

Easy Micro Data Center

C-Series & S-Series

User Guide

990-91508B
4/2022

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Introduction

Check the appropriate product page on www.se.com or www.apc.com for updates to the firmware and this manual.

Product Features

You can monitor and manage the Schneider Electric Easy Micro Data Centers through a single firmware interface. The firmware is managed by the Monitor. Users can access the firmware through Web User Interface (Web UI) or a touch-screen LCD display (EMDC42UP1 only). Service engineers can access the Web UI or Command Line Interface (CLI). The firmware offers multiple features for management and monitoring:

- Multiple user login feature which allows users to be logged in simultaneously.
- Event and data logging. (You can download log files from the Web UI.)
- Configurable settings to trigger the Alarm Beacon, e-mail notifications, and SNMP traps with system events.
- Security protocols for authentication and encryption.
- Compatibility with EcoStruxure IT Data Center Management (and other SNMP systems).

Types of User Accounts

The Monitor has various levels of access (Super User, Administrator, and Read-Only User), which have user name and password requirements. Multiple users are allowed to log on to the same device simultaneously.

NOTE: You will be prompted to enter a new password the first time you connect to the Monitor with the Super User account. The Administrator and Read-Only User accounts must be created by the Super User.

- The **Super User** can use all of the menus in the Web UI and manage other accounts. The Super User cannot be deleted. The default user name and password for the Super User are both **apc**.
- An **Administrator** can use all of the menus in the Web UI except for **Configuration > General > User Management**.
- A **Read-only User** does not have access to **Control, Configuration, or Tests** menus. The **Home, Status, Logs, and About** tabs are visible, but Read-only users receive “Access denied” messages if they try to clear the logs.

Getting Started

To start using the Easy Micro Data Center:

1. Install the Easy Micro Data Center, apply power, and connect to your network. Follow the instructions in the *Installation Manual* shipped with the Easy Micro Data Center.
2. Establish your network settings and connect Metered Rack PDUs (see Initial Configuration, page 6).

3. Access the Easy Micro Data Center through one of the following interfaces:
 - The Command Line Interface (for viewing only; see [Command Line Interface](#), page 18).
 - The Local Touchscreen Display Interface (EMDC42UP1 only, see [Touch Screen Display](#), page 11).
 - The Web UI (see [Web User Interface](#), page 20).

Initial Configuration

You must configure the network settings of the Monitor before accessing the Web UI. Connect an Ethernet cable to the **Public** port of the Monitor to provide it with a connection to your Local Area Network (LAN). The Monitor automatically requests a dynamic IP address via DHCP once it has a network connection.

If you have a Metered Rack PDU, you must also configure the network settings of the Rack PDU in the Web UI of the Monitor. Network configuration is not required for Basic Rack PDUs, UPS units, or Cooling units.

Configure Network Settings With a Touchscreen Display Interface

1. Log on to the Touch Screen Display Interface with the default user name and password (both are **apc**).
2. Click **Network**. Find the **System IP** for the **Public Port**. (If no address is available, follow the procedure to [Configure Network Settings Without a Touchscreen Display Interface](#), page 7.)

NOTE: The system must be able to find a properly configured DHCP server to request an IP address.

3. Enter `https://public_ip_address` in the URL address bar of your Web browser to access the Web UI. You must include `https://` in the URL. (For example, if the public IP address is 123.45.6.7, enter `https://123.45.6.7`.)

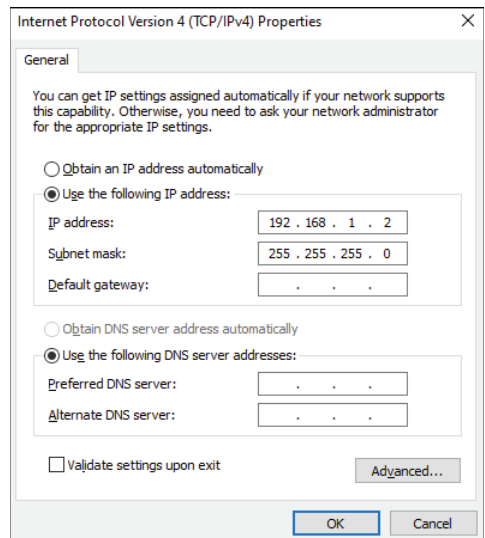
You may receive a message that the Web page is not secure. This is normal when using a self-signed certificate (the default), and you can continue to the Web UI. See [Web: Add or Remove SSL Certificates](#), page 50 for more information.

4. Log on to the Web UI with the default user name and password (both are **apc**). When prompted, reset the password. It is recommended that you use a strong password which conforms to your company's password requirements.
5. Check the **Firmware Version** in the **About** tab. If a new firmware version is available for your Easy Micro Data Center, it is recommended that you update the firmware immediately. You can download the latest firmware for your Easy Micro Data Center from www.se.com or www.apc.com.

Configure Network Settings Without a Touchscreen Display Interface

NOTE: You may need to disable the wireless network on some computers.

1. Select an Ethernet port on your local computer and disable any service that uses that port.
2. Connect an Ethernet cable to your computer and the **Private** port of the Monitor.
3. The **Private** port of the Monitor has the default IP address 192.168.1.10. Configure the Ethernet port of your computer within the same subnet (e.g., IP address: 192.168.1.2, Subnet mask: 255.255.255.0) to access the Monitor via your computer.



Example of network configuration on Windows

4. Enter `https://192.168.1.10` in the URL address bar of your Web browser to access the Web UI. You must include `https://` in the URL.

You may receive a message that the Web page is not secure. This is normal when using a self-signed certificate (the default), and you can continue to the Web UI. See *Web: Add or Remove SSL Certificates*, page 50 for more information.
5. Log on to the Web UI with the default user name and password (both are **apc**). When prompted, reset the password. It is recommended that you use a strong password which conforms to your company's password requirements.
6. Go to **Configuration > Network > TCP/IP**. Configure the public network settings manually or via DHCP, then click **Apply**.
 - **Manual:** Configure IPv4 manually by entering the **System IP**, **Subnet Mask**, and **Default Gateway** in the appropriate fields. The assigned **System IP** is static.
 - **DHCP:** The Default setting. At regular intervals, the Monitor requests network assignment from any DHCP server. The assigned **System IP** is dynamic. If the system finds a DHCP server, but the request to that server fails or times out, it stops requesting network settings until it is restarted.
7. Check the status of the network connection: Open a new tab in your Web browser. Enter `https://public_ip_address` in the URL address bar of your Web browser to access the Web UI. You must include `https://` in the URL. (For example, if the public IP address is 123.45.6.7, enter `https://123.45.6.7`.)

Use the password you set in step 5 to log on.
8. Check the **Firmware Version** in the **About** tab. If a new firmware version is available for your Easy Micro Data Center, it is recommended that you update the firmware immediately. You can download the latest firmware for your Easy Micro Data Center from www.se.com or www.apc.com.

Configure Network Settings for Metered Rack PDUs

Configure the network settings of your Monitor before configuring the Network settings for a Metered Rack PDU.

1. Assign a Static IP address to the Metered Rack PDU. Customize the SNMP settings if needed. Follow the instructions provided in the Metered Rack PDU *User Guide* (990-6265) on www.se.com or www.apc.com.

NOTE: If you have two Metered Rack PDUs, ensure that both Rack PDUs are within the same subnet.

2. Connect the **Network** port of the Rack PDU to the **Private** port of the Monitor.

NOTE: If you have two Metered Rack PDUs, connect an Ethernet switch to the **Private** port of the Monitor. Then connect the Rack PDUs to the Ethernet switch.

3. Log on to the Web UI of the Monitor. Go to **Configuration > Network > TCP/IP**. Configure the **Private Network** settings to match the subnet of the Rack PDU.

For example, if the IP address of the Rack PDU is 192.168.1.100, then you should configure the Private network to have a **System IP** of 192.168.1.10 and a **Subnet Mask** of 255.255.255.0.

4. Go to **Configuration > RPDU**. In the **Number of Metered RPDU** list, select the number of Metered Rack PDUs present in your Easy Micro Data Center. Then click **Apply**.
5. Select **Configure connection settings** at the bottom of the page. In the **RPDU Connection Configuration** page, provide the **IP Address** of the Rack PDU.
6. Ensure that the SNMP settings for the Rack PDU in the **RPDU Connection Configuration** page match the SNMP settings in the Rack PDU Web UI (see the Rack PDU *User Guide* for instructions to configure the SNMP settings). Then click **Apply**.
7. Select the **About** tab. Ensure that the RPDU information (**Model Number**, **Firmware Version**, and **Serial Number**) appears properly.

EcoStruxure™ IT & Data Center Expert Compatibility

You can monitor the Easy Micro Data Center by discovering the Monitor in Data Center Expert or EcoStruxure IT Gateway. Your Easy Micro Data Center must include an EcoStruxure IT Gateway for compatibility with EcoStruxure IT.

You can find Data Center Expert documentation and configuration instructions at dcimsupport.ecostruxureit.com/hc. You can find EcoStruxure IT documentation and configuration instructions at helpcenter.ecostruxureit.com/hc.

NOTE: Data Center Expert and EcoStruxure IT support the following alarm types:

- Cold Aisle Temperature threshold alarm (Maximum/High/Low/Minimum)
- Cold Aisle Humidity threshold alarm (Maximum/High/Low/Minimum)
- Hot Aisle Temperature threshold alarm (Maximum/High/Low/Minimum)
- Hot Aisle Humidity threshold alarm (Maximum/High/Low/Minimum)
- Communication Lost – Probe 1 (Cold Aisle Temperature and Humidity Sensor)
- Communication Lost – Probe 2 (Hot Aisle Temperature and Humidity Sensor)
- Smoke alarm
- Fluid alarm
- Door alarm
- Power Distribution Panel Input Voltage threshold alarm (Maximum/High/Low/Minimum)
- Power Distribution Panel Input Current threshold alarm (Maximum/High/Low/Minimum)
- Rack PDU Voltage threshold alarm (High/Low)
- Rack PDU Current threshold alarm (High/Low)

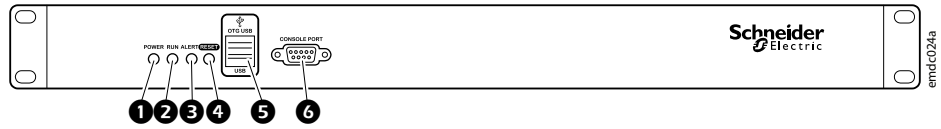
How to Recover from a Lost Password

The Super User can reset passwords for Administrators and Read only users from Configuration > **General** > **User Management** (see User Management: Edit User Profiles, page 56).

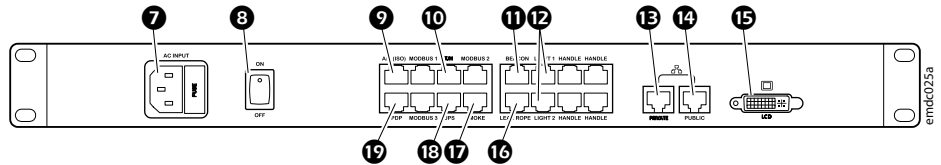
To recover from a lost Super User password, you must reset the system. Press and hold the **Reset** button on the front of the monitor (see Monitor Description, page 10) until you hear a beep. This will reset every setting except for the logs. Follow the Initial Configuration procedures (Initial Configuration, page 6) to log on to the monitor and re-configure your settings.

Monitor Description

Front view



Rear view



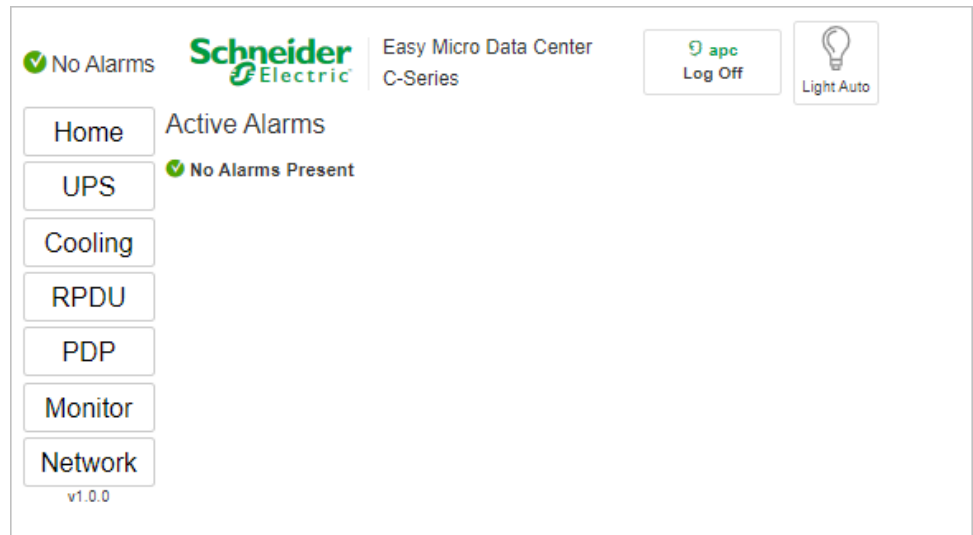
Item	Description	Item	Description
1	Power LED: Illuminates when the Monitor is receiving power	11	Connection to Alarm Beacon, 12 Vdc, 100 mA
2	Run LED: Illuminates when the firmware is successfully started	12	Connection to lights in front (Light 1) and rear (Light 2) of the Easy Micro Data Center, 12 Vdc, 600 mA, each
3	Alert LED: Flashes when an alarm is present <ul style="list-style-type: none"> Flashing every 8 seconds = informational event Flashing every 2 seconds = warning alarm is present Flashing ever 0.5 seconds = critical alarm is present 	13	Connection to private local area network
4	Reset button	14	Connection to public local area network
5	On-the-Go (OTG) USB/USB 5 Vdc, 10 mA (Used to update the firmware, see Update the Firmware With a USB Drive, page 58)	15	Connection to touchscreen display (EMDC42UP1 only)
6	Console port, 5 Vdc, 10 mA (Used to read system information through the Monitor Command Line Interface. Remove connections to the console port when it is not in use)	16	Connection to Leak Rope sensor, 12 Vdc, 50 mA
7	AC Input: Power supply to the Monitor, C14, 220–240 Vac, 0.4 A	17	Connection to Smoke Sensor, 12 Vdc, 50 mA
8	On/Off switch	18	Connection to UPS, RS232, 12 Vdc, 50 mA
9	Connection to Indoor Cooling Unit, RS485, 12 Vdc, 50 mA	19	Connection to Power Distribution Panel, 12 Vdc, 50 mA (Provides communication for Surge Protection Device, Maintenance Bypass sensor, Energy Meters, and Emergency Fans)
10	Connection to Temperature/Humidity sensors, RS485, 12 Vdc, 50 mA (see for sensor locations)		

NOTE: Unmarked ports are reserved for future use. Do not connect equipment to these ports.

Touch Screen Display

You can use the Touch Screen Display to do the following:

- Press the Alarm icon at the top left of the screen to view active alarms.
- Press the **Light** button at the top right of the screen to set the lights to **On** (always on) or **Auto** (on when the door is open).
- Press the **Log Off** button on the top right of the screen to log off.
- Press the **Home**, **UPS**, **Cooling**, **RPDU**, **PDP**, **Monitor**, or **Network** buttons to view additional information.



Home Screen

No Alarms

Easy Micro Data Center
C-Series

Log Off

Light Auto

Home

UPS

Cooling

RPDU

PDP

Monitor

Network

v1.0.0

UPS Mode
On Line

Total UPS Load
0.0 %

Cooling Status
Active

Cold Aisle Temperature
24.1 °C

Hot Aisle Temperature
24.7 °C

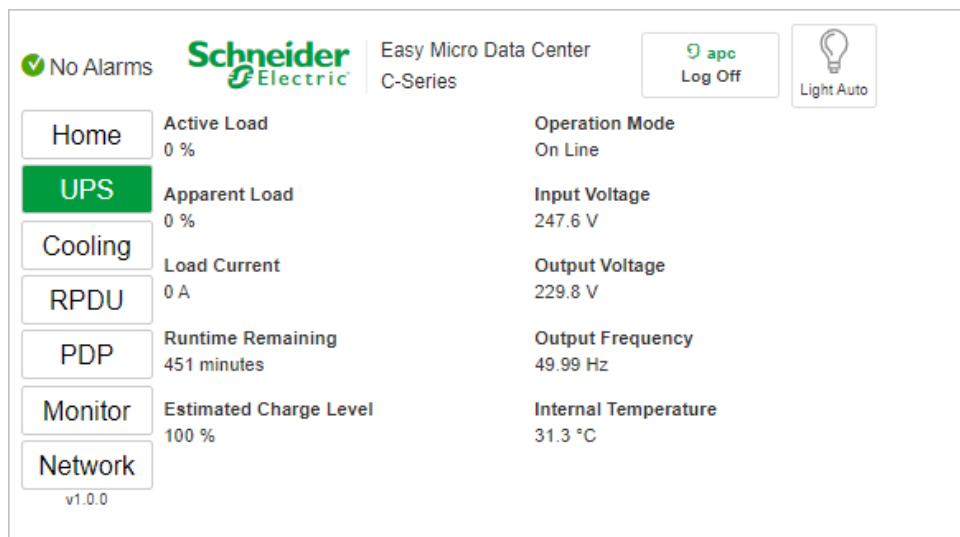
Battery Runtime Remaining
451.0 minutes

Cold Aisle Humidity
62.2 %RH

Hot Aisle Humidity
59.1 %RH

Reading	Description
UPS Mode	<p>On Line: The UPS is drawing utility power and performing double conversion to supply power to the connected equipment.</p> <p>On Battery: The UPS is supplying battery backup power to the connected equipment.</p> <p>Bypass: The UPS is in Bypass mode. Power is sent directly to connected equipment. The UPS automatically enters Bypass mode as a result of an internal UPS event or an overload condition. See your UPS <i>User Manual</i> for more information.</p> <p>Off Line: The UPS is not able to provide the required output voltage.</p>
Total UPS Load	The percent of maximum load capacity used by the equipment.
Battery Runtime Remaining	The Battery Runtime Remaining is based on the current battery status and the active load. This measurement is only accurate when the UPS mode is On Battery .
Cooling Status	<p>Active: The Cooling Unit is on. The Emergency Fans are off.</p> <p>Emergency: The Emergency Fans are on.</p> <p>Failed: The Cooling Unit and the Emergency Fans are both off.</p>
Cold Aisle Temperature/Cold Aisle Humidity	These readings are measured by the temperature/humidity sensor in the front of the Easy Micro Data Center.
Hot Aisle Temperature/Hot Aisle Humidity	These readings are measured by the temperature/humidity sensor in the rear of the Easy Micro Data Center.

UPS Screen



On this view, you can see the following:

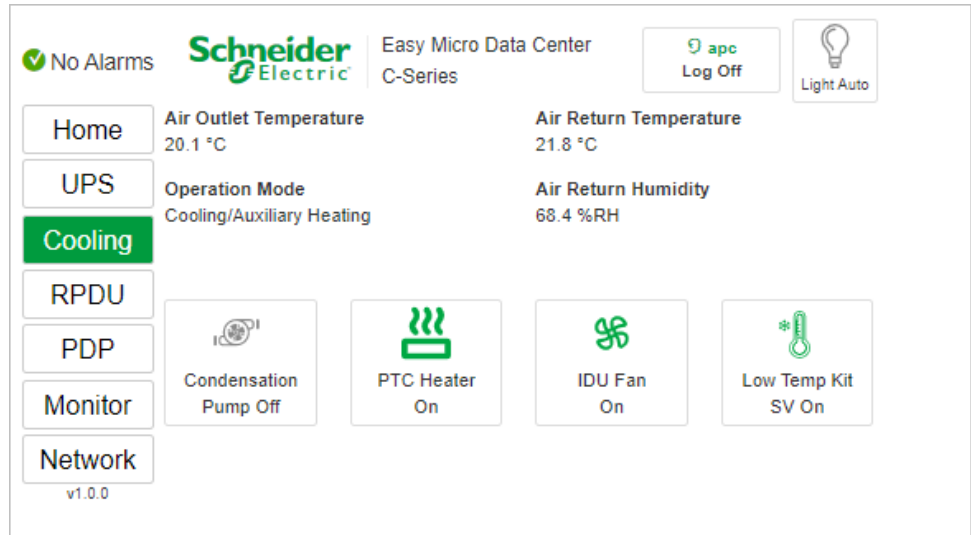
- The status of the Uninterruptible Power Supply (UPS), including the **Operation Mode** and the **Internal Temperature** of the UPS. Possible Operation Modes are as follows:

Operation Mode	Description
On Line	The UPS is drawing utility power and performing double conversion to supply power to the connected equipment.
On Battery	The UPS is supplying battery backup power to the connected equipment.
Bypass	The UPS is in Bypass mode. Power is sent directly to connected equipment. The UPS automatically enters Bypass mode as a result of an internal UPS event or an overload condition. See your <i>UPS User Manual</i> for more information.
Off Line	The UPS is not able to provide the required output voltage.

- View **Input/Output Voltage**, **Output Frequency**, **Active/Apparent Load**, and **Load Current** of the UPS.
- View the **Voltage**, **Estimated Charge Level**, and **Runtime Remaining** for the external UPS battery (if applicable).

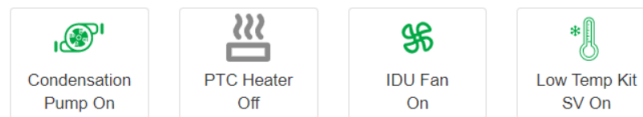
NOTE: The **Battery Runtime Remaining** is based on the current battery status and the active load. This measurement is only accurate when the UPS mode is **On Battery**.

Cooling Screen



Reading	Description
Air Outlet Temperature	Temperature of the air expelled from the Indoor Cooling Unit.
Air Return Temperature	Temperature of the air drawn into the Indoor Cooling Unit.
Air Return Humidity	Relative Humidity (%RH) of the air drawn into the Indoor Cooling Unit.
Operation Mode	<p>Cooling: The Cooling Unit is working to lower the temperature in the Easy Micro Data Center to the configured setpoint.</p> <p>Dehumidification: The Cooling Unit is working to lower humidity in the Micro Data Center to the configured setpoint.</p> <p>HMI Shutdown: HMI = Human Machine Interface. Someone has used the optional Cooling Unit display (ACAC10045) to shut down the Cooling Unit.</p> <p>Fault Shutdown: An internal issue has caused the Cooling Unit to shut down.</p> <p>Cooling/Auxiliary Heating: The Positive Temperature Coefficient (PTC) Heater is on.</p>

View the status of the **Condensation Pump**, **PTC Heater**, Indoor Cooling Unit Fan (**IDU Fan**), and the Solenoid Valve of the Low Temperature Kit (**Low Temp Kit SV**):



The optional **Condensation Pump** and **Low Temp Kit SV** icons will appear on the screen even if you have not installed them.

RPDU Screen

This page is only available if at least one Metered Rack PDU is configured on your system.

Unit	Voltage	Current	Frequency	Active Power	Power Factor	Energy
RPDU 1	229.5 V	0 A	50.01 Hz	0 kW	1	9.111 kWh
RPDU 2	230.7 V	0 A	50.01 Hz	0 kW	1	6.245 kWh

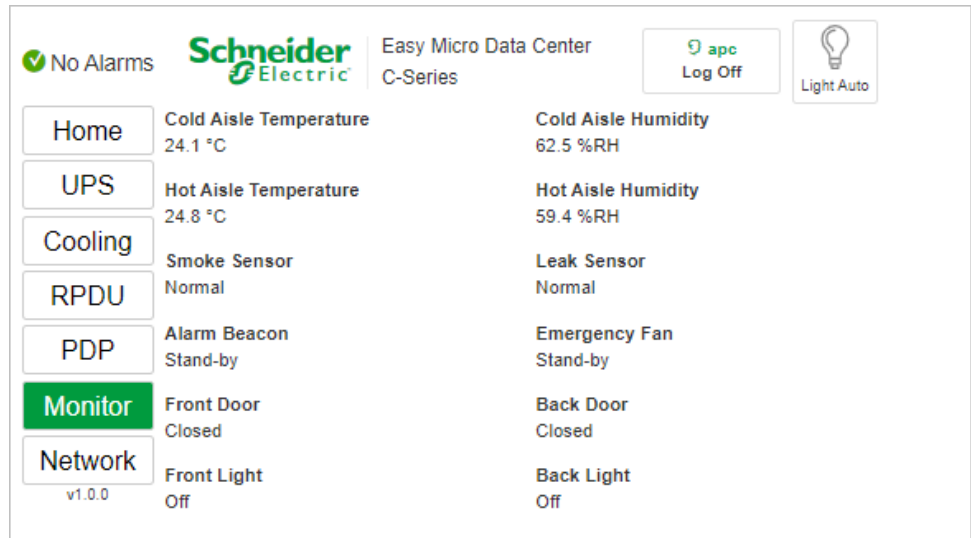
View the real-time **Voltage, Current, Frequency, Power Factor, Active Power,** and **Energy** for up to two Metered Rack PDUs.

PDP Screen

Reading	Description
Maintenance Bypass Switch	The status of the Maintenance Bypass Switch on the PDP. Status options are Enabled and Disabled . The reading shows Enabled when the cover is removed from the PDP and Disabled when the cover is secured to the PDP.
SPD Status	The status of the Surge Protection Device installed in the PDP. Status options are Normal and Failed .

Monitor Screen

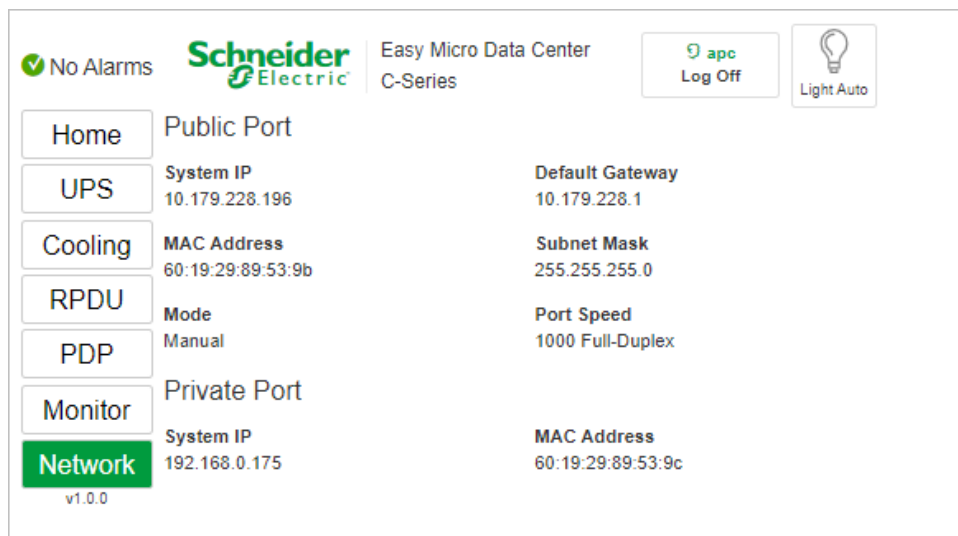
The Monitor screen is used to view environmental readings and sensor statuses.



Reading	Description
Cold Aisle Temperature/ Humidity	These readings are measured by the temperature/humidity sensor in the front of the Easy Micro Data Center.
Hot Aisle Temperature/ Humidity	These readings are measured by the temperature/humidity sensor in the rear of the Easy Micro Data Center.
Smoke Sensor	Status options are Normal and Smoke Detected . The sensor reading is Smoke Detected if communication with the Monitor is lost.
Leak Sensor	Status options are Normal and Leak Detected . The sensor reading is Leak Detected if communication with the Monitor is lost.
Alarm Beacon	Shows whether the Alarm Beacon has been turned off or on from the Monitor. Status options are Stand-by and Active .
Emergency Fan	Shows whether the Monitor has turned on the Emergency Fans. Status options are Running and Stand-by . NOTE: If the circuit breaker for the fan turns off (trips), this status reading may be inaccurate.
Front Door/Back Door	Status options are Open and Closed .
Front Light/Back Light	Indicates that the lights were turned On or Off from the Monitor.

Network Screen

This screen is used to view the current configurations for the **Public** and **Private** Networks.



Setting	Description
Public Port	The Ethernet connection to the Network.
Private Port	The Ethernet connection to Metered Rack PDUs.
System IP	The IP address of the Public or Private Ethernet port. The IP address of the Private Ethernet port is always static.
Default Gateway	The IP address of the gateway used to connect to the network.
Mac Address	The MAC address of the Ethernet port.
Subnet Mask	The subnet mask setting of the Ethernet port.
Mode	How the IPv4 settings are assigned. Manual: Configure IPv4 manually by entering the System IP , Subnet Mask , and Default Gateway in the appropriate fields. The assigned System IP is static. DHCP: The Default setting. At regular intervals, the Monitor requests network assignment from any DHCP server. The assigned System IP is dynamic. If the system finds a DHCP server, but the request to that server fails or times out, it stops requesting network settings until it is restarted. You can configure the settings under Configuration > Network > TCP/IP (see TCP/IP: Configure the Monitor IP Address, page 47).
Port Speed	The current speed assigned to the Ethernet port.

Command Line Interface

You can use a local connection to the Command Line Interface (CLI) to view the status of the Easy Micro Data Center equipment.

1. Select a serial port at the local computer and disable any service that uses that port.
2. Use a serial communication cable (RS232 with a DB-9 connector) to connect the selected port on your computer to the console port on the Monitor.
3. Run a terminal program (such as HyperTerminal® or PuTTY®) and configure the selected port for 115200 bps, 8 data bits, no parity, 1 stop bit, and no flow control. Save the changes.
4. Press any key to display the settings.

NOTE: Service engineers may also access the CLI for troubleshooting purposes. Only service engineers have the needed permissions to change settings through the CLI.

Once you have logged on, you can see the following information:

```
Easy Micro Data Center
Schneider Electric                                     (c) Copyright 2021 All Rights Reserved
-----
Model Number:      EMDC42U6KP2
Serial Number:     123456789
Firmware Version:  1.0.0

Public Port
-----
Network Mode:      DHCP
System IP:         10.0.0.100
Subnet Mask:       255.255.255.0
Default Gateway:   10.0.0.1
DNS Server 1:     10.0.0.251
DNS Server 2:     10.0.0.252
MAC Address:       20 20 11 09 13 BE

Private Port
-----
Network Mode:      STATIC
System IP:         192.168.1.10
Subnet Mask:       255.255.255.0
MAC Address:       20 20 11 09 12 BE

Web Access
-----
HTTP Access:       Disabled
HTTP Port:         80
HTTPS Access:      Enabled
HTTPS Port:        443
```

Setting	Description
Model Number	The part number for your Easy Micro Data Center Assembly.
Serial Number	The serial number for your Easy Micro Data Center Assembly.
Firmware Version	The current firmware version installed on the Monitor.
Public Port	The Ethernet connection to the Network. You can configure the settings under Configuration > Network > TCP/IP (see <i>TCP/IP: Configure the Monitor IP Address</i> , page 47).
Network Mode:	How the IPv4 settings are assigned. Manual: Configure IPv4 manually by entering the System IP , Subnet Mask , and Default Gateway in the appropriate fields. The assigned System IP is static. DHCP: The Default setting. At regular intervals, the Monitor requests network assignment from any DHCP server. The assigned System IP is dynamic. If the system finds a DHCP server, but the request to that server fails or times out, it stops requesting network settings until it is restarted.
System IP:	The IP address of the Public port. You can configure the settings under Configuration > Network > TCP/IP (see <i>TCP/IP: Configure the Monitor IP Address</i> , page 47).
Default Gateway:	The IP address of the gateway used to connect to the network.
DNS Server 1/DNS Server 2	The IP address of the primary and secondary DNS servers. (See <i>DNS: Configure DNS Servers</i> , page 48 for more information.)
MAC Address:	The MAC address of the Ethernet port.
Private Port	The Ethernet connection to Metered Rack PDUs.
System IP	The IP address of the Private port.
Subnet Mask	The subnet mask setting of the Ethernet port.
MAC Address	The MAC address of the Ethernet port.
Web Access	You can configure these settings under Configuration > Network > Web (see <i>Web: Select the Web Access Protocol and Ports</i> , page 49 for more information).
HTTP Access	Provides Web access by user name and password, but does not encrypt user names, passwords, and data during transmission. HTTP is disabled by default.
HTTP Port	The TCP/IP port (80 by default) used to communicate with the Monitor by HTTP.
HTTPS Access	Provides Web access by Hypertext Transfer Protocol (HTTP) over Secure Sockets Layer (SSL)/ Transport Layer Security (TLS). SSL and TLS encrypt user names, passwords, and data during transmission, and authenticate the Monitor by digital certificate. When HTTPS is enabled, your browser displays a small lock icon. For more information on HTTPS, see the <i>Security Handbook</i> on www.se.com or www.apc.com HTTPS is enabled by default.
HTTPS Port	The TCP/IP port (443 by default) used to communicate with the Monitor by HTTPS.

Web User Interface

Supported Web Browsers

You can use the latest version of Microsoft Internet Explorer® (IE), Google Chrome®, Apple Safari®, or Mozilla Firefox® to access the Web UI. Other commonly available browsers and versions may work but have not been fully tested.

Log On to the Web User Interface

Overview

You can use the DNS name or System IP address of the Monitor for the URL address of the Web UI. Use your case-sensitive user name and password to log on.

The default user name and password for the Super User are both **apc**. For all other user types, there is no default user name or password. The Super User must create accounts for Administrators and Read-only users.

You may receive a message that the Web page is not secure. This is normal, and you can continue to the Web UI. The message is generated because your Web browser does not recognize the default certificate used for encryption over HTTPS. However, information transmitted over HTTPS is still encrypted. See the *Security Handbook* on www.se.com or www.apc.com for more details on HTTPS and instructions to resolve the message.

URL Address Formats

Type the DNS name or IP address of the Monitor in the Web browser's URL address field and press ENTER. Until HTTP is enabled, you must include `https://` in the URL. When you specify a non-default Web server port in Internet Explorer, you must include `http://` or `https://` in the URL.

Common browser error messages at log-on:

Error Message	Browser	Cause of Error
"This page cannot be displayed."	Internet Explorer	Web access is disabled, or the URL was not correct.
"Unable to connect."	Firefox	

URL format examples:

NOTE: HTTP is disabled by default, and HTTPS is enabled by default.

- For a DNS name of Web1:
`http://Web1` if HTTP is your access mode
`https://Web1` if HTTPS (HTTP with SSL/TLS) is your access mode
- For a System IP address of 139.225.6.133 and the default Web server port (80):
`http://139.225.6.133` if HTTP is your access mode
`https://139.225.6.133` if HTTPS (HTTP with SSL/TLS) is your access mode
- For a System IP address of 139.225.6.133 and a non-default Web server port (5000):
`http://139.225.6.133:5000` if HTTP is your access mode
`https://139.225.6.133:5000` if HTTPS (HTTP with SSL/TLS) is your access mode

Web User Interface Features

Read the following sections to familiarize yourself with basic Web UI features for your system.





Tabs

The following tabs are available:

- **Home:** Appears when you log on. (See Home Tab, page 22.)
- **Status:** Provides the status of the Easy Micro Data Center Equipment, Alarms, and Network. (See Status Tab, page 26.)
- **Control:** Allows you to restart or reset Metered Rack PDUs and the Monitor, or to put the UPS in bypass mode. (See Control Tab, page 34.)
- **Configuration:** Allows you to perform firmware updates and configure the following: settings for the Easy Micro Data Center Equipment, events and event notifications, and general settings for the Web UI. (See Configuration Tab, page 37.)
- **Tests:** Allows you to test the UPS, Alarm Beacon, and Emergency Fans. (See Tests Tab, page 59.)
- **Logs:** Allows you to view, download, and search the **Event Log** and **Data Log**. (See Logs Tab, page 61.)
- **About:** Provides basic information about your Easy Micro Data Center equipment. (See About Tab, page 63.)

Device Status Icons

One or more icons and accompanying text indicate the severity of alarms or events in the Easy Micro Data Center:

Symbol	Description
	Critical: A critical alarm exists, which requires immediate action.
	Warning: An alarm condition requires attention and could jeopardize your data or equipment if its cause is not addressed.
	Informational: An informational event has occurred. The equipment is not in danger.
	No Alarms: No alarms are present, and the Easy Micro Data Center is operating normally.

At the upper right corner of every page, the Web UI displays the same icons currently displayed on the **Home** page to report the status of your Easy Micro Data Center:

- The **No Alarms** icon if no alarms exist.
- Critical or Warning icons if any alarms exist. After each icon, a number indicates the number of active alarms of that severity.

NOTE: Informational events are only shown in the Event Action configuration page (see Event Action: Set Alarm Beacon and E-mail Notifications, page 46) and the logs (see Logs Tab, page 61).

Quick Links

There are three links at the lower left of each page on the Web UI page. By default, the links lead to the URLs for these Web pages:

- **APC's Web Site:** The APC by Schneider Electric website.
- **Knowledge Base:** The Frequently Asked Questions (FAQs) page of the APC by Schneider Electric website.
- **EcoStruxure IT:** Detailed information on EcoStruxure IT.

There are also links at the top of every Web UI page (from left to right):

- The Schneider Electric logo leads to the APC by Schneider Electric website.
- **EcoStruxure IT:** Detailed information on EcoStruxure IT.
- **User name:** Click this link to change the password of the current user.
- **English:** The language of the Web UI. This is not configurable.
- **Log Off:** Click this link to log the current user out of the Web UI.
- **Help:** Click this link to open the *User Guide* (this document).
- **Device Status Icon:** Click the icons to go to the Alarm Status page (**Status > Alarms**).

Home Tab

The **Home** Tab provides an overview of the status of your Easy Micro Data Center Equipment. Equipment statuses are divided into sections: **Active Alarms**, **Power**, **UPS**, **Cooling**, and **Environment**.

Active Alarms

This section shows the number of active alarms and icons for some alarms. There are icons for six alarm types: **Beacon Active**, **Smoke Detected**, **Leak Detected**, **SPD Failed**, **Emergency Fan On**, and **Maintenance Bypass**. Other alarm types have no icons and must be viewed from the Status page (**Status > Alarms**, see *Alarms: View Active Alarms*, page 26).

NOTE: If the Alarm Beacon is active, you can click **Reset** to turn it off (not available for Read-only users).

Power

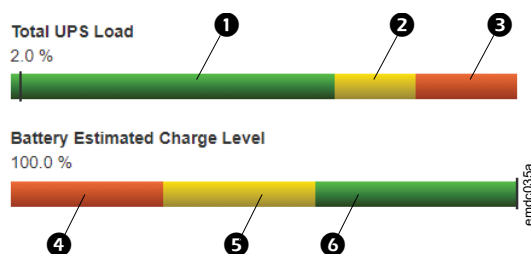
Power Usage Effectiveness (**PUE**) is measured as the **Total Facility Energy** (the total power to the Easy Micro Data Center) divided by the **IT Equipment Energy** (power drawn from the Monitor, PDUs, and AC 230 V Output). PUE is measured over a period of time (from the **Start Date** to the current date). A PUE of 1 means all energy is directed to the main IT load. You can configure the start date under **Configuration > PDP** (see *PDP: Configure PDP Alarms and PUE Start Date*, page 42).

The **PUE**, **Total Facility Energy**, and **IT Equipment Energy** measurements are only available for models with a Total Facility Energy Meter and IT Equipment Energy Meter installed in the Power Distribution Panel (EMDC42U6KP2, EMDC42U6KP2V, EMDC24U3KP2, and EMDC24U3KP2V).

UPS

Setting	Description
Operation mode	<p>On Line: The UPS is drawing utility power and performing double conversion to supply power to the connected equipment.</p> <p>On Battery: The UPS is supplying battery backup power to the connected equipment.</p> <p>Bypass: The UPS is in Bypass mode. Power is sent directly to connected equipment. The UPS automatically enters Bypass mode as a result of an internal UPS event or an overload condition. See your <i>UPS User Manual</i> for more information.</p> <p>Off Line: The UPS is not able to provide the required output voltage.</p>
Battery Runtime Remaining	<p>The estimated remaining amount of time the UPS battery can supply power to the system.</p> <p>The Battery Runtime Remaining is based on the current battery status and the active load. This measurement is only accurate when the UPS mode is On Battery.</p>

For **Total UPS Load** and **Battery Estimated Charge Level**, the colored bars indicate different ranges. You can place the cursor over each color to see the values in that range.



Color	Description
Total UPS Load	
① Green	Normal Range
② Yellow	Near Overload Range
③ Red	Overload Range
Battery Estimated Charge Level	
④ Red	Low Battery Range
⑤ Yellow	Near Low Battery Range
⑥ Green	Normal Battery Range

Cooling

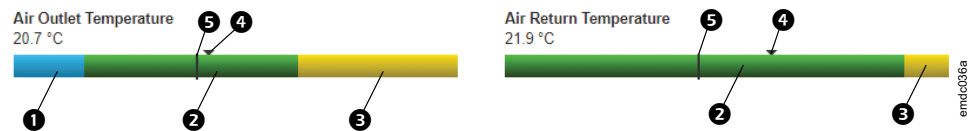
The Emergency fans turn on if no smoke is detected and one or more of the following events occurs:

- The cooling unit detects a critical internal issue.
- Communication with the Cooling Unit is lost.
- There is a Maximum Temperature threshold violation for the cold aisle.

The Emergency Fans turn off if all of these events are cleared, or if smoke is detected.

Setting	Description
Cooling Status	
Active	The Cooling Unit is on. The Emergency Fans are off.
Emergency	The Emergency Fans are on.
Failed	The Cooling Unit and the Emergency Fans are both off.
Operation Mode	
Cooling	The Cooling Unit is working to lower the temperature in the Easy Micro Data Center to the configured setpoint.
Dehumidification	The Cooling Unit is working to lower humidity in the Micro Data Center to the configured setpoint.
HMI Shutdown	HMI = Human Machine Interface. Someone has used the optional Cooling Unit display (ACAC10045) to shut down the Cooling Unit.
Fault Shutdown	An internal issue has caused the Cooling Unit to shut down.
Cooling/Auxiliary Heating	The Positive Temperature Coefficient (PTC) Heater is on.
Air Outlet Temperature	Temperature of the air expelled from the Indoor Cooling Unit.
Air Return Temperature	Temperature of the air drawn into the Indoor Cooling Unit.

For **Air Outlet Temperature** and **Air Return Temperature**, the colored bars indicate different ranges. You can place the cursor over each color to see the values in that range.



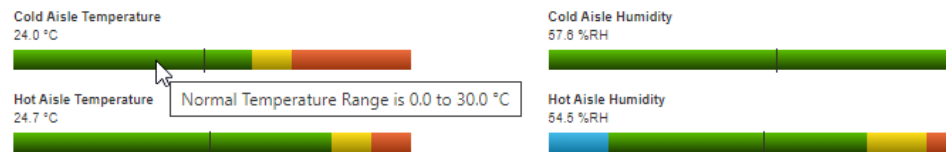
Color	Description
① Blue	Low Temperature Range
② Green	Normal Temperature Range
③ Yellow	High Temperature Range
④ Arrow marker	Setpoint/Target temperature
⑤ Line marker	Actual temperature

NOTE: You can configure cooling setpoints under **Configuration > Cooling** (Cooling: Configure Cooling Setpoints and Alarms, page 39).

Environment

Setting	Description
Cold Aisle Temperature/Cold Aisle Humidity	These readings are measured by the temperature/humidity sensor in the front of the Easy Micro Data Center.
Hot Aisle Temperature/Hot Aisle Humidity	These readings are measured by the temperature/humidity sensor in the rear of the Easy Micro Data Center.
Front Door/Back Door	Status options are Open and Closed .
Front Light/Back Light	Status options are On and Off .

For Temperature and Humidity settings, the colored bars indicate configured ranges. You can place the cursor over each color to see the values in that range.



Color	Description
Blue	Low Temperature/Humidity Range
Green	Normal Temperature/Humidity Range
Yellow	High Temperature/Humidity Range
Red	Maximum Temperature/Humidity Range

You can configure the temperatures and alarms under **Configuration > Monitor**.

Status Tab

You can use the **Status** tab to view the following

- A complete list of active alarms. (See [Alarms: View Active Alarms](#), page 26.)
- Environmental readings and status information from environmental sensors, lights, and door sensors connected to the Monitor. (See [Monitor: View Environmental Readings and Sensor Statuses](#), page 27.)
- The status of the Cooling Equipment, including the Cooling Unit, optional Condensation Pump, Positive Temperature Coefficient (PTC) Heater, and optional Low Temperature Kit. (See [Cooling: View Sensor readings and Operation Statuses for Troubleshooting](#), page 28.)
- The status and load of the UPS and Battery Pack. (See [UPS: View UPS Status/Load and Battery Status](#), page 30.)
- The status of the Power Distribution Panel and measurements from energy meters (if available). (See [PDP: View Power Distribution Panel and Energy Meter Readings](#), page 31.)
- Readings from Metered Rack PDUs (if available). (See [RPDU: View Readings from Metered Rack PDUs](#), page 32.)
- The current network settings of the Monitor. (See [Network: View Public/Private Network Settings for the Monitor](#), page 33.)

Alarms: View Active Alarms


Path: [Status](#) > [Alarms](#)

The screenshot shows the 'Status - Alarms' page in the Schneider Electric web interface. The page title is 'Status - Alarms'. Below the title, there is a section titled 'Device Alarm Status' which displays a green checkmark icon and the text 'No Alarms Present'. The interface includes a navigation menu with 'Home', 'Status', 'Control', 'Configuration', 'Tests', 'Logs', and 'About'. The top right corner shows 'No Alarms' with a green checkmark and links for 'apc', 'English', 'Log Off', and 'Help'. The footer contains 'APC's Web Site | Knowledge Base | EcoStruxure™ IT' and copyright information: '©2021, Schneider Electric. All rights reserved. Updated: 05/08/2021 at 22:08'.

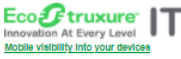
Active alarms are listed from the highest severity (top) to the lowest severity (bottom). See the [Configuration Tab](#), page 37 to configure alarms. See the [Event Log](#), page 61 to view past alarms.

Monitor: View Environmental Readings and Sensor Statuses

Path: Status > Monitor



Easy Micro Data Center C-Series
Micro Data Center Application



✔ No Alarms

[apc](#) | [English](#) | [Log Off](#) | [Help](#)

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Status - Monitor

Temperature & Humidity Status

Cold Aisle

Temperature 23.9 °C	Humidity 64.1 %RH
------------------------	----------------------

Hot Aisle

Temperature 24.5 °C	Humidity 60.6 %RH
------------------------	----------------------

Operation Status

Smoke Sensor Normal	Leak Sensor Normal	Emergency Fan Stand-by	Alarm Beacon Stand-by
Front Door Closed	Back Door Closed	Front Light Off	Back Light Off

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Reading/Status	Description
Temperature and Humidity Status	
Cold Aisle Temperature/Humidity	These readings are measured by the temperature/humidity sensor in the front of the Easy Micro Data Center.
Hot Aisle Temperature/Humidity	These readings are measured by the temperature/humidity sensor in the rear of the Easy Micro Data Center.
Operation Status	
NOTE: Operation statuses for the Emergency Fan and Alarm Beacon reflect commands sent from the monitor to the equipment, not signals received from the equipment.	
Smoke Sensor	Status options are Normal and Smoke Detected . The sensor reading is Smoke Detected if communication with the Monitor is lost.
Leak Sensor	Status options are Normal and Leak Detected . The sensor reading is Leak Detected if communication with the Monitor is lost.
Emergency Fan	Shows whether the Monitor has turned on the Emergency Fans. Status options are Running and Stand-by . NOTE: If the circuit breaker for the fan turns off (trips), this status reading may be inaccurate.
Alarm Beacon	Shows whether the Alarm Beacon has been turned off or on from the Monitor. Status options are Stand-by and Active .
Front Door/Back Door	Status options are Open and Closed .
Front Light/Back Light	Indicates that the lights were turned On or Off from the Monitor.

Cooling: View Sensor readings and Operation Statuses for Troubleshooting

Path: Status > Cooling



Easy Micro Data Center C-Series
Micro Data Center Application







Innovation At Every Level
Mobile visibility into your devices

✔ No Alarms
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Status - Cooling

Rackmount Air Conditioning Unit

<p>Air Outlet Temperature 19.9 °C</p>	<p>Air Return Temperature 21.6 °C</p>	<p>Air Return Humidity 68.2 %RH</p>	
Operation Status			
<p>Operation Mode Cooling/Auxiliary Heating</p>	<p>In-coil Temperature 18 °C</p>	<p>Out-coil Temperature 16 °C</p>	
<p>Discharge Temperature 42.5 °C</p>	<p>Target Evaporation Temperature 10 °C</p>	<p>Evaporation Temperature 16.2 °C</p>	
<p>Discharge Pressure 23.2 bar</p>	<p>Suction Pressure 11.6 bar</p>	<p>IDU DC Fan Voltage 6 V</p>	
<p>Target Frequency 49 Hz</p>	<p>Running Frequency 49 Hz</p>	<p>IDU Valve Steps 414 Steps</p>	
 Condensation Pump Off	 PTC Heater On	 IDU Fan On	 Low Temp Kit SV On

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NOTE: See Cooling: Configure Cooling Setpoints and Alarms, page 39 to configure target temperature/humidity levels, alarm thresholds, and optional equipment settings for the cooling unit.


Reading	Description
Rackmount Air Conditioning Unit	
Air Outlet Temperature	Temperature of the air expelled from the Indoor Cooling Unit.
Air Return Temperature	Temperature of the air drawn into the Indoor Cooling Unit.
Air Return Humidity	Relative Humidity (%RH) of the air drawn into the Indoor Cooling Unit.
Operation Status	
Operation Mode	<p>Cooling: The Cooling Unit is working to lower the temperature in the Easy Micro Data Center to the configured setpoint.</p> <p>Dehumidification: The Cooling Unit is working to lower humidity in the Micro Data Center to the configured setpoint.</p> <p>HMI Shutdown: HMI = Human Machine Interface. Someone has used the optional Cooling Unit display (ACAC10045) to shut down the Cooling Unit.</p> <p>Fault Shutdown: An internal issue has caused the Cooling Unit to shut down.</p> <p>Cooling/Auxiliary Heating: The Positive Temperature Coefficient (PTC) Heater is on.</p>
In-coil/Out-coil Temperature	The temperature of refrigerant entering/leaving the evaporator coil. Service engineers use this reading for troubleshooting.
Discharge Temperature/ Pressure	Temperature/Pressure at which refrigerant is discharged from the compressor. Service engineers use this reading for troubleshooting.
Target Evaporation Temperature/ Evaporation Temperature	The target/actual temperature of the evaporative coil? Service engineers use this reading for troubleshooting.
Suction Pressure	Pressure in the suction line valve of the compressor. Service engineers use this reading for troubleshooting.
IDU DC Fan Voltage	DC voltage of the fan in the Indoor Unit. Service engineers use this reading for troubleshooting.
Target/Running Frequency	The frequency of the compressor in the Outdoor Unit. Service engineers use this reading for troubleshooting.
IDU Valve Steps	Indicates how far the electronic expansion valve in the Indoor Cooling Unit is open. Service engineers use this reading for troubleshooting.
Condensation Pump	Status options are On and Off .
PTC Heater	Status options are On and Off .
IDU Fan	Status options are On and Off .
Low Temp Kit	SV = Solenoid Valve. Status options are SV On or SV Off .

UPS: View UPS Status/Load and Battery Status

Path: Status > UPS



Easy Micro Data Center C-Series
Micro Data Center Application



✔ No Alarms

apc | English | Log Off | Help

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Status - UPS

Uninterruptible Power Supply

<p>Operation Mode On Line</p>	<p>Internal Temperature 30.9 °C</p>	
Load Status		
<p>Input Voltage 245 V</p>	<p>Output Voltage 229.8 V</p>	<p>Output Frequency 49.93 Hz</p>
<p>Active Load 0 %</p>	<p>Apparent Load 0 %</p>	<p>Load Current 0 A</p>
Battery Status		
<p>Battery Voltage 81.7 V</p>	<p>Estimated Charge Level 100 %</p>	<p>Runtime Remaining 451 minutes</p>

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On this page, you can view the following:

- The status of the Uninterruptible Power Supply (UPS), including the **Operation Mode** and the **Internal Temperature** of the UPS. Possible Operation Modes are as follows:

Operation Mode	Description
On Line	The UPS is drawing utility power and performing double conversion to supply power to the connected equipment.
On Battery	The UPS is supplying battery backup power to the connected equipment.
Bypass	The UPS is in Bypass mode. Power is sent directly to connected equipment. The UPS automatically enters Bypass mode as a result of an internal UPS event or an overload condition. See your <i>UPS User Manual</i> for more information.
Off Line	The UPS is not able to provide the required output voltage.

- View **Input/Output Voltage**, **Output Frequency**, **Active/Apparent Load**, and **Load Current** of the UPS.
- View the **Voltage**, **Estimated Charge Level**, and **Runtime Remaining** for the external UPS battery (if applicable).

NOTE: The **Battery Runtime Remaining** is based on the current battery status and the active load. This measurement is only accurate when the UPS mode is **On Battery**.

PDP: View Power Distribution Panel and Energy Meter Readings

Path: Status > PDP

This page is only available for models with an Input Meter and Facility Meter installed in the Power Distribution Panel (EMDC42U6KP2, EMDC42U6KP2V, EMDC24U3KP2, EMDC24U3KP2V).

The screenshot shows the Schneider Electric web interface for the PDP status. At the top, there is a navigation bar with 'Home', 'Status', 'Control', 'Configuration', 'Tests', 'Logs', and 'About'. The main content area is titled 'Status - PDP' and contains a 'Power Distribution Panel' section. This section includes 'SPD Status' (Normal), 'Maintenance Bypass Switch' (Disabled), 'Total Facility Energy Meter' (Voltage: 245.40 V, Current: 5.85 A, Frequency: 49.94 Hz, Energy: 2992.47 kWh, Active Power: 1.41 kW, Apparent Power: 1.43 kVA, Power Factor: 1.00), and 'IT Equipment Energy Meter' (Voltage: 229.93 V, Current: 0.05 A, Frequency: 49.93 Hz, Energy: 362.31 kWh, Active Power: 0.01 kW, Apparent Power: 0.01 kVA, Power Factor: 1.00). The footer contains 'APC's Web Site | Knowledge Base | EcoStruxure™ IT' and '© Schneider Electric. All rights reserved. Updated: 05/08/2021 at 22:09'.

Reading	Description
SPD Status	The status of the Surge Protection Device installed in the PDP. Status options are Normal and Failed .
Maintenance Bypass Switch	The status of the Maintenance Bypass Switch on the PDP. Status options are Enabled and Disabled . The reading shows Enabled when the cover is removed from the PDP and Disabled when the cover is secured to the PDP.
Total Facility Meter	These readings measure the total power input to the Easy Micro Data Center.
IT Equipment Meter	These readings measure the power supplied to the Monitor, Rack PDUs, and any equipment attached to the AC 230 V Output of the PDP.

RPDU: View Readings from Metered Rack PDUs

Path: Status > RPDU

This page is only available if at least one Metered Rack PDU is configured on your system.

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Home | Status | Control | Configuration | Tests | Logs | About

Status - RPDU

Rack Power Distribution Unit		
RPDU 1		
Voltage 229.5 V	Current 0 A	Frequency 49.937 Hz
Power Factor 1	Active Power 0 kW	Energy 9.111 kWh
RPDU 2		
Voltage 230.5 V	Current 0 A	Frequency 49.926 Hz
Power Factor 1	Active Power 0 kW	Energy 6.245 kWh

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View the real-time **Voltage, Current, Frequency, Power Factor, Active Power, and Energy** for up to two Metered Rack PDUs.

Network: View Public/Private Network Settings for the Monitor

Path: Status > Network

The screenshot shows the Schneider Electric web interface for an Easy Micro Data Center C-Series. The page title is "Status - Network". It displays "Current Network Settings" for both Public and Private Networks. The Public Network settings include System IP (10.179.228.196), Subnet Mask (255.255.255.0), Default Gateway (10.179.228.1), MAC Address (60:19:29:89:53:9b), Mode (Manual), Active Primary DNS Server (8.8.8.8), Active Secondary DNS Server (8.8.4.4), and Port Speed (1000 Full-Duplex). The Private Network settings include System IP (192.168.0.175), Subnet Mask (255.255.255.0), MAC Address (60:19:29:89:53:9c), Port Speed (100 Full-Duplex), and Mode (Manual). The interface also shows logos for Schneider Electric and EcoStruxure IT, and a "No Alarms" status indicator.

View the current configurations for the **Public** and **Private** Networks.

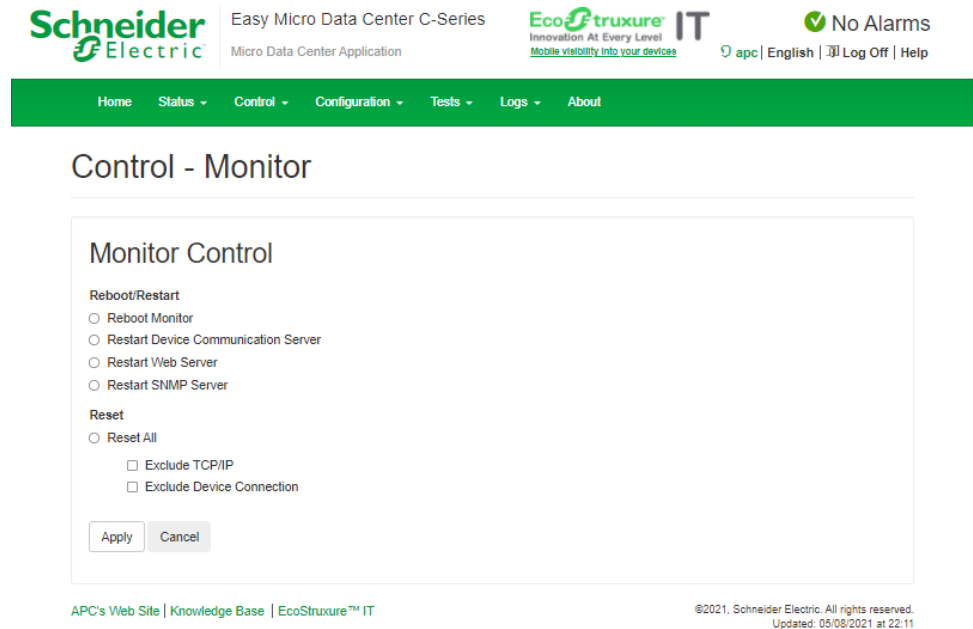
Setting	Description
Public Network	The Ethernet connection to the Network.
Private Network	The Ethernet connection to Metered Rack PDUs.
System IP	The IP address of the Public or Private Ethernet port. The IP address of the Private Ethernet port is always static.
Subnet Mask	The subnet mask setting of the Ethernet port.
Default Gateway	The IP address of the gateway used to connect to the network.
Mac Address	The MAC address of the Ethernet port.
Mode	How the IPv4 settings are assigned. Manual: Configure IPv4 manually by entering the System IP , Subnet Mask , and Default Gateway in the appropriate fields. The assigned System IP is static. DHCP: The Default setting. At regular intervals, the Monitor requests network assignment from any DHCP server. The assigned System IP is dynamic. If the system finds a DHCP server, but the request to that server fails or times out, it stops requesting network settings until it is restarted. You can configure the settings under Configuration > Network > TCP/IP (see TCP/IP: Configure the Monitor IP Address, page 47).
Active Primary/Secondary DNS Server	The IP address of the primary and secondary DNS server.
Port Speed	The current speed assigned to the Ethernet port.

Control Tab

You can use the **Control** tab to take immediate actions affecting the Monitor, UPS, and Metered Rack PDUs.

Monitor: Restart Servers/Reset Settings

Path: Control > Monitor

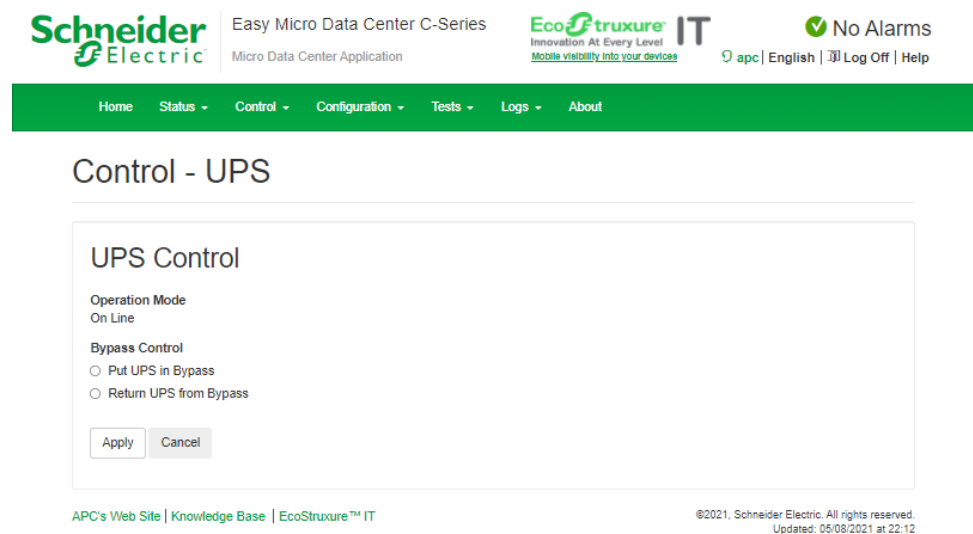


Some setting changes require a restart, but allow you to the option to restart later. You can use the settings on this page to restart the Monitor or required servers.

Setting	Description
Reboot Monitor	When the monitor reboots, the front and back lights, emergency fans, and Alarm Beacon are temporarily turned off. They will return to their working states when the reboot is done.
Restart Device Communication Server	This action will interrupt communication between all devices connected to the Monitor.
Restart Web Server	This action will interrupt access to the Web UI and the LCD Display.
Restart SNMP Server	This action will interrupt SNMP and EcoStruxure access.
Reset All	Reset all configurations to the default except for the selected settings. The default TCP/IP setting is DHCP (for the Public network). The default Device Connection settings are for Rack PDUs: SNMP version = SNMPv3, User Name = apc, Authentication Protocol = SHA, Authentication Passphrase = APCAUTHKEY, Privacy Protocol = AES, Privacy Passphrase = APCPRIVKEY. See RPDU: Configure Connection Settings for Metered Rack PDUs, page 44 for more information.

UPS: Control Bypass Mode

Path: Control > UPS

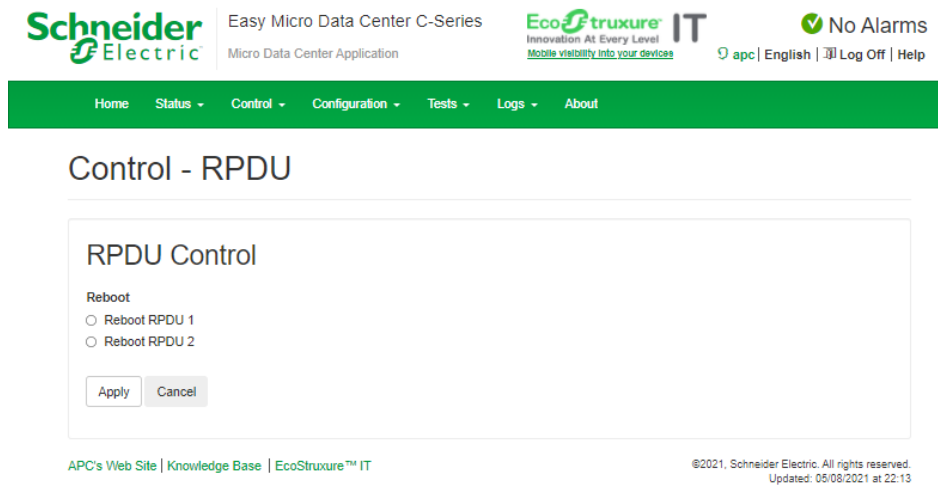


You can use these settings to switch the UPS to **Bypass** mode or bring the UPS to **Online** mode from **Bypass** mode.

Setting	Description
Operation Mode	<p>On Line: The UPS is drawing utility power and performing double conversion to supply power to the connected equipment.</p> <p>On Battery: The UPS is supplying battery backup power to the connected equipment.</p> <p>Bypass: The UPS is in Bypass mode. Power is sent directly to connected equipment. The UPS automatically enters Bypass mode as a result of an internal UPS event or an overload condition. See your UPS <i>User Manual</i> for more information.</p> <p>Off Line: The UPS is not able to provide the required output voltage.</p>
Bypass Control	<p>Put UPS in Bypass: Switch the UPS to Bypass mode. NOTE: Power will be sent directly from the mains power to your equipment. If the mains voltage is not within threshold limits, power to connected equipment may drop.</p> <p>Return UPS from Bypass: Bring the UPS out of Bypass mode. Restores clean power to the equipment.</p>

RPDU: Reboot the Display

Path: Control > RPDU



The screenshot shows the Schneider Electric web interface for the Easy Micro Data Center C-Series. The page title is "Control - RPDU". The main content area is titled "RPDU Control" and contains a "Reboot" section with two radio buttons: "Reboot RPDU 1" and "Reboot RPDU 2". Below the radio buttons are "Apply" and "Cancel" buttons. The footer contains the text "APC's Web Site | Knowledge Base | EcoStruxure™ IT" and "©2021, Schneider Electric. All rights reserved. Updated: 05/08/2021 at 22:13".

You can use this page to reboot the Display Module of a Metered Rack PDU. The page is not available for Basic Rack PDUs.

Configuration Tab

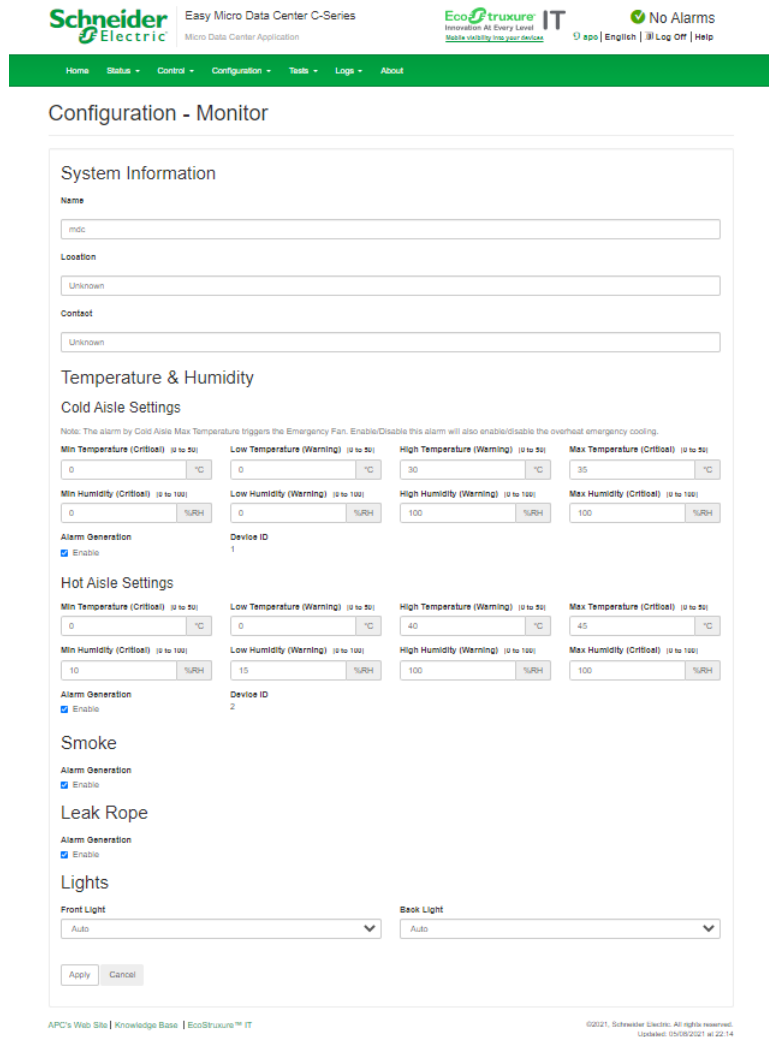
You can use the Configuration tab to do the following

- **Configure threshold alarms for the Monitor**, page 38, **Cooling Unit**, page 39, **Power Distribution Panel (PDP)**, page 42, **and Metered Rack PDUs**, page 43
- Enable/disable alarms for some sensors attached to the Monitor, page 38
- Configure alarm thresholds and temperature/humidity setpoints for the Cooling Unit, page 39
- Enable/disable advanced features of the Cooling Unit, page 40
- Set the PUE start date, page 42
- Configure event actions to be carried out for alarms, page 46
- **Configure Network connection settings**, page 47, **SNMP traps**, page 53, **and E-mail addresses for e-mail notifications**, page 54
- View/edit user accounts, page 56
- Set the date and time, page 57
- Perform a firmware update for the Monitor, page 58

Monitor: Contact Information and Sensor Configuration

Path: Configuration > Monitor

You can use this page to configure alarms for the sensors attached to the Monitor.



Setting	Description
Name	Define the Name , the Location (the physical location), and the Contact (the person responsible for the Easy Micro Data Center) used by the SNMP agent of the Monitor—specifically, the name field is used by the sysName , sysContact , and sysLocation object identifiers (OIDs) in the SNMP agent of the Monitor. They also display in the About tab, page 63. NOTE: The Name field does not accept white spaces or special characters. The Location and Contact fields accepts all ASCII characters
Location	
Contact	
Cold Aisle Settings	The cold aisle is in the front of the Easy Micro Data Center. Use these settings to configure the temperature and humidity measurements that will trigger specific alarms for the cold aisle. Low/High readings trigger Warning alarms. Min/Max readings trigger Critical alarms.
Hot Aisle Settings	The hot aisle is in the rear of the Easy Micro Data Center. Use these settings to configure the temperature and humidity measurements that will trigger specific alarms for the hot aisle. Low/High readings trigger Warning alarms. Min/Max readings trigger Critical alarms.
Smoke	Enable or disable alarms for the Smoke Sensor connected to the Monitor. (Smoke sensors connected to third party fire-suppression units are not monitored by the Monitor.)
Leak Rope	Enable or disable alarms for the Leak Rope sensor.
Lights	Configure settings for the front and back lights. Auto: The light turns on when the door is open. The light turns off when the door is closed. On: The light is always on.

Cooling: Configure Cooling Setpoints and Alarms

Path: Configuration > Cooling

The screenshot shows the 'Cooling Configuration' page. It includes the following settings:

- Temperature Setpoint:** Air Return Temperature [16 to 42] is set to 30 °C; Air Outlet Temperature [13 to 27] is set to 22 °C.
- Humidity Setpoint:** Minimum Humidity [0 to 95] is set to 15 %RH; Maximum Humidity [0 to 100] is set to 80 %RH.
- Air Return Temperature Alarm:** High Temperature (Warning) [0 to 50] is set to 45 °C.
- Air Outlet Temperature Alarm:** Low Temperature (Warning) [0 to 13] is set to 8 °C; High Temperature (Warning) [25 to 35] is set to 32 °C.

Buttons for 'Apply', 'Cancel', and 'Load Defaults' are located at the bottom of the configuration area. A link for 'Configure advanced settings' is also present.

You can click **Load Defaults** to load the default values into all fields. Click **Apply** to confirm the change.

Setting	Description
Temperature Setpoints	Air Outlet Temperature: Target temperature of the air expelled from the Indoor Cooling Unit. The default is 22 °C. Air Return Temperature: Target temperature of the air drawn into the Indoor Cooling Unit. The default is 35 °C.
Humidity Setpoint	Minimum/Maximum Humidity: Minimum and maximum humidity levels allowed in the Easy Micro Data Center (measured by air drawn into the Indoor Cooling Unit). The defaults are 15% minimum 80% maximum.
Air Return Temperature Alarm	A Warning alarm is generated if the Air Return Temperature exceeds this value. The default is 45 °C.
Air Outlet Temperature Alarm	A Warning alarm is generated if the Air Outlet Temperature falls below the Low Temperature (8 °C by default) or rises above the High Temperature (32 °C by default).
Configure Advanced Settings	For expert users only. See Cooling: Configure Advanced Settings, page 40.

Cooling: Configure Advanced Settings

Path: Configuration > Cooling > Configure Advanced Settings



Easy Micro Data Center C-Series
Micro Data Center Application



No Alarms
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Configuration - Cooling

Advanced Cooling Configuration

Maintenance Options

Unit Off Temperature (Outlet) [14 to 24]

 °C

PTC Heater

Enable

Condensation Pump

Enable

Condensation Pump Alarm

None
 Alarm Only
 Alarm and Unit Off

Water on floor Alarm

Enable

Maintenance Alarm

Enable

Compressor Runtime Reset

Reset

IDU Fan Runtime Reset

Reset

IDU Fan Runtime Alarm Threshold [0 to 50,000]

 Hours

IDU Fan Control

Control Mode

Air Return Temperature
 Air Outlet Temperature

Maximum Speed [0 to 10]	Minimum Speed [0 to 10]	Failure Speed [0 to 10]	Dehumidifying Speed [0 to 10]
<input type="text" value="10"/> V	<input type="text" value="6"/> V	<input type="text" value="10"/> V	<input type="text" value="5"/> V

Cooling Connection (Modbus RTU)

Device ID	Baud Rate
<input type="text" value="1"/>	<input type="text" value="9600"/>

Warning: DO NOT change the advanced configuration if unsure.

[Configure basic settings](#)

NOTE: Only expert users should change these settings.

You can click **Load Defaults** to load the default values into all fields. Click **Apply** to confirm the change.

Setting	Description
<p>Maintenance Options</p>	<p>Unit Off Temperature (Outlet): If the Air Outlet Temperature is lower than this setting, the compressor and fan in the Outdoor Unit turn off. The fan in the Indoor Unit stays on. The default is 19 °C.</p> <p>PTC Heater: Enable or disable the PTC heater. Enabled by default.</p> <p>Condensation Pump: Enable or disable the optional Condensate Drain Pump (ACAC10039). Disabled by default.</p> <p>Condensation Pump Alarm:</p> <ul style="list-style-type: none"> • None — No alarm will initiate. • Alarm only — Only the Condensation Pump Alarm will initiate • Alarm and Unit off — The Condensation Pump Alarm will initiate and the Cooling Unit will be shut off <p>Water on floor Alarm If you have installed an optional leak sensor (to detect water on the floor inside your MDC), you can enable this alarm. The alarm is disabled by default.</p> <p>Maintenance Alarm The maintenance alarm will initiate if the IDU fan runtime threshold is exceeded. The alarm is enabled by default.</p> <p>Compressor Runtime Reset Click on the Reset check box to select. If selected, the Compressor Runtime hours will reset to zero following maintenance or replacement of the Compressor. The Reset check box will be deselected automatically once the reset operation is complete.</p> <p>IDU Fan Runtime Reset Click on the Reset check box to select. If selected, the IDU Fan Runtime hours will reset to zero following maintenance or replacement of the IDU Fan. The Reset check box will be deselected automatically once the reset operation is complete.</p> <p>IDU Fan Runtime Alarm Threshold If the IDU Fan runtime hours accumulate to the number of hours set as the runtime threshold, the Maintenance Alarm will initiate. The number of threshold runtime hours can be changed here.</p>
<p>In-door Unit Fan</p>	<p>IDU Fan Control Mode: Select whether the fan speed of the Indoor Cooling Unit is controlled using the Air Return Temperature (the default) or Air Outlet Temperature.</p> <p>Maximum/Minimum Speed: Set the maximum and minimum fan speed for the Indoor Cooling Unit. By default, 10 is the maximum speed and 6 is the minimum speed.</p> <p>Failure Speed: The fan speed of the Indoor Unit when the Cooling Unit has a major incident. 10 by default.</p> <p>Dehumidifying Speed: Set the fan speed used for dehumidification. 5 by default.</p>
<p>Cooling Connection (Modbus RTU)</p>	<p>By default, the Device ID is 1 and the Baud Rate is 9600.</p>

PDP: Configure PDP Alarms and PUE Start Date

Path: Configuration > PDP



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Configuration - PDP

Alarm Settings

Input Voltage

Minimum (Critical) [0 to 300]	Low (Warning) [0 to 300]	High (Warning) [0 to 300]	Maximum (Critical) [0 to 300]
<input type="text" value="176"/> V	<input type="text" value="187"/> V	<input type="text" value="276"/> V	<input type="text" value="288"/> V

Input Current

Minimum (Critical) [0 to 45]	Low (Warning) [0 to 45]	High (Warning) [0 to 45]	Maximum (Critical) [0 to 45]
<input type="text" value="0"/> A	<input type="text" value="0"/> A	<input type="text" value="38"/> A	<input type="text" value="45"/> A

Meter Connection

Total Facility Energy Meter Device ID <input type="text" value="1"/>	IT Equipment Energy Meter Device ID <input type="text" value="2"/>
---	---

PUE

Start Date

Note: This setting changes the starting point of PUE and Energy on Home page only.


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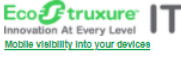
Setting	Description
Input Voltage	Set the input voltages that cause alarms to be generated. Minimum and Maximum voltages cause Critical alarms. Low and High voltages cause Warning alarms.
Input Current	Set the input currents that cause alarms to be generated. Minimum and Maximum currents cause Critical alarms. Low and High currents cause Warning alarms.
Meter Connection	These sections are only available for models with meters installed in the Power Distribution Panel (EMDC42U6KP2, EMDC42U6KP2V, EMDC24U3KP2, and EMDC24U3KP2V).
PUE	<p>The Total Facility Meter measures the total power provided to the Easy Micro Data Center. The IT Equipment Meter measures power drawn from the Monitor, PDUs, and AC 230 V Output.</p> <p>PUE (Power Usage Effectiveness) is the Total Facility Energy divided by the IT Equipment Energy over a period of time. You can set the Start Date to calculate PUE for a specific period of time. You can find the calculated PUE on the Home tab.</p>

RPDU: Configure Alarms for Metered Rack PDUs

Path: Configuration > RPDU



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Configuration - RPDU

RPDU Configuration

Number of Metered RPDU

2

RPDU 1

Minimum Current (Critical) [0 to 15]

0

Maximum Current (Critical) [0 to 15]

8

Alarm Beeper

 Enable

Energy

 Reset

RPDU 2

Minimum Current (Critical) [0 to 15]

0

Maximum Current (Critical) [0 to 15]

8

Alarm Beeper

 Enable

Energy

 Reset

Apply

Cancel

[Configure connection settings](#)

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Setting	Description
Number of Metered RPDU	Select the number of Metered Rack PDUs in your system from the list.
Minimum/Maximum Current	Set the current readings that cause Critical alarms to be generated for Metered Rack PDUs.
Alarm Beeper	When selected, the Rack PDU Display Module beeps when a Rack PDU alarm is issued.
Energy	Reset the energy measurement for the Rack PDU to 0. Select Reset , then click Apply .
Configure connection settings	See RPDU: Configure Connection Settings for Metered Rack PDUs , page 44.

RPDU: Configure Connection Settings for Metered Rack PDUs

Path: Configuration > RPDU > Configure connection settings



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Configuration - RPDU

RPDU Connection Configuration

RPDU 1

IP Address	192.168.0.168	SNMP Version	SNMPv1
Community Name	public	User Name	apc
Authentication Passphrase	*****	Privacy Passphrase	*****
Authentication Protocol	SHA	Privacy Protocol	AES

RPDU 2

IP Address	192.168.0.169	SNMP Version	SNMPv1
Community Name	public	User Name	apc
Authentication Passphrase	*****	Privacy Passphrase	*****
Authentication Protocol	SHA	Privacy Protocol	AES

Apply Cancel

[Configure RPDU settings](#)

The connection settings for each Rack PDU must match the settings configured in the PDU.

Setting	Description
IP Address	The IP Address of the Rack PDU.
SNMP Version	<p>SNMPv1: Least secure.</p> <p>SNMPv2c: More secure.</p> <p>SNMPv3: Most secure.</p>
Community Name	The default Community Name is public .
User Name	The user name of the SNMPv3 account.
Authentication Passphrase	<p>A phrase that verifies the following:</p> <ul style="list-style-type: none"> • The Network Management Server (NMS) communicating with this device through SNMPv3 is the NMS it claims to be. • The message has not been changed during transmission. • The message was communicated in a timely manner, indicating that it was not delayed and that it was not copied and sent again later at an inappropriate time. <p>The default is APCAUTHKEY. It is strongly recommended that you change the Authentication Passphrase to increase the security of your system.</p>
Privacy Passphrase	<p>A phrase used to encrypt the data that an NMS is sending to this device or receiving from this device through SNMPv3.</p> <p>The default is APCPRIKEY. It is strongly recommended that you change the Privacy Passphrase to increase the security of your system.</p>
Authentication Protocol	<p>None: Least secure.</p> <p>MD5: More secure.</p> <p>SHA1: Most secure.</p>
Privacy Protocol	<p>DES: Less secure.</p> <p>AES: More secure.</p>

Event Action: Set Alarm Beacon and E-mail Notifications

Path: Configuration > Event Action



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Configuration - Event Action


ID	Beacon <input type="checkbox"/> All	E-mail <input checked="" type="checkbox"/> All	Device	Severity	Event
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	UPS		UPS fault - SmartBoost or SmartTrim relay fault.
2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	UPS		UPS fault - The UPS was commanded to come out of bypass when no batteries were attached. UPS is in bypass.
3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	UPS		UPS fault - DC imbalance; UPS is in bypass.
4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	UPS		UPS fault - output voltage select failure; UPS is in bypass.
5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	UPS		UPS fault - bypass supply failure.
6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	UPS		UPS fault - Isolation Unit fan failure.
7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	UPS		UPS fault - Electronics Unit fan failure; UPS is in bypass.
8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	UPS		UPS fault - internal temperature has exceeded nominal limits.

Possible events and alarms are listed by device and warning level. For each event, you can enable or disable the **Alarm Beacon** and **E-mail** notifications.

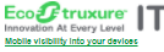
When enabled, the Alarm Beacon flashes and makes sound during active events. E-mail notifications will go to the e-mail address configured under **Configuration > Network > E-mail** (E-mail: Configure E-mail for Notifications, page 54).

TCP/IP: Configure the Monitor IP Address

Path: Configuration > Network > TCP/IP



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Micro Data Center Application



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Configuration - TCP/IP

Current IPv4 Settings

Public Network

System IP 10.179.228.196	Subnet Mask 255.255.255.0	Default Gateway 10.179.228.1
Mode Manual	MAC Address 60:19:29:89:53:9b	Port Speed 1000 Full-Duplex

Private Network

System IP 192.168.0.175	Subnet Mask 255.255.255.0	Port Speed 100 Full-Duplex
Mode Manual	MAC Address 60:19:29:89:53:9c	

IPv4 Configuration

Public Network

Mode

DHCP

Manual

System IP

Subnet Mask

Default Gateway

Private Network

System IP

Subnet Mask

Setting	Description
Public Network	The Ethernet connection to the Network.
Private Network	The Ethernet connection to Metered Rack PDUs.
Mode	<p>How the IPv4 settings are assigned.</p> <p>Manual: Configure IPv4 manually by entering the System IP, Subnet Mask, and Default Gateway in the appropriate fields. The assigned System IP is static.</p> <p>DHCP: The Default setting. At regular intervals, the Monitor requests network assignment from any DHCP server. The assigned System IP is dynamic. If the system finds a DHCP server, but the request to that server fails or times out, it stops requesting network settings until it is restarted.</p>
System IP	The IP address of the Public or Private Ethernet port. The IP address of the Private Ethernet port is always static.
Subnet Mask	The subnet mask setting of the Ethernet port.
Default Gateway	The IP address of the gateway used to connect to the network.

For information on DHCP and DHCP options, see RFC2131 and RFC2132.

DNS: Configure DNS Servers

Path: Configuration > Network > DNS

The screenshot shows the Schneider Electric Easy Micro Data Center C-Series Web User Interface. The page title is "Configuration - DNS". It features a navigation menu with options: Home, Status, Control, Configuration, Tests, Logs, and About. The main content area is divided into two sections:

- Domain Name System Status:** This section displays the status of the DNS servers. It shows "Active Primary DNS Server" with the IP address 8.8.8.8 and "Active Secondary DNS Server" with the IP address 8.8.4.4.
- DNS Configuration:** This section contains a note: "Note: Leave both two DNS server fields empty to request addresses from DHCP if available." Below the note are two input fields: "Primary DNS Server" and "Secondary DNS Server". At the bottom of this section are "Apply" and "Cancel" buttons.

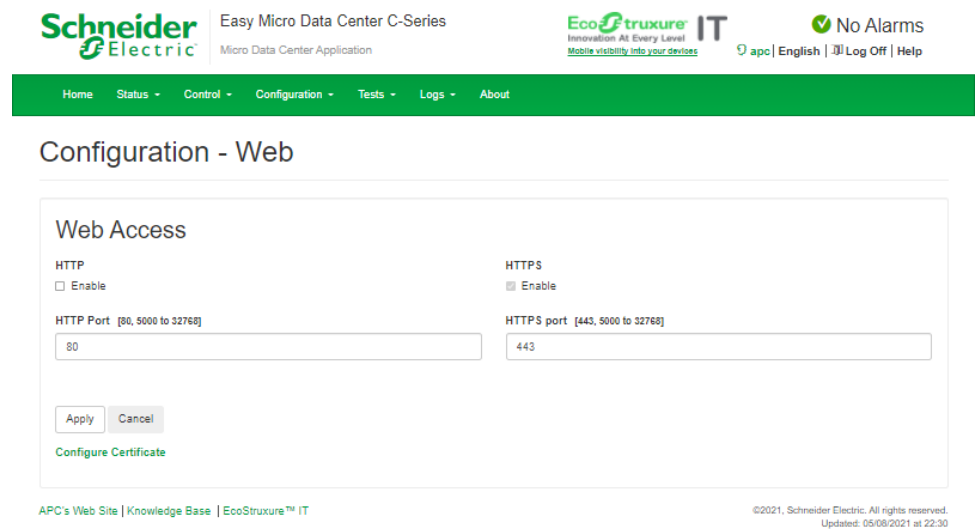
At the bottom of the page, there is a footer with the text: "APC's Web Site | Knowledge Base | EcoStruxure™ IT" on the left and "©2021, Schneider Electric. All rights reserved. Updated: 05/08/2021 at 22:27" on the right.

If the **TCP/IP Mode** is **Manual**: Enter the IP addresses of the primary and secondary Domain Name System (DNS) servers.

If the **TCP/IP Mode** is **DHCP**: You can leave both fields empty for the DHCP server to fill, or provide the DNS Server addresses manually.

Web: Select the Web Access Protocol and Ports

Path: Configuration > Network > Web



Setting	Description
HTTPS (more secure)	Provides Web access by Hypertext Transfer Protocol (HTTP) over Secure Sockets Layer (SSL)/ Transport Layer Security (TLS). SSL and TLS encrypt user names, passwords, and data during transmission, and authenticate the Monitor by digital certificate. When HTTPS is enabled, your browser displays a small lock icon. For more information on HTTPS, see the <i>Security Handbook</i> on www.se.com or www.apc.com HTTPS is enabled by default.
HTTP (less secure)	Provides Web access by user name and password, but does not encrypt user names, passwords, and data during transmission. HTTP is disabled by default.
HTTPS Port	The TCP/IP port (443 by default) used to communicate with the Monitor by HTTPS.
HTTP Port	The TCP/IP port (80 by default) used to communicate with the Monitor by HTTP.
Configure Certificates	See <i>Web: Add or Remove SSL Certificates</i> , page 50.

For either port, you can change the port setting to any unused port from 5000 to 32768 for additional security. You must then use a colon (:) in the address field of the browser to specify the port number. For example, for a port number of 5000 and an IP address of 152.214.12.114:

`http://152.214.12.114:5000`

`https://152.214.12.114:5000`

NOTE: Changing these settings will require a restart to the Web UI. If you choose to restart at a later time, you can restart from *Control > Monitor*, page 34.

Web: Add or Remove SSL Certificates

Path: Configuration > Network > Web > Configure Certificates

If no certificate is loaded when you enable SSL/TLS, or if you delete the current certificate, the monitor generates a self-signed certificate by default. The default certificate lasts for five years. When the default certificate is close to expiration, you can delete it to prompt the Monitor to generate a new default certificate. If the certificate expires, you will not be able to access the Web UI via HTTPS. (If HTTP is enabled, HTTP access will still be available.)

You can use the default certificate for basic encryption-based security measures. However, a security alert message displays in the Web browser whenever you log on. This is because Web browsers recognize signatures from commercial Certificate Authorities (CAs) by comparing them to root certificates that are stored on the browser. A self-signed certificate has no root certificate in the browser.

See the *Security Handbook* on www.se.com or www.apc.com for more information on certificates.

Setting	Description
Add or Replace	Upload a certificate file and a private key file together. When a new certificate is added, the old certificate is deleted. See the <i>Security Handbook</i> on www.se.com or www.apc.com for more details on the certificate file and private key file.
Remove	Delete the current certificate. A self-signed certificate is generated to replace the current one.

NOTE: Changing these settings will require a restart to the Web UI. If you choose to restart at a later time, you can restart from **Control > Monitor**, page 34.

SSH: Allow Access to the Console Port

Path: Configuration > Network > SSH

The screenshot shows the 'Configuration - SSH' page in the Schneider Electric Web UI. At the top, there are logos for Schneider Electric, EcoStruxure IT, and a 'No Alarms' indicator. A navigation bar includes 'Home', 'Status', 'Control', 'Configuration', 'Tests', 'Logs', and 'About'. The main content area is titled 'Configuration - SSH' and contains an 'Access Control' section. Under 'SSH/SCP', there is an unchecked checkbox for 'Enable'. Below that, the 'SSH Port' is set to '22' in a text input field. At the bottom of the section are 'Apply' and 'Cancel' buttons. The footer contains 'APC's Web Site | Knowledge Base | EcoStruxure™ IT' and '©2021, Schneider Electric. All rights reserved. Updated: 05/08/2021 at 22:31'.

You can enable SSH to allow Service Engineers access to the Console port for troubleshooting. The Service Engineers have the password to access the port. It is recommended that you disable SSH when the port is not in use.

Setting	Description
SSH	Disabled by default.
SSH Port	The port (22 by default) used to communicate with the Monitor by SSH. You can change the port setting to any unused port from 5000 to 32768 for additional security. See the documentation for your SSH client for the command line format required to specify a non-default port.

SNMPv1/2c: Configure Communication Settings

Path: Configuration > Network > SNMPv1/2c

It is recommended that you use the highest possible SNMP version for increased security. All user names, passwords, and community names for SNMPv1 and SNMPv2c are transferred over the network as plain text. If your network requires the higher security of encryption, disable SNMPv1 access and use SNMPv3 instead.

The screenshot shows the 'Configuration - SNMPv1/v2c' page. Under 'Access Control', 'SNMPv1/v2c Access' is checked. There are two rows for community names and access types: 'public' (Read) and 'private' (Write). 'Apply' and 'Cancel' buttons are visible at the bottom of the configuration area.

Setting	Description
SNMPv1/2c Access	Enable communication with the Monitor by SNMPv1 and SNMPv2c.
Community Name	The name that a Network Management System (NMS) must use to access the community (up to 32 ASCII characters). The Read community can only use GETs. The Write community can use GETs or SETs.

SNMPv3: Configure Communication Settings

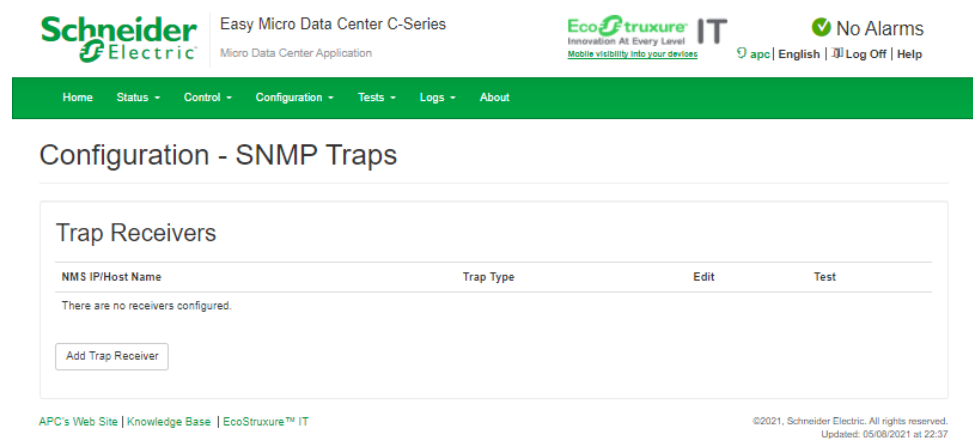
Path: Configuration > Network > SNMPv3

The screenshot shows the 'Configuration - SNMPv3' page. At the top, there are logos for Schneider Electric and EcoStruxure IT, along with a 'No Alarms' indicator. A navigation bar contains links for Home, Status, Control, Configuration, Tests, Logs, and About. The main content area is divided into two sections: 'Access Control' and 'User Profile'. In the 'Access Control' section, 'SNMPv3 Access' is checked under 'Enable', with 'Apply' and 'Cancel' buttons. The 'User Profile' section shows a table with one row for 'User Name' and an 'Edit' button. Below the table, it states 'There are no users configured.' and includes an 'Add User' button. A note at the bottom of the 'User Profile' section says 'Note: User Profile field is editable when SNMPv3 Access is enabled.'

Setting	Description
SNMPv3 Access	Enable communication with the Monitor by SNMPv3.
User Profile	Click Add User to create a new profile, or Edit to change a user profile. Both options open a User Profile dialog box. You can add up to four profiles.
User Profile dialog box	
User Name	The identifier of the user profile. SNMPv3 maps GETs, SETs, and traps to a user profile by matching the user name of the profile to the user name in the data packet being transmitted. A user name can have up to 32 ASCII characters.
Authentication Passphrase	A phrase of 8–32 ASCII characters used to verify the following: <ul style="list-style-type: none"> The Network Management System (NMS) communicating with the Monitor through SNMPv3 is the NMS it claims to be. The message has not been changed during transmission. The message was communicated in a timely manner, indicating that it was not delayed and that it was not copied and sent again later at an inappropriate time. You must select an Authentication Protocol before you can enter an Authentication Passphrase .
Privacy Passphrase	A phrase of 8–32 ASCII characters used to encrypt the information that an NMS is sending to the Monitor or receiving from the Monitor through SNMPv3. You must select a Privacy Protocol before you can enter a Privacy Passphrase .
Authentication Protocol	None: Least secure — no authentication. MD5: More secure. SHA: Most secure.
Privacy Protocol	Select a protocol for encrypting and decrypting data. None: Least secure — no encryption. DES: More secure. AES: Most secure. To maintain the privacy of transmitted data, you must select a privacy protocol <i>and</i> provide a privacy passphrase. When a privacy protocol is enabled but the NMS does not provide a privacy passphrase, the SNMP request is not encrypted.

SNMP Traps: Configure Trap Receivers

Path: Configuration > Network > SNMP Traps



You can use this page to configure up to six SNMP trap receivers to send notifications to an NMS.

Setting	Description
Edit/Add Trap Receiver	
NMS IP/Host Name	NMS = Network Management System. IPv4 address or host name of the trap receiver.
SNMPv1	Select this option to send SNMPv1 traps. If SNMPv1 is selected, you must enter a Community Name (the name used as an identifier when SNMPv1 traps are sent to this trap receiver.).
SNMPv2c	Select this option to send SNMPv2c traps. If SNMPv2c is selected, you must enter a Community Name (the name used as an identifier when SNMPv2c traps are sent to this trap receiver).
SNMPv3	Select this option to send SNMPv3 traps. If SNMPv3 is selected, you must select a User Name (the identifier of the user profile for this trap receiver). SNMPv3 user profiles are configured under Configuration > Network > SNMPv3 .
Delete Receiver	Remove the SNMP trap receiver.
Test	Send a test trap.

E-mail: Configure E-mail for Notifications

Path: Configuration > Network > E-mail



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Configuration - E-mail

E-mail Recipients

To Address	Enable	Test	Delete
There are no recipients configured.			

[Add Recipient](#)

Outgoing Mail Configuration

From Address

SMTP Server

Port [25, 465, 587, 2525, 5000 to 32768]

Authentication
 Enable

User Name

Password

Advanced

Use SSL/TLS

[Apply](#) [Cancel](#)

Note: Change the event notification list in Event Action.

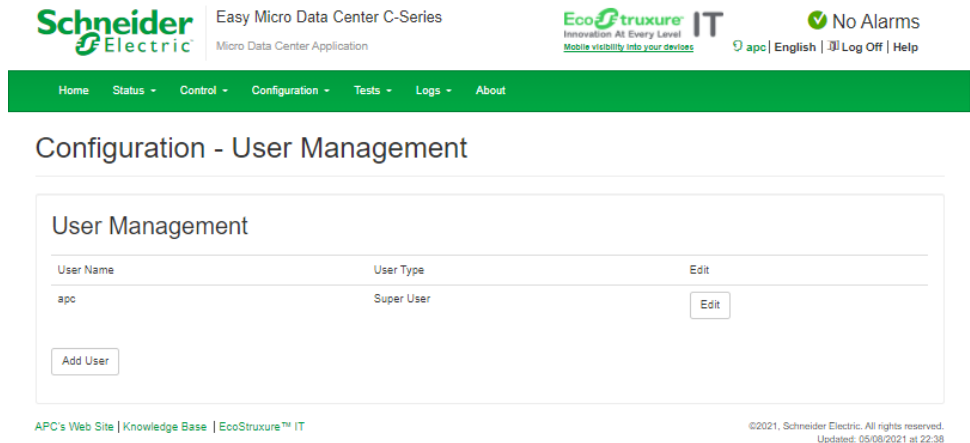
You can use Simple Mail Transfer Protocol (SMTP) to send e-mail to recipients when an event occurs. To use the e-mail feature, you must define the **Outgoing Mail Configuration**.

Setting	Description
E-mail Recipients	
To Address	The e-mail address of the recipients.
Enable	You must select Enable for an e-mail to be sent to each recipient.
Test	To send a test e-mail, select this check box and click Apply at the bottom of the page.
Delete	Delete the e-mail recipient.
Add Recipient	Create a new e-mail recipient.
Outgoing Mail Configuration	
From Address	The contents of the From field in e-mail messages sent by the Monitor.
SMTP Server	The IPv4 address or DNS name of the local SMTP server.
Port	The SMTP port number, with a default of 25. Supported ports include 25, 465, 587, 2525, and 5000–32768.
Authentication	If the SMTP server requires authentication, select Enable and then enter the User Name and Password . This performs a simple authentication, not SSL/TLS.
Advanced	<p>Never: No encryption.</p> <p>SSL: The SMTP server requires SSL encryption. If any intermediate servers do not enable SSL encryption, the e-mail is not sent.</p> <p>TLS: The SMTP server requires TLS encryption. If any intermediate servers do not enable TLS encryption, the e-mail is not sent.</p>

After configuring the e-mail settings recipients, select which events will trigger e-mail notifications under **Configuration > Event Actions**.

User Management: Edit User Profiles

Path: Configuration > General > User Management



NOTE: Only the Super User can change these settings.

NOTE: Changing these settings will require a restart to the Web UI. If you choose to restart at a later time, you can restart from **Control > Monitor**, page 34.

Setting	Description
Add User	Create a new user.
Edit	Change the Password and User Type of any existing user, or Delete the user.
Password	Passwords must be 8–15 characters. They cannot include white spaces.
User Type	<ul style="list-style-type: none"> The Super User can use all of the menus in the Web UI and manage other accounts. The Super User cannot be deleted. The default user name and password for the Super User are both apc. An Administrator can use all of the menus in the Web UI except for Configuration > General > User Management. A Read-only User does not have access to Control, Configuration, or Tests menus. The Home, Status, Logs, and About tabs are visible, but Read-only users receive “Access denied” messages if they try to clear the logs.

Date/Time: Configure the Current Date and Time

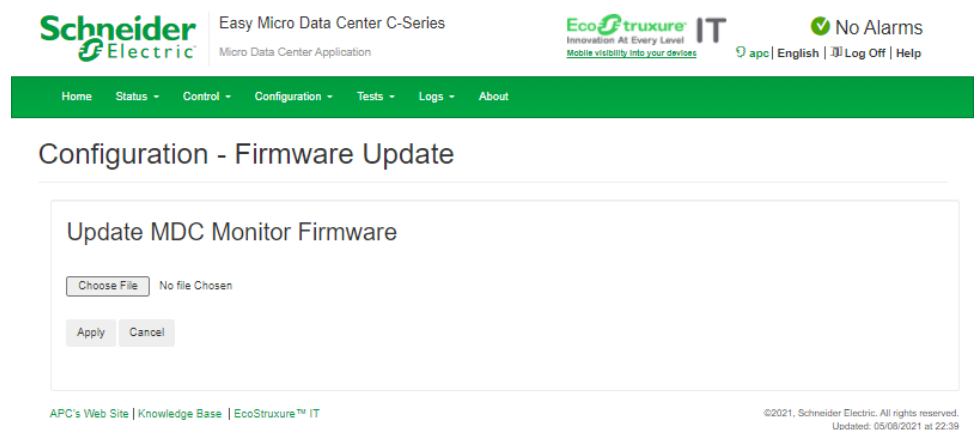
Path: Configuration > General > Date/Time

The screenshot displays the configuration interface for the Date/Time settings. At the top, there are logos for Schneider Electric and EcoStruxure IT, along with status indicators like 'No Alarms'. A navigation bar includes links for Home, Status, Control, Configuration, Tests, Logs, and About. The main content area is titled 'Configuration - Date/Time' and is divided into two sections: 'Current Settings' and 'System Time Configuration'. The 'Current Settings' section shows the current date as 05/08/2021 and time as 22:39:16, with fields for Active Primary and Secondary NTP Servers. The 'System Time Configuration' section allows users to choose between 'Manual' and 'Synchronize with NTP Server' modes. Under 'Manual', users can set the date format (dd/mm/yyyy), time zone (+/- 0 hours), and manually enter the date (05/08/2021) and time (22:39:16). There are also checkboxes for 'Apply local computer time' and 'Synchronize with NTP Server'. The 'Synchronize with NTP Server' section includes fields for Primary NTP Server, Secondary NTP Server, and Update Interval (set to 336 hours). At the bottom of the configuration area are 'Apply' and 'Cancel' buttons. Footer text includes 'APC's Web Site | Knowledge Base | EcoStruxure™ IT' and copyright information for Schneider Electric.

Setting	Description
Date Format	Select the date format from the list.
Time Zone	Your local time difference with Coordinated Universal Time (UTC). Select the current time zone from the Time Zone list, or configure the date and time with the Manual or NTP Server settings.
Manual	Do one of the following: <ul style="list-style-type: none"> Enter the Current Date and Time manually. The time is set using the 24-hour clock. The date must match the current Date Format. Select Apply Local Computer Time to apply the date and time settings of the computer you are using.
Synchronize with NTP server	Have an NTP (Network Time Protocol) Server define the date and time for the Monitor. <p>Primary NTP Server: Enter the IP address or domain name of the primary NTP server. NOTE: If the TCP/IP Mode is DHCP, you can leave this field empty for the DHCP server to fill or enter the IP address manually.</p> <p>Secondary NTP Server: Enter the IP address or domain name of the secondary NTP server, when a secondary server is available.</p> <p>Update Interval: Define, in hours, how often the Monitor accesses the NTP Server for an update. Minimum: 1; Maximum: 8760 (1 year).</p>

Update the Firmware

Path: Configuration > Firmware Update



Download the latest firmware version from the appropriate product page on www.apc.com or www.se.com. On the **Firmware Update** page of the Web UI, click **Choose File** to upload the firmware file to the Monitor. Then click **Apply** to update the firmware.

NOTE: Firmware downgrades are not supported.

Update the Firmware With a USB Drive

You can also use a USB drive to transfer and upgrade files. Before starting the transfer, make sure the USB drive is formatted in FAT32.

1. Download the firmware file from www.apc.com and unzip the file.
2. Place the **upgrade_mdc_*.bin** file in the root directory of your USB drive.
3. Insert the USB drive into the USB port on the Monitor. Remove the USB drive after the monitor beeps. If you do not remove the USB drive immediately, this will cause a continuous reboot.

It takes about one minute to complete the upgrade. The Monitor will reboot automatically.

4. Check that the upgrade was completed successfully. See [Verify Firmware Updates](#), page 58.

Verify Firmware Updates

You can check the firmware version installed on the monitor in any of the following ways:

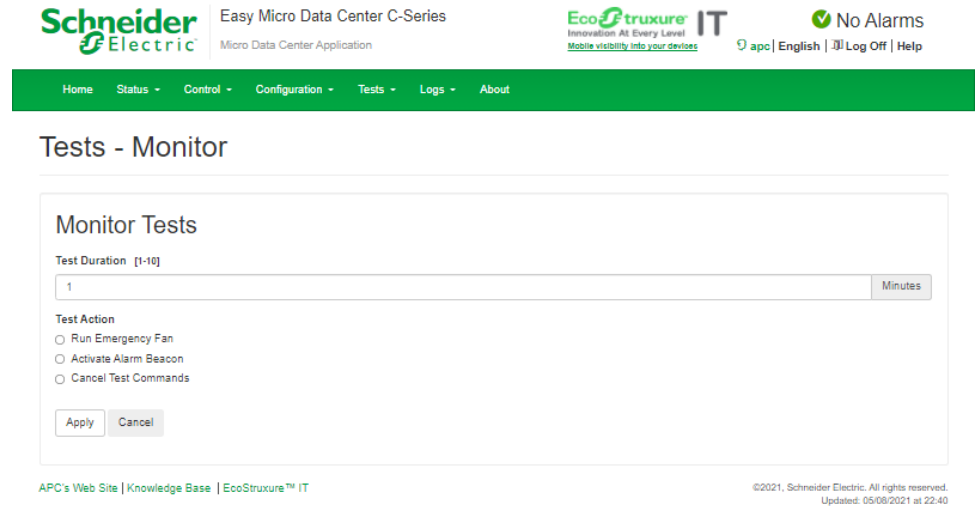
- Check the Web UI under **About** (see [About Tab](#), page 63).
- Check the lower-left corner of the Local Touchscreen Display Interface (EMDC42UP1 only).
- Check the CLI (see [Command Line Interface](#), page 18).

Tests Tab

Use the **Tests** tab to ensure rarely used features function correctly. It is recommended that you test these functions on a regular basis. Tests do not trigger event actions or notifications.

Test Monitor Controls

Path: Tests > Monitor



You can test the Emergency Fan and Alarm Beacon regularly to make sure they function normally. Configure the test settings, then click **Apply** to start or cancel the test.

Setting	Description
Test Duration	Enter a number of minutes [1 to 10] in the Test Duration field to set the duration time of test action
Test Action	<p>Run Emergency Fan: Test the Emergency Fans (front and rear).</p> <p>Activate Alarm Beacon: Test the Alarm Beacon.</p> <p>Cancel Test Commands: Cancel all test actions that you have already applied.</p>

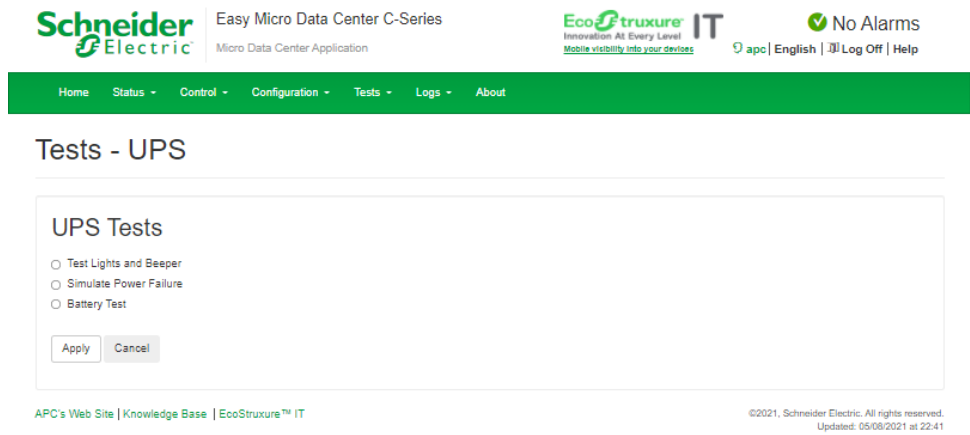
NOTE: Test commands are ignored if they interfere with any configured event action.

You can configure event actions under **Configuration > Event Action** (see Event Action: Set Alarm Beacon and E-mail Notifications, page 46).

Several default event actions for fans cannot be changed and do not appear in the **Event Action** page (see Cooling, page 24 for a description of default actions for Emergency Fans).

Test UPS Functions

Path: Tests > UPS



You can use this page to check if the UPS battery functions normally. Select one of the available settings, then click **Apply** to start the test.

Setting	Description
Test Lights and Beeper	Check whether the lights and beeper work normally. If they do work normally, the Status LED, Beeper, and LCD of the UPS will activate for about two seconds.
Simulate Power Failure	Conduct a self-test and determine the battery status during a simulated power failure. Possible results are Success and Failed .
Battery Test	Check whether the battery works normally. Possible results are Success and Failed . See your UPS manual for more information about the battery test.

See your UPS *User Manual* for more detailed information about UPS settings and tests.

Logs Tab

You can use the **Logs** Tab to view events generated by your equipment (such as threshold alarms), or data gathered from the equipment such as (such as power measurements and environmental readings). If communication with any piece of equipment is lost, the historical data remains in the log, and future log entries for that equipment may be “zero” or “empty.”

Logs - Event Log

Path:Logs > Event Log

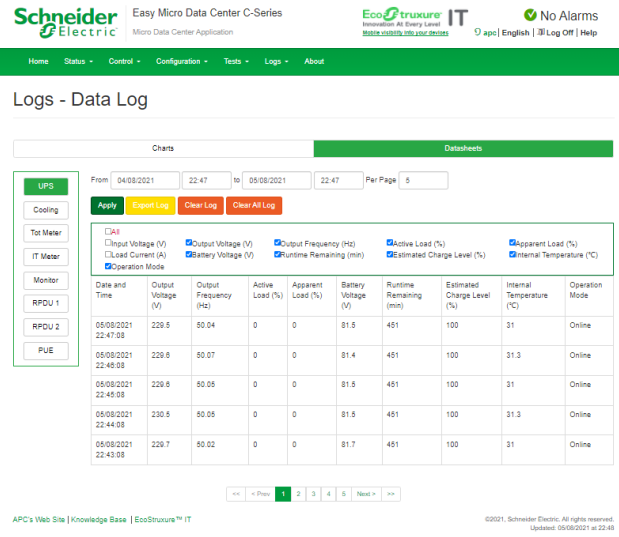
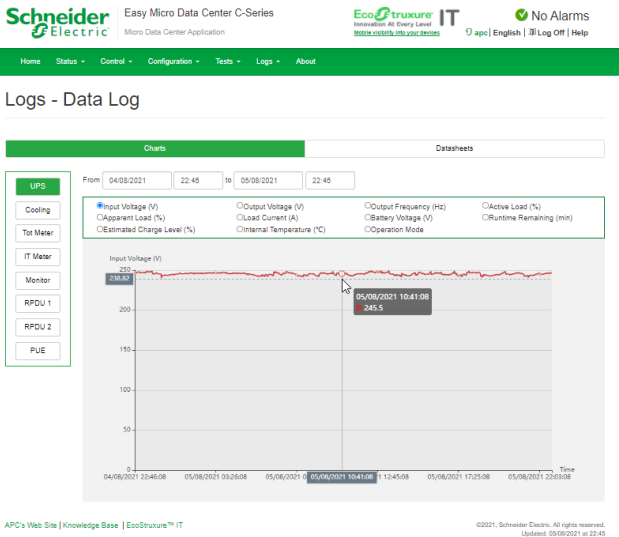
By default, the event log displays the most recent alarm events. To download the operation events information (including **login**, **logout**, **configuration change**, and **control**), click **Operation Events** at the top right corner of the page.

Setting	Description
From/To	Define the date and time for which events are shown. Then click Apply to see the event list. You can customize the number of events shown in the Per Page field.
Export Log	Output events in the specified time range as a downloadable CSV file.
Clear Log	Delete all the events in the specified time range.
Clear All Log	Delete all the events in all time ranges.

View the Data Log

Path:Logs > Data Log

You can use the Data Log to view equipment readings over a period of time (the last 24 hours by default). Click **Charts** to view the log as a graph or **Datasheets** to view the log as a table. In the Charts view, you can put the cursor on the chart to see the data values. In the Datasheets view, you can view multiple readings at one time.




Setting	Description
From/To	Define the date and time in which the data is shown. Then click Apply to see the event list. You can use the Per Page field (Datasheets view only) to customize the number of rows shown.
Export Log	Datasheets view only. Output data logs in the specified data items and time range as a downloadable CSV file.
Clear Log	Datasheets view only. Delete all the data logs in the specified data items and time range.
Clear All Log	Datasheets view only. Delete all the data logs in the selected equipment and in all time ranges.
UPS	UPS data sets available: Input Voltage (V), Output Voltage (V), Output Frequency (Hz), Active Load (%), Apparent Load (%), Load Current (A), Internal Temperature (°C), Operation Mode (1= Online, 2 = Bypass, 3 = Battery, 4 = Offline) . See UPS: View UPS Status/Load and Battery Status , page 30 for more detail on Operation Modes . Battery data sets available: Battery Voltage (V), Runtime Remaining (min), Estimated Charge Level (%) .
Cooling	Data sets available: Air Return Temperature (°C), Air Outlet Temperature (°C), IDU DC Fan Voltage (V), Operation Mode, Air Return Humidity (%RH), Discharge Pressure (bar), Suction Pressure (bar), Target Frequency (Hz), Running Frequency (Hz), Target Evaporation Temperature (°C), In-coil Temperature (°C), Out-coil Temperature (°C), Discharge Temperature (°C), Evaporation Temperature (°C), IDU Valve Steps . Operation Mode readings in Charts view: 0 = Cooling , 1 = Dehumidification , 2 = BMS Shutdown , 3 = HMI Shutdown , 4 = Fault Shutdown , 5 = Remote Shutdown , 6 = Cooling/Auxillary Heating . See Cooling: View Sensor readings and Operation Statuses for Troubleshooting , page 28 for more information on Operation Modes .
Tot Meter (Total Facility Energy Meter)	Data sets available: Energy (kWh), Active Power (kW), Apparent Power (kVA), Voltage (V), Frequency (Hz), Current (A), Power Factor .
IT Meter (IT Equipment Energy Meter)	Data sets available: Energy (kWh), Active Power (kW), Apparent Power (kVA), Voltage (V), Frequency (Hz), Current (A), Power Factor .
Monitor	Data sets available: Cold Aisle Temperature (°C), Cold Aisle Humidity (%RH), Hot Aisle Temperature (°C), Hot Aisle Humidity (%RH) .
RPDU 1, RPDU 2	Data sets available: Active Power (kW), Current (A), Energy (kWh), Frequency (Hz), Voltage (V) .
PUE	Power Usage Effectiveness (PUE) is measured as the Total Facility Energy (the total power to the Easy Micro Data Center) divided by the IT Equipment Energy (power drawn from the Monitor, PDUs, and AC 230 V Output). Charts view only: Click Daily, Monthly, or Annual to set the intervals for PUE readings.


NOTE: The **PUE, Total Facility Energy, and IT Equipment Energy** measurements are only available for models with an Input Meter and Facility Meter installed in the Power Distribution Panel (EMDC42U6KP2, EMDC42U6KP2V, EMDC24U3KP2, and EMDC24U3KP2V). **RPDU** readings are only available for systems with metered Rack PDUs.

About Tab

Path: About



Easy Micro Data Center C-Series
Micro Data Center Application



✔ No Alarms

[app](#) | [English](#) | [Log Off](#) | [Help](#)

Home
Status ▾
Control ▾
Configuration ▾
Tests ▾
Logs ▾
About

About - MDC

Easy Micro Data Center C-Series

Name mdc	Location Unknown	Contact Unknown
Model Number EMDC24U3KP2	Enclosure	System Capacity
Serial Number 987654321		
Monitor		
Model Number EMDCKIT0	Firmware Version 1.0.0	
PDP		
Model Number EMPDF080M		

UPS

Model Number SRVSPM3KRIL	Firmware Version 441.05CT.I	Serial Number 9S2038A01641
Nominal Battery Voltage 72 V	Battery Packs 1	Manufacture Date 09/28/20

RPDU 1

Model Number EPDU1018M	Firmware Version SV19-HV10	Serial Number 50825560027c
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RPDU 2

Model Number EPDU1018M	Firmware Version SV19-HV10	Serial Number 508255600272
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Updated: 05/08/2021 at 22:49

The **About** tab displays information about all subsystems except cooling. The hardware information is useful to Customer Support for troubleshooting purposes. You can also find the serial number of your Easy Micro Data Center on the nameplate in the rear of the cabinet (check beneath the bar code).

Schneider Electric

Micro Data Center CE/SE Series

Model : XXXX

Dimension : XXXX

Input : XXXX

Output : XXXX

Cooling capacity: XXXX

•Foam blown with fluorinated greenhouse gases.
 •This equipment must be installed in accordance with local and national wiring regulations.

emdc028a

990-91508B

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As standards, specifications, and design change from time to time,
please ask for confirmation of the information given in this publication.

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