational environment
- Cable Tray
 - Ensures best cabling practice
- Cable Management Fingers
 - Ideal for tidy cabling and patching
- Plinth Panels
 - Provides a sleek finish that compliments the surroundings

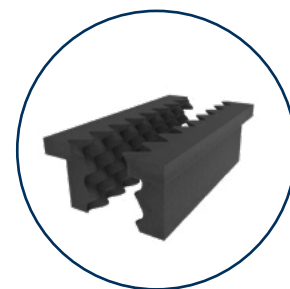




EC fan technology
Energy saving and hot swappable



InLine Fan Speed Controller
Pre-set fan curve for cooling



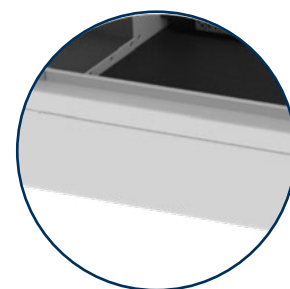
Foam cable entry system
Speedy installation without compromise to performance



Swing handle and two point locking
Electronic upgrade available



Heavy duty castors, Plinth corners, levelling feet (standard)
For safe rapid deployment



Plinth panels (optional upgrade)
For that finishing touch

UCoustic Technical Information

General		UCoustic 12U	UCoustic 24U	UCoustic 42U
Order Code — 100 to 115v	Light Grey	UCG-1211-15	UCG-2411-15	UCG-4211-15
	Black	UCB-1211-15	UCB-2411-15	UCB-4211-15
Order Code — 200 to 240v	Light Grey	UCG-1211-24	UCG-2411-24	UCG-4211-24
	Black	UCB-1211-24	UCB-2411-24	UCB-4211-24
H x W x D (max.)	mm	714 x 780 x 1250	1247 x 780 x 1250	2047 x 780 x 1250
Weight (Rack)	kg (lbs)	140 (308)	204 (449)	328 (723)
Weight (300mm Extension Frame)	kg (lbs)	23 (51)	33 (73)	47 (104)
Dynamic Load (on castors) *	kg (lbs)	750 (1653)		
Static Load *	kg (lbs)	750 (1653) On Castors		
		1500 (3307) On Levelling Feet		
Index of Protection **		IP44 - Upgrade to IP54 available		
Noise reduction of IT noise	dB(A)	28.5dB(A) (99%)		
Paint Finish	Light Grey	Semi Gloss powder coat - RAL 7035		
	Black	Semi Gloss powder coat - RAL 9005		
Frame Material	mm	1.5mm CR4 steel		
Passive and Active door Material	mm	1.0mm, 1.2 & 2.0 mm CR4 steel		
Top Cover Material	mm	1.2mm CR4 steel		
Mounting Angles Material	mm	2.0mm CR4 steel		
Foam		Fire Retardant		
EC Fan Control		Up to 2 - 2 pre-set fan curves		
Cooling Capacity		UCoustic 12U	UCoustic 24U	UCoustic 42U
Max. Thermal Load	kW	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

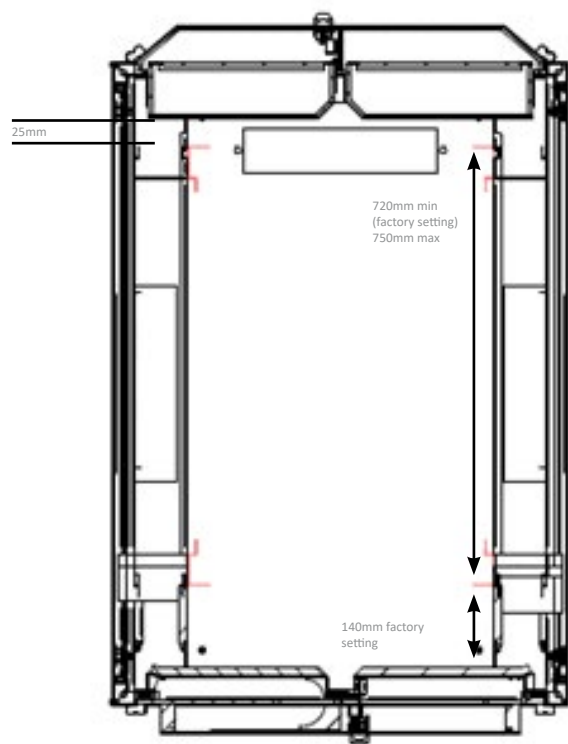
*Dynamic Load Rating is the total rolling mass of the rack and includes the rack frame, cladding and any fitted equipment and accessories and is subject to the load being evenly distributed at 20U height and below. Dynamic load relates to the movement of a rack within the same data centre on a smooth floor clear of any obstacles. 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



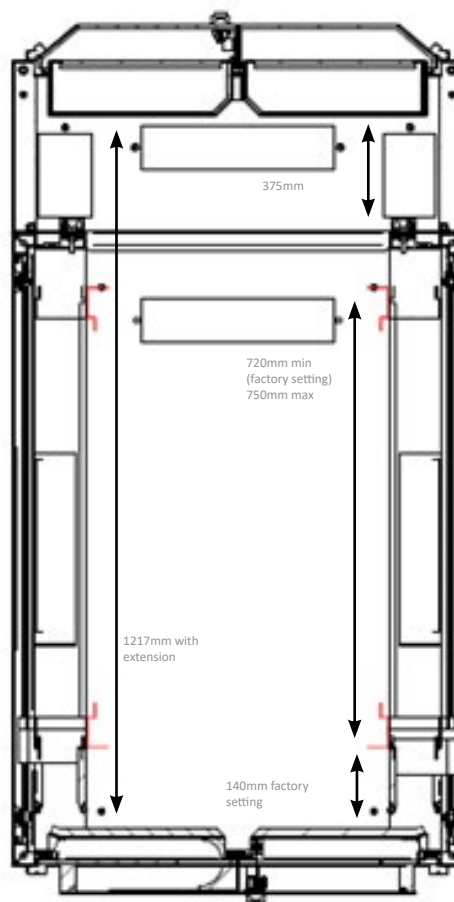
Drawing

Standard footprint internal dimensions



Internal dimensions with 300mm extension

Rear Doors



Front Doors

Please refer to official technical drawings

Materials and Finish

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

Earth bonding kit
4mm diameter earth cable

Polyolefin film
NG25-0.1mm

Soundproof foam
DST0880 – density 26 to 32 kgm-3

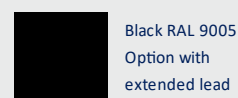
Gasket
Fire retardant

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

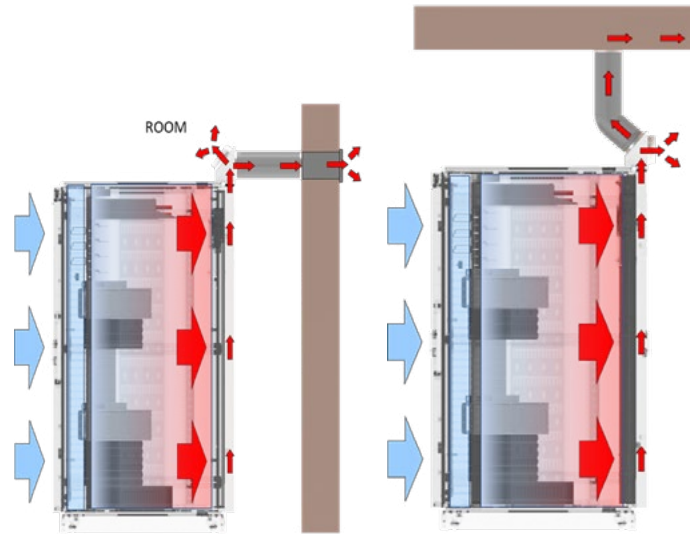


UCoustic Accessories

Ducting Kit

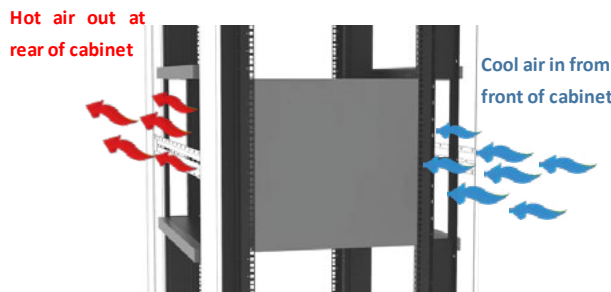
The UCoustic air ducting kit offers massive cost savings by reducing the need for ambient air conditioning and heating. It enables hot exhaust air to be directed outside the room or building, saves on energy, and keeps the room cool and protects the ambient temperature.

- 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 rack and door opening is not affected when the ducting kit is utilised
- Retrofittable
- Can be directed to exhaust through the ceiling or a wall



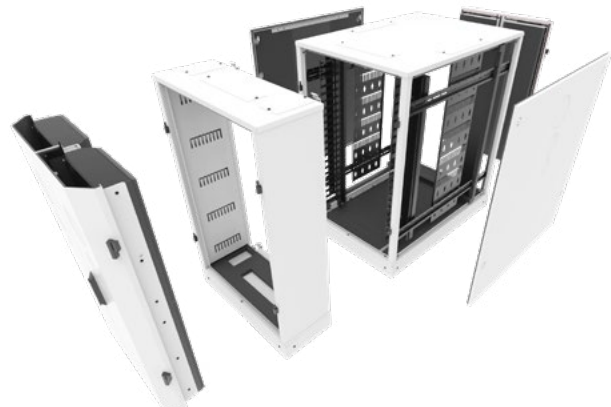
Cisco Side Venting Kit

We supply a side venting kit for active IT equipment which cools from side to side, such as Cisco Switch Gear.



Extra Depth Server Extension Kit

To accommodate greater depth IT equipment such as some of the latest high-power servers, we designed an extension kit that increases the depth of the UCoustic by 300mm, accommodating this type of specialist, deeper equipment. The extension kit is fully retrofittable and will not adversely affect the performance of the rack.





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



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Further Documentation

For additional information, please refer to the below. Available through your USystems representative, or our central enquires line at sales@usystems.com

Complete Product Range
Operations and Maintenance Manual
Troubleshooting Guide
Product Brochure

Available at www.usystems.com
Please contact sales@usystems.com
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