Galaxy Power Distribution Unit

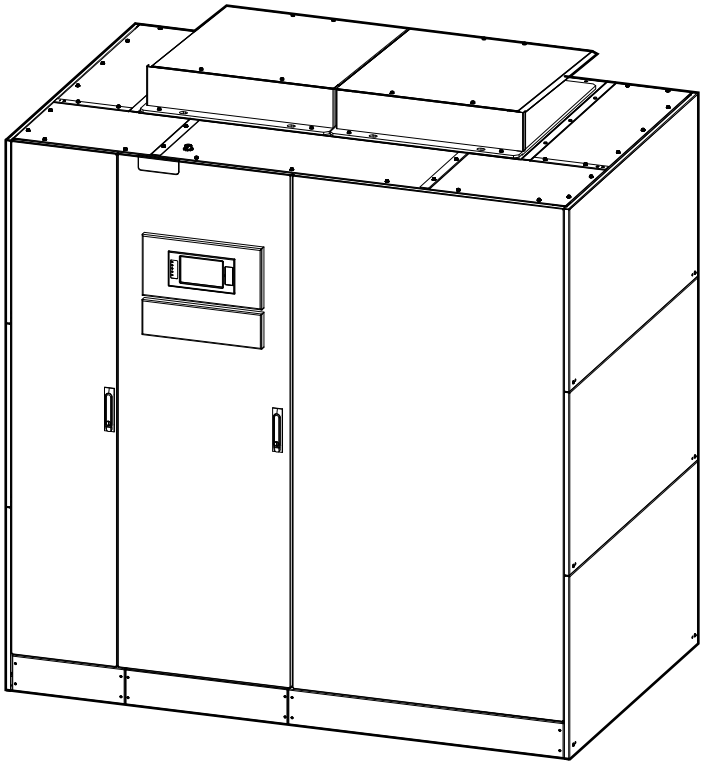
1000 kVA

Operation

PMM1000-CUB

Latest updates are available on the Schneider Electric website

6/2025



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The information provided in this document contains general descriptions, technical characteristics and/or recommendations related to products/solutions.

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Table of Contents

Important Safety Instructions — SAVE THESE INSTRUCTIONS

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

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

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

⚠DANGER

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

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

⚠WARNING

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

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

⚠CAUTION

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

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

NOTICE

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

Failure to follow these instructions can result in equipment damage.

Please Note

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

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

Safety Precautions

⚠DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

All safety instructions in this document must be read, understood and followed.

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

⚠DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Read all instructions in this manual before installing or working on this product.

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

⚠DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Do not install the product until all construction work has been completed and the installation room has been cleaned.

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

⚠DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- The product must be installed according to the specifications and requirements as defined by Schneider Electric. It concerns in particular the external and internal protections (upstream disconnect devices, battery disconnect devices, cabling, etc.) and environmental requirements. No responsibility is assumed by Schneider Electric if these requirements are not respected.
- After the product has been electrically wired, do not start up the system. Start-up must only be performed by Schneider Electric.

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

⚠DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

The product must be installed according to local and national regulations. Install the product according to:

- NEC NFPA 70, **or**
- Canadian Electrical Code (C22.1, Part 1)

depending on which one of the standards apply in your local area.

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

⚠DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Install the product in a temperature controlled indoor environment free of conductive contaminants and humidity.
- Install the product on a non-flammable, level and solid surface (e.g. concrete) that can support the weight of the system.

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

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

The product is not designed for and must therefore not be installed in the following unusual operating environments:

- Damaging fumes
- Explosive mixtures of dust or gases, corrosive gases, or conductive or radiant heat from other sources
- Moisture, abrasive dust, steam or in an excessively damp environment
- Fungus, insects, vermin
- Salt-laden air or contaminated cooling refrigerant
- Pollution degree higher than 2 according to IEC 60664-1
- Exposure to abnormal vibrations, shocks, and tilting
- Exposure to direct sunlight, heat sources, or strong electromagnetic fields

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

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Do not drill or cut holes for cables or conduits with the gland plates installed and do not drill or cut holes in close proximity to the product.

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

⚠ WARNING

HAZARD OF ARC FLASH

Do not make mechanical changes to the product (including removal of cabinet parts or drilling/cutting of holes) that are not described in this manual.

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

NOTICE

RISK OF OVERHEATING

Respect the space requirements around the product and do not cover the ventilation openings when the product is in operation.

Failure to follow these instructions can result in equipment damage.

Electrical Safety

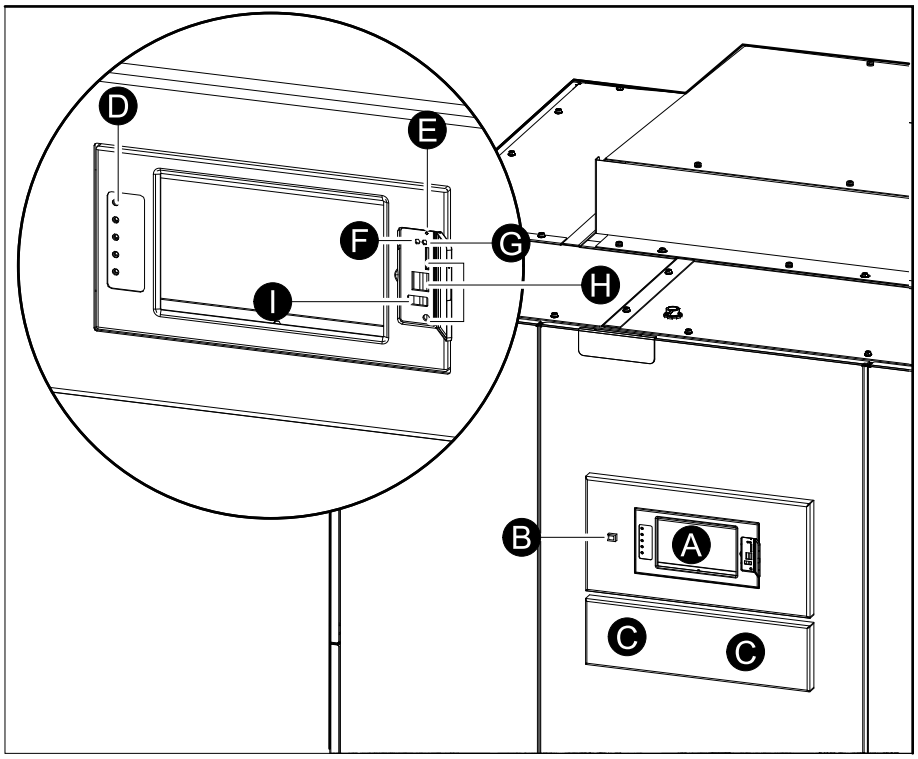
⚠DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Electrical equipment must be installed, operated, serviced, and maintained only by qualified personnel.
- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices.
- Turn off all power supplying the PDU system before working on or inside the equipment.
- Before working on the PDU system, check for hazardous voltage between all terminals including the protective earth.
- A disconnection device (e.g. disconnection circuit breaker or switch) must be installed to enable isolation of the system from upstream power sources in accordance with local regulations. This disconnection device must be easily accessible and visible.
- The PDU must be properly earthed/grounded and due to a high leakage current, the earthing/grounding conductor must be connected first.

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

User Interface



A. PDU display. See Display Symbols, page 10 and Menu Tree, page 11.
B. Emergency power off (EPO) button (option)
C. Power meter (option)
D. Status LEDs. See Overview of Status LEDs, page 10.
E. Display reset button
F. Network connection LED:
   - Solid green: The system has valid TCP/IP settings.

     See Configure the Network, page 23.
   - Flashing green: The system does not have valid TCP/IP settings.
   - Solid orange: The display is inoperable. Contact Schneider Electric.
   - Flashing orange: The system is making BOOTP requests.

     See Configure the Network, page 23.
   - Alternately flashing green and orange: If the LED is alternately flashing slowly, the system is making DHCP requests.

     See Configure the Network, page 23.

     If the LED is alternately flashing rapidly, the system is starting up.
   - Off: The display is not receiving input power or the display is inoperable.
G. LED for indication of network connection type:
   - Solid green: The system is connected to a network operating at 10 Megabits per second (Mbps).
   - Flashing green: The system is receiving or transmitting data packets at 10 Megabits per second (Mbps).
   - Solid orange: The system is connected to a network operating at 100 Megabits per second (Mbps).
   - Flashing orange: The system is receiving or transmitting data packets at 100 Megabits per second (Mbps).
   - Off: One or more of the following exists: The display is not receiving input power, the cable that connects the system to the network is disconnected, the device that connects the system to the network is turned off, or the

display is inoperable. Check the connections and if the LED remains off, contact Schneider Electric.

H. Slots reserved for service

I. USB port

Overview of Status LEDs

	Power LED: When the LED is illuminated, the PDU is powered on. When the LED is flashing, the PDU firmware is being updated.
	Check log LED: When the LED is illuminated, a new PDU entry has been made in the event log.
	Alarm LED: When the LED is illuminated, there is an alarm condition in the PDU system.

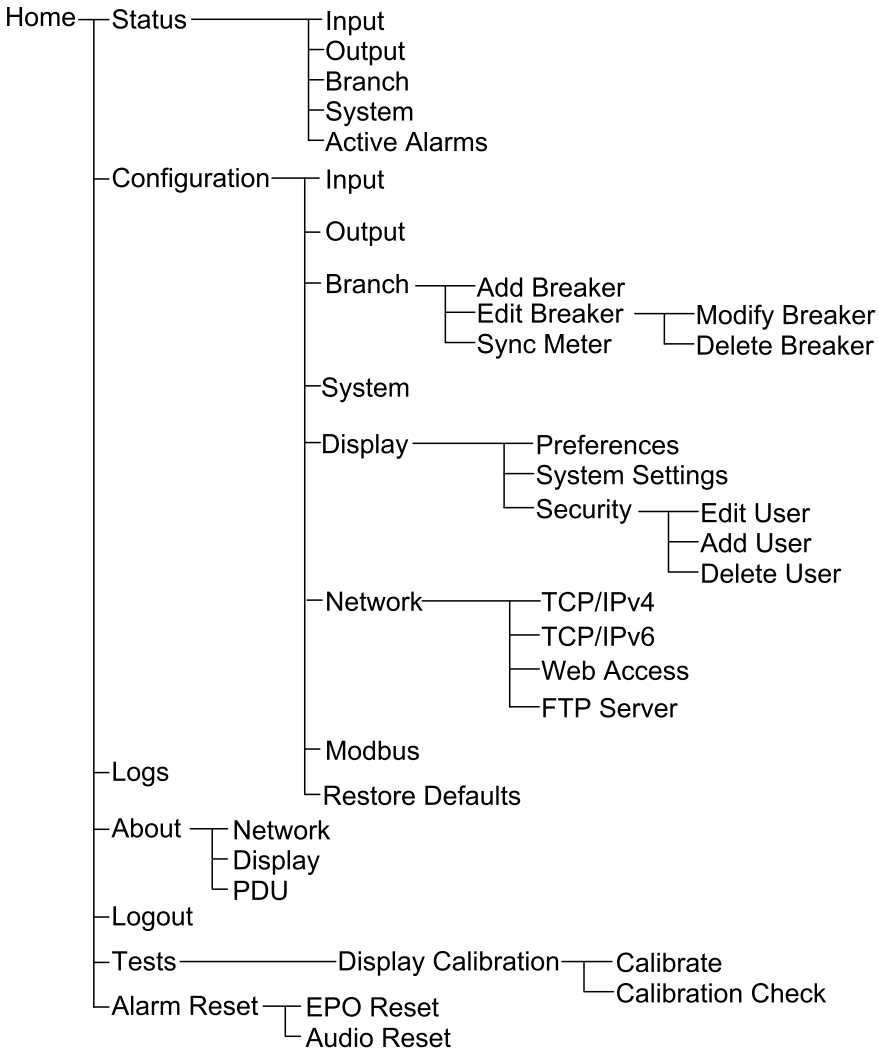
Power Meter Operation

Follow the documentation delivered with the specific power meter for operation, maintenance, and troubleshooting.

Display Symbols

Symbol	Description
	The locked home button appears when the system is locked by a password protection. Tap this button to go to the home screen of the display.
	The unlocked home button appears when the system has been unlocked using the password. Tap this button to go to the home screen of the display.
	Tap the OK button to confirm your selections and exit the current screen.
	Tap the ESC button to cancel your changes and exit the current screen.
	Tap the filter button to set up the filters for your logs.
	Tap the recycle bin button to clear the log.

Menu Tree

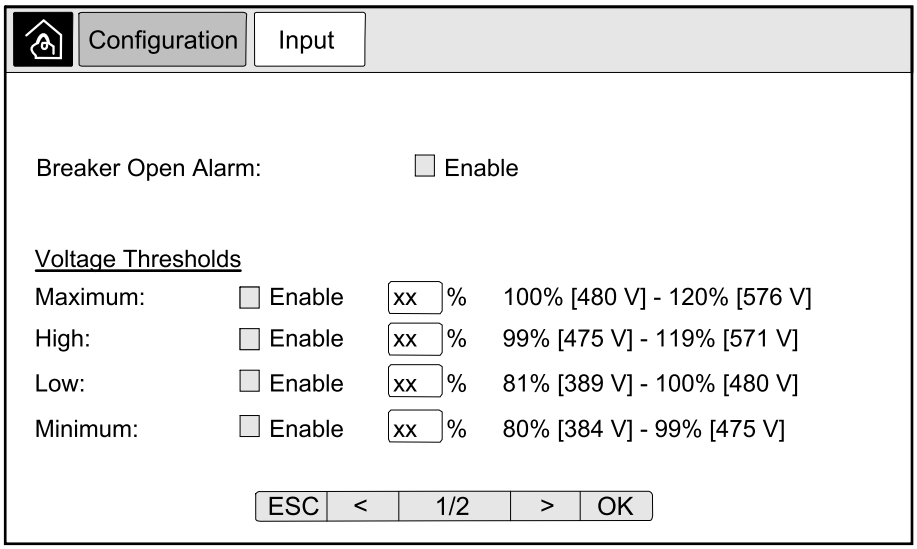


Some menus contain more submenus than described in this manual. These submenus are grayed out and are only for use by Schneider Electric to avoid unwanted load impacts. Other menu items can also be grayed out/not shown on the display if they are not relevant or not released yet for this particular PDU system.

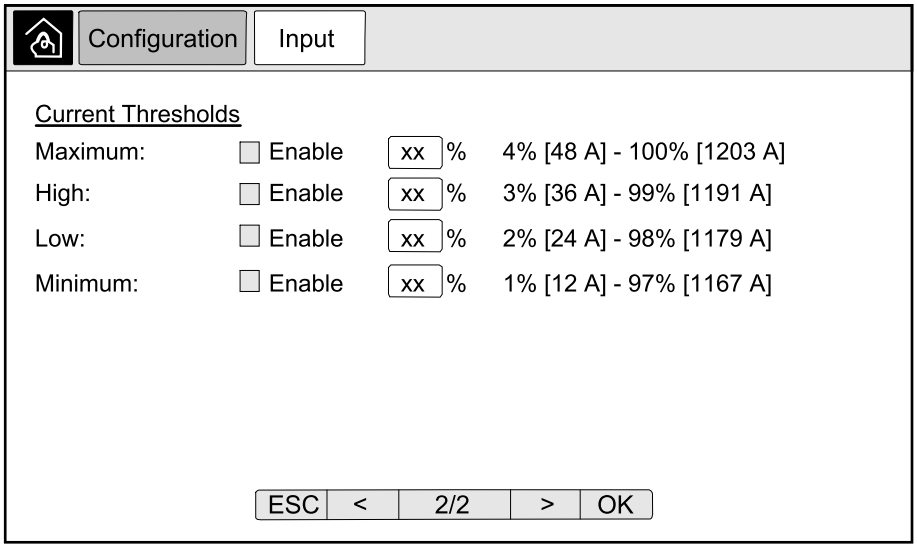
Configuration

Configure the Input Parameters

1. From the home screen on the display, select **Configuration > Input**.
2. Enable the **Breaker Open Alarm**, if needed.



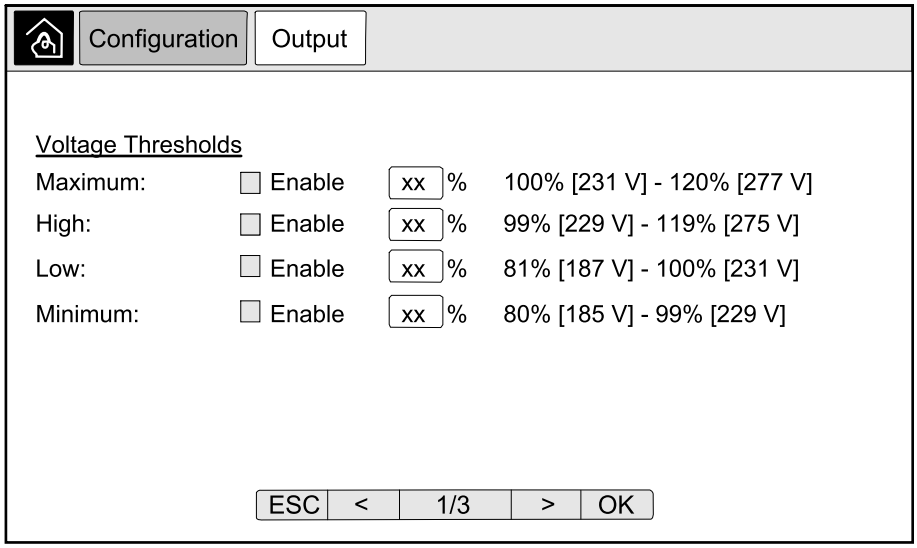
3. Set the **Voltage Thresholds** for **Maximum**, **High**, **Low**, and **Minimum** by tapping **Enable** and setting the percentage.
4. Tap the **>** symbol to go to the next page.
5. Set the **Current Thresholds** for **Maximum**, **High**, **Low**, and **Minimum** by tapping **Enable** and setting the percentage.



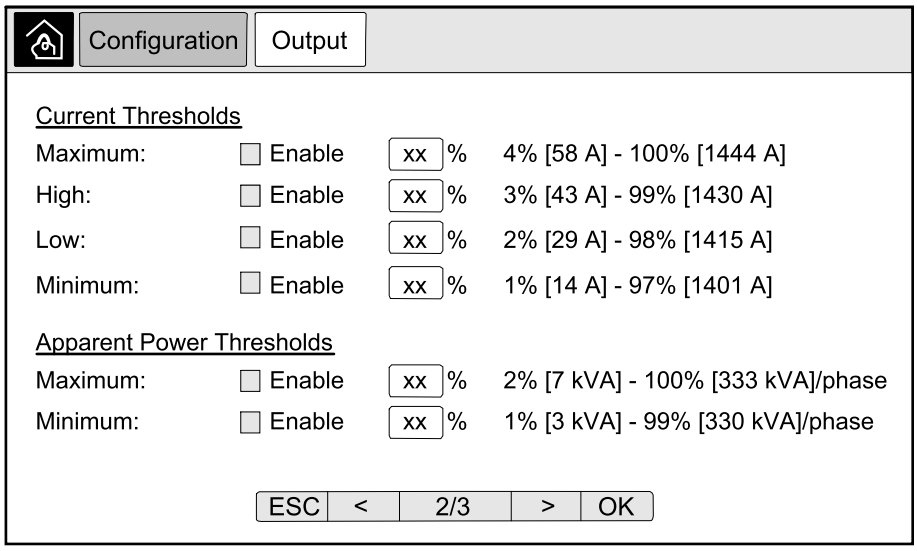
6. Tap **OK** to save your settings.

Configure the Output Parameters

1. From the home screen on the display, select **Configuration > Output**.

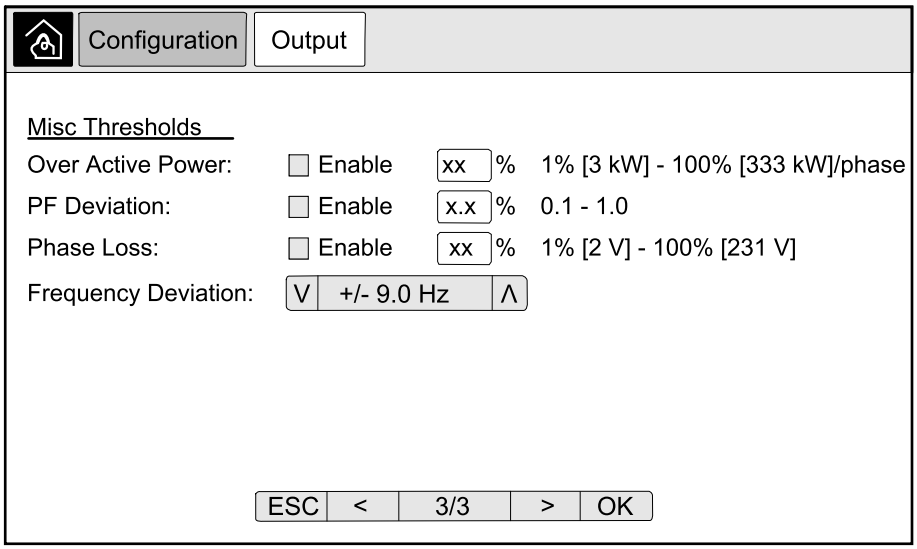


2. Set the **Voltage Thresholds** for **Maximum**, **High**, **Low**, and **Minimum** by tapping **Enable** and setting the percentage.
3. Tap the **>** symbol to go to the next page.
4. Set the **Current Thresholds** for **Maximum**, **High**, **Low**, and **Minimum** by tapping **Enable** and setting the percentage.



5. Set the **Apparent Power Thresholds** for **Maximum** and **Minimum** by tapping **Enable** and setting the percentage.
6. Tap the **>** symbol to go to the next page.

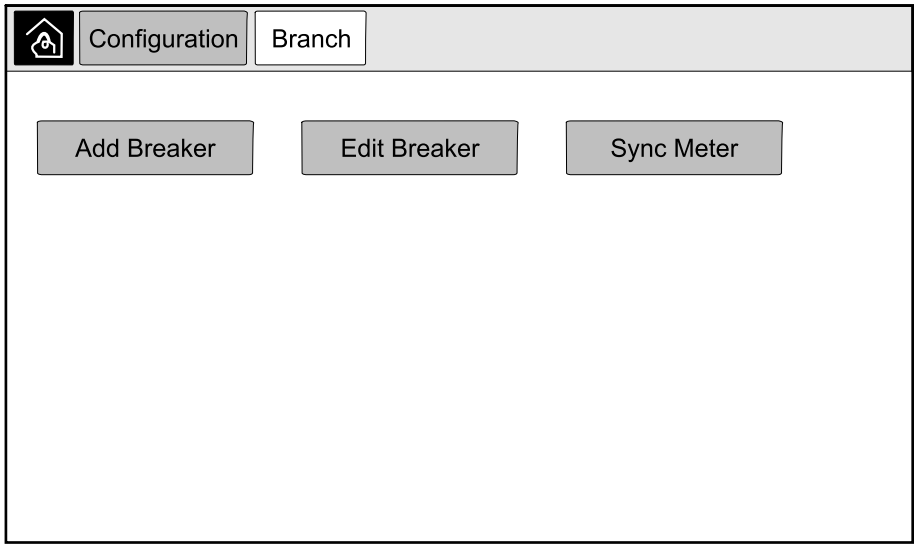
7. Set the **Misc Thresholds** for **Over Active Power**, **PF Deviation**, **Phase Loss**, and **Frequency Deviation** by tapping **Enable** and setting the percentage or choosing from the drop-down list.



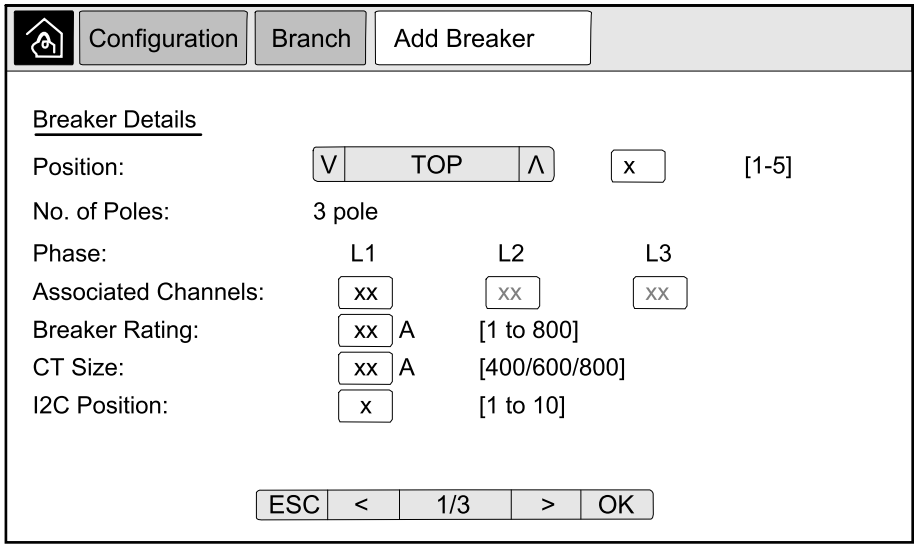
8. Tap **OK** to save your settings.

Configure a Branch Circuit Breaker

1. From the home screen on the display, select **Configuration > Branch > Add Breaker**.



2. Configure the branch circuit breaker parameters:



   a. Set the **Position** to **TOP** or **BOTTOM** and type the position number.
   The positions are assigned taking the center as a reference:

   Branch Circuit Breaker Positions

TOP 5
TOP X
TOP 2
TOP 1
Center
BOTTOM 1
BOTTOM 2
BOTTOM X
BOTTOM 5

   b. Set the **Associated Channels** for L1, L2 and L3.

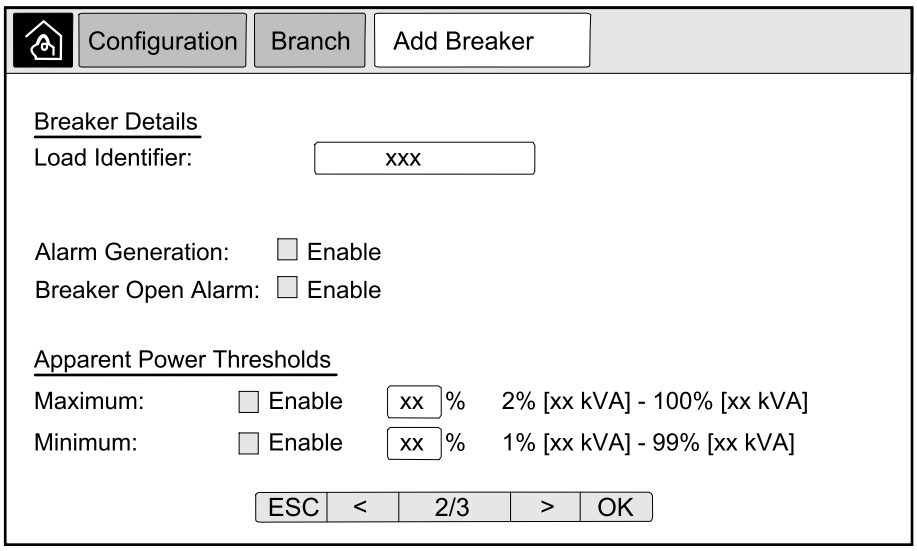
   c. Set the **Breaker Rating** current (1 to 800).

d. Set the **CT Size** (400, 600, or 800).

e. Set the **I2C Position** (1 to 10).

f. Tap the **>** symbol to go to the next page to provide optional settings, or tap **OK** to use default settings for the next two pages.

3. On the following page, provide the optional settings:



a. Add a name for the branch circuit breaker/load in the **Load Identifier** field.

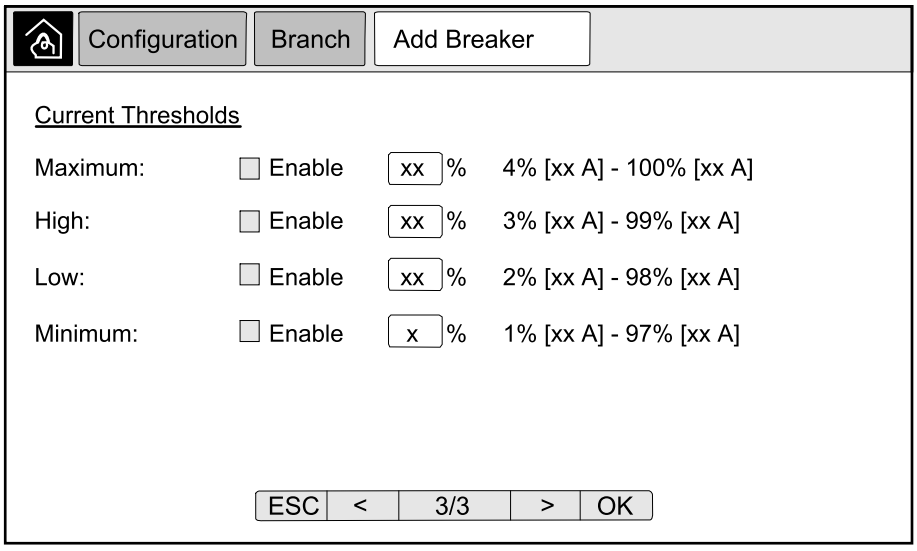
b. Enable **Alarm Generation**, if needed.

c. Enable **Breaker Open Alarm**, if needed.

d. Set the **Apparent Power Thresholds** for **Maximum** and **Minimum** by tapping **Enable** and setting the percentage.

e. Tap the **>** symbol to go to the next page.

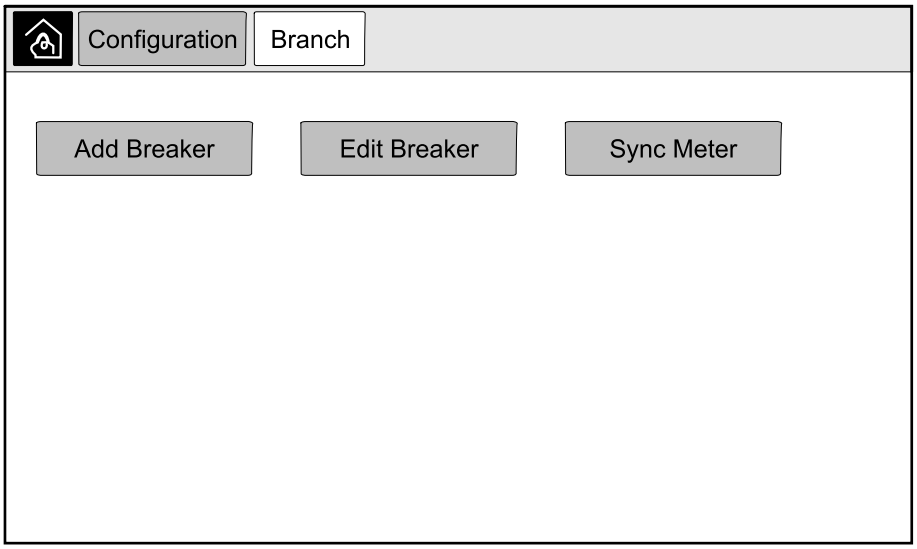
4. On the following page, provide the optional settings:



a. Set the **Current Thresholds** for **Maximum**, **High**, **Low**, and **Minimum** by tapping **Enable** and setting the percentage.

b. Tap **OK** to finish the configuration of the branch circuit breaker.

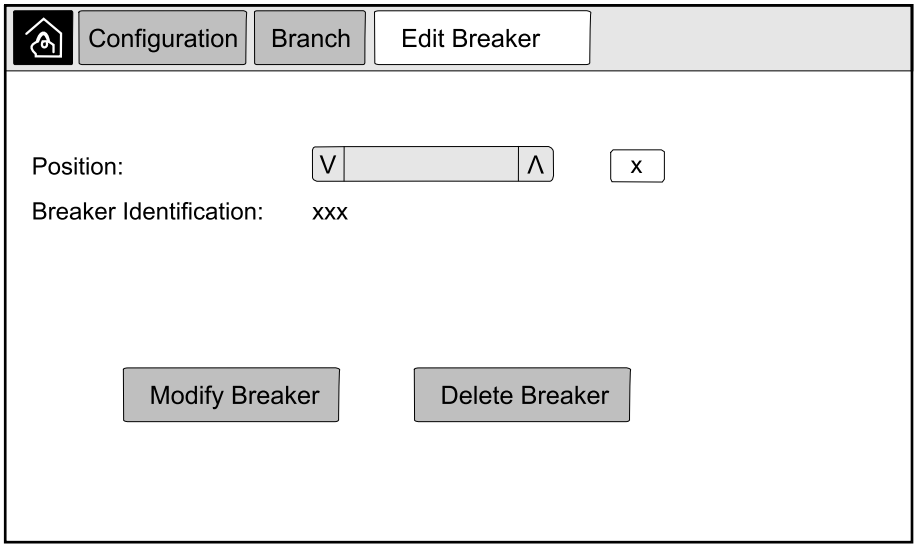
Once a branch circuit breaker has been added, modified, or deleted, the breaker status will update automatically. If the branch circuit breaker status does not update automatically, go to **Configuration > Branch** and tap **Sync Meter** to synchronize the branch circuit breaker with the power meter.


Configuration
Branch
Add Breaker
Edit Breaker
Sync Meter

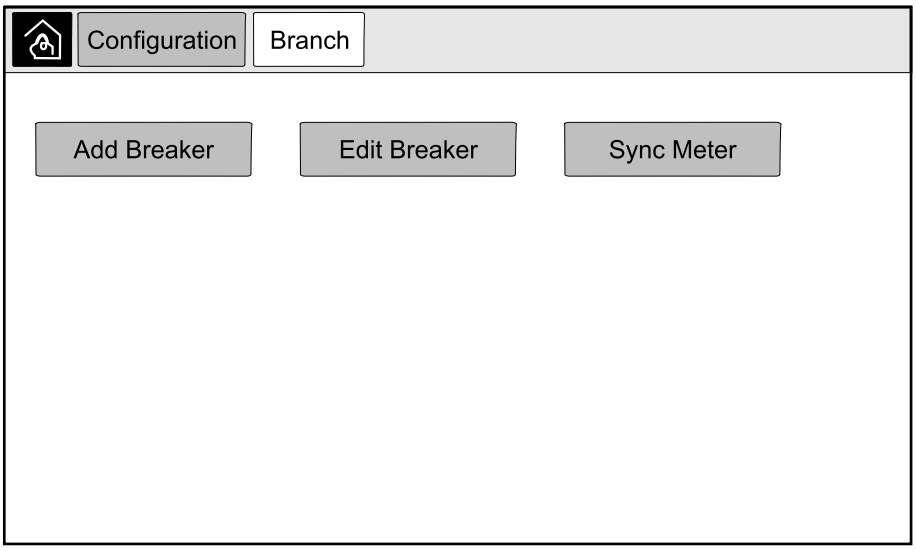
Edit or Delete a Branch Circuit Breaker

1. From the home screen on the display, select **Configuration > Branch > Edit Breaker**.
2. Select the **Position** for the branch circuit breaker and select **Modify Breaker** to edit the branch circuit breaker parameters or **Delete Breaker** to delete the branch circuit breaker from the configuration.

   NOTE: If an alarm exists for a given branch circuit breaker, you must reboot the display after deleting a branch circuit breaker to clear the alarm (s).

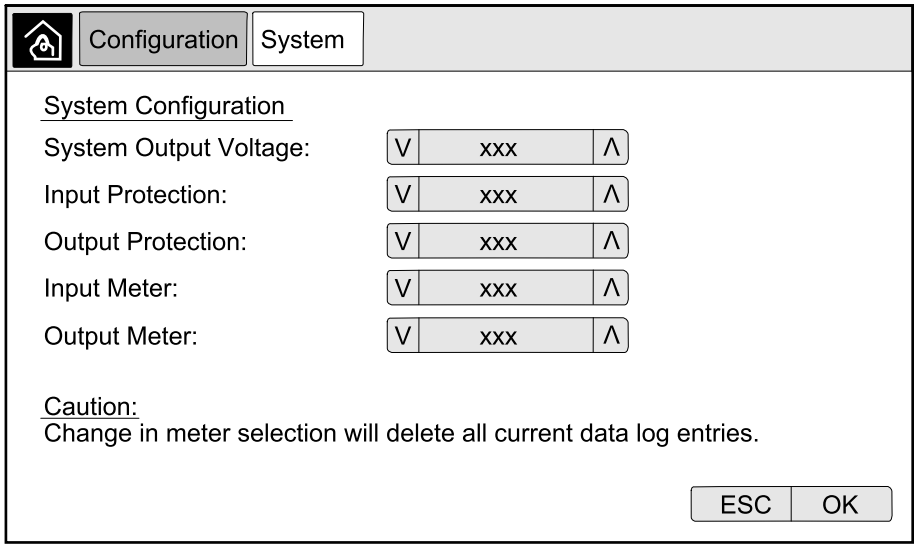


Once a branch circuit breaker has been added, modified, or deleted, the breaker status will update automatically. If the branch circuit breaker status does not update automatically, go to **Configuration > Branch** and tap **Sync Meter** to synchronize the branch circuit breaker with the power meter.



View the System Configurations

1. From the home screen on the display, select **Configuration > System**.



   a. **System Output Voltage**: **400 V** or **415 V** as per your system.

   b. **Input Protection**: **Switch** or **Breaker** as per your system.

   c. **Output Protection** will show as **Not Installed**.

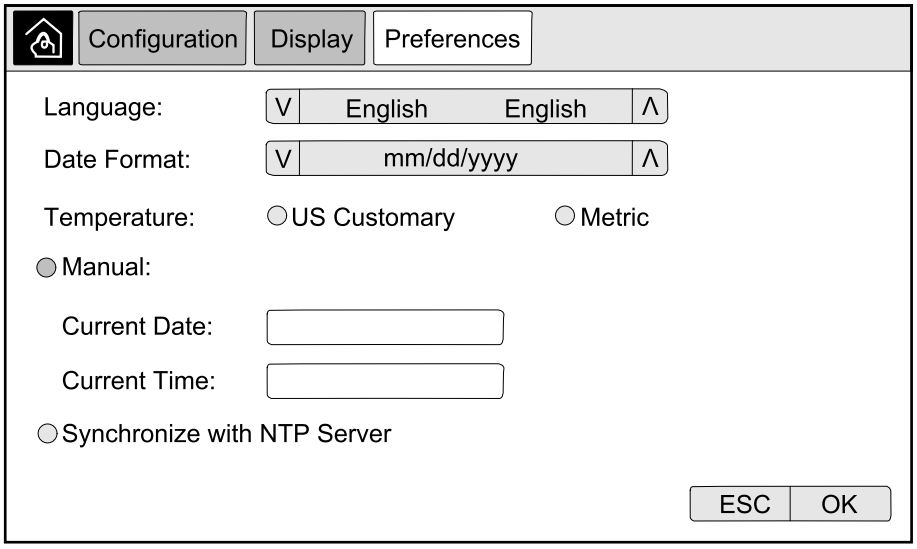
   d. **Input Meter**: **None** or **PM5563** as per your system.

   e. **Output Meter**: **HDPM6000** or **PM8000** as per your system.

   NOTE: If there are any differences between the listed system configuration and the actual system, please contact Schneider Electric.

Configure the Display Preferences

1. From the home screen on the display select **Configuration > Display > Preferences**.

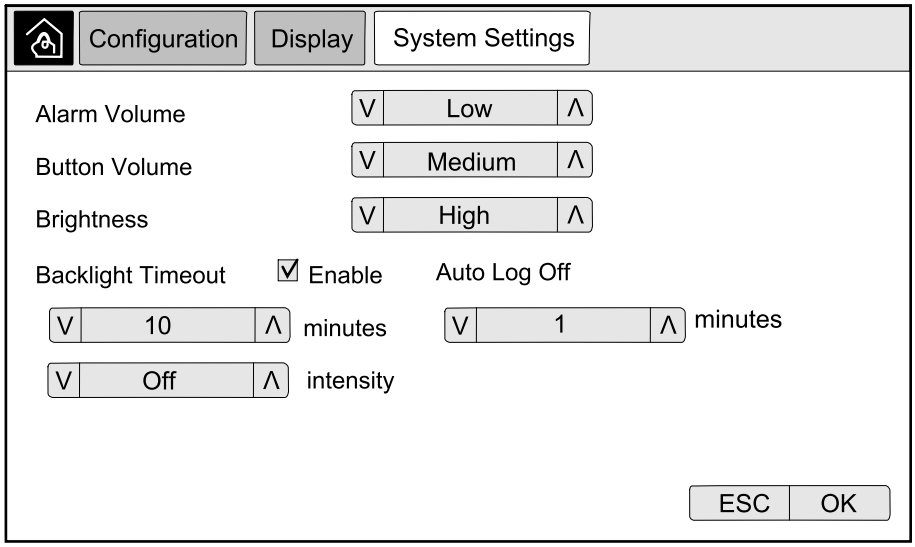


2. Select the preferred language using the up and down arrows.
3. Select the preferred date format using the up and down arrows.
4. Select the preferred temperature units: **US Customary** (°Fahrenheit) or **Metric** (°Celsius).
5. Set the current date and time using one of the below two methods:
   - Set the date and time manually on the display by selecting **Manual** and typing the actual date and time and completing with **Enter**.
   - Set the date and time automatically by selecting **Synchronize with NTP server** (Network Time Protocol server).

     NOTE: NTP server settings can be configured in the network management interface via the Web, command line, or config file.
6. Tap **OK** to save your settings.

Configure the Display Settings

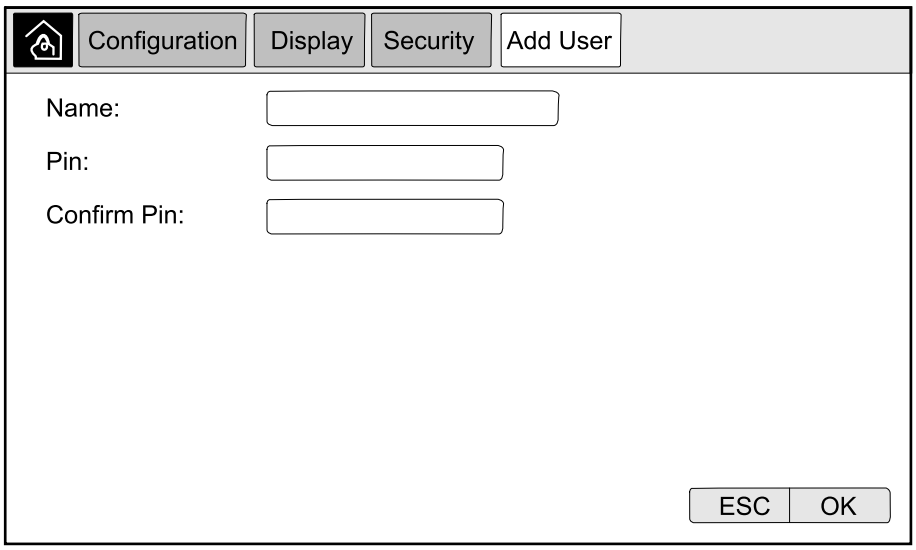
1. From the home screen on the display select **Configuration > Display > System Settings**.



2. Set the **Alarm Volume**. Choose between: **Off**, **Low**, **Medium**, and **High**.
3. Set the **Button Volume**. Choose between: **Off**, **Low**, **Medium**, and **High**.
4. Set the **Brightness** of the display. Choose between: **Low**, **Medium**, and **High**.
5. Enable or disable **Backlight Timeout**. If you wish to enable backlight timeout, set the time limit in minutes for enabling backlight timeout. Choose between: **60**, **30**, **10**, **5**, and **1**.
6. Set the intensity of the backlight. Choose between: **Off**, **Very Low**, **Low**, and **Medium**.
7. Set the time limit in minutes for automatic log off. Choose between: **60**, **30**, **10**, **5**, and **1**.
8. Tap **OK** to save your settings.

Add a New User or Edit an Existing User

1. From the home screen on the display select **Configuration > Display > Security**.
2. Select **Add User** to add a new user or select **Edit User** to edit an existing user of the system.



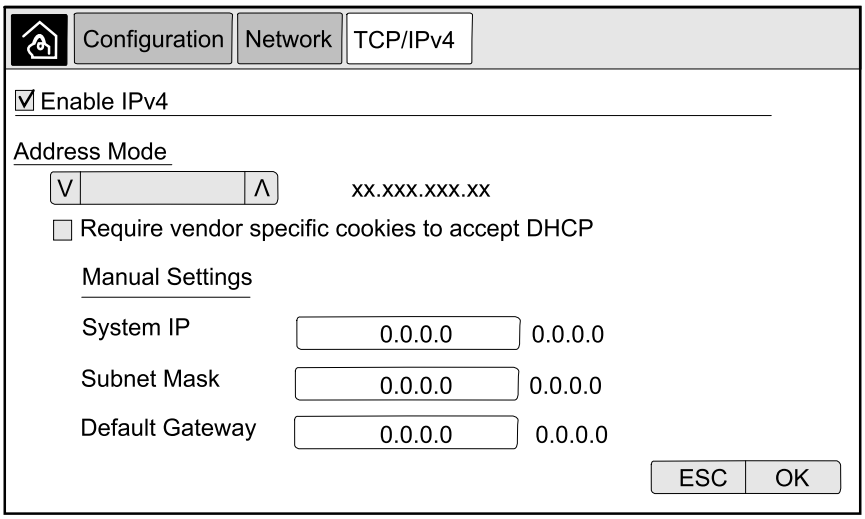
3. In the **Name** field, type in the name of the user. Complete with **Enter**.
4. In the **Pin** field, type in a pin code for the user. Complete with **Enter**.
5. In the **Confirm Pin** field, retype the pin code of the user. Complete with **Enter**.
6. Tap **OK** to save your settings.

Delete a User

1. From the home screen on the display select **Configuration > Display > Security > Delete User**.
2. Browse to the user that you wish to delete using the up and down arrows and tap **OK**.
3. Tap **Yes** to confirm deletion of an existing user of the system.

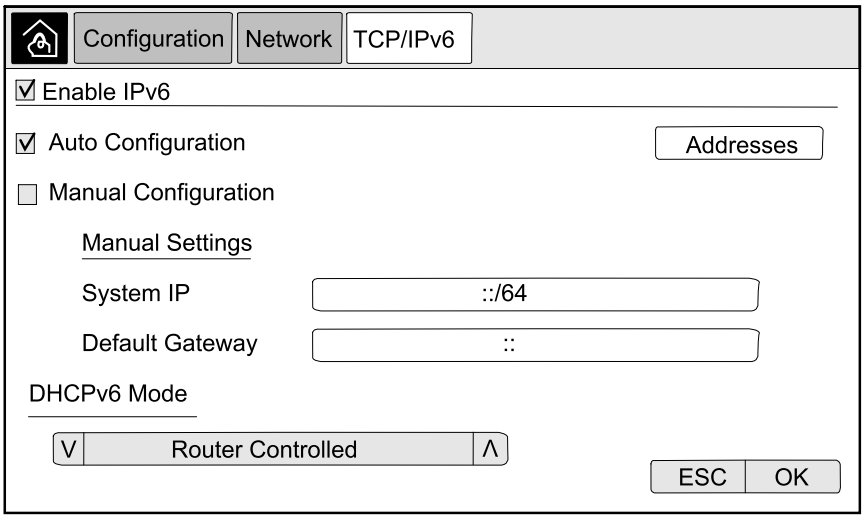
Configure the Network

1. From the home screen on the display select **Configuration > Network** and select either **TCP/IPv4**, **TCP/IPv6**, **Web Access**, or **FTP Server**.
2. Configure the following settings:
   a. **TCP/IPv4**: **Enable IPv4** (if applicable), and select the **Address Mode** (**Manual**, **DCHP**, or **BOOTP**).

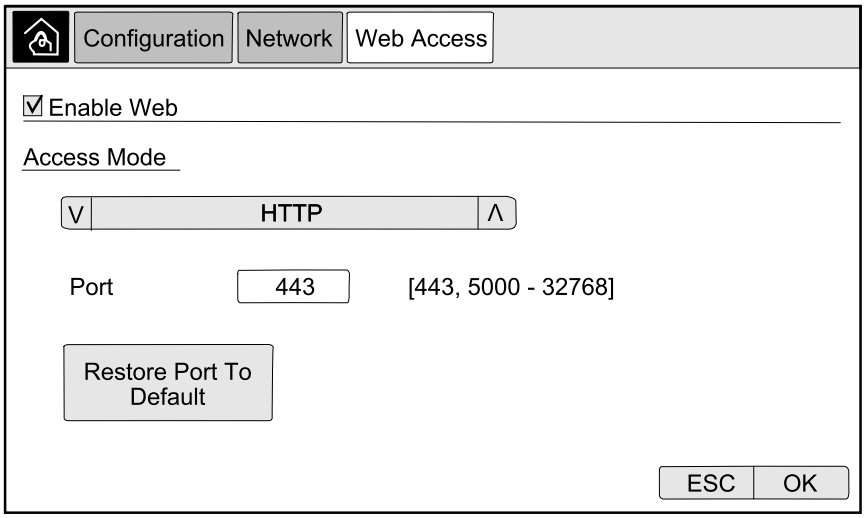


   b. **TCP/IPv6**: **Enable IPv6** (if applicable), select **Auto Configuration** or **Manual Configuration**, and select the **DHCPv6 Mode** (**Router controlled**, **Non-Address Information Only**, **Never**, or **Address and Other Information**).

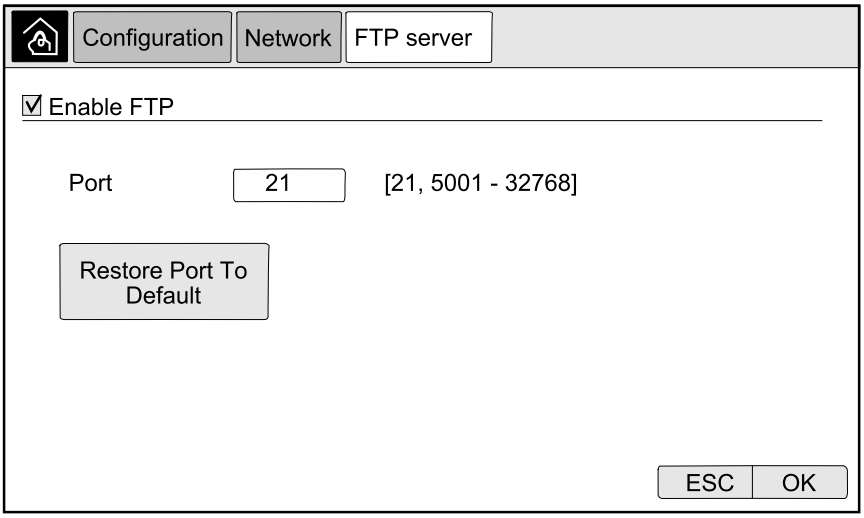
      NOTE: Tap **Addresses** to see all valid IPv6 addresses.



   c. **Web Access**: **Enable Web** (if applicable) and select the **Access Mode** (**HTTP** or **HTTPS**).



d. **FTP server**: **Enable FTP** (if applicable).



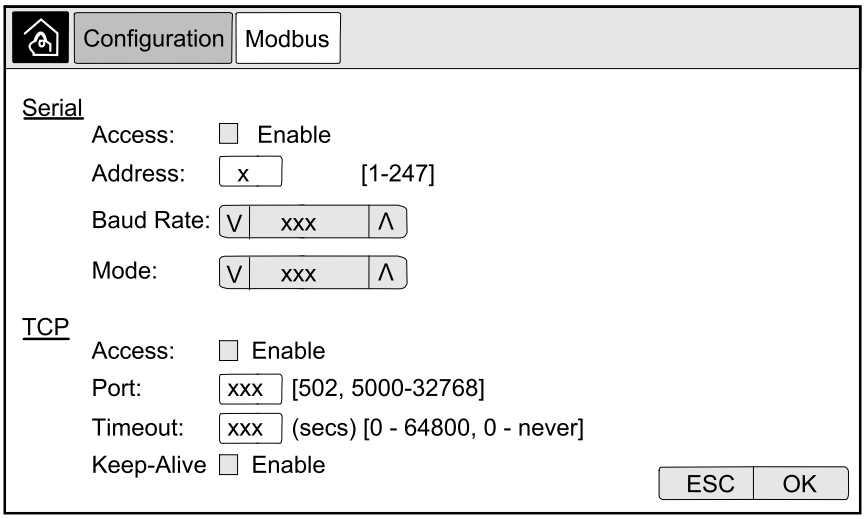
Configure Modbus

Modbus can be configured for the built-in network management card.

1. From the home screen on the display, select **Configuration > Modbus**.
2. For **Serial**:
   a. Enable or disable **Access**.
   b. Set the **Address** to a number between 1 and 247.

      NOTE: Every device on the bus must have exactly the same settings except the **Address**, which must be unique for every device. No two devices on the bus can have the same address.

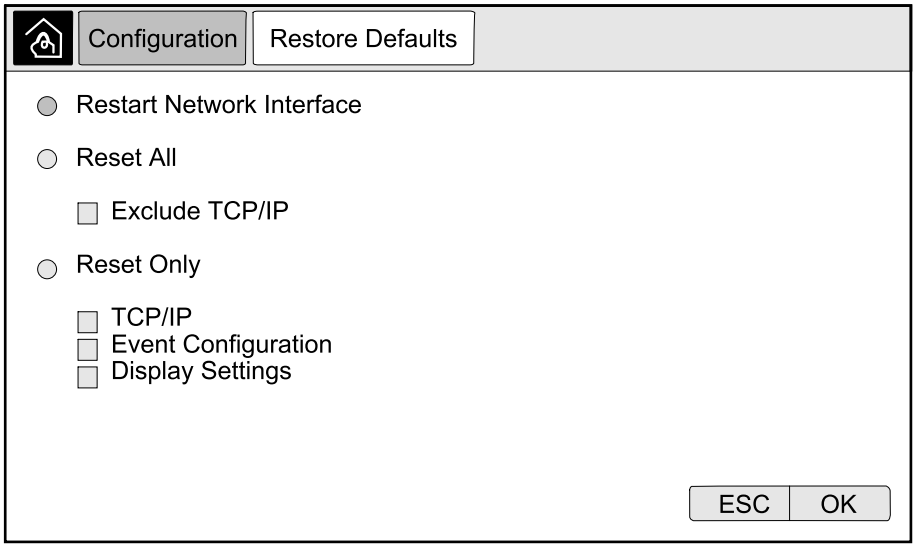
   c. Set the **Baud rate** to **9600** or **19200**.
   d. Set the **Mode** to:
      8, E, 1, or
      8, O, 1, or
      8, N, 1, or
      8, N, 2.
3. For **TCP**:
   a. Enable or disable **Access**.
   b. Set the **Port** to 502 or a value between 5000 and 32768.
   c. Set the **Timeout** for the connection to a number of seconds, if applicable.
   d. Enable or disable **Keep-Alive** if you want the TCP connection to stay open once it has been established.



4. Tap **OK** to confirm your settings.

Restore Default Configuration

1. From the home screen on the display select **Configuration > Restore Defaults**.



2. Select one of the below options:
   - **Restart Network Interface**: Select this option to restart network interface.
   - **Reset All**: Select this option to reset all settings to default. You can select to leave out the TCP/IP settings from the reset procedure.
   - **Reset Only**: Select this option if you only wish to reset parts of the settings to default values. You can select to reset the following settings: **TCP/IP**, **Event Configuration**, and **Display Settings**.
3. When you have made your selection, tap **OK** to reset the selected settings to default.

Set Manual Restart to ON or OFF for the PDU

NOTE: The manual restart function is an option.

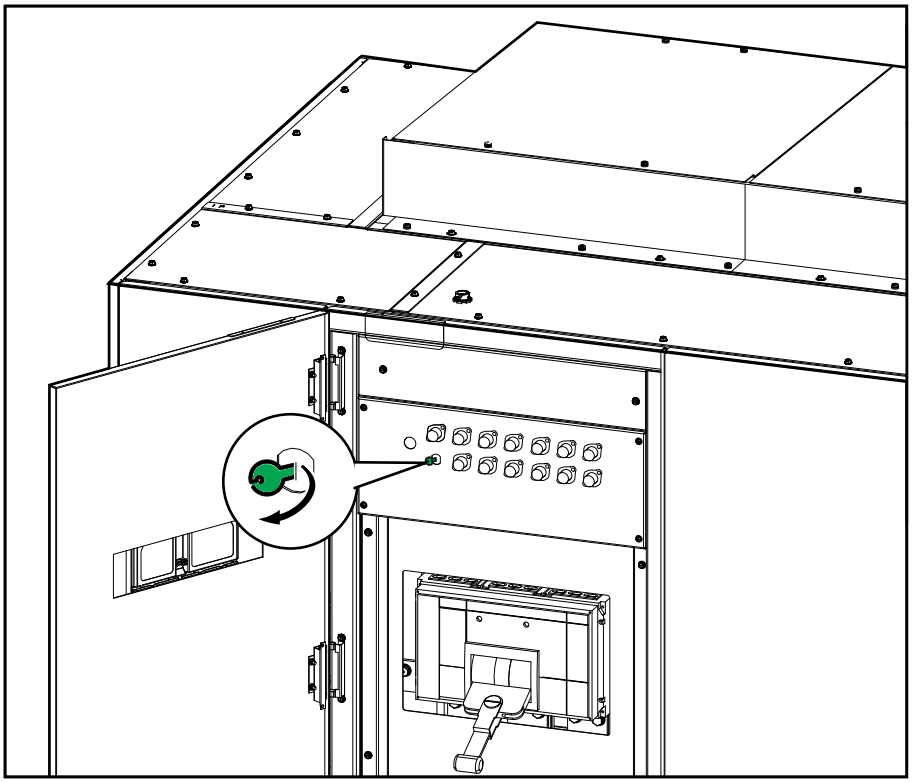
⚠⚠DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Always perform correct Lockout/Tagout before working on the PDU. The PDU will automatically restart when the mains supply returns unless manual restart is enabled.

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

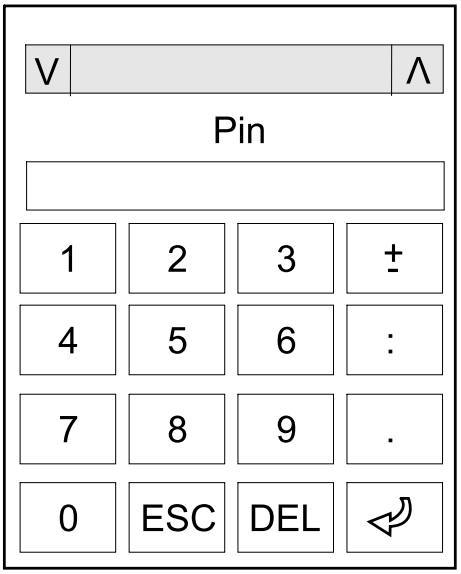
1. Turn the manual restart key to the OFF position to disable manual restart. When the manual restart key is in the OFF position, the main input device will not trip when the upstream power is disconnected. The PDU will restart automatically when the input power returns.



2. Turn the manual restart key to the ON position to enable manual restart. When the manual restart key is in the ON position, the main input device will trip when the upstream power is disconnected. The PDU will not restart automatically when the input power returns. To restart the PDU, set the main input device to the ON (closed) position.
3. Store the manual restart key in a safe location when not in use.

Operation Procedures

Access Password-Protected Screens



1. When prompted for the password, select your username.
2. Type in the pin code for your username.

   NOTE: The default pin code is 1234.

View the System Status Information

1. From the home screen on the display, select **Status**.
2. Tap **Input** to see the status.

   NOTE: If the PDU does not have an input meter installed, the input status screen will only show **Breaker State**: **Open**/**Closed**.

Input

Voltage (phase-to-phase)		The present phase-to-phase input voltage.
Current		The present input current from the AC utility power source per phase in amperes (A).
Active Power		The present active power input (for all three phases) in kW.
Apparent Power		The present apparent power input (for all three phases) in kVA.
Reactive Power		The present apparent power input (for all three phases) in kVAR.
Breaker State		The present disconnect device status, either **Open** or **Closed**.
Frequency		The present input frequency in hertz (Hz).
Power Factor		The ratio of the active power to apparent power.
Energy Parameters	**Active**	The total energy consumption in kWh since the time of installation or since the number was reset.
	Reactive	The total energy consumption in kVARh since the time of installation or since the number was reset.
	Apparent	The total energy consumption in kVAh since the time of installation or since the number was reset.
	Energy Reset Date	The date where the energy parameters were last reset.

3. Tap **Output** to see the status.

   NOTE: The different meters support different output parameters. The PDU display may not show all of the output parameters listed.

Output

Voltage		The present output voltage for each phase and average across the three phases in volts (V).
Current		The present output current for each phase and average in amperes (A).
Active Power		The present active power (or real power) output for each phase in kilowatts (kW). Active power is the portion of power flow that, averaged over a complete cycle of the AC waveform, results in net transfer of energy in one direction.
Reactive Power		The present reactive power for each phase in kVAR. Reactive power represents energy alternately stored and released by inductive and capacitive loads in the system.
Apparent Power		The present apparent power output for each phase in kVA. Apparent power is the product of RMS (root mean square) volts and RMS amperes.
Power Factor		The present output power factor for each phase. Power factor is the ratio of active power to apparent power.
Displacement PF		The present output displacement power factor for each phase. Displacement power factor is the ratio of active power to apparent power considering the fundamental frequency (60 Hz) only, and neglecting the harmonics.
Frequency		The present output frequency in hertz (Hz).
Breaker Status		The present disconnect device status will be displayed as **Not Installed**, or **Open**/**Closed** if disconnect device is installed.
Energy Parameters	**Active**	Active energy - The total active energy consumption since the unit was energized, in kWh.

Output (Continued)

	Reactive	Reactive energy - The total reactive energy consumption since the unit was energized, in kVARh.
	Apparent	Apparent energy - The total apparent energy consumption since the unit was energized, in kVAh.
Voltage		The phase-to-phase output voltage in volts (V).
Total Active Power		The present total active output power (for all three phases) in kW.
Total Apparent Power		The present apparent power output (for all three phases) in kVA. Apparent power is the product of RMS (root mean square) volts and RMS amperes.
Total Reactive Power		The present total reactive power in kVAR.
Total Power Factor		The present total power factor.

4. Tap **Branch** to see the status of the different branch circuit breakers.

Branch

Load Identifier	Shows the name given to the branch circuit breaker during setup.		
Current	Shows the current for each of the three phases.		
Status	Shows the alarm status symbol for the branch:		Green: No alarms present for the selected branch.
			Yellow: Warning alarm(s) present for the selected branch.
			Red: Critical alarm(s) present for the selected branch.

a. Tap the position buttons **TOP x**/**BOTTOM x** to go to the individual branch circuit breaker status pages.

Individual Branch Circuit Breaker Status Page

Breaker Details	The position of the branch circuit breaker given as **TOP x** or **BOTTOM x**.
Load Identifier	Shows the name given to the branch circuit breaker during setup.
Breaker Rating	
Active Power	
Apparent Power	
Energy Usage	
Power Factor	
Date of kWh Reset	Date of last reset.
Current	Shows the current for each of the three phases in amperes (A).

5. Tap **System** to see the status.

System

Output Voltage	The phase-to-phase output voltage in volts (V).
Output Current	The present output current for each phase in amperes (A).
Output Frequency	The present output frequency in hertz (Hz).
Output Voltage (L-N)	The present phase-to-neutral output voltage in volts (V).
System Time	The time of the PDU system.
Power Factor	The present output power factor.
Breaker Status	The present output circuit breaker status, either **Not Installed**, **Open**, or **Closed**.
Total Output Power	The apparent and active power (or real power) output for each phase.
Output Power	The phase-to-phase apparent and active power (or real power) output for each phase.

6. Tap **Active Alarms** to see the status.

Active Alarms

Active Alarms	For more information on active alarms, go to View the Active Alarms, page 42.

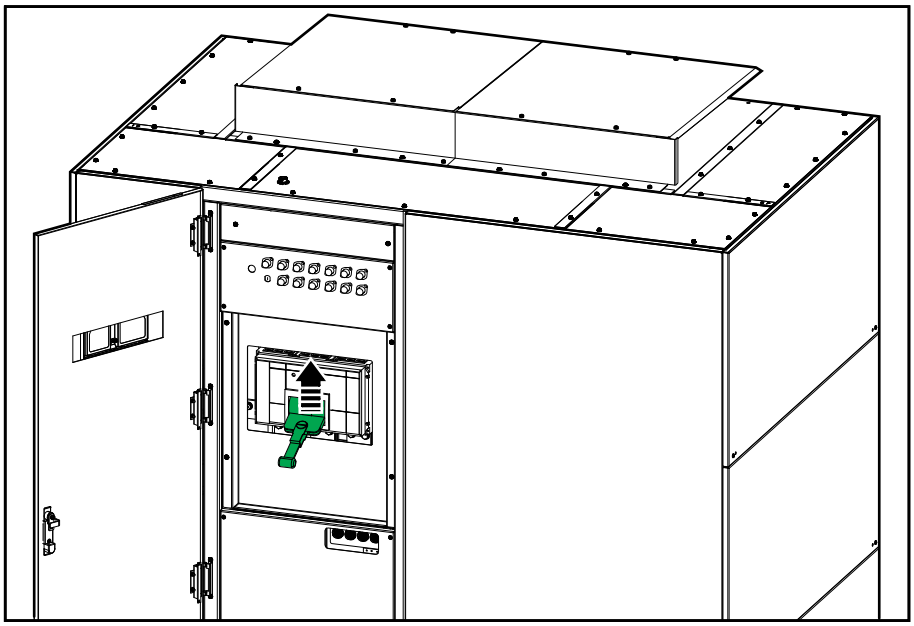
Start Up the PDU

Contact Schneider Electric to schedule the first start-up of the PDU. Only qualified personnel must handle or operate the equipment.

Follow these steps any time that the system is restarted after having been shut completely down with no power applied to the system.

1. Verify the following before starting the PDU:
   a. The upstream input circuit breaker is in the OFF (open) position.
   b. The power cables have been correctly connected to the input busbars.
   c. Voltage connected to the PDU matches the PDU nameplate and model number.
   d. All equipment has been properly grounded.
   e. All power cables and signal cables are installed correctly.
   f. All ventilation areas are free for obstructions that might impair proper airflow.
2. Set the upstream input circuit breaker to the ON (closed) position.

Front View of the PDU



3. Set the main input circuit breaker MIB/main input switch MIS to the ON (closed) position.
4. Verify the function of any installed power meters.
5. Set the individual branch circuit breakers to the ON (closed) position, as required.

Post-requisite:

Verify normal operation of the PDU immediately after the start-up has been performed.

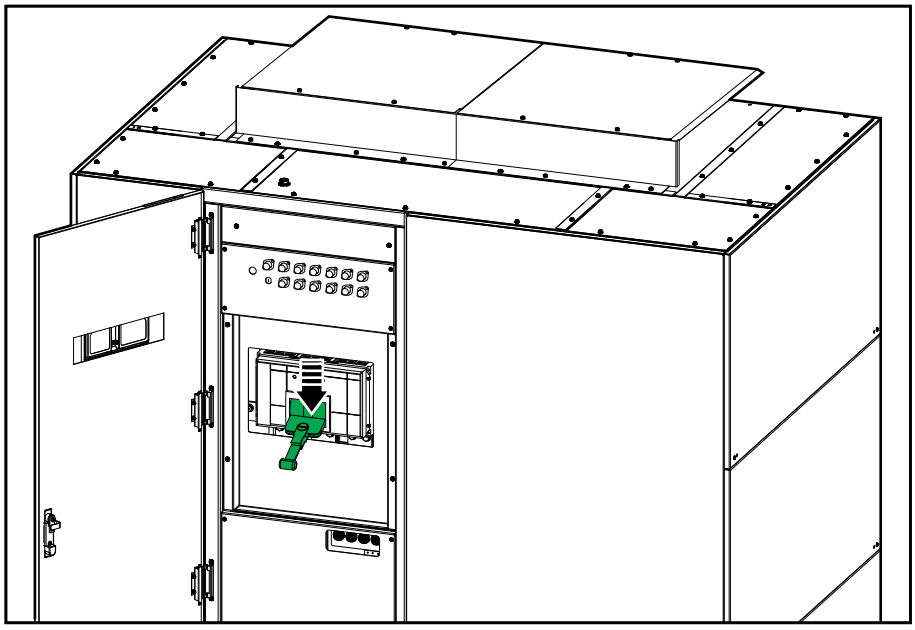
Use the display and power meters (if present) to verify proper readings from all circuits.

Shut Down the PDU

NOTE: Shutting down the PDU will cut the power to all connected loads.

1. Shut down the loads, if possible.
2. Open the individual branch circuit breakers as required.
3. Set the main input circuit breaker MIB/main input switch MIS to the OFF (open) position.

Front View of the PDU



4. Set the upstream input circuit breaker to the OFF (open) position.
5. Measure for voltages on all input busbars before working on the PDU.

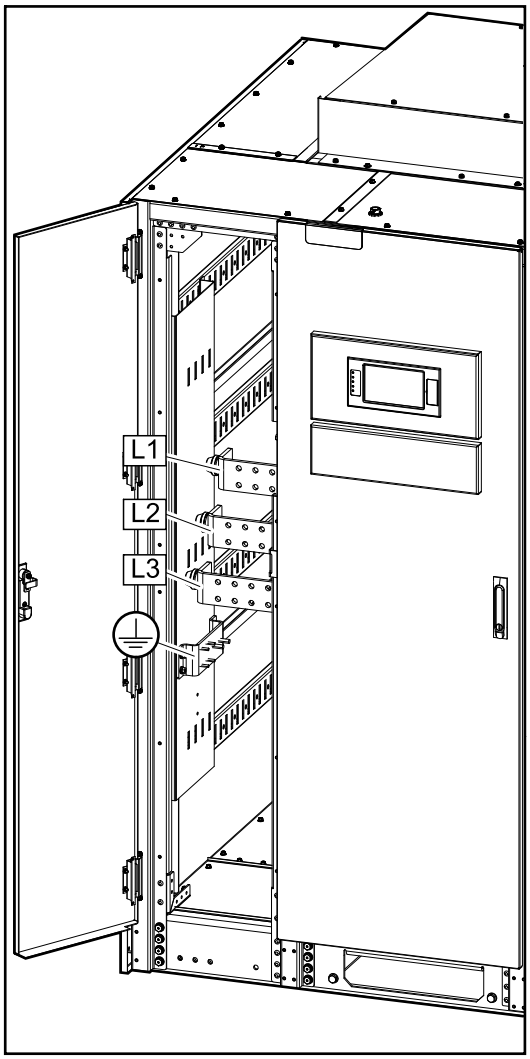
⚠⚠DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Measure for and verify ABSENCE of voltage on each input terminal before working on the PDU.

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

Front View of the PDU



Access a Configured Network Management Interface

The below procedure describes how to access the network management interface from a web interface. It is also possible to use the following interfaces:

- Telnet and SSH
- SNMP
- FTP
- SCP

NOTE: Ensure that only one network management interface in the entire system is set to synchronize time.

Modern web browsers are compatible with the network management interface. Use the most recent version of your browser to mitigate the risk of software security vulnerabilities.

You can use either of the following protocols when you use the web interface:

- The HTTP protocol, which provides authentication by user name and Pin but no encryption.
- The HTTPS protocol, which provides extra security through Secure Sockets Layer/Transport Layer Security (SSL/TLS); encrypts user names, Pin, and data being transmitted; and authenticates network management cards by means of digital certificates.

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

1. Access the network management interface by its IP address (or its DNS name, if a DNS name is configured).
2. Enter the user name and password.

   NOTE: The default user name and password and password are apc at first login. You will be prompted to enter a new password after you log in.
3. To enable or disable the HTTP or HTTPS protocol, use the **Network** menu on the **Administration** tab, and select the **Access** option under the **Web** heading on the left navigation menu.

Troubleshooting

The following is a list of the most common situations where the equipment does not perform as intended, the most likely cause, and a possible corrective action.

If the suggested corrective action does not return the equipment to normal operation, contact Schneider Electric for assistance.

PDU Troubleshooting

Situation	Possible cause	Corrective action
The PDU has no input power.	No input source is available.	Restore the input source. Check the wiring continuity between the PDU input and the input source.
	Main input circuit breaker MIB/main input switch MIS is tripped because the manual restart key is in the ON position.	Follow Start Up the PDU, page 32to start up the PDU. See Set Manual Restart to ON or OFF for the PDU, page 27 for details about the manual restart function.
Specific output circuit(s) have no power.	Associated branch circuit breaker(s) is OFF.	Turn the branch circuit breaker(s) ON.
	The wiring between the branch circuit breaker(s) and the equipment is incorrect.	Check for wiring continuity and correct phase sequence between the branch circuit breaker(s) and the equipment.
	The equipment associated with the branch circuit breaker is operating above the rated load.	Schedule a load check of the equipment with Schneider Electric; adjust for load balance if possible.
	The branch circuit breaker is inoperable.	Replace the inoperable branch circuit breaker.
No output from the PDU, but the display is active.	The main input circuit breaker MIB is in the OFF (open) position.	1. Record which alarm indications are active. 2. Reset alarm(s) and clear external signal. 3. Check the alarm history display for reasons why the main input circuit breaker MIB tripped. Below is a list of possible causes: • Manual trip, due to an emergency power off (EPO) button being pushed. • Automatic trip. An external signal was received from the building wiring via the alarm interface instructing the PDU to shunt-trip. • Output overload. Schedule a load check of the PDU with Schneider Electric. • Inoperable main input circuit breaker MIB. Replace the main input circuit breaker MIB. • Short circuit internal to the PDU. Troubleshoot the PDU or contact Schneider Electric. • An alarm shutdown has occurred. Determine the cause and take corrective action before resetting the main input circuit breaker MIB. • Turn main input circuit breaker MIB to the ON (closed) position. • If the main input circuit breaker MIB still trips, contact Schneider Electric.

PDU Troubleshooting (Continued)

Situation	Possible cause	Corrective action
	The main input switch MIS is in the OFF (open) position.	1. Record which alarm indications are active. 2. Reset alarm(s) and clear external signal. 3. Check the alarm history display for reasons why the main input switch MIS tripped. Below is a list of possible causes: • Manual trip, due to an emergency power off (EPO) button being pushed. • Automatic trip. An external signal was received from the building wiring via the alarm interface instructing the PDU to shunt-trip. • Inoperable main input switch MIS. Replace the main input switch MIS. • An alarm shutdown has occurred. Determine the cause and take corrective action before resetting the main input switch MIS. • Turn the main input switch MIS ON (closed) position. • If the main input switch MIS still trips, contact Schneider Electric.
Output from the PDU is on, but the display is not active.	Control power fuse(s) is/ are blown.	Replace fuse(s).
Overvoltage/ undervoltage.	Upstream UPS or power conditioner is inoperable.	Correct problem at the power source.
	Voltage drop due to distance or excessive load on output.	Reduce the distance or reduce the load.

Alarm Messages

Display alarm text	Description	Corrective action
<LX> Phase Loss Alarm	Line supply phase L1, L2, or L3 loss is detected.	Check the input source and the affected phase. Check for blown/ inoperable fuses.
A Circuit Breaker within the Unit has Tripped	A circuit breaker within the unit has tripped.	Check the circuit breaker and identify the cause of the tripping. Clear the tripping event and close the circuit breaker.
Branch Breaker <position X> Apparent Power Below Minimum	Branch circuit breaker in position X apparent power is below the minimum threshold.	Check the power for the affected branch circuit breaker, evaluate the threshold setting, and adjust as per provided specifications.
Branch Breaker <position X> Apparent Power Overload	Branch circuit breaker in position X, apparent power is above the maximum threshold.	Check the power for the affected branch circuit breaker, evaluate the threshold setting, and adjust as per provided specifications.
Branch Breaker <position X> High Current Alarm at Phase <LX>	Branch circuit breaker in position X, phase L1, L2, or L3 current is above the high threshold.	Check the current for the affected branch circuit breaker, evaluate the threshold setting, and adjust as per provided specifications.
Branch Breaker <position X> Low Current Alarm at Phase <LX>	Branch circuit breaker in position X, phase L1, L2, or L3 current is below the low threshold.	Check the current for the affected branch circuit breaker, evaluate the threshold setting, and adjust as per provided specifications.
Branch Breaker <position X> Maximum Current Alarm at Phase <LX>	Branch circuit breaker in position X, phase L1, L2, or L3 current is above the maximum threshold.	Check the current for the affected branch circuit breaker, evaluate the threshold setting, and adjust as per provided specifications.
Branch Breaker <position X> Minimum Current Alarm at Phase <LX>	Branch circuit breaker in position X, phase L1, L2, or L3 current is below the minimum threshold.	Check the current for the affected branch circuit breaker, evaluate the threshold setting, and adjust as per provided specifications.
Branch Circuit Breaker <position X> Open	The branch circuit breaker in position X is open.	Check the branch circuit breaker and adjust position or alarm settings as per actual installation sequence on distribution.
EPO Activated	The EPO is activated.	Reset the EPO, see Reset EPO Alarm or Buzzer, page 42. Check the remote EPO for the room or the fire control panel.
Input Breaker Open	The main input circuit breaker is open.	Check the main input circuit breaker and adjust follow the instructions provided in PDU Troubleshooting, page 36.
Input Current High Alarm at Phase <LX>	The input phase L1, L2, or L3 current is above the high threshold.	Check the input current for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Input Current Low Alarm at Phase <LX>	The input phase L1, L2, or L3 current is below the low threshold.	Check the input current for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.

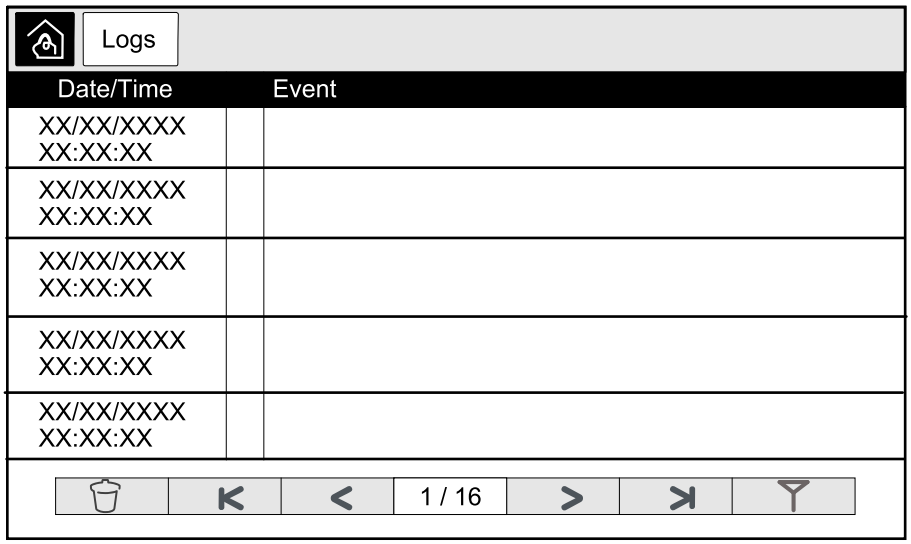
Display alarm text	Description	Corrective action
Input Current Maximum Alarm at Phase <LX>	The input phase L1, L2, or L3 current is above the maximum threshold.	Check the input current for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Input Current Minimum Alarm at Phase <LX>	The input phase L1, L2, or L3 current is below the minimum threshold.	Check the input current for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Input Voltage Maximum Alarm at Phase <LX>	The input phase L1, L2, or L3 voltage is above the maximum threshold.	Check the input voltage for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Input Voltage High Alarm at Phase <LX>	The input phase L1, L2, or L3 voltage is above the high threshold.	Check the input voltage for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Input Voltage Low Alarm at Phase <LX>	The input phase L1, L2, or L3 voltage is below the low threshold.	Check the input voltage for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Input Voltage Minimum Alarm at Phase <LX>	The input phase L1, L2, or L3 voltage is below the minimum threshold.	Check the input voltage for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
NMC Communication Lost with <X> Meter	Lost the local network management interface-to-input meter, output meter, or branch meter communication.	Check the signal cables. Check that the meter is energized and that it has been configured correctly — use the power meter documentation supplied with the power meter. If the alarm persists, contact Schneider Electric.
Output Active Power Phase <LX> Overload	The output active power for phase L1, L2, or L3 is above the selected high threshold.	Check the output power for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Output Apparent Power Phase <LX> Below Normal	The output apparent power for phase L1, L2, or L3 is below the selected minimum threshold.	Check the output power for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Output Apparent Power Phase <LX> Overload	The output apparent power for phase L1, L2, or L3 is above the selected maximum threshold.	Check the output power for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Output Current High Alarm at Phase <LX>	The output phase L1, L2, or L3 current is above the high threshold.	Check the output current for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Output Current Low Alarm at Phase <LX>	The output phase L1, L2, or L3 current is below the low threshold.	Check the output current for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Output Current Maximum Alarm at Phase <LX>	The output phase L1, L2, or L3 current is above the maximum threshold.	Check the output current for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.

Display alarm text	Description	Corrective action
Output Current Minimum Alarm at Phase <LX>	The output phase L1, L2, or L3 current is below the minimum threshold.	Check the output current for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Output Frequency Out of Range	The output frequency is out of range.	Check the output frequency, evaluate the threshold setting, and adjust as per provided specifications.
Output Power Factor Deviation Alarm at Phase <LX>	Output power factor deviation for phase L1, L2, or L3 exists.	Check the output power factor deviation for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Output Voltage High Alarm at Phase <LX>	The output phase L1, L2, or L3 voltage is above the high threshold.	Check the output voltage for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Output Voltage Low Alarm at Phase <LX>	The output phase L1, L2, or L3 voltage is below the low threshold.	Check the output voltage for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Output Voltage Maximum Alarm at Phase <LX>	The output phase L1, L2, or L3 voltage is above the maximum threshold.	Check the output voltage for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Output Voltage Minimum Alarm at Phase <LX>	The output phase L1, L2, or L3 voltage is below the minimum threshold.	Check the output voltage for the affected phase, evaluate the threshold setting, and adjust as per provided specifications.
Transformer High Temperature Alarm	Temperature at input transformer is higher than the normal range.	Check that the ventilation of the PDU is not blocked and review the information available from the PDU display to determine if the PDU is overloaded.
Transient Voltage Surge Suppressor Alarm	Transient voltage surge suppressor system requires service.	Contact Schneider Electric to schedule a maintenance visit.

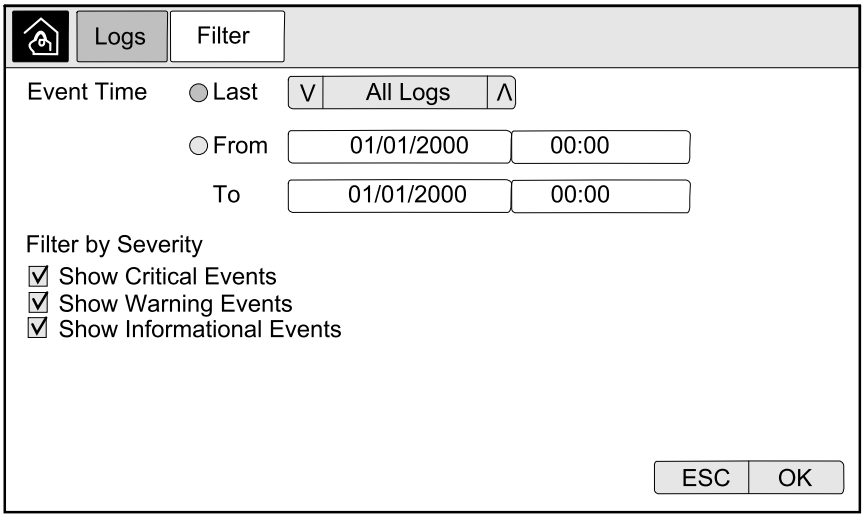
NOTE: Contact Schneider Electric if the PDU is operating correctly and the alarm persists, or if no root cause has been found.

View the Log

1. From the home screen on the display select **Logs**.
2. You can browse through the list of the events using the arrows.



3. You can now perform the following operations in the event log:
   a. Tap the filter button to filter the events. Different filter settings are available.



   b. Tap the recycle bin button to clear the event log and select **Yes** to confirm.
4. Tap the home button to exit the log.

View the Active Alarms

When there is an active alarm in the system, a symbol indicating the alarm level is shown in the top right corner of the screen and the buzzer is active.

1. From the home screen on the display select **Status > Active Alarms**. Tapping the display will also silence the buzzer temporarily without login. By logging in and tapping the display, the buzzer will be silenced permanently.
2. You can now browse through the list of active alarms using the left and right arrows.
3. Tap the **Refresh** button to update the list with the latest active alarms.

Alarm Levels

There are three alarm levels:

- Critical: Take immediate action and call Schneider Electric.
- Warning: The load remains supported, but action must be taken. Call Schneider Electric.
- Informational: No immediate action required. Check the cause of the alarm as soon as possible.

Reset EPO Alarm or Buzzer

1. From the home screen on the display select **Reset Alarm**.
2. Tap **EPO Reset** to reset the EPO alarm, or tap **Audio Reset** to reset the buzzer.

Calibrate the Display

From the home screen on the display select **Tests > Display Calibration** and then select the calibration you want to perform.

- **Calibrate**: Tests and adjusts the touch screen target sensitivity.
- **Calibration Check**: Checks the calibration adjustments.

Maintenance

Recommended Personal Protective Equipment (PPE)

For all procedures where the outermost front door on the unit is opened, Schneider Electric recommends the following personal protective equipment (PPE) as a minimum:

- Non-flammable cotton clothing
- Eye protection (e.g. glasses or goggles)
- Safety shoes
- Any personal protective equipment required or recommended by local or national regulation

⚠CAUTION

RISK OF PERSONAL INJURY

Always perform a risk assessment before operating or maintaining this equipment. Use appropriate personal protection equipment.

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

Determine if you need a Replacement Part

To determine if you need a replacement part, contact Schneider Electric and follow the procedure below so that the representative can assist you promptly:

1. In the event of an alarm condition, scroll through the alarm lists, record the information, and provide it to the representative.
2. Write down the serial number of the unit so that you will have it easily accessible when you contact Schneider Electric.
3. If possible, call Schneider Electric from a telephone that is within reach of the display so that you can gather and report additional information to the representative.
4. Be prepared to provide a detailed description of the problem. A representative will help you solve the problem over the telephone, if possible, or will assign a return material authorization (RMA) number to you. If a module is returned to Schneider Electric, this RMA number must be clearly printed on the outside of the package.
5. If the unit is within the warranty period and has been started up by Schneider Electric, repairs or replacements will be performed free of charge. If it is not within the warranty period, there will be a charge.
6. If the unit is covered by a Schneider Electric service contract, have the contract available to provide information to the representative.

Find the Serial Numbers

NOTE: If the display is not available, the serial number can also be found on a label in the cabinet.

1. From the home screen on the display tap **About**.
2. Tap on **PDU** and note down the serial number and have it ready for customer support.
3. Tap on the **About** in the top of the screen to go back.
4. Tap on **Display** and note down the serial number and have it ready for customer support.

Schneider Electric
35 rue Joseph Monier
92500 Rueil Malmaison
France

+ 33 (0) 1 41 29 70 00

www.se.com

990-915858A-001