EDGE-5

Managed Air-Conditioned MDC

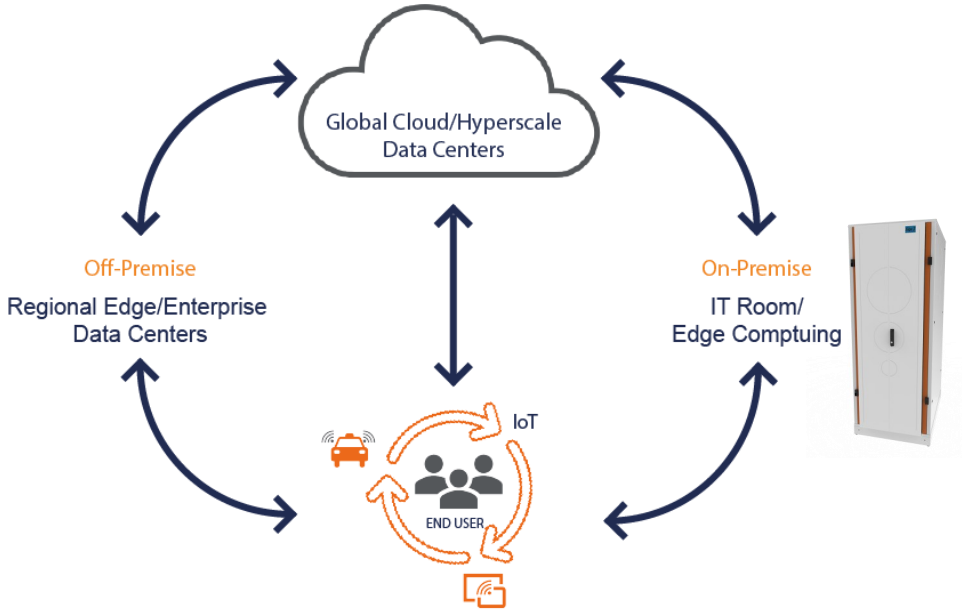
We engineer for a sustainable tomorrow.

Contents

Why edge compute?

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.

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



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.

USystems offer a broad range of self contained intelligent modular systems 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* range is fully factory configured to enable rapid deployment and has models to suit most applications and environments.

One of these being the *EDGE-5*, specifically designed for housing localised computing and network equipment in a standalone cabinet in a dedicated room. It is a self-contained air-conditioned MDC which is therefore an ideal solution for projects requiring active cooling without the use of external plant.

The 2.5kW air-conditioning system is inverter driven and will maintain the required internal cabinet temperature even when sitedin a room ambient of 35°C/95°F.

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.

Typical application spaces:

- Un-staffed offices
- IT/Comms rooms,
- Stadiums
- Warehouses
- Factories

For safe running we recommend siting in a ventilated room up to 90°F/35°C

Features and benefits

Security Camera (optional upgrade)

Captures video and images automatically when the door opens

EDGE Management System EMS

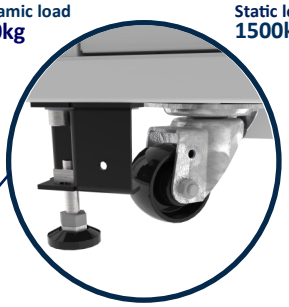
Providing real time environmental monitoring

Cable tray

Ensure best cabling practice

Dynamic load **750kg**

Static load **1500kg**



Plinth corners, heavy duty castors and levelling feet

For safe rapid deployment

Up to

2.5kW

Cooling performance

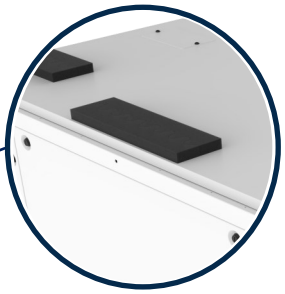
Cooling capacity

From 500w to 2.5kW per cabinet

Features and benefits cont.

LCD display

Displaying alarm state and major monitoring points



Cable entry glands

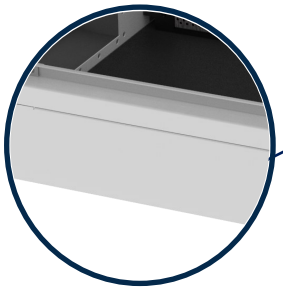
Allows for easy and flexible cable egress through the rack top

Clear glass door

Keep an eye on equipment without the need to open the door

Air conditioning unit

Slimline and minimal maintenance



Plinth panels

For that finishing touch

Swing handle and four point locking

Providing high security—electronic upgrade is also available

Specification

Cabinet useable height	36U	42U
Overall height including plinth and levelling feet	78.31”/1989mm	88.8”/2255mm
Width	31.5”/800m	
Depth	47.24”/1200mm	
Maximum static load capacity on plinth & adjustable feet	3307lbs/1500kg	
Dynamic load*	1654lbs/750kg	

Materials and finish

Frame

1.5mm CR4 steel

Glass door

1.0mm, 1.2 & 2.0mm CR4 steel 4mm clear toughened glass

Side panels and top cover

1.2mm CR4 steel

Mounting angles

2.0mm CR4 steel

Cooling

2.5kW slimline air conditioning unit

Intelligence

Edge Management System

Semi gloss powder coat

Light grey RAL 7035

Orange RAL 2009

Accents only

Black RAL 9005 Option with extended lead

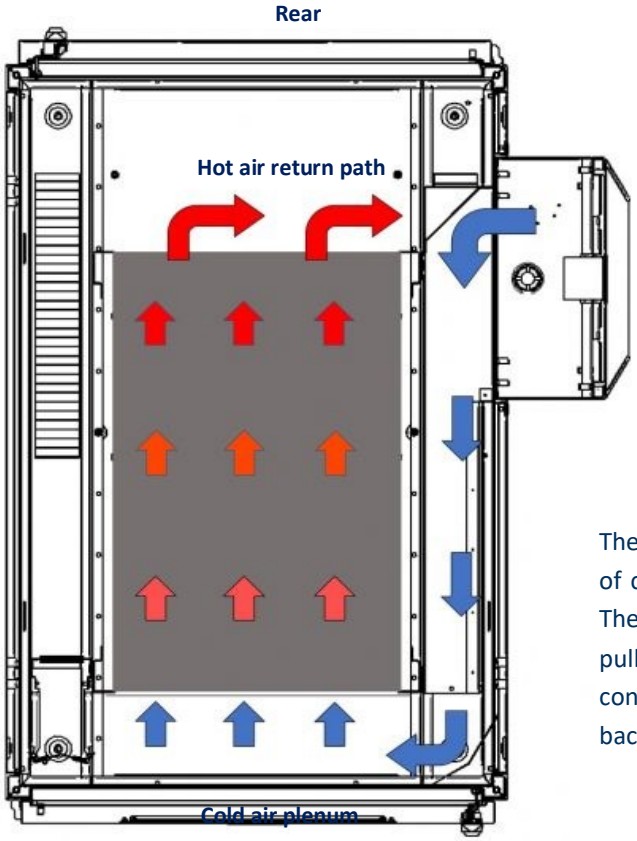
Compliance statement: Manufactured to IEC 602973 and EIA STD 310 for panels and racks housing electronic equipment

**Dynamic Load Rating is the total rolling mass of the rack and includes the rack frame, cladding and any fitted equipment andaccessories 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.*

How it works

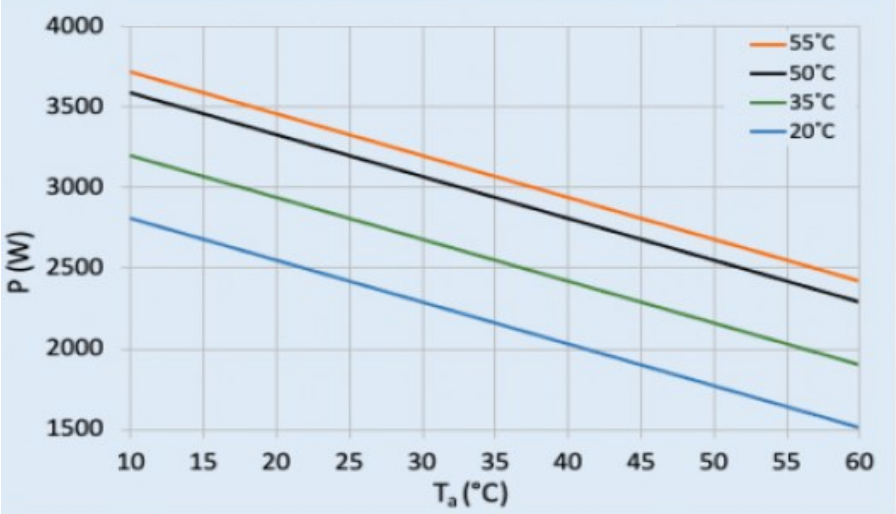
The *EDGE-5* provides a safe constant working temperature and will deal with a working load of between 500w to 2.5kW to protect and prolong the life of your IT equipment. The *EDGE-5* is an ideal solution for reducing energy costs and keeping temperatures controlled inside the cabinet.

The slimline air-conditioning unit will speed up and slow down as and when the heat load dictates, removing the need for unnecessary over use of the equipment



The AC unit delivers a constant stream of cold air to the front of the cabinet. The returning hot exhaust air is then pulled over a heat exchanger before continuing through a dedicated channel back to the front of the cabinet.

Air Conditioning Unit									
Capacity options (35°C room and 35°C cabinet temperature)	R134a Refrigerant charge	Operating range	Unit weight	Power supply	Starting Current	Max Running Current	Fuse	Max power	System Air volume ambient / cabinet
2.55kW inverter driven system	368g	10° to 60°C 50° to 140°F	45 Kg 99 lbs	240V 50~60 Hz	8A	6.8A	10A (T)	1.55kW	680/ 500m3/h



Variable cooling capacity 500 W - 2.55 kW

Front view

Compressor: BLDC Rotary Piston

Refrigerant / GWP: R134a / 1430

Refrigerant charge: 368 g / 13 oz.

High / low pressure: 32 / 6 bar

464 / 87 psig

Temperature range: +10°C - +60°C

Air volume flow (system / unimpeded): Ambient air circuit: 680 m^3/h / 1000 m^3/h

Cabinet air circuit: 500 m^3/h

Minimum cooling capacity 500w

Rear view

EDGE Management System 'EMS'

Providing complete peace of mind

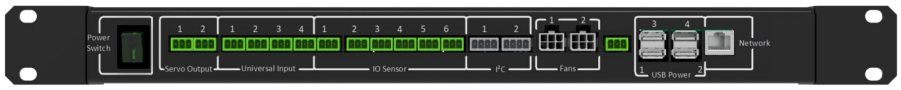
A standard feature of the EDGE-5 is the inclusion of the Edge Management System EMS controlling the environmental status of the cabinet with up to 4 temperature and humidity reporting and alarming if over threshold is reached.

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.



Front View

Front View

Rear View

EDGE Pack Options

Intelligent power

A full suite of fully specified intelligent power strips in a variety of entry levels

Security

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

Uninterruptible power supplies

Protection for hardware from unexpected power disruption

Further Documentation

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

Complete Product Range	Available at www.usystems.com
Operations and Maintenance Manual	Please contact sales@usystems.com
Troubleshooting Guide	Please contact sales@usystems.com
Product Datasheet	Available at www.usystems.com

EDGE MDCs

by USystems

We engineer for a sustainable tomorrow.

www.usystems.com

Europe

Systems House, 235 Ampthill Road
Bedford, MK42 9QG, UK

Tel: +44 (0) 1234 761 720

Middle East

Unit 706B, Al Shamsi Building, Al Nahda 1, Dubai, United Arab Emirates

Tel: 97 155 998 1198

North America

260 East Main Street, Suite 6406
Rochester, NY 14604, USA

Tel: 585 432 0393

India

207, 2nd Floor Regus Supreme (Jayanagar), 44/1, 16th Cross, Jayanagar, 7th block (west), KR Road, Bangalore - 560070, India

Tel: 080 6185 2022