EDGE-5

Air-conditioned Micro Data Center
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 sited in a room ambient of 35°C/95°F.

Peace of mind is provided by an on board environmental and security monitoring system, complete with up to 2 wirelessly integrated cameras. 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 see 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, stadia, warehouses and factories

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

- **Anti air-recirculation kit**
  Save energy and maintain hardware performance

- **Cable tray**
  Ensure best cabling practice

- **Cable management fingers with hinged cable cover**
  Ideal for tidy and protected cabling

- **EDGE Management System EMS**
  Providing real-time environmental monitoring

- **Wireless security camera**
  A visual record of personnel entering the cabinet

- **Plinth corners, heavy duty castors and levelling feet**
  For safe rapid deployment

- **Dynamic load**
  750kg

- **Static load**
  1500kg
Features and benefits

**LCD display**
Displaying alarm state and major monitoring points

**Clear glass door**
Keep an eye on equipment without the need to open the door

**Cable entry glands**
Allows for easy and flexible cable egress through the rack top

**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**

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

**Materials and finish**

<table>
<thead>
<tr>
<th>Frame</th>
<th>1.5mm CR4 steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass door</td>
<td>1.0mm, 1.2 &amp; 2.0mm CR4 steel 4mm clear toughened glass</td>
</tr>
<tr>
<td>Side panels</td>
<td>1.2mm CR4 steel</td>
</tr>
<tr>
<td>Top cover</td>
<td>1.2mm CR4 steel</td>
</tr>
<tr>
<td>Mounting angles</td>
<td>2.0mm CR4 steel</td>
</tr>
<tr>
<td>Cooling</td>
<td>2.5kW slimline air conditioning unit</td>
</tr>
<tr>
<td>Intelligence</td>
<td>Edge Management System</td>
</tr>
</tbody>
</table>

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

**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.
Specification

### Air Conditioning Unit

<table>
<thead>
<tr>
<th>Capacity options (35°C room and 35°C cabinet temperature)</th>
<th>R134a Refrigerant charge</th>
<th>Operating range</th>
<th>Unit weight</th>
<th>Power supply</th>
<th>Starting Current</th>
<th>Max Running Current A (50Hz)</th>
<th>Fuse</th>
<th>Max power</th>
<th>Air volume ambient / cabinet</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5kW inverter driven system</td>
<td>415g</td>
<td>10° to 55°C</td>
<td>50 Kg</td>
<td>240V 50~60 Hz</td>
<td>8A</td>
<td>6.8A</td>
<td>10A (T)</td>
<td>1.55kW</td>
<td>620/ 710m³/h</td>
</tr>
<tr>
<td></td>
<td>50° to 131°F</td>
<td>110.23 lbs</td>
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Variable cooling capacity 500 W - 2.55 kW

**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: 710 m³/h

Cabinet air circuit: 620 m³/h
**EDGE Management System EMS**

**Providing complete peace of mind**

Another standard feature of the EDGE-5 is the inclusion of the EDGE Management System EMS which is essentially an environmental monitoring solution with a number of additional features.

These include the ability to oversee and control all ColdLogik cooling outputs from the CL90, the wireless cameras, up to ten sensors.

Third party devices contained within the cabinet, such as a UPS or intelligent PDU’s can be monitored via the EDGE WebUi.

**Because you need to know**

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

Alarms and alerts in real time will notify you of any issues with your cabinet. Alarm notifications can be sent up to ten email addresses. The LED screen on the cabinet will also show an alarm status.

**Safe and secure**

Up to two wireless internal cameras communicate directly to the EMS. Multiple images are taken when a door is opened, these images are stored local on the device. Authorised EMS users can then view or download them.
**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.

**Advance smoke & fire protection**
The FP Hybrid aspirating fire and smoke detection solution featuring the unique FP fire prevention system.

**Uninterruptible power supplies**
Protection for hardware from unexpected power disruption
Putting our planet first

Rapid deployment

Air-Conditioned Micro Data Centre

Quality, recycling, compliance and manufacturing statement

USystems is registered as meeting the quality manufacturing requirements of EN ISO 9001:2015, ISO 14001. Our products comply with CE, and RoHS standards and are UL listed. We recycle well over 90 per cent of our waste.