EdgeRack Industrial 8M FAQs

Q: What environments is the EdgeRack Industrial 8M built for?

A: It excels in less-controlled industrial edge environments such as remote warehouses, manufacturing facilities, and more. However, it can be used in both traditional and non-traditional environments.

Q: What purpose is the 8M built for, and what is it designed to hold?

A: The 8M is a micro data center cabinet which means it's designed to serve as a smaller-scale, self-contained, on-site data center. It can hold all the essential equipment you need to run your location and performs the traditional functions of a data center (networking, storage, compute).

Q: Why would you use the 8M vs. a traditional data center?

A: Having a micro data center on-site reduces network latency, saves bandwidth, and unlocks real-time data collection and processing. It enables greater efficiency for essential IoT devices and tasks such as automation, predictive maintenance, AI/machine learning, and more.

Q: Why would you use the 8M vs. an on-site server room?

A: The reasons are numerous. With a standard cabinet footprint, it can be positioned anywhere in the facility and is easily movable, whereas a server room requires dedicated real estate. It is self-cooled, whereas server rooms often need HVAC configuration. It is easier to secure than an entire room, with different options for locks. It has remote management and monitoring functionality built-in.

**Q:** Can the 8M get wet? Can it operate in the presence of dirt or dust?

A: Yes. The EdgeRack Industrial 8M is NEMA 12 and IP55-rated. It is protected from dust and liquid ingress.

Q: How is the 8M cooled?

A: The 8M features a self-contained, side-mounted cooling unit with up to 8kW of cooling capacity and a built-in condensate water processing unit.

Q: What does the cooling performance curve look like?

A: The cooling performance curve plots the cabinet's cooling capacity for different ambient and supply air temperatures and assumes the cabinet is fully loaded. As temperatures change, so does the cabinet's cooling capacity. The rated cooling capacity of 8kW was measured using an ambient temperature of 35°C (95°F) and a supply air temperature of 21°C (69.8°F).
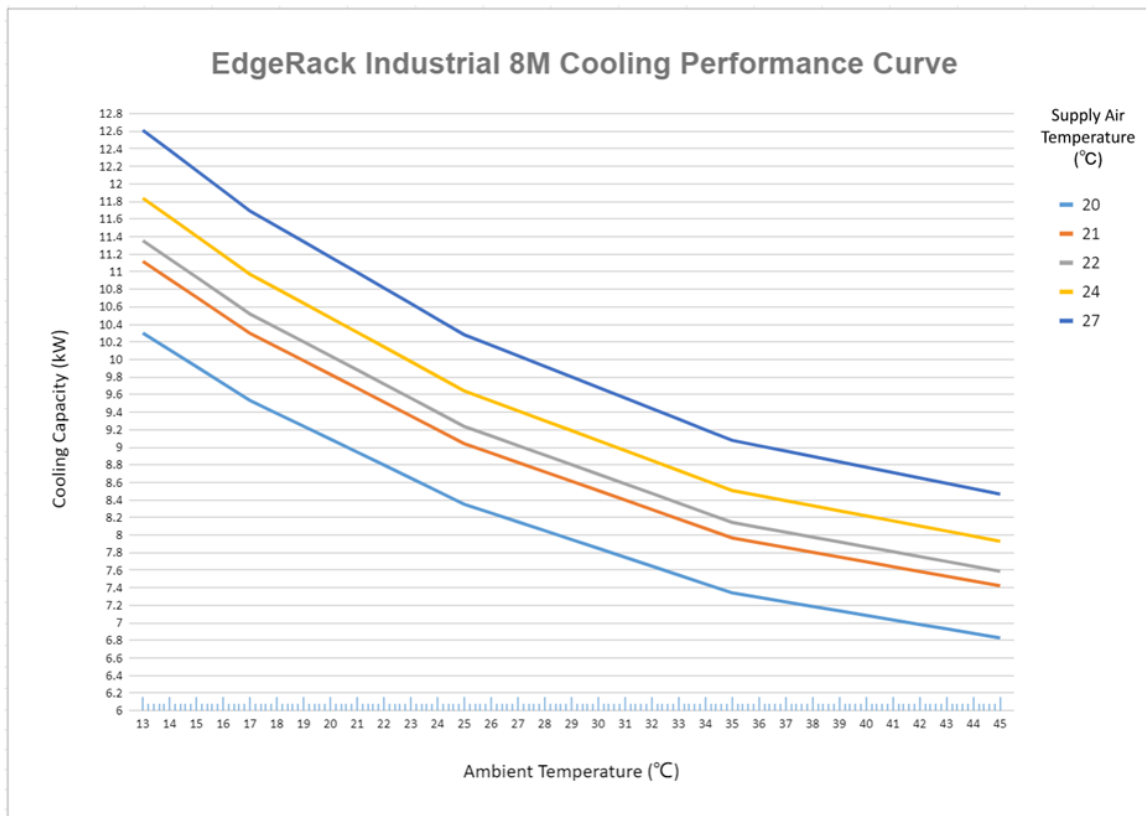
Q: How is heat expelled from the cabinet?

A: Either via a flexible duct connecting to an HVAC return or exterior vent or to the ambient air via a ventilated opening in the roof panel.

Q: Does the cooling unit require external installation of a copper coolant or water drainage pipe?

A: No, because the cooling unit is self-contained and comes with a condensate water processing unit built-in, it does not require the external installation of a copper coolant or water drainage pipe.

Q: Does the cooling unit have a drainage system in case of excess condensate buildup?

A: Yes, if condensate buildup exceeds the capacity of the processing device, you can easily expel it. The cooling unit will hold excess condensate in the water tank at the bottom of the unit. It has a dedicated drainage port with valve. All you need to do is attach the water drainage pipe (found in the rear door of the cabinet), route it through the reserved hole at the bottom of the cabinet, and open the drainage valve.

Q: Does the cooling unit need maintenance?

A: The cooling unit only needs periodic cleaning of the air filter and drainage of any excess condensate. The air filter is located at the air intake vent on the condensing side of the rear door. It is easily removable. The condensate drainage process is explained above. If condensate build-up becomes too high, the high water level alarm will trigger to indicate drainage is needed. If it is not emptied in a timely fashion, a failsafe will trigger, and the compressor will stop to prevent additional water from being produced.

Q: Is there any other standard maintenance required?

A: No, the 8M requires very little regular maintenance.

Q: Is the pressure inside the cabinet managed, or do the fans always run at the same CFM? Are they variable fans?

A: Yes, both the condensing fans and evaporating fans are variable fans. They are adjusted based on the temperature sensors inside the cooling unit. Their function is essentially related to the real IT load (evaporating fans) and the ambient temperature (condensing fans). This feature minimizes unnecessary energy consumption.

Q: How loud is the cooling unit at rated full speed?

A: The cooling unit noise level was tested at four points around the cabinet; front, rear, left and right. Each point was 1 meter horizontal and 1 meter vertical distance from the EdgeRack 8M. The test results are below:

Frontpoint	Rearpoint	Leftpoint	Rightpoint
66 dBA	76.5 dBA	66.4 dBA	66 dBA

Q: Does the 8M have environmental monitoring?

A: Yes. It comes with sensors to monitor temperature, humidity, water leakage, and smoke. The user sets acceptable thresholds for these levels and is notified when these thresholds are reached or exceeded.

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Q: How are the visual alarms connected to the cabinet?

A: These alarms are connected via the dedicated terminal block connectors inside the cabinet.

Q: What data about the operating conditions of the cabinet is stored, and for how long?

A: The 8M can store up to 1,000 historical alarms and record return air and supply air temperature curves for up to1.5 hours. Temperatures, humidity levels, and operating conditions are regularly monitored.

Q: What is the maximum current allowed for the EdgeRack Industrial 8M?

A: The maximum current of the cooling unit is 22A, this value is listed on the nameplate of the cooling unit and also in the user manual.

Q: Is there a user manual for the 8M?

A: Yes, the user manual will be located at **enconnex.com/edge-micro-data-centers** in the "Supporting Documents" section for customers to download.