

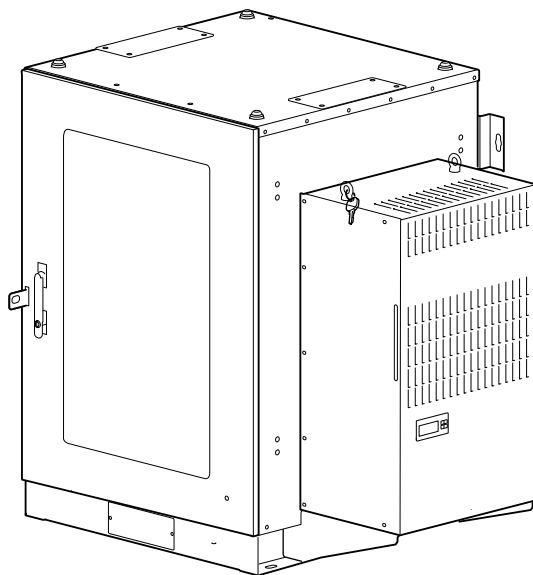
# EcoStruxure Micro Data Center R-Series

## MDC15UR500ACI

### Installation

Release date: 5/2025

TME23732B



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# Important Safety Instructions — SAVE THESE INSTRUCTIONS

Read these instructions carefully and look at the equipment to become familiar with it before trying to install, operate, service or maintain it. The following safety messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a “Danger” or “Warning” safety message indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert the user to potential personal injury hazards. Obey all safety messages with this symbol to avoid possible injury or death.

## **DANGER**

**DANGER** indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

**Failure to follow these instructions will result in death or serious injury.**

## **WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

## **CAUTION**

**CAUTION** indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

**Failure to follow these instructions can result in injury or equipment damage.**

## **NOTICE**

**NOTICE** is used to address practices not related to physical injury. The safety alert symbol shall not be used with this type of safety message.

**Failure to follow these instructions can result in equipment damage.**

## Please Note

Electrical equipment should only be installed, operated, serviced, and maintained by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Always abide strictly by local laws and regulations in force in the place of installation.

## Safety Information for the Micro Data Center

### **⚠ DANGER**

#### **HAZARD OF ELECTRIC SHOCK**

- Connect the Micro Data Center (MDC) frame to the building Common Bonding Network (CBN) according to local and national codes and guidelines. Grounding must be performed only by qualified personnel.
- Connect the MDC to ground before connecting it to the power.
- Adhere to all national and local electrical codes when bringing power to the system.
- Follow safe electrical work practices and wear appropriate personal protective equipment (PPE) See NFPA 70E.
- Perform appropriate Lock Out/Tag Out procedures during equipment installation and maintenance.
- Electrical equipment must be installed, operated, serviced, and maintained only by qualified and authorized personnel.
- The Micro Data Center is intended to be installed and operated by a skilled person in a controlled location with restricted access area.
- Remove incoming power to the MDC before performing any work. Always use a properly rated voltage sensing device to confirm there is no voltage in the system.
- Disconnect all power to the MDC before making changes to the power distribution panel. Connections in the power distribution panel must only be installed and serviced by qualified electricians.

**Failure to follow these instructions will result in death or serious injury.**

### **⚠ DANGER**

#### **HAZARD OF ELECTRIC SHOCK EXPLOSION, OR ARC FLASH**

- Some outlet terminals have voltage on them when LED is off.
- Disconnect power cord from this product prior to servicing the load equipment or the power cord.
- Always use a properly rated voltage sensing device to confirm that the power is off.

**Failure to follow these instructions will result in death or serious injury.**

**⚠ WARNING****HEAVY EQUIPMENT HAZARD**

- Follow all local and national building codes.
- Ensure the mounting surface and fasteners can support the weight of the loaded MDC and all attached equipment.
- Use a material lift or crane to lift the MDC.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

**NOTICE**

The ambient operating temperature of a closed or multi-unit rack environment may be greater than the ambient temperature of the room. Ensure the ambient operating temperature of your rack environment does not exceed the rated ambient operating temperature for your equipment.

## Safety Recommendation

This equipment is intended to be permanently fastened in place during installation. To ensure safety and stability during operation, the following installation requirements must be met:

- The equipment shall be securely fastened to a solid surface such as a wall, floor, or rack using the provided or recommended mounting hardware.
- All mounting points must be used as specified in the installation instructions.
- The installation surface must support the total weight of the equipment, including any accessories or connected modules.
- The mounting arrangement shall prevent movement, tipping, or vibration that could lead to mechanical stress or disconnection of cables and components.
- Ensure proper alignment to maintain ventilation clearances and avoid cable strain.
- The equipment is not suitable for use in locations where children are likely to be present.

## Instructional Safeguards

The following safeguards are provided to ensure safe installation, operation, and maintenance of the equipment. These instructions must be read and followed by qualified personnel only.

### 1. Electrical Safety

This equipment must be connected to a properly grounded AC mains outlet or permanently wired to a grounded power source. Before servicing, disconnect the equipment from the power source and verify that hazardous voltages are not present. Hazardous energy may be present at terminals or connectors. Access is restricted to service personnel only.

### 2. Moving and Hot Parts

This equipment may include components such as air compressors or fans with moving parts. Keep hands, tools, and loose clothing away from these parts. Certain surfaces may become hot during operation. Avoid direct contact. Markings indicate the hot surfaces where applicable.

### 3. Restricted Access Area

This equipment is intended for installation in a Restricted Access Area. Only trained and authorized personnel can access, install, or service the equipment.

### 4. Installation Safeguards

The equipment must be securely fastened in place during installation to avoid instability or tip-over. Do not operate without the enclosure or covers in place. Maintain proper ventilation clearances as specified to prevent overheating.

### 5. Environmental Precautions

Do not expose the equipment to direct water jets, chemical exposure, or outdoor elements unless specifically rated for such environments (for example, IP54). Be sure the operating environment complies with the specified temperature and humidity limits.

### 6. Service Instructions

Servicing and repair should only be carried out by qualified service personnel. Use only manufacturer-specified replacement parts or accessories.

## Guidelines for Edge Computing

ASHRAE has published guidelines for owners of Edge computing equipment such as your Micro Data Center (MDC). (Edge equipment performs computing outside of a commercial data center with strict environmental controls.) It is recommended that you follow these guidelines to help prevent equipment damage and extend the life of your MDC. You can download the guidelines from [www.ashrae.org/technical-resources/bookstore/datacom-series](http://www.ashrae.org/technical-resources/bookstore/datacom-series).

## Cybersecurity Recommendations

- Install the MDC in a restricted location, secured by access control doors.
- Provide authorized access only to necessary personnel, such as maintenance and service personnel.
- Mark restricted areas with clear signs that say “For authorized personnel only.”
- Record the access to restricted areas with a physical or electronic audit trail.



# Translations and Additional Documents

You can find translations and additional documents at  
[go2se.com/ref=model/part number](http://go2se.com/ref=model/part%20number).

**Examples:**

- [www.go2se.com/ref=MDC15UR500ACI](http://www.go2se.com/ref=MDC15UR500ACI)
- [www.go2se.com/ref=MDC42UR2KACI](http://www.go2se.com/ref=MDC42UR2KACI)

On the web page, select **Documentation > Product Documentation**.

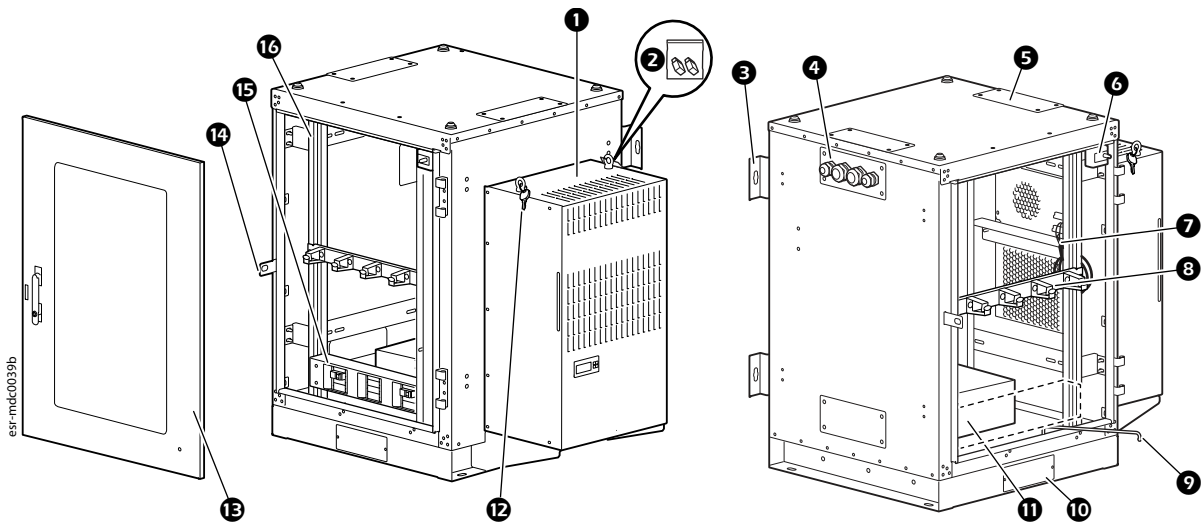
# General Information

The EcoStruxure™ R-Series Micro Data Center (MDC) is designed for low-density rugged environments. The MDC consists of an IP54-rated, free-standing/wall-mounted rack with an integrated air conditioner.

Model	Mounting Space	Cooling Capacity
MDC15UR500ACI	15 U	500 W

The air conditioner can be monitored by EcoStruxure IT (purchased separately).

# Inventory



- 1

Air conditioner (1)
- 2

Wire-splicing connectors (2)
- 3

Wall mounting brackets (4)
- 4

Cable entry gland plate (1)
- 5

Cable-entry cover plates (3)  
(May be replaced with  
NSYAECPFLT35, not included)
- 6

Limit switch for MDC light (1)
- 7

Air conditioner power connection (1)
- 8

Cable manager
- 9

Door stopper (1)
- 10

Plinth with cable exit plate (1)
- 11

Accessory box (1)
- 12

Door key (1)
- 13

Front door, glass panel, swing handle with three-  
point locking mechanism (1)
- 14

Padlock latch (1)
- 15

Power distribution panel (1)
- 16

Vertical mounting rails for  
19-in/483-mm equipment (4)

Not shown: MDC light (1), C14 power cord (1)

**NOTE:** The eye bolts on the air conditioner are not used.

**NOTE:** The label with the part number and serial number of your unit is located on the inside of the door, at the bottom-right.

**Accessory Box Contents**

TORX® T30/#2 Phillips  
tool (1)

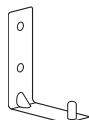


Cage nut tool (1)



Lifting eye bolts (4)

Fire extinguisher bracket and hardware:



Hanging bracket for fire  
extinguisher (1)



M6 Phillips head screws  
(2)



M6 washers (2)

Hardware Bag:



Plastic Cup Washer (40)



M6 Cage Nut (40)



M6 Phillips head screws  
(40)

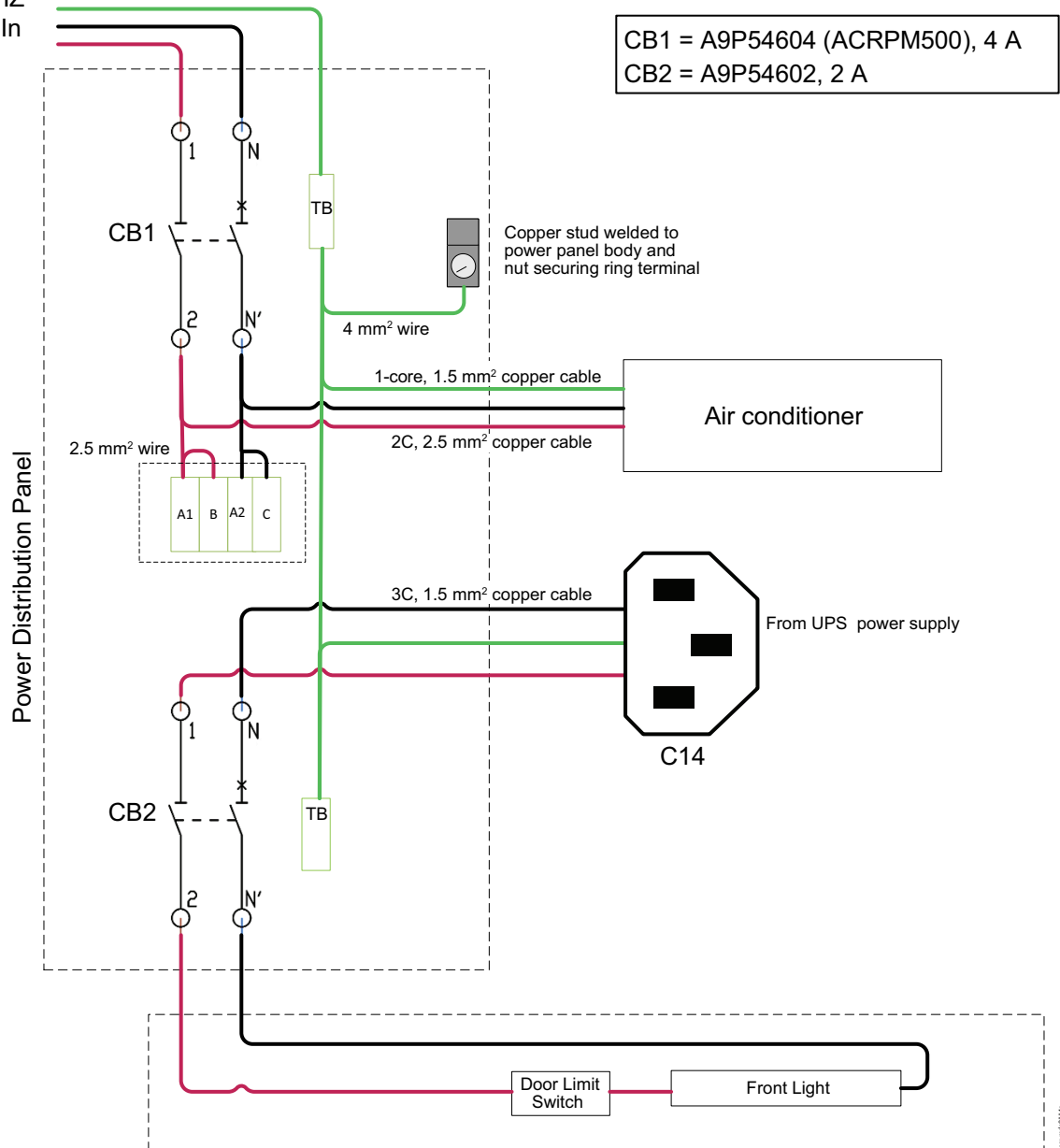
Not Shown:

- Air conditioner user manual
- Air conditioner drain pipe (3 m)

**NOTE:** You must install the M6 Phillips head screws and washers to seal the MDC. The hanging bracket is optional.

# Wiring Diagram

230V, 1PH,  
50/60 HZ  
Power In



## Tools Required (Not Provided)

### Hardware

- Common Bonding Network Jumper Kit with at least 6 AWG wire for grounding
- Torque drivers with the following heads:
  - M12 socket (for fasteners on top of the MDC)
  - 10-mm hex (for the gland plates)
  - T40 or T45 (for the building ground connection)
  - #2 Phillips (for the fire extinguisher bracket)
- T30 screw driver (for the doors and interior ground wire)
- #2 and #1 Phillips head screw drivers (for equipment installation and the power distribution panel, respectively)

Power connection wire: Single phase 230 V +/- 10%, 50/60 Hz, 3-core, 14 AWG

**NOTE:** By default, the power connection only provides power to the air conditioner. Different wire thicknesses may be required for custom configurations.

### Recommended equipment:

- Rack PDU or UPS to power MDC light
- If the input power is not guaranteed to remain within 230 V +/-10%, consider installing a voltage stabilizer between the power source and the MDC.
- If a drain is not available, or if the drain pipe must be routed upwards, consider installing a condensate evaporator or condensate pump.
- If condensation is likely to form in the interior of the MDC, consider installing a hygrometer and resistance heater. See [Considerations for Condensation](#), page 23 for more information about environments conducive to condensation.

# Move the MDC

## ⚠ WARNING

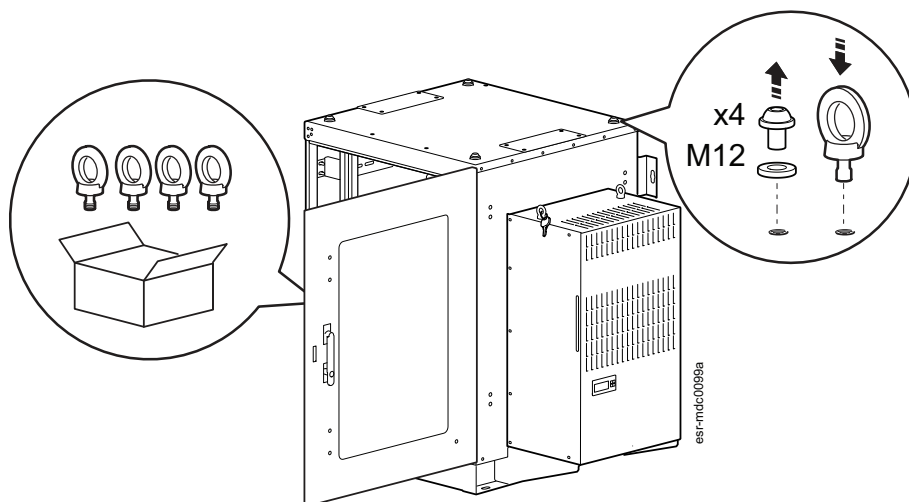
### HEAVY EQUIPMENT HAZARD

Use a material lift or crane and eye bolts to move the MDC to its final location.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

To lift with eye bolts:

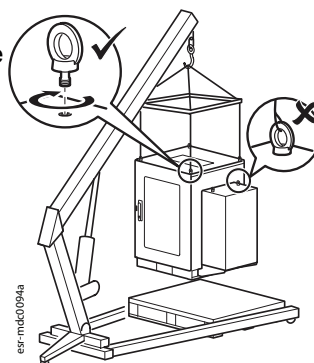
1. Remove the M12 socket screws and rubber washers at the top of the MDC. Install the four eye bolts (included in the accessory box) in the roof holes



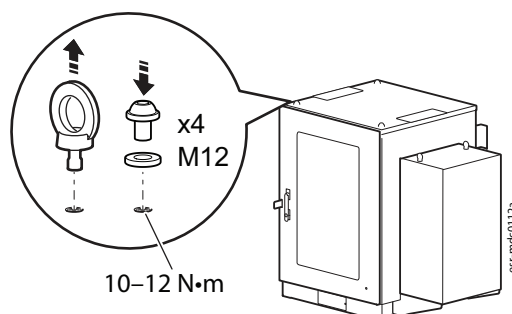
2. You can use the eye bolts to lift the MDC with up to 200 kg (441 lb) additional equipment installed.

### NOTE:

- Use appropriate lifting hardware to ensure a straight-line pull on the eye bolts.
- Do not use the eye bolts on the air conditioner.



3. When the MDC is in its final location, re-install the M12 socket screws and rubber washers to keep the MDC sealed. Use 10–12 N•m (89–106 lb-in) torque to secure the screws and washers.



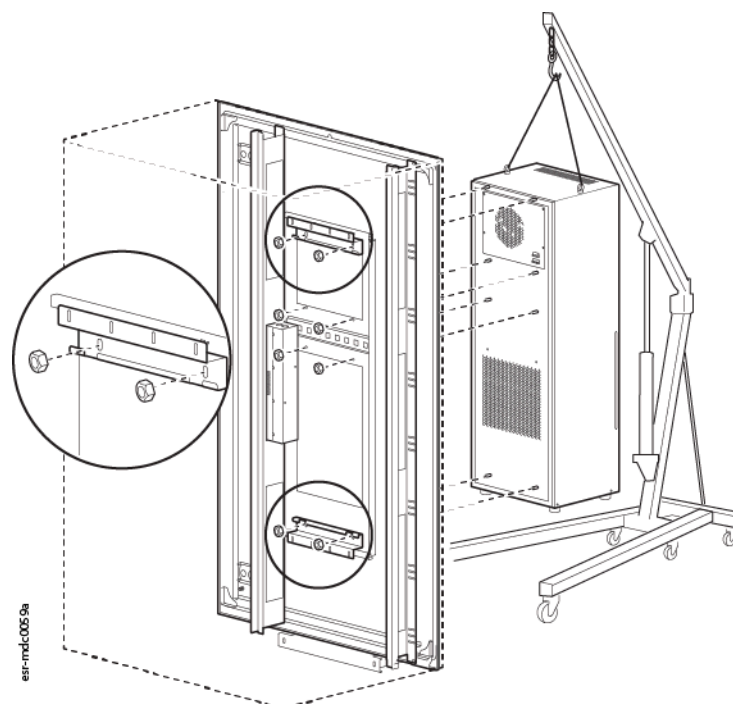
## Uninstalling and Reinstalling the Air Conditioner

If needed, you can uninstall and re-install the air conditioner to fit through small entry ways. To uninstall the air conditioner,

1. Take note of the wire locations on the air conditioner, then disconnect the earthing wire, power supply and any other wires.
2. Eye bolts are provided on the top of the unit for lifting.
3. Use the eyebolts and a crane to support the Panel Air Conditioner.

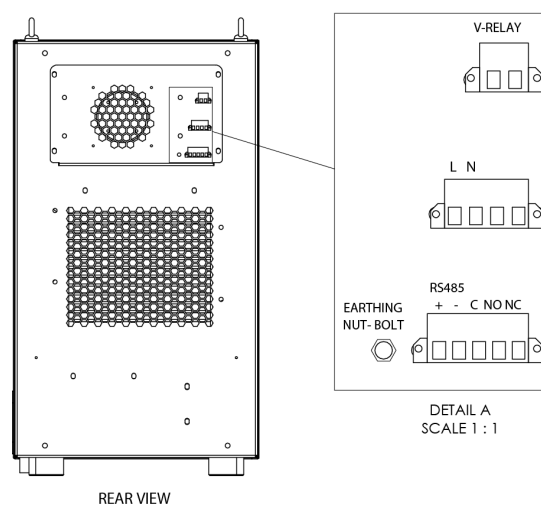
**NOTE:** Ensure that the eye bolts are fully screwed in before lifting the unit.

4. Remove the M8 bolts inside the MDC Rack, then use the crane to lift the air conditioner away from the MDC.



To reinstall the air conditioner, reverse the procedure. See the following diagrams for wire locations on each air conditioner model.

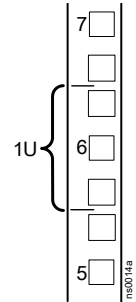
## ACRPM500



PARAMETER	DESCRIPTION
V-RELAY	VOLTAGE SENSING RELAY
L	LINE
N	NEUTRAL
RS485 PORT	RS485+
RS485 PORT	RS485 -
C	COMMON
NC	NORMALLY CLOSE
NO	NORMALLY OPEN

# Equipment Installation

1. Review the equipment manufacturer's installation instructions.
2. Locate the top and bottom U-space on the vertical mounting rails. Every third hole on the mounting rails is numbered to indicate the middle of a U-space.
3. Install the cage nuts on the interior of the vertical mounting rail; then install the equipment. (To remove a cage nut, squeeze the sides to release it from the square hole.)



**NOTE:** You can use the included cage nuts and M6 Phillips head screws to install your equipment. For a neater look, you can also use the cup washers to cover screw heads.



## Cage Nuts

If needed, Schneider Electric offers a cage nut hardware kit (AR8100) for use with square holes.

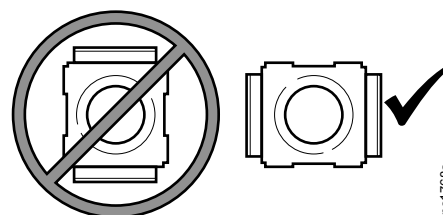
### ⚠ CAUTION

#### FALLING EQUIPMENT HAZARD

Do NOT install cage nuts vertically, with the tabs engaging the top and bottom of the square hole.

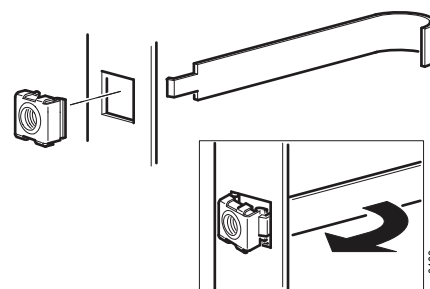
**Failure to follow these instructions can result in injury or equipment damage.**

- Install cage nuts horizontally, with the tabs engaging the sides of the square hole.
- Install the cage nuts on the interior of the vertical mounting rail.



## Installation

1. From inside of the cabinet, insert the cage nut into the square hole.
2. Hook one tab of the cage nut assembly through the far side of the hole.
3. Place the cage nut tool on the other side of the cage nut and pull to snap into position.



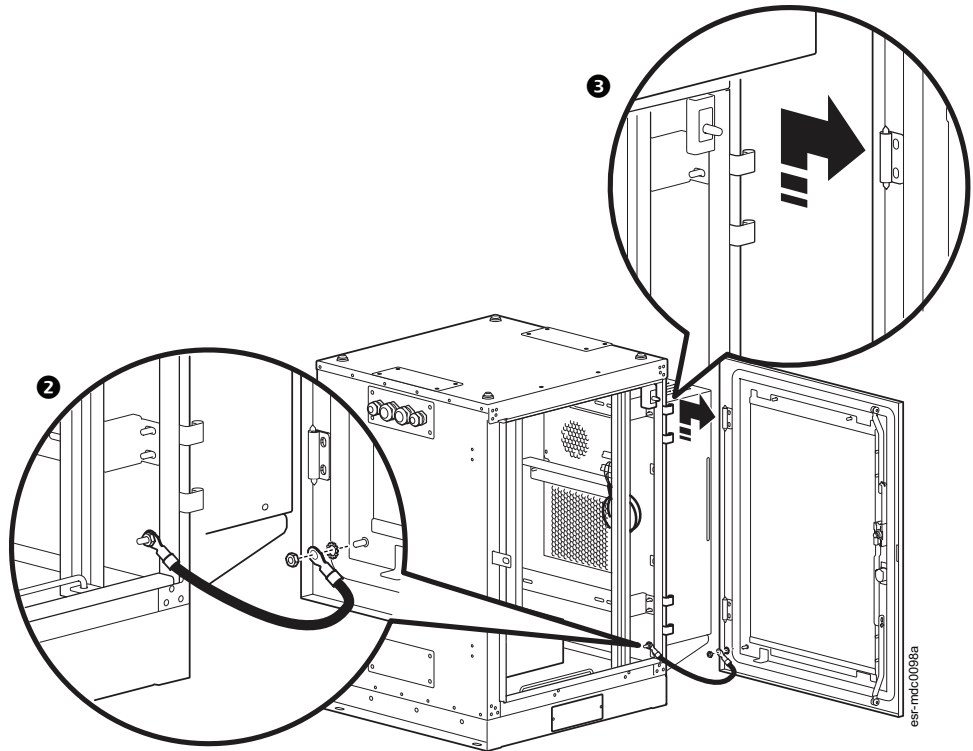
## Removal

1. Remove any attached screw.
2. Grasp the cage nut and squeeze the sides to release it from the square hole.

# Door

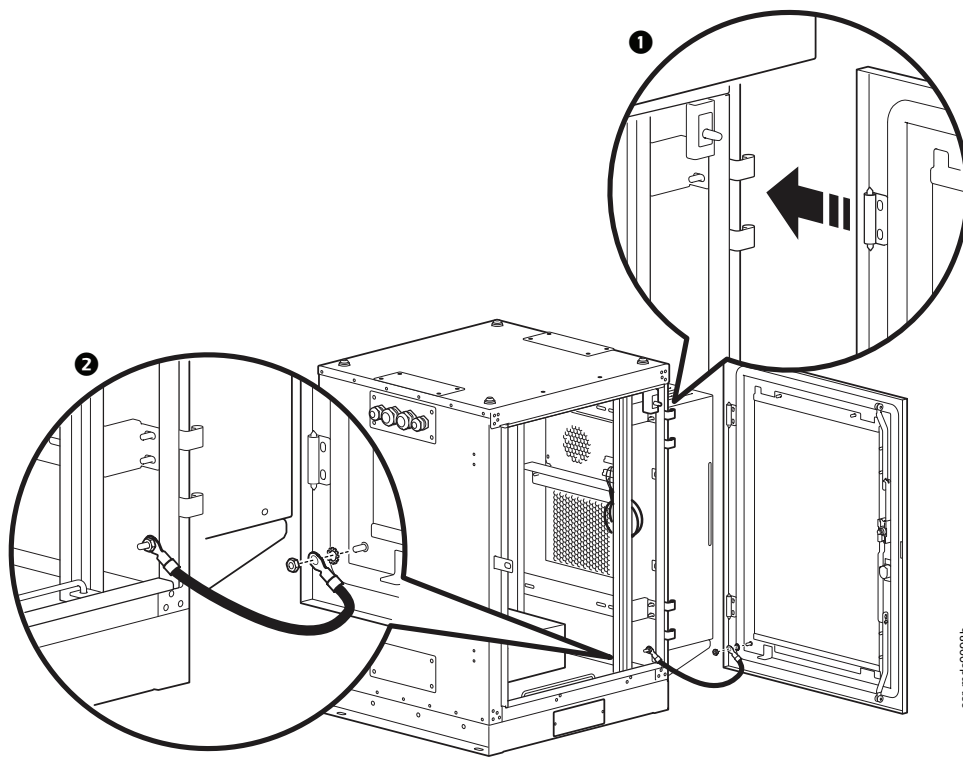
## How to Remove the Door

1. Unlock the door handle and open the door.
2. Remove the ground wire and any other wire connections that may interfere with the removal of the door.
3. The hinges come apart by lifting upward and outward. Hold the door at a 90° angle to the MDC. Slowly lift and pull the door from the MDC until the hinge pins are free of the hinge barrels on the MDC frame.



## How to Install the Door

1. The doors self-align on hinge pins when properly installed. With the door at a 90° angle to the front of the MDC, position the door over the hinge pins. Slowly lower the door into the MDC frame. Ensure that the door hinges correctly align to the hinge barrels on the MDC frame.
2. Connect the ground wire and any other wire connections.



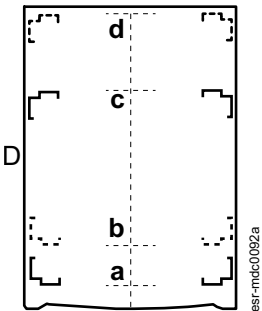
## How to Adjust the Vertical Mounting Rails

Vertical mounting rails come factory installed at 100 mm (4 in) at the front of the MDC and 450 mm (18 in) at the rear.

The mounting rails are adjustable towards the front or the rear of the MDC to accommodate different rails or equipment with other depths.

### Positioning

Leave a minimum space of 100 mm (a) at the front of the MDC to mount accessories like cable managers, Rack PDUs etc. The front vertical mounting rails can be installed at a maximum distance of 150 mm (b) from the front of the MDC. The rear vertical mounting rails can be installed at a minimum distance of 290 mm (c) from the front rail and can be extended as far as 450 mm (17.5 in) (d).



MDC Depth (D)	a	b	c	d
600 mm (24 in)	100 mm (4 in)	150 mm (6 in)	290 mm (11 in)	450 mm (17.5 in)

## How to Move the Vertical Mounting Rails

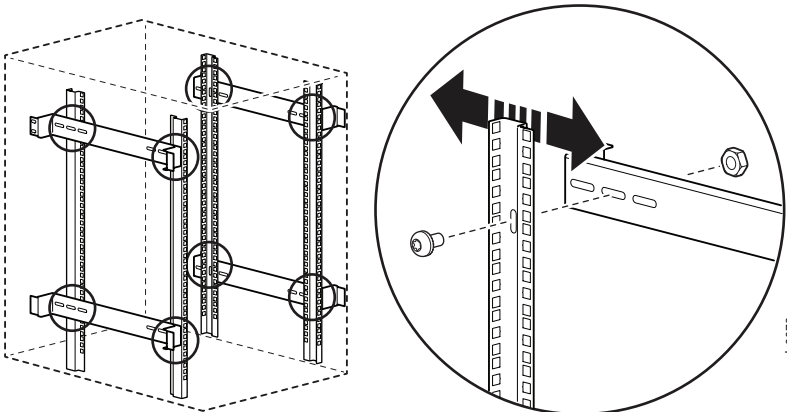
⚠ WARNING

**FALLING EQUIPMENT**

Remove all equipment installed on the vertical mounting rails before performing any adjustments.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

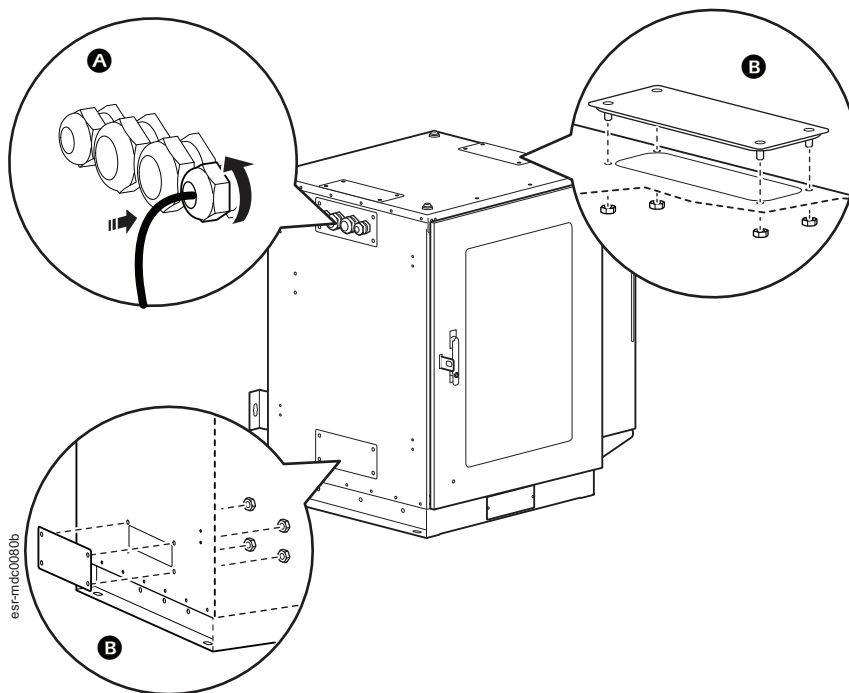
The vertical mounting rails are held in place by T30 screws and M6 nuts at the top and bottom. Remove the screws to reposition the vertical mounting rails.



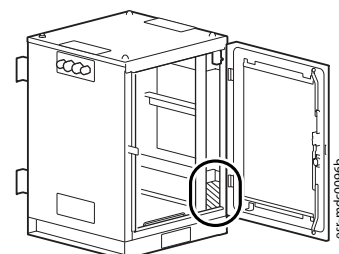
## Cable Routing

Power and networking cables for your equipment can be routed through the cable glands near the top of MDC (A).

If needed, you can purchase an additional gland plate (NSYAECPLT35) to install in the designated locations at the top and side of the MDC. The existing plates are secured with M6 nuts on the inside of the MDC (B). Remove the nuts to remove the cover plate, then install NSYAECPLT35 with the included M6 hardware. Use 3–4 N•m (27–35 lb-in) torque to secure the gland and cover plates.



To help maintain airflow for optimal cooling, ensure the bottom, front right area of the MDC is clear of equipment and wires.



## How to Connect the Air Conditioner to EcoStruxure IT

You can optionally connect the air conditioner to EcoStruxure Machine Expert with the aid of an IIoT Secure Interface Gateway (TM172SIG, not included). You can purchase the Secure Interface Gateway from [www.se.com](http://www.se.com).

The IIoT Secure Interface Gateway works with EcoStruxure IT Gateway software to connect your equipment to EcoStruxure IT. You must provide a rack-mounted device to host the Gateway software. If needed, follow the instructions at [community.se.com/t5/Gateway-software-installation-and/Installing-and-setting-up-EcoStruxure-IT-Gateway/ta-p/447040](http://community.se.com/t5/Gateway-software-installation-and/Installing-and-setting-up-EcoStruxure-IT-Gateway/ta-p/447040) to install and set up EcoStruxure IT Gateway.

For more information on installing EcoStruxure IT Gateway, visit [community.se.com/t5/EcoStruxure-IT-Help-Center/ct-p/ecostruxure-it-help-center?category=ecostruxure-it-gateway&board=gateway-software-installation-and-setup](http://community.se.com/t5/EcoStruxure-IT-Help-Center/ct-p/ecostruxure-it-help-center?category=ecostruxure-it-gateway&board=gateway-software-installation-and-setup).

To connect to EcoStruxure:

1. Follow the installation and commissioning instructions included with the Secure Interface Gateway. Commission the Secure Interface Gateway with the Webapp, not with EcoStruxure Machine Expert.

For detailed instructions, see the *Modicon TM172SI• Secure Interface User Guide* (EIO0000004649). To find the user guide online, go to [www.se.com/ww/en/download/](http://www.se.com/ww/en/download/). Click **Select Location** and select your location from the list. Then enter EIO0000004649 in the **Search** bar.

2. Access the Webapp of the Secure Interface Gateway.

Under **PLC and VPN > Modbus RTU**, configure the following settings:

- **Baud Rate: 9600**
- **Parity, Data bits, Stop bits: N,8,1 (No parity, 8 data bits, 1 stop bit)**

Under **PLC and VPN > Modbus TCP**, configure the following settings:

- **Port: 502**
- **IP address allow list:** Click **Add address**, then enter the **IP Address** and **Subnet mask** of your EcoStruxure IT Gateway server.

3. Log onto the web User Interface (web UI) of the EcoStruxure IT Gateway software and navigate to the **Device Discovery** page.
4. Click **Discovering a Modbus Device?**. Configure the following settings, then click **Discover Modbus Device**:

Option	Setting
Type	Crac
Vendor	Schneiderelectric
Family	Mdcoolingunit
Server address	1
TCP/Serial	TCP
IP address	IP address of your Secure Interface Gateway

5. You can now view the air conditioner information through EcoStruxure IT interface. You **cannot** use EcoStruxure IT to change the air conditioner settings.

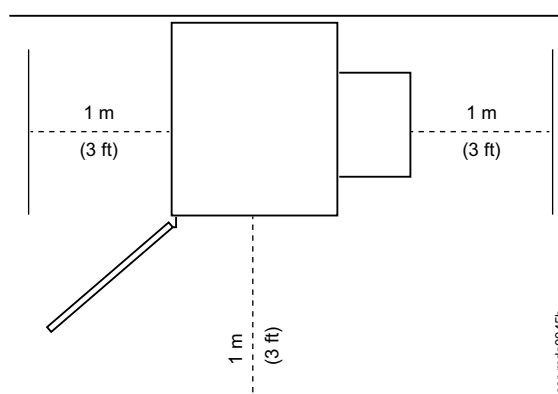
## MDC Installation

Before installing the MDC, ensure your power connections are properly configured. See **Tools Required (Not Provided)**, page 13 for connection specifications.

If the input power is not guaranteed to remain within 230 V +/-10%, consider installing a voltage stabilizer between the power source and the MDC. The factory warranty does not cover damages caused by overvoltage.

## Considerations for Location

Consider the location for your MDC prior to its arrival. You must have access to the building power supply. At the final location, ensure there is at least 1 m (3 ft) of open space around the MDC to open the door and provide reasonable working space.



## Considerations for Condensation

A drain is required to remove condensate from within the air conditioner. Ensure a drain is nearby and route the drain pipe (included in the accessory box) to the drain. If a drain is not available, or if the drain pipe must be routed upwards, consider installing a condensate evaporator or condensate pump (not provided).

Low temperature and high humidity may also allow condensate to form on the interior of the MDC. Condensation on the interior of the MDC can have a negative impact on the MDC and any installed equipment. If condensation is likely to form in your environment, consider the following measures to help protect your equipment.

- Install a hygrometer and resistance heater in the MDC.
- Ensure cable and piping entries to the MDC are sealed.
- Keep the MDC door closed during operation.

High temperature and high humidity may cause condensation to form on exterior of the front door. This is normal and does not affect operation.

## How to Mount the MDC to a Wall

### ⚠ WARNING

#### HEAVY EQUIPMENT HAZARD

- Follow all local and national building codes.
- Ensure the mounting surface and fasteners can support the weight of the loaded MDC and all attached equipment.
- Use a material lift or crane to lift the MDC.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

#### Tools required:

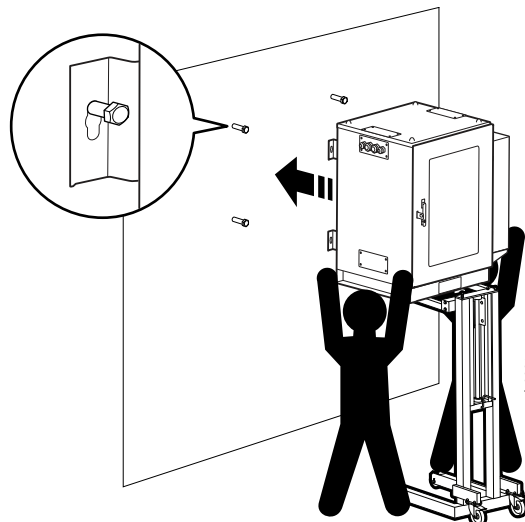
- at least four fasteners and four washers appropriate for your wall type
- level
- cordless drill and appropriate drill bit
- material lift (recommended) or crane for eye-bolt lifting
- stud finder (for mounting on studs)

#### Procedure:

1. If you are using a crane to move the MDC to its final location, follow the instructions to [Move the MDC](#), page 14.
2. Ensure the front door is closed and locked.
3. Drill four pilot holes for installing the fasteners. Ensure the fasteners are level with each other.

**NOTE:** If mounting on studs, use a stud finder to ensure that all four pilot holes are drilled into wall studs.

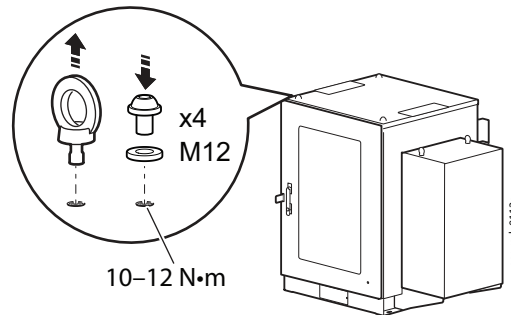
4. Install fasteners appropriate for your wall type into each pilot hole. Leave about 13 mm (1/2 in) of each fastener out of the wall.
5. Use a material lift or crane and eye bolts to lift the MDC on to the wall fasteners. The holes in the hanging brackets should align with the fastener locations.



6. Ensure the MDC is level and plumb.
7. Tighten the wall fasteners to secure the MDC to the wall.



8. Remove the material lift or eyebolts as needed. If needed, re-install the M12 socket screws and rubber washers. Use 10–12 N•m (89–106 lb-in) torque to secure the screws and washers.



## Ground the MDC

### ⚠ DANGER

#### HAZARD OF ELECTRIC SHOCK

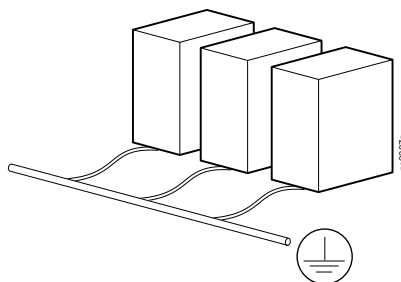
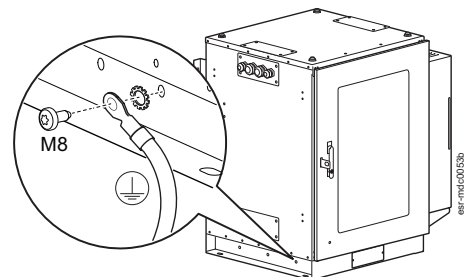
Connect the MDC frame to the building Common Bonding Network (CBN).

**Failure to follow these instructions will result in death or serious injury.**

The side panels, roof, and door are grounded to the MDC frame with 16 mm<sup>2</sup> (6 AWG) ground wires. The bottom cover is grounded to four studs (one stud is located at each corner of the MDC). The air conditioner is grounded with 16 AWG wire. The power distribution panel is grounded through direct contact with the rack frame.

An M8 star screw and serrated washer are preinstalled to the grounding point on the outside of the MDC. Use this hardware to connect the MDC directly to the building CBN.

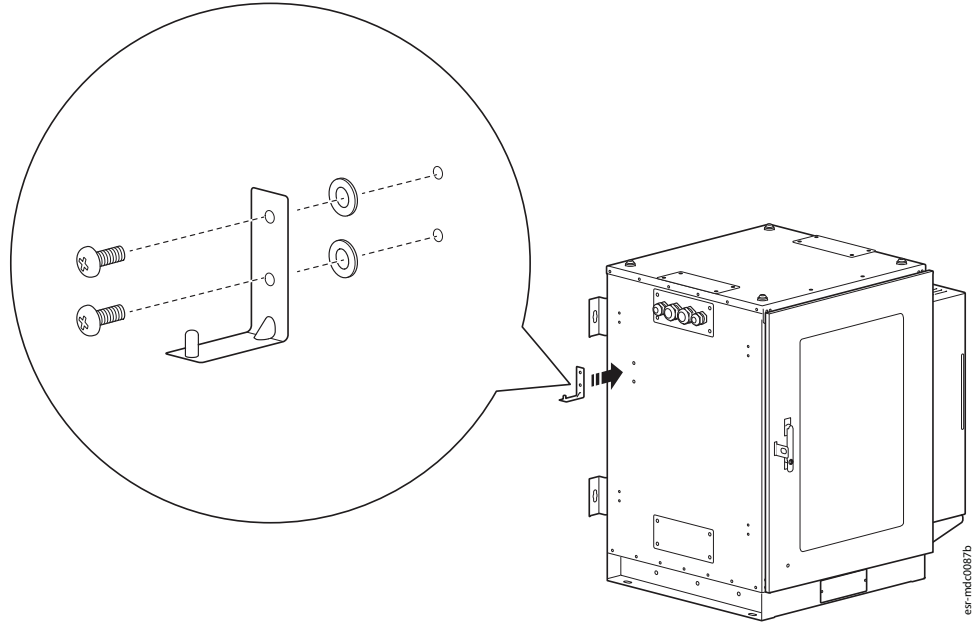
- Use a Common Bonding Network Jumper kit with at least 16 mm<sup>2</sup> (6 AWG) wire.
- Place the serrated washer between the bonding terminal and the MDC frame.
- Torque the screw to 6.9 N•m (60 lb-in).
- Do not ground one MDC to another MDC in a cascading style. Ground each MDC directly to the building ground.



## Install the Fire Extinguisher Bracket or Hardware

There are two holes in the side of the MDC for the fire extinguisher bracket and hardware. At minimum, you must install the M6 Phillips screws and washers to seal the MDC.

You can optionally install the fire extinguisher bracket with the provided M6 Phillips screws and washers as shown.



Use 5–6 N•m (44–53 lb-in) torque.

# Power Distribution Panel Configuration

## DANGER

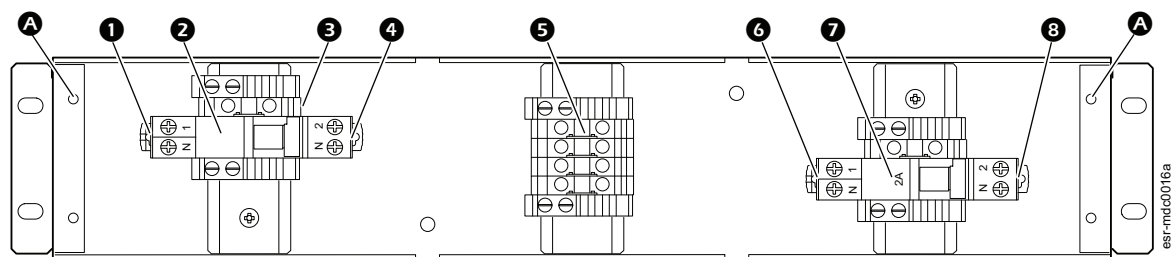
### ELECTRIC SHOCK

- Connections in the power distribution panel must only be installed and serviced by qualified electricians.
- Adhere to all national and local electrical codes when bringing power to the system.
- Disconnect all power to the MDC before making changes to the power distribution panel configuration.
- Follow safe electrical work practices and wear appropriate personal protective equipment (PPE). See NFPA 70E.
- Perform appropriate Lock Out/Tag Out procedures during equipment installation and maintenance.
- Remove incoming power to the MDC before performing any work. Always use a properly rated voltage sensing device to confirm there is no voltage in the system.

**Failure to follow these instructions will result in death or serious injury.**

## Connect Power to the Power Distribution Panel

The power distribution panel provides power connection points for the air conditioner and MDC lights. You can remove the cover of the power distribution panel by loosening the M4 Phillips head screws **A**.



CB1/Circuit Breaker 1 (air conditioner) rating as per Wiring Diagram

1	Input Power Connection* (connect at site to mains power)	5	K1 relay (reserved for future use)
2	CB1/ Circuit breaker 1 (air conditioner) rating as per wiring diagram.	6	C14 power cord for MDC light (preinstalled)
3	Grounding connection (preinstalled)	7	CB2/Circuit breaker 2 (MDC lights, 2 A)
4	Connection to air conditioner (preinstalled)	8	Connection to MDC light (preinstalled)

\*Input power connection requirement: Single phase 230 V +/- 10%, 50/60 Hz, 3-core, thickness greater than 2.5 mm<sup>2</sup>(14 AWG or larger)

**NOTE:** By default, the power connection only provides power to the air conditioner. Different wire thicknesses may be required for custom configurations.

Direct the input power connection (1) through the knockouts at the top of the power distribution panel. It is recommended to connect the input power connection directly to the mains power, as a UPS may not be able to withstand the high inrush current of the air conditioner.

Circuit breaker 2 (7) is isolated from the power feed to the air conditioner. Power is directed to the MDC light from the preinstalled C14 power cord (6), which can be connected to a UPS or Rack PDU (purchased separately). The UPS or Rack PDU must have at least one C13 outlet for the preinstalled power cord.

## Customizing the Power Distribution Panel

### **⚡ ⚠ DANGER**

#### **ELECTRIC SHOCK**

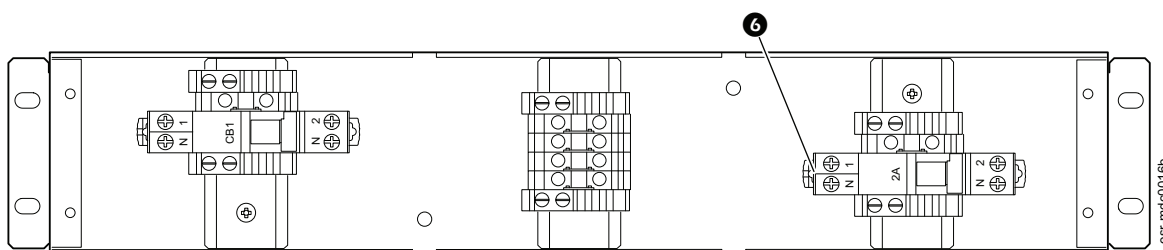
- Connections in the power distribution panel must only be installed and serviced by qualified electricians.
- Adhere to all national and local electrical codes when bringing power to the system.
- Disconnect all power to the MDC before making changes to the power distribution panel configuration.
- Follow safe electrical work practices and wear appropriate personal protective equipment (PPE). See NFPA 70E.
- Perform appropriate Lock Out/Tag Out procedures during equipment installation and maintenance.
- Remove incoming power to the MDC before performing any work. Always use a properly rated voltage sensing device to confirm there is no voltage in the system.

**Failure to follow these instructions will result in death or serious injury.**

If needed, you can install an additional circuit breaker in the unused mounting space.

- You must provide any required DIN rail or snap-in mounting solutions. These can be connected to the M4x10 standoffs in the rear of the power distribution panel.
- If the additional circuit breaker is connected to the mains power, the wiring requirements for the input power connection may change. Reassess the input power connection and install appropriate wiring as needed.

You can optionally connect the MDC lights to the mains power. Remove the C14 power connection **6** and replace it with a connection to the mains power. This option does not require a change to the power input connection.



# Start Up Procedure

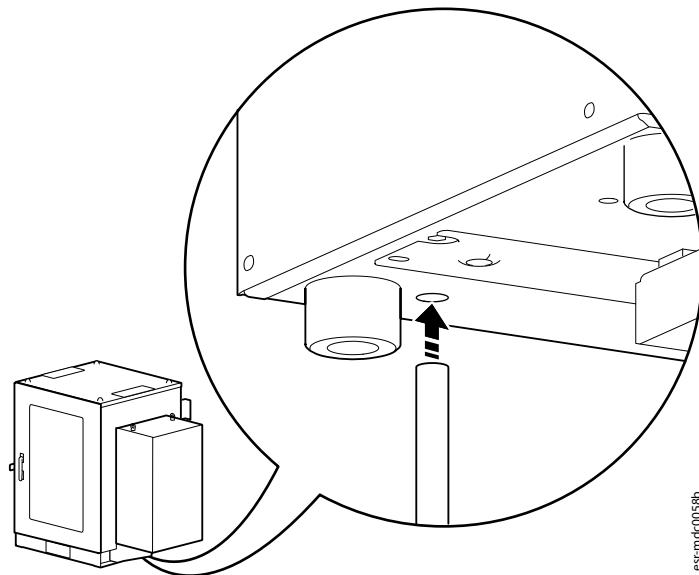
## **⚡ ⚠ DANGER**

### **ELECTRIC SHOCK**

- Adhere to all national and local electrical codes when bringing power to the system.
- Follow safe electrical work practices and wear appropriate personal protective equipment (PPE). See NFPA 70E.

**Failure to follow these instructions will result in death or serious injury.**

1. Ensure that all wiring connections are secure and properly configured.
2. Insert the drain pipe (included in the accessory box) to the bottom of the air conditioner. Route the drain pipe to a floor drain. If a drain is not available, or if the drain pipe must be routed upwards, consider installing a condensate evaporator or condensate pump (not provided). Refer to the condensate evaporator or condensate pump documentation for installation instructions.



3. Turn on both circuit breakers. Ensure the cabinet light and air conditioner turn on.
4. Follow instructions in the air conditioner manual (included in the accessory box) to power on the air conditioner and set the temperature of the MDC.

# Specifications

## MDC15UR500ACI

Electrical	
Input voltage	230 VAC +/- 10%, 50/60 Hz
Air conditioner rated input current (L35/L35) at 50/60 Hz	1.95 A/2.02 A
Air conditioner cooling capacity (L35/L35)	500 W
Input connection	3-core, 14 AWG (customer provided)
Over voltage category	II
Physical	
Rack dimensions (H x W x D)	85 x 60 x 60 cm (33 x 24 x 24 in)
MDC dimensions (H x W x D)	85 x 85 x 60 cm (33 x 33 x 24 in)
Weight	106 kg (234 lb)
Static load capacity	500 kg (1102 lb)
Eyebolt lifting capacity	200 kg (441 lb)
Equipment mobility	Stationary
Environmental	
Operating temperature	-10 to +40 °C (50 to 104 °F), 50 °C derating
Humidity (air conditioner)	5–95% non-condensing
IP level	IP54
Noise rating	≤ 65 DB at 1 m
Pollution degree	2
Altitude during operation	0–2000 m (6,561.68 ft)
Compliance	
MDC	CE, ROHS, REACH LVD IEC 62368-1
Air conditioner	Declaration of Conformity (CE)  CB Certified per IEC 60335-2-40:2018, IEC 60335-1:2010 + A1:2013 + A2:2016  EMC Tested per EN 55032:2015+A1:2020 EN 55035:2017+A11:2020

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Schneider Electric  
35 rue Joseph Monier  
92500 Rueil Malmaison  
France

+33 (0) 1 41 29 70 00

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