Eaton's SmartRack Modular Data Centers

Innovative modular data centers enable rapid configuration and deployment

The growth of edge computing and distributed artificial intelligence (DAI) in enterprises, warehouses and manufacturing facilities has increased demand for small data centers with shorter deployment cycles, lower costs, optimized capacity and scalable configurations. These data centers also need to withstand the physical and environmental challenges of light industrial environments and other non-traditional computing locations.

SmartRack® Modular Data Centers are composed of IT rack, cooling and service enclosures that together form a performance optimized data center, or POD. This innovative design enables easy configuration and maintenance. It also lowers costs by reducing the overall cycle time to deploy a data center from months or weeks to just days.

Set up small data centers in edge locations

Easy configuration and scalability

There are a variety of configurations to address the needs of diverse applications. As computing needs grow, more enclosures can be added.

- IT rack enclosures house up to 44U of rack-mounted equipment.
- Cooling enclosures house a slim 300 mm wide 12 kW or 25 kW AC cooling unit.
- Service enclosures are empty to allow for customization. Available in three widths (small, medium and large), the enclosures can house 3-phase UPS systems, power distribution panels, fire suppression systems or non-IT equipment that does not need thermal management.

Equipment protection

Designed to meet IP54 standards, the enclosures protect equipment from dust and splashing/dripping water as well as physical and environmental conditions found in factories, warehouses and other edge locations.

- IT rack enclosures have solid front and back doors with clear acrylic windows for monitoring equipment.
- Locking doors and panels help keep contents secure. Doors are compatible with TANlock by Eaton access control systems for extra security and optional remote monitoring.
- Power cables, data cables and cooling lines have separate top or bottom entries.

Cool network equipment

Efficient cooling

Eaton's slim 12 kW or 25 kW 3-phase 208V in-row precision cooling system includes an outdoor condenser.

- When the rack and cooling enclosures are connected, they form a closed-loop cold aisle/hot aisle cooling system, helping prevent equipment malfunctions due to overheating or fluctuating temperatures.
- EC fans and a variable-speed inverter compressor adjust cooling output to match heat load and conserve energy during off-peak hours.
- User-friendly color touchscreen enables diagnostics and simplifies commissioning.
- Built-in network interface card supports remote management.

Simplify deployment

Hassle-free transport and positioning

The assembled enclosures are robust enough to be transported on a flatbed truck. The in-row cooling unit evaporator is pre-installed in the cooling enclosure, which is attached to an IT rack enclosure for added stability during transport. Casters aid in final positioning.

Simple maintenance access

Removable side panels on the enclosures enable access to equipment and facilitate configuration changes. Cooling units use standard hardware store filters that are easily accessible using the enclosure's back door.

Product support

Eaton provides free product support via phone, email or chat. Our product experts are ready to answer any questions you may have.

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Feature focus

Service enclosure
Empty enclosure with vented doors supports customization.

IT rack enclosure
44U rack enclosure has clear acrylic windows, equipment mounting rails and cable management.

Cooling system with enclosure
Slim cooling system saves space and forms a closed-loop cooling environment with IT rack enclosures. Color touchscreen facilitates local management. Enclosure has top and bottom entries for power cables and refrigerant pipes.

Outdoor condenser
The condenser mounts on a rooftop or condenser yard and requires professional installation and connection to the indoor cooling unit.

Cable service entrance
Power and data cables create a drip loop, preventing water from running down them and entering the rack.

Cable management plenum
A top plenum allows easy cable routing from side to side.
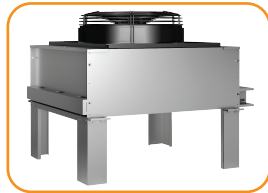
Locking doors
Enclosures lock and are compatible with TANlock by Eaton access control systems for extra security and optional remote monitoring.

Removable side panels
Panels unlock for access to equipment or configuration changes.

Casters and leveling feet
Rolling casters simplify final positioning.

Model: SRP-2R-C25-M

Understanding catalog numbers

The enclosure type and quantity of each type are represented in the catalog number. **R** = IT rack enclosure; **C12** = 12 kW cooling system with enclosure; **C25** = 25 kW cooling system with enclosure; **M** = Medium service enclosure

SRP-2R-C25-M

| Two IT rack enclosures | 25 kW cooling system with enclosure | Medium service enclosure |

SmartRack Modular Data Center configurations

Catalog number	IT rack enclosure (R) qty.	12 kW cooling system with enclosure (C12) qty.	25 kW cooling system with enclosure (C25) qty.	Medium service enclosure (M) qty.	Overall size*, H x W x D	Overall weight with cooling system(s)*
Single-rack configurations						
SRP-R-C12	1	1	—	—	95 x 40.4 x 64.9 in. (2415 x 1026 x 1648 mm)	1407 lb. (638 kg)
SRP-R-C25	1	—	1	—	95 x 40.4 x 64.9 in. (2415 x 1026 x 1648 mm)	1447 lb. (656 kg)
Two-rack configurations						
SRP-2R-C12	2	1	—	—	95 x 64.3 x 64.9 in. (2415 x 1632 x 1648 mm)	1977 lb. (897 kg)
SRP-2R-C25	2	—	1	—	95 x 64.3 x 64.9 in. (2415 x 1632 x 1648 mm)	2017 lb. (915 kg)
SRP-2R-2C12	2	2	—	—	95 x 81 x 64.9 in. (2415 x 2058 x 1648 mm)	2814 lb. (1276 kg)
SRP-2R-C25-M	2	—	1	1	95 x 96 x 64.9 in. (2415 x 2438 x 1648 mm)	2753 lb. (1249 kg)
SRP-2R-2C12-M	2	2	—	1	95 x 112.8 x 64.9 in. (2415 x 2864 x 1648 mm)	3550 lb. (1610 kg)
SRP-2R-3C12-M	2	3	—	1	95 x 129.5 x 64.9 in. (2415 x 3290 x 1648 mm)	4387 lb. (1990 kg)
Three-rack configurations						
SRP-3R-2C12	3	2	—	—	95 x 104.9 x 64.9 in. (2415 x 2664 x 1648 mm)	3384 lb. (1535 kg)
SRP-3R-2C25-M	3	—	2	1	95 x 136.6 x 64.9 in. (2415 x 3470 x 1648 mm)	4200 lb. (1905 kg)
SRP-3R-3C12-M	3	3	—	1	95 x 153.4 x 64.9 in. (2415 x 3896 x 1648 mm)	4957 lb. (2248 kg)
Four-rack configurations						
SRP-4R-2C25	4	—	2	—	95 x 128.7 x 64.9 in. (2415 x 3270 x 1648 mm)	4034 lb. (1830 kg)
SRP-4R-3C12-M	4	3	—	1	95 x 177.2 x 64.9 in. (2415 x 4502 x 1648 mm)	5527 lb. (2507 kg)

Specifications for individual components

Enclosure type	IT rack enclosure (R)	Cooling enclosure (C12, C25)	12 kW cooling system*	25 kW cooling system*	Medium service enclosure (M)**
Size, H x W x D	95 x 23.6 x 64.9 in. (2415 x 600 x 1648 mm)	95 x 16.5 x 64.9 in. (2415 x 420 x 1648 mm)	78.7 x 11.8 x 43.3 in. (2000 x 300 x 1100 mm)	78.7 x 11.8 x 43.3 in. (2000 x 300 x 1100 mm)	95 x 31.5 x 64.9 in. (2415 x 800 x 1648 mm)
Weight	570 lb. (259 kg)	440 lb. (200 kg) without cooler	397 lb. (180 kg)	437 lb. (198 kg)	736 lb. (334 kg)

Due to continuous improvement programs, all specifications are subject to change without notice. *Size and weight values do not include the outdoor condenser. **Small service enclosure is 700 mm wide. Large service enclosure is 1000 mm wide.

To learn more, scan the QR code or contact your Eaton sales representative.

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