

Galaxy VL

Remote Centralized Display

Installation and Operation

GVLOPT007

Latest updates are available on the Schneider Electric website

8/2024



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Table of Contents

Important Safety Instructions — SAVE THESE INSTRUCTIONS	5
FCC Statement	6
Electromagnetic Compatibility	6
Safety Precautions	6
Specifications	7
Remote Centralized Display Specifications	7
Recommended Cable Sizes	7
Torque Specifications	7
Environment	8
Compliance	8
Clearance	9
Remote Centralized Display Weights and Dimensions	9
Installation Procedure	10
Mount the Remote Centralized Display to the Wall	11
Prepare the Remote Centralized Display for Cables	12
Connect the Power and Signal Cables in a Modbus TCP Configuration	14
Overview of User Interface	17
Overview of the Home Screen	17
Main Menu	18
Menu Tree	18
Mimic Diagram	18
Alarm Status Symbol	19
View the Communication Status and Start/Stop the Communication with the UPSs and External Breakers	20
Configuration	21
Set the Display Language	21
Configure the Display Preferences	21
Configure the External Breakers	22
Change the Password	22
Operation Procedures	23
Access Password-Protected Screens	23
Transfer the System Mode from Normal Operation to Bypass Operation	23
Transfer the System Mode from Bypass Operation to Normal Operation	23
View the UPS Status Information	23
View the External Breakers Status	28
View the Logs	28
Troubleshooting	29
View the Active Alarms	29
Alarm Messages	29

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.

FCC Statement

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Electromagnetic Compatibility

NOTICE

RISK OF ELECTROMAGNETIC DISTURBANCE

This is a product for use in industrial environments. In a residential environment, this product may cause radio interference, in which case the user may be required to take additional measures.

Failure to follow these instructions can result in equipment damage.

Safety Precautions

⚡⚠ DANGER

HAZARD OF ELECTRICAL 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 ELECTRICAL SHOCK, EXPLOSION OR ARC FLASH

After the Galaxy VL remote centralized display 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 ELECTRICAL SHOCK, EXPLOSION OR ARC FLASH

- Install the UPS system in a temperature controlled indoor environment free of conductive contaminants and humidity.

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

Specifications

Remote Centralized Display Specifications

The remote centralized display (GVLOPT007) offers the ability to monitor and control up to 6 UPSs in parallel from a single point.

- Centralized monitoring of up to 6 UPSs
- Centralized synchronized transfer command (Inverter – Bypass)
- External breaker monitoring through PLC

Display	10 inch Magelis Display HMIST6500
Connection to UPS	CAT 5e SF/UTP
Input voltage	380 V, 400 V, 415 V, 440 V, 480 V
Input frequency	50/60 Hz
Connections	3PH + PE
Maximum input current	70 mA
Maximum upstream circuit breaker	20 A

Recommended Cable Sizes

 **DANGER**

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

All wiring must comply with all applicable national and/or electrical codes.

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

NOTE: Overcurrent protection is to be provided by others.

- Copper cable, maximum cable diameter: 12 AWG or 4 mm², minimum cable diameter: 16 AWG or 1.5 mm²
- Minimum 75 °C (167 °F) conductors
- An ambient temperature of 30 °C (86 °F)
- Use of copper conductors
- A readily accessible disconnection device shall be incorporated externally to the system and disconnect from all current carrying conductors.
- Input cable connection with cable glands is allowed for NFPA79 application only

Torque Specifications

Bolt size	Torque
M6	9 Nm (6.64 lb-ft)
M8	17 Nm (12.54 lb-ft)
Input / output terminals	0.6 Nm (0.44 lb-ft)

Environment

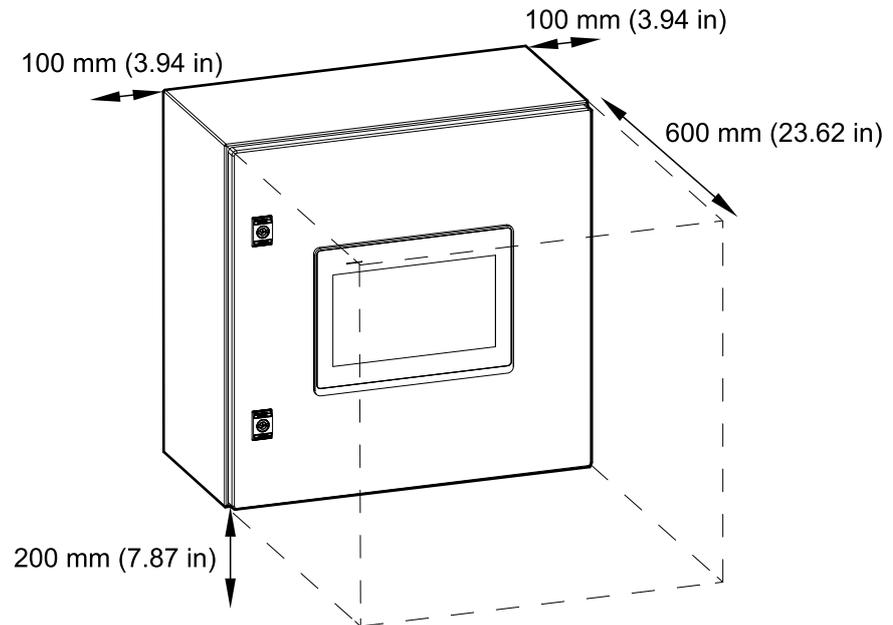
	Operating	Storage
Temperature	0 °C to 40 °C (32 °F to 122 °F)	-20 °C to 60°C (-4 °F to 140 °F)
Relative humidity	10-90% non-condensing	
Elevation	Designed for operation in 0-2000 m (0-6600 feet)	
Protection class	IP20	

Compliance

Safety	IEC 61010-1:2010/AM1:2016 3.1 edition 2017-01 Safety requirements for electrical equipment for measurement, control, and laboratory use IEC 61010-2-201: 2017 2 nd edition 2017-3 Safety requirements for electrical equipment for measurement, control, and laboratory use UL 1778, UNINTERRUPTIBLE POWER SYSTEMS, Edition 5, Revision Date 10/12/2017 CSA C22.2 No. 107.3, UNINTERRUPTIBLE POWER SYSTEMS, Edition 3, Revision Date 10/12/2017
EMC/EMI/RFI	EN/IEC 61000-6-4:2018 Emission standard for industrial environments EN/IEC 61000-6-2:2016 Immunity standard for industrial environments
Earthing system	TN, TT, IT
Overvoltage category	OVCII
Pollution degree	2

Clearance

NOTE: Clearance dimensions are published for airflow and service access only. Consult with the local safety codes and standards for additional requirements in your local area.

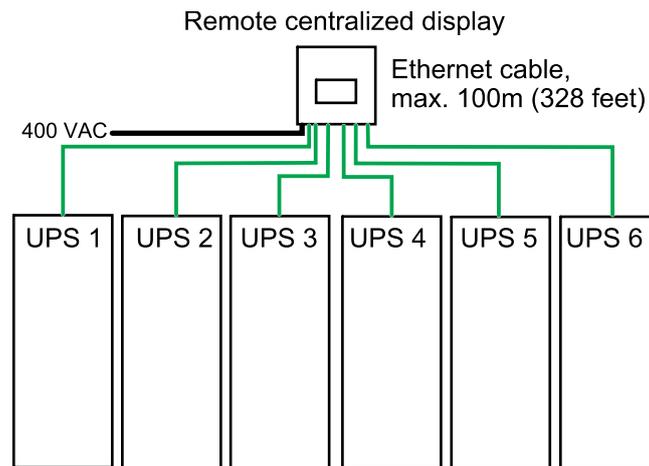


Remote Centralized Display Weights and Dimensions

Commercial reference	Weight kg (lbs)	Height mm (in)	Width mm (in)	Depth mm (in)
GVLOPT007	17 (37.48)	500 (19.69)	500 (19.69)	250 (9.84)

Installation Procedure

Remote Centralized Display in a Modbus TCP Configuration



1. Mount the Remote Centralized Display to the Wall, page 11.
2. Prepare the Remote Centralized Display for Cables, page 12.
3. Connect the Power and Signal Cables in a Modbus TCP Configuration, page 14.

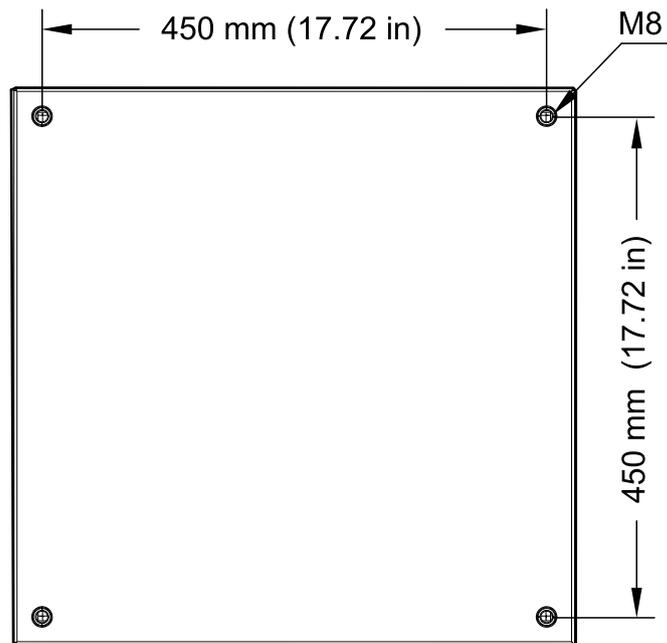
Mount the Remote Centralized Display to the Wall

⚠ CAUTION

RISK OF INJURY OR EQUIPMENT DAMAGE

- Mount the remote centralized display to a wall or a rack that is structurally sound and able to support the weight of the unit.
- Use appropriate hardware (not supplied) to mount the remote centralized display to the wall.

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

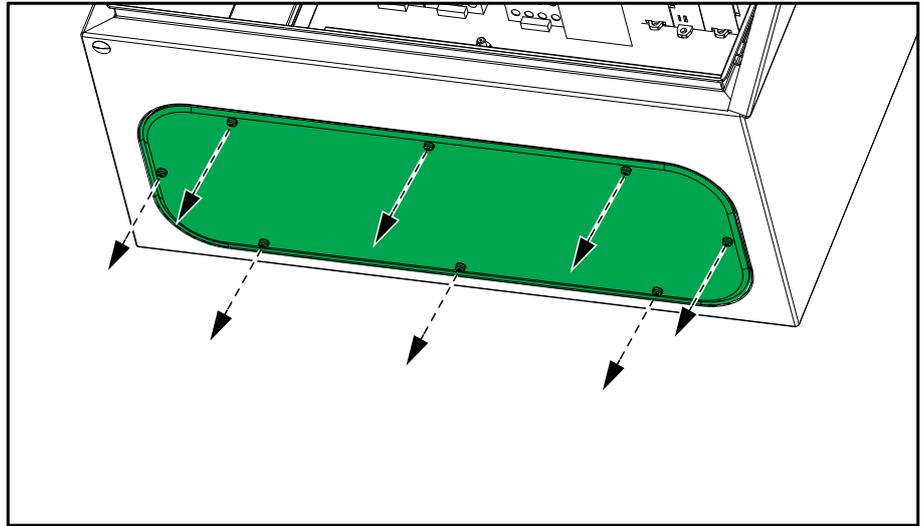


1. Measure and mark the four mounting hole locations on the wall.
2. Drill holes in each of the four marked locations.
3. Open the front door of the remote centralized display.
4. Line up the remote centralized display with the four holes on the wall and mount the remote centralized display to the wall with M8 screws and rawlplugs.

Prepare the Remote Centralized Display for Cables

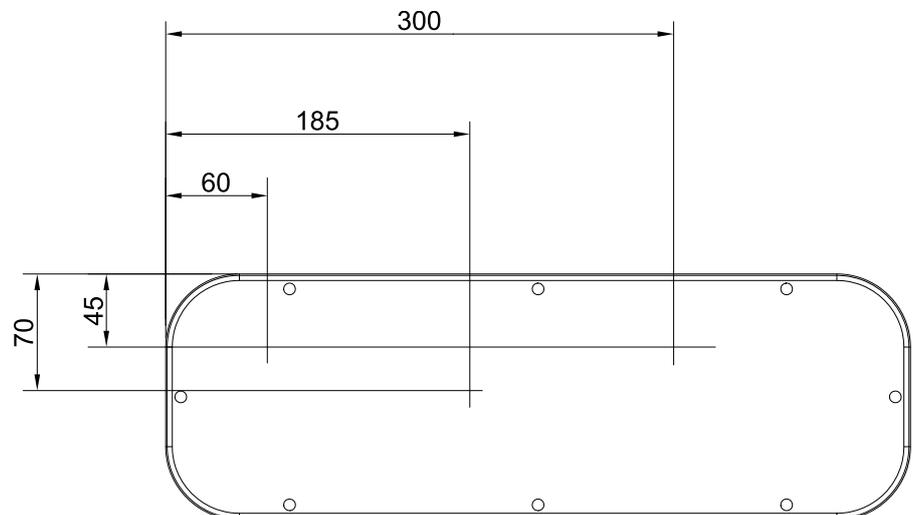
1. Remove the bottom gland plate.

Front Bottom View of the Remote Centralized Display



2. Drill or punch holes for power cables and signal cables in the bottom gland plate.
For PG20 and 1/2 inch conduit, drill $\varnothing 20$ mm (0.79 in) hole.
For PG32 and 1 inch conduit, drill $\varnothing 32$ mm (1.26 in) hole.

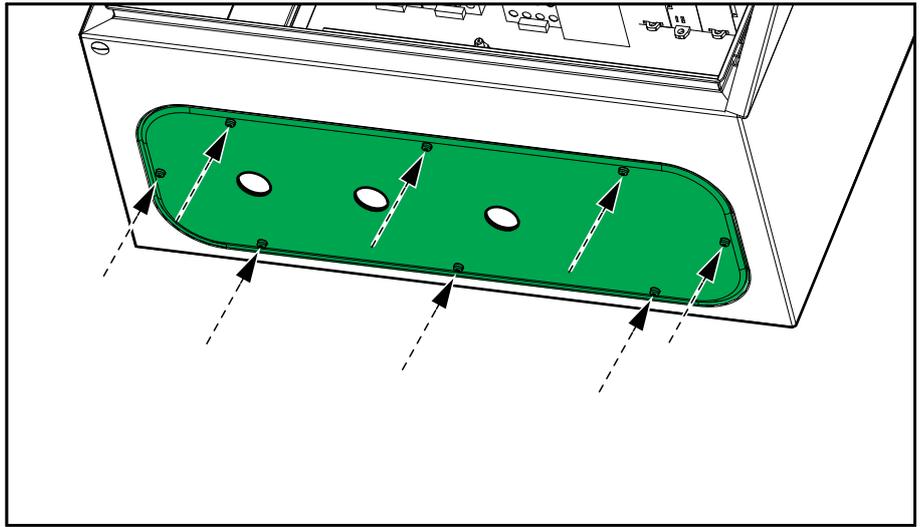
Bottom Gland Plate



NOTE: Use conduits and glands that fit to the cable size going in/out of the remote centralized display. Conduit should be certified according UL514B, DWTT/7 or equivalent. Use M20 and M32 glands from LAPP GmbH (53111020, 6-13 mm diameter and 53111040, 9-21 mm diameter) certified to IEC 50262, VDE 135320 or equivalent.

3. Reinstall the bottom gland plate.

Front Bottom View of the Remote Centralized Display



Connect the Power and Signal Cables in a Modbus TCP Configuration

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Perform a total power off of the UPS system before connecting the cables to the remote centralized display.

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

CAUTION

RISK OF EQUIPMENT DAMAGE

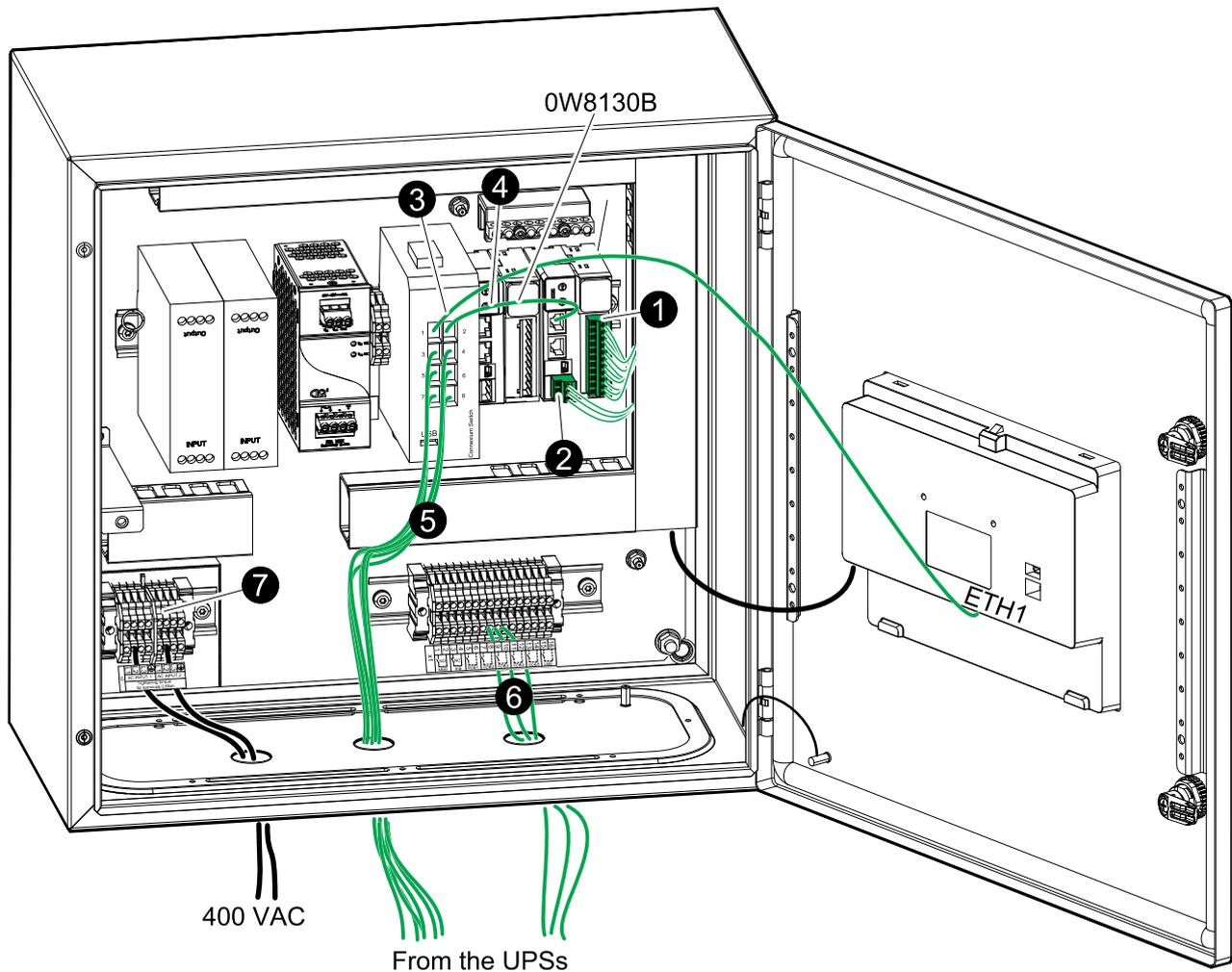
All Class 2/SELV signal cables shall be double insulated cable and minimum rated for 30 VDC. All non-Class 2/non-SELV signal cables shall be double insulated cable and minimum rated for 600 VAC.

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

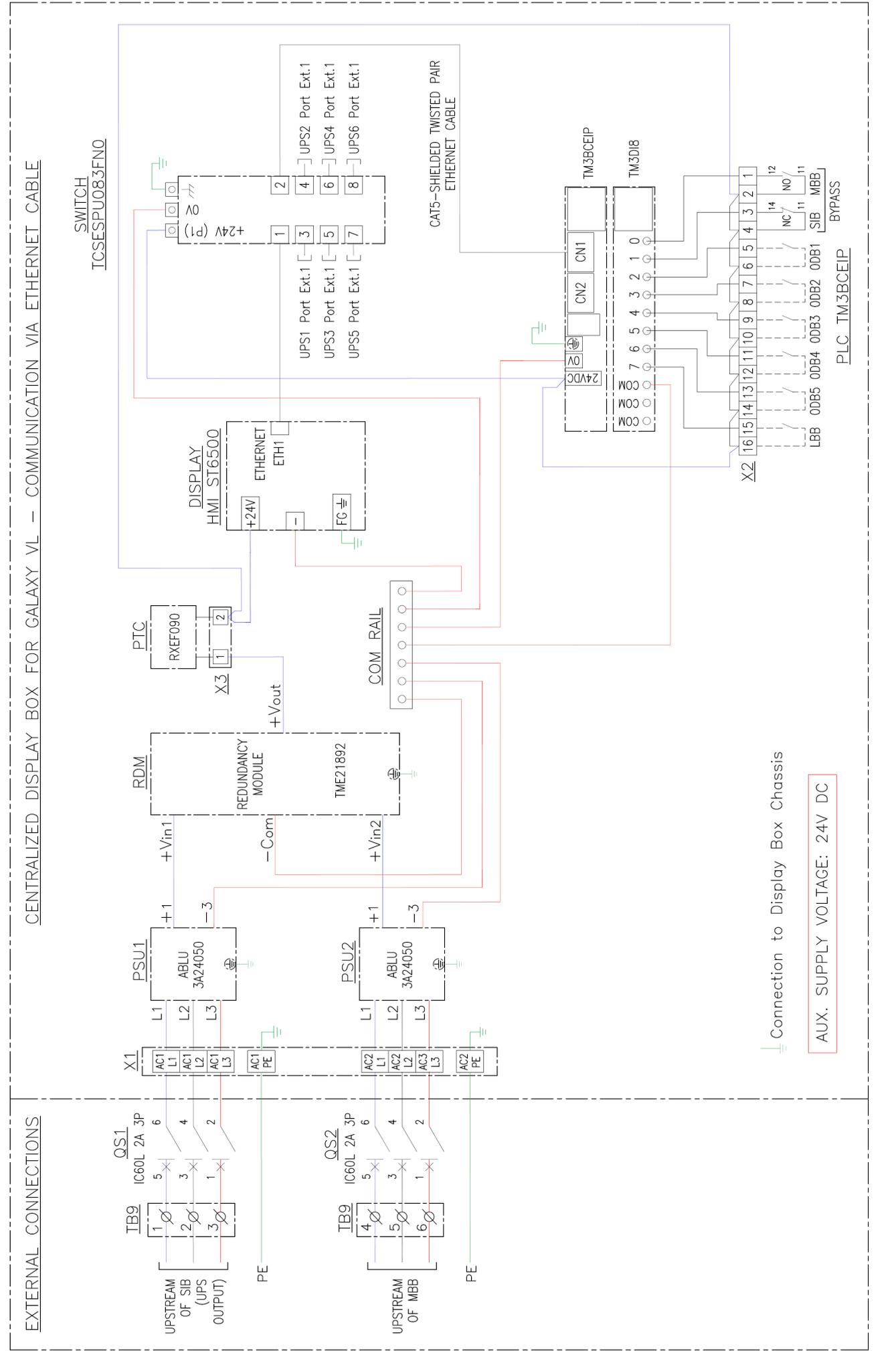
1. Connect the large precabled connector to the digital input module TM3D18 attached to the PLC with Ethernet ports.
2. Connect the small precabled connector to the power port CN3 on the PLC with the Ethernet ports.
3. Connect the provided signal cable 0W8130B between the display port ETH1 and the ConneXium switch port 1.
4. Connect the provided signal cable 0W8130B between the Ethernet port CN1 on the PLC and the ConneXium switch port 2.

5. Route the RJ45 cables from each UPSs through the bottom of the remote centralized display and connect to the ConneXium switch port 3-8. UPS 1 to port 3, UPS 2 to port 4, UPS 3 to port 5, UPS 4 to port 6, UPS 5 to port 7, UPS 6 to port 8.

NOTE: Do not connect the I/O cables to non-SELV circuits.

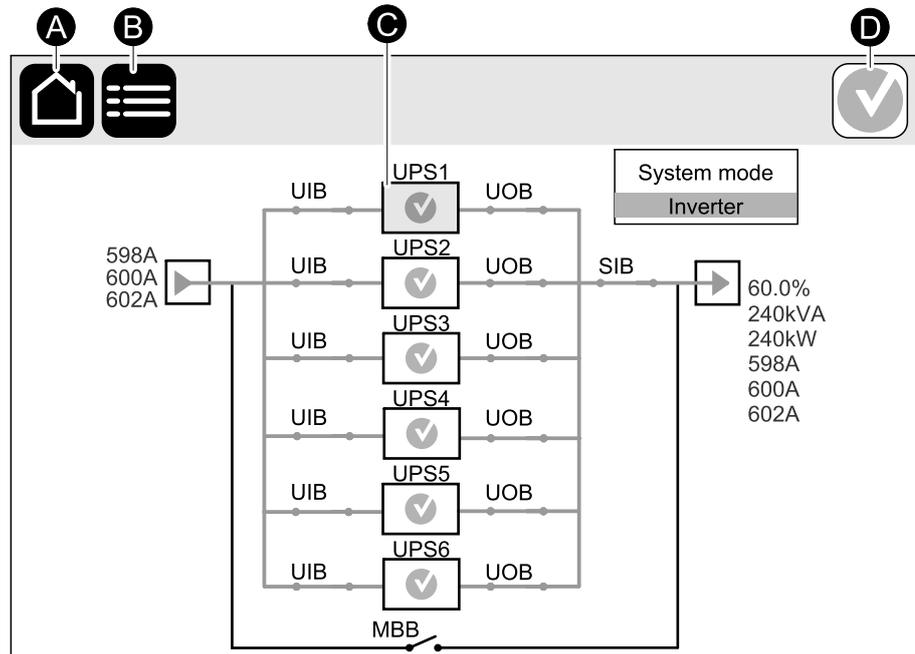


6. Route the signal cables from the external breakers in the switchgear (MBB, SIB, ODB1, ODB2, ODB3, ODB4, ODB5, LBB) through the bottom of the remote centralized display and connect to the communication terminal block.
7. Remove the transparent protection cover in front of the power terminals. Route the power cables through the bottom of the remote centralized display and connect to the power terminal block:
 - a. Connect the PE cables to the power terminals.
 - b. Connect the power cables to the power terminals AC INPUT 1 (L1, L2, L3) and AC INPUT 2 (L1, L2, L3).
8. Reinstall the transparent protection cover in front of the power terminals.



Overview of User Interface

Overview of the Home Screen

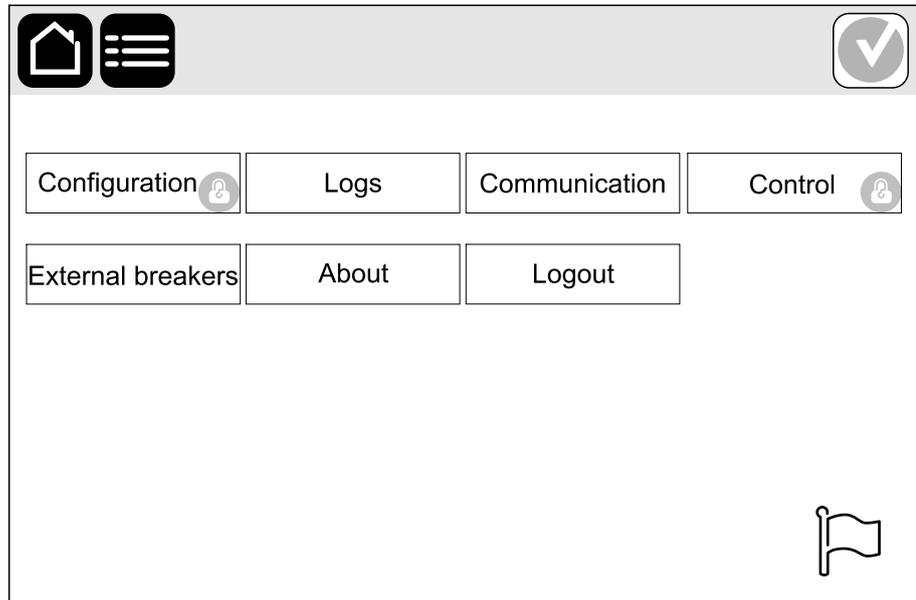


- A. Home button - tap this button on any screen to return to the home screen.
- B. Main menu button - tap this button on any screen to access the menus.
- C. Mimic diagram button - tap on the gray UPS to see the mimic diagram on UPS level.
- D. Alarm status symbol - tap this button on any screen to access the active alarms log.

Main Menu



Tap the main menu button on the home screen to access the menus.



Menu Tree

- **Configuration¹**
 - **System**
 - **Display**
- **Logs**
- **Communication**
- **Control**
- **External breakers**
- **About**
- **Logout**

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 UPS system.

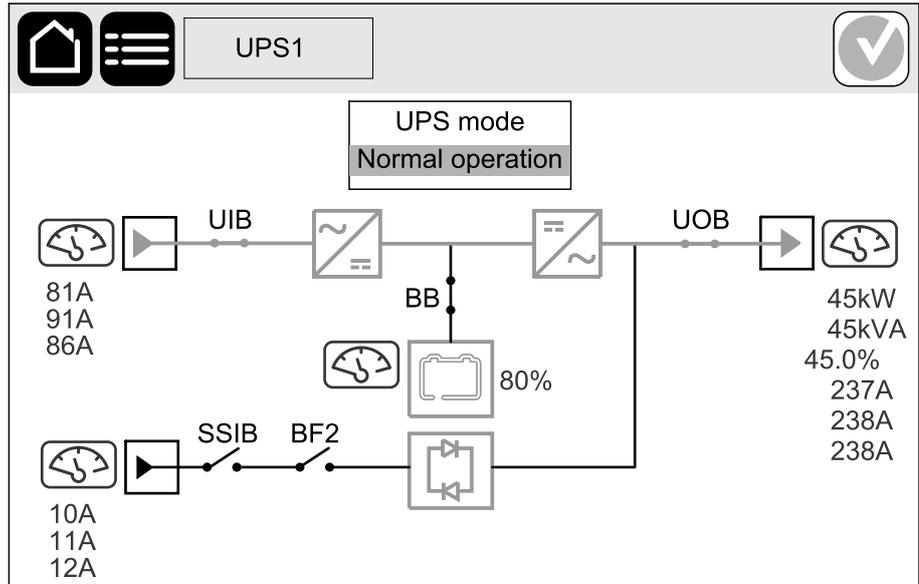
Mimic Diagram

The home screen shows the mimic diagrams for parallel systems. Tap on each UPS to see the mimic diagram on UPS level.

The mimic diagram will adapt to your system configuration – the mimic diagrams shown here are just examples.

1. This menu requires administrator login to access.

Example of Mimic Diagram on UPS Level



The green power line (gray in illustration) in the mimic diagram shows the power flow through the UPS system. Active modules (inverter, rectifier, battery, static bypass switch, etc.) are framed in green and inactive modules are framed in black. Modules framed in red are inoperable or in an alarm condition.

NOTE: The mimic diagram only shows one battery breaker BB even if more battery breakers have been connected and configured for monitoring. If one or more of the monitored battery breakers are in the closed position, the BB on the mimic diagram will show as closed. If all of the monitored battery breakers are in the open position, the BB on the mimic diagram will show as open.

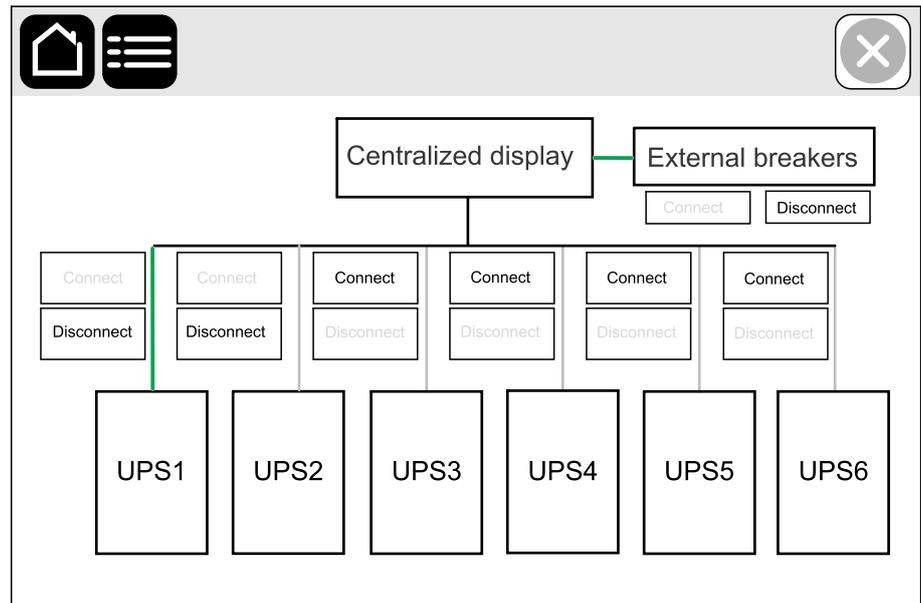
Alarm Status Symbol

The alarm status symbol (gray in illustration) in the top right corner of the display changes depending on the alarm status of the UPS system.

	Green: No alarms present in the UPS system.
	Blue: Informational alarm(s) present in the UPS system. Tap the alarm status symbol to open the active alarms log.
	Yellow: Warning alarm(s) present in the UPS system. Tap the alarm status symbol to open the active alarms log.
	Red: Critical alarm(s) present in the UPS system. Tap the alarm status symbol to open the active alarms log.

View the Communication Status and Start/Stop the Communication with the UPSs and External Breakers

1. On the main menu screen, tap **Communication**. The color of the lines connecting the remote centralized display and the UPSs or the external breakers in the diagram indicates the communication status.
 - Gray: UPS/external breakers not present
 - Green: UPS/external breakers present and communication is normal
 - Red: UPS/external breakers present and communication is abnormal
2. Tap **Connect** or **Disconnect** to start or stop the communication with each UPS or the external breakers.



Configuration

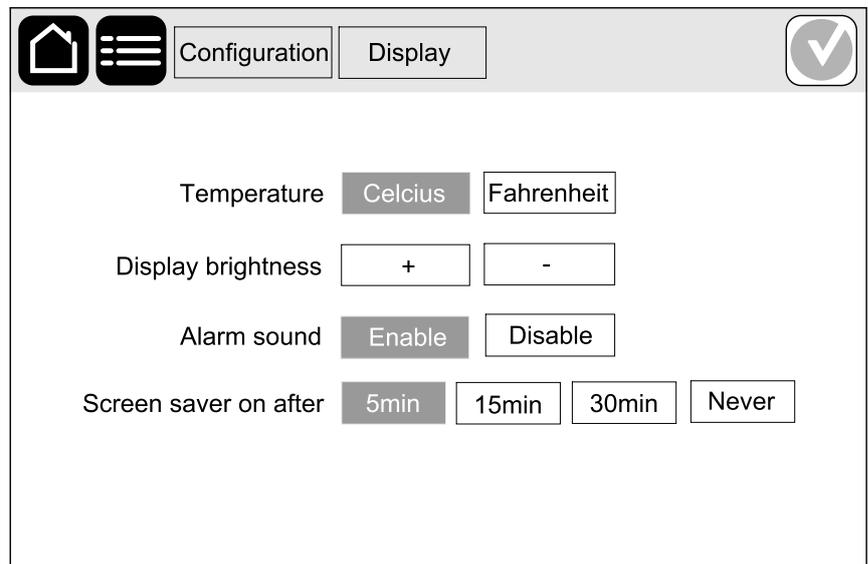
Set the Display Language



1. Tap the flag button on the main menu screen.
2. Tap your language.

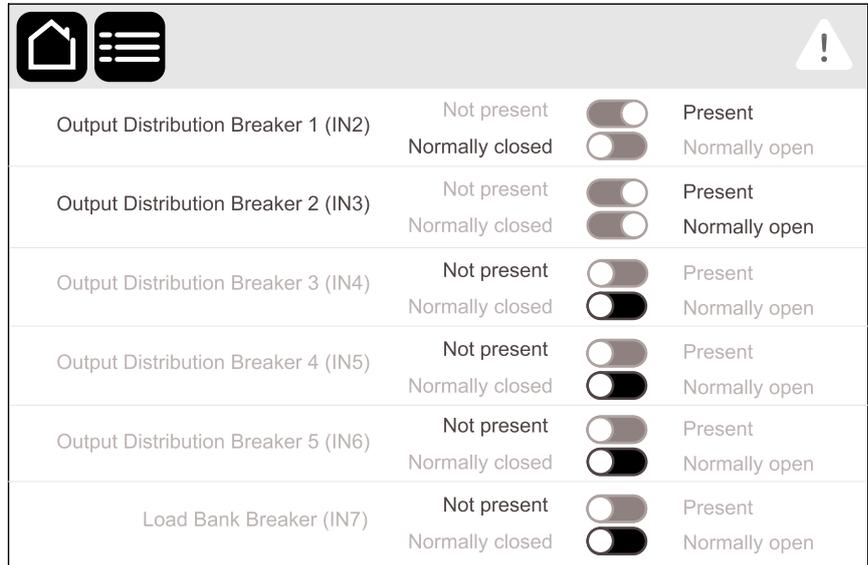
Configure the Display Preferences

1. On the main menu screen, tap **Configuration > Display**.
 - a. Set the temperature unit to **Celsius** or **Fahrenheit**.
 - b. Tap the - or + to set the display brightness.
 - c. Set the **Alarm sound** to **Enable** or **Disable**. This will enable/mute all alarm sounds.
 - d. Select the wait time to activate the screen saver: **5min**, **15min** or **30min**. Or select **Never** to disable the screen saver.



Configure the External Breakers

1. On the main menu screen, tap **Configuration > External breakers**.
 - a. Tap the buttons to configure which breakers are **Present** or **Not Present** in the UPS system.
 - b. Tap the button to configure the breaker as **Normally closed** or **Normally open**.



Change the Password

NOTE: Schneider Electric recommends to change the password on first login for better cybersecurity.

1. Tap **Configuration**.
2. Enter your password.

NOTE: The default administrator username and password is **admin**.
3. Tap **Change password** and enter the new password.

Operation Procedures

Access Password-Protected Screens



1. When prompted for the password, tap the **User Name** field to access the keyboard.
2. Tap the username field, type in your username, and tap **Enter**.
NOTE: The default administrator username and password is **admin**.
NOTE: Schneider Electric recommends to change the password on first login for better cybersecurity.
3. Tap the **Password** field, type in your password, and tap **Enter**.
4. Tap **Login**.

Transfer the System Mode from Normal Operation to Bypass Operation

1. Select **Control > Transfer to bypass operation**.
2. Tap **OK** on the confirmation screen.

Transfer the System Mode from Bypass Operation to Normal Operation

1. Select **Control > Transfer to normal operation**.
2. Tap **OK** on the confirmation screen.

View the UPS Status Information



On the mimic diagram of the individual UPSs, tap on the measurements button to see the status of input, output, bypass, and battery.

Input

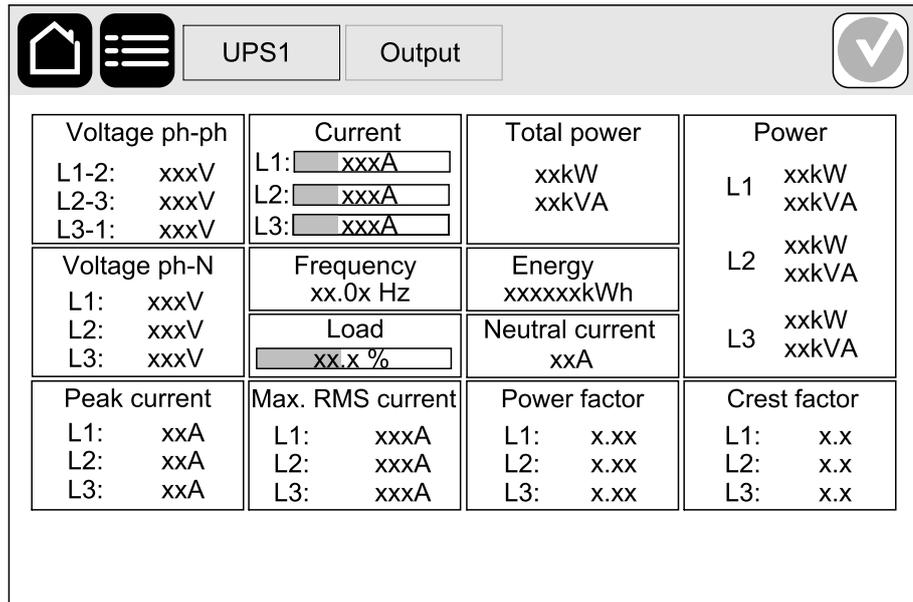
Example of Input Measurements on an Individual UPS

Voltage ph-ph (phase-to-phase)	The present phase-to-phase input voltage.
Voltage ph-N (phase-to-neutral) ²	The present phase-to-neutral input voltage in volts (V).
Peak current	The input peak current in amperes (A)
Current	The present input current from the AC utility power source per phase in amperes (A).
Frequency	The present input frequency in hertz (Hz).
Max. RMS current	The present maximum RMS current in amperes (A).
Total power	The present total active power input (for all three phases) in kW.
Energy	The total energy consumption since the time of installation.
Power factor	The ratio of the active power to apparent power.
Power	The present active power (or real power) input 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.

2. Only applicable in systems with neutral connection.

Output

Example of Output Measurements on an Individual UPS

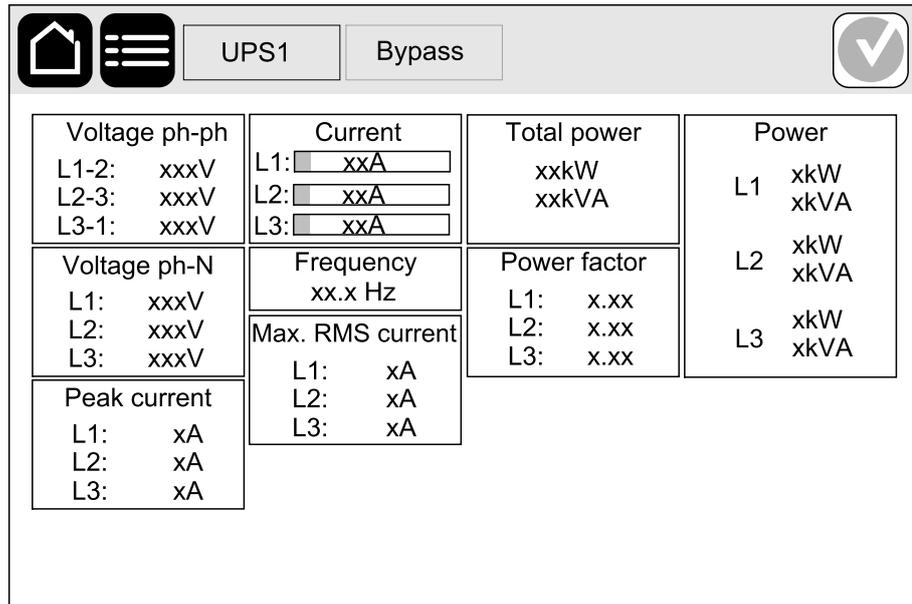


Voltage ph-ph (phase-to-phase)	The phase-to-phase output voltage at the inverter in volts (V).
Voltage ph-N (phase-to-neutral) ³	The phase-to-neutral output voltage at the inverter in volts (V).
Peak current	The output peak current in amperes (A).
Current	The present output current for each phase in amperes (A).
Frequency	The present output frequency in hertz (Hz).
Load	The percentage of the UPS capacity presently used across all phases. The load percentage for the highest phase load is displayed.
Max. RMS current	The present maximum RMS current in amperes (A).
Total power	The present active total output power (for all three phases) in kilowatts (kW).
Energy	The total energy supplied since the time of installation.
Neutral current³	The present output neutral current in amperes (A).
Power factor	The present output power factor for each phase. Power factor is the ratio of active power to apparent power.
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.
Crest factor	The present output crest factor for each phase. The output crest factor is the ratio of the peak value of the output current to the RMS (root mean square) value.

3. Only applicable in systems with neutral connection.

Bypass

Example of Bypass Measurements on an Individual UPS

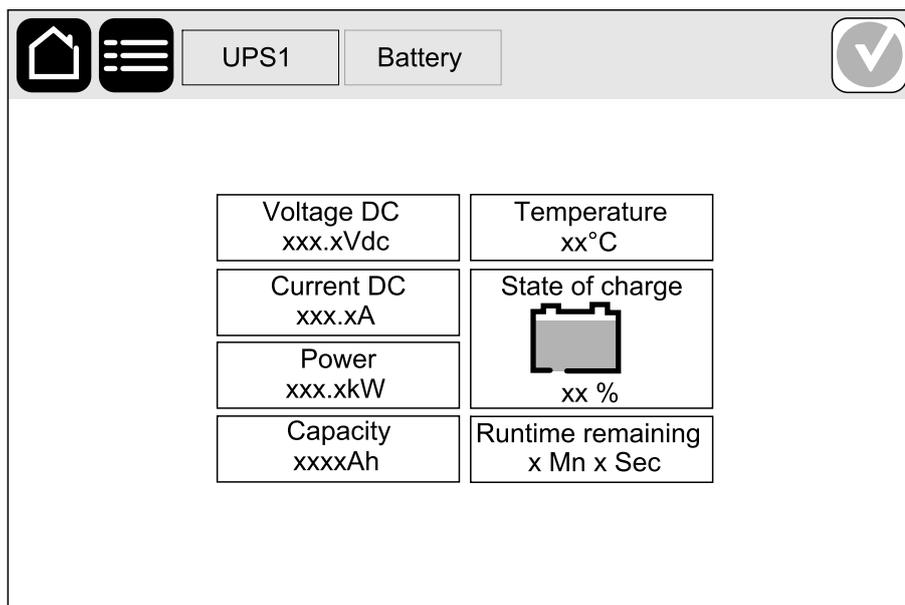


Voltage ph-ph (phase-to-phase) ⁴	The present phase-to-phase bypass voltage (V).
Voltage ph-N (phase-to-neutral)	The present phase-to-neutral bypass voltage (V).
Peak current	The bypass peak current in amperes (A).
Current	The present bypass current for each phase, in amperes (A).
Frequency	The present bypass frequency in hertz (Hz).
Max. RMS current	The present maximum RMS current in amperes (A).
Total power	The present total active bypass power (for all three phases) in kilowatts (kW).
Power factor	The present bypass power factor for each phase. Power factor is the ratio of active power to apparent power.
Power	The present active bypass power for each phase in kilowatts (kW). Active power is the time average of the instantaneous product of voltage and current.

4. Only applicable in systems with neutral connection.

Battery

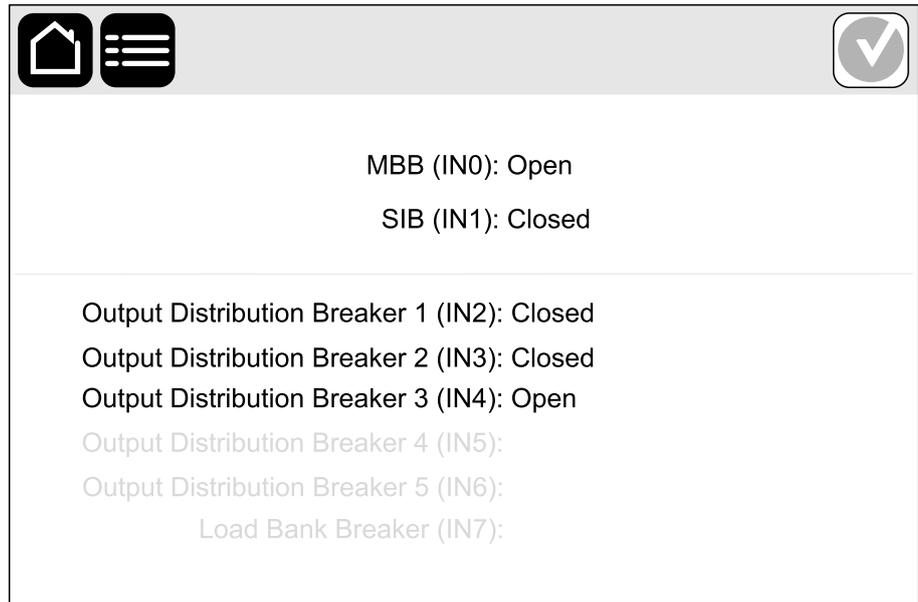
Example of Battery Measurements on an Individual UPS



Voltage DC	The present battery voltage (VDC).
Current DC	The present battery current in amperes (A). A positive current indicates that the battery is charging; a negative current indicates that the battery is discharging.
Power	The present DC power being drawn from the battery, in kilowatts (kW).
Capacity	The present battery charge (Ah).
Temperature	Battery temperature from the connected temperature sensors in Celsius or Fahrenheit.
State of charge	The present charge level of the battery as a percentage of full charge capacity.
Runtime remaining	The amount of time before the batteries reach the low-voltage shutdown level.

View the External Breakers Status

1. On the main menu screen, tap **External breakers**.



View the Logs

1. On the main menu screen, tap **Logs**. The log shows the latest 400 events with the newest events at the top of the list.
 - a. Tap the arrow buttons to scroll up and down.
 - b. Tap **Severity**, **Date**, **Time** or **UPS #ID** to sort the events.

Severity	Date	Time	UPS # ID	Message
X	02/23/2022	10:01:05	UPS1	EPO switch activated
X	02/23/2022	10:01:05	UPS1	System locked in bypass operation
X	02/23/2022	10:01:05	UPS1	UPS Surveillance detected fault
!	02/23/2022	10:01:05	UPS1	Input voltage out of tolerance
!	02/23/2022	10:01:05	UPS1	Input phase sequence incorrect
!	02/23/2022	10:01:05	UPS1	Input frequency out of tolerance
!	02/23/2022	10:01:05	UPS1	Input phase missing
!	02/23/2022	10:01:05	UPS1	Neutral displacement detected
!	02/23/2022	10:01:05	UPS1	Bonding between neutral and ground missing
!	02/23/2022	10:01:05	UPS1	Output voltage out of tolerance
!	02/23/2022	10:01:05	UPS1	Synchronization unavailable - system is freerunning
!	02/23/2022	10:01:05	UPS1	Inverter output is not in phase with bypass input
!	02/23/2022	10:01:05	UPS1	Ambient temperature out of tolerance
!	02/23/2022	10:01:05	UPS1	Ambient temperature high
!	02/23/2022	10:01:05	UPS1	Inverter is off due to request by the user

Alarm/Event	Severity	Display Text	Description	Corrective Action Text
Alarm	Warning	Battery is below minimum acceptable runtime	The battery runtime is below configured minimum acceptable value.	
Alarm	Critical	Battery is not working correctly	A battery is not working correctly.	Please contact Schneider Electric.
Alarm	Warning	Battery room ventilation inoperable	Input relay indicates that the battery room ventilation is not working correctly.	
Alarm	Warning	Bonding between neutral and ground missing	Bonding between neutral and ground is missing.	
Alarm	Warning	Breaker MBB closed	Maintenance bypass breaker MBB is closed, feeding the load with unprotected power from bypass.	
Alarm	Warning	Breaker SIB open	System isolation breaker SIB is open, and system cannot feed the load.	
Alarm	Warning	Breaker SSIB open	Bypass static switch input breaker SSIB is open, making static bypass operation unavailable.	
Alarm	Warning	Breaker UIB open	Unit input breaker UIB is open, and the UPS is prevented from running in normal operation.	
Alarm	Warning	Breaker UOB open	Unit output breaker UOB is open, and UPS cannot feed the load.	
Alarm	Warning	Bypass backfeed breaker open	Bypass backfeed breaker is open.	
Alarm	Warning	Bypass frequency out of tolerance	Bypass input frequency is out of tolerance.	Check bypass input frequency and bypass input frequency setting.
Alarm	Warning	Bypass phase missing	Bypass input is missing a phase.	Check bypass input. Please contact Schneider Electric.
Alarm	Warning	Bypass phase sequence incorrect	The phase rotation on bypass input is incorrect.	Check bypass input. Please contact Schneider Electric.
Alarm	Warning	Bypass voltage out of tolerance	Bypass input voltage is out of tolerance and UPS is prevented from going into requested bypass mode.	
Alarm	Warning	Charger shutdown due to high battery temperature	The charger has been shut down due to a high battery temperature.	
Alarm	Critical	EPO Switch Activated	An emergency power off (EPO) switch is activated.	Deactivate the Emergency Power Off switch.
Alarm	Warning	External battery monitoring detected fault	Input relay indicates external battery monitoring has detected a fault.	
Alarm	Critical	External energy storage monitoring: Major alarm	Input relay indicates external energy storage monitoring has detected a major alarm.	Please contact Schneider Electric.
Alarm	Warning	External energy storage monitoring: Minor alarm	Input relay indicates external energy storage monitoring has detected a minor alarm.	Please contact Schneider Electric.
Alarm	Warning	External signal turns charger off: Activated	Input contact for charger off is activated.	
Alarm	Warning	Ground fault detected	Input relay indicates that a ground fault has been detected.	Please contact Schneider Electric.
Alarm	Critical	High battery discharge current shutdown	The energy storage surveillance has detected a battery discharge current above shutdown limit.	
Alarm	Warning	High Battery Temperature Level	The battery temperature is above the alarm setting.	Check the battery temperature. A high temperature may decrease the battery lifetime.
Alarm	Critical	High battery temperature shutdown	The energy storage surveillance has detected a battery temperature above shutdown limit.	

Alarm/Event	Severity	Display Text	Description	Corrective Action Text
Alarm	Warning	Input frequency out of tolerance	Mains input frequency is out of tolerance.	Check input frequency and input frequency setting.
Alarm	Warning	Input phase missing	Input is missing a phase.	Check input. Please contact Schneider Electric.
Alarm	Warning	Input phase sequence incorrect	The phase rotation on input is incorrect.	Check input. Please contact Schneider Electric.
Alarm	Warning	Input voltage out of tolerance	Mains input voltage is out of tolerance.	
Alarm	Warning	Internal power module redundancy lost	The configured internal power module redundancy is lost because there are not enough power modules available.	
Alarm	Warning	Inverter is Off due to a request by the user	The inverter is off due to a request by the user.	
Alarm	Warning	Inverter output is not in phase with bypass input	The UPS inverter output is not in phase with the bypass input.	
Alarm	Warning	Load on UPS is above warning level	Load on UPS has exceeded the warning level.	
Alarm	Warning	Low Battery Temperature Level	The battery temperature is below the Alarm setting.	
Alarm	Warning	MBB redundant monitoring not working correctly	The two redundant AUX switches of MBB do not report the same status.	
Alarm	Warning	Neutral displacement detected	Neutral displacement has been detected.	
Alarm	Warning	Output frequency out of tolerance	Output frequency is out of tolerance.	Check output frequency and output frequency setting.
Alarm	Warning	Output voltage out of tolerance	The output voltage is out of tolerance.	
Alarm	Warning	Overload on installation	The load exceeds 100% of rated installation capacity.	
Alarm	Warning	Overload on UPS due to high ambient temperature	The load exceeds the rated capacity when running with high ambient temperature.	Reduce load on system or ambient temperature.
Alarm	Warning	Overload or short circuit on UPS	Reduce load on system or check for output short circuit.	The load exceeds 100% of rated capacity or there is a short circuit on the output.
Alarm	Warning	Parallel breaker status inconsistency detected	The status of one or more common parallel breakers is not detected to be the same on all parallel UPS.	Replace parallel cable 1.
Alarm	Warning	Parallel communication lost on PBUS cable 1	PBUS cable 1 may be damaged.	
Alarm	Warning	Parallel communication lost on PBUS cable 2	PBUS cable 2 may be damaged.	
Alarm	Warning	Parallel mixed operation mode	One or more parallel UPS units are operating in battery operation, while others are operating in normal operation.	
Alarm	Warning	Parallel redundancy lost	The configured parallel redundancy is lost, either because the output load is too high, or because there are not enough parallel UPS units available.	
Alarm	Warning	Parallel unit not present	UPS is unable to communicate with parallel UPS %d. The UPS might have been powered down or PBUS cables may be damaged.	
Alarm	Warning	PM (X) Power module disabled	The power module has been disabled.	

Alarm/Event	Severity	Display Text	Description	Corrective Action Text
Alarm	Warning	PM (X) Power module inoperable	Power module is inoperable.	
Alarm	Critical	PM (X) Power module overheated	Power module temperature exceeds critical level.	
Alarm	Critical	PM (X) Power module surveillance detected fault	Power module surveillance has detected a fault.	
Alarm	Warning	Static bypass switch fan inoperable	Static Bypass Switch has one or more inoperable fans. Fan redundancy is lost.	
Alarm	Critical	Static bypass switch inoperable	Static bypass switch is inoperable. UPS is prevented from going into static bypass operation.	
Alarm	Warning	Synchronization unavailable - system is freerunning	The UPS is unable to synchronize to the bypass input, external source or parallel system.	
Alarm	Critical	System locked in bypass operation	The system is locked in bypass operation.	The system has toggled between inverter operation and bypass operation more than 10 times within 1 minute. Please activate on button to transfer back to normal operation.
Alarm	Critical	System operation mode - Forced static bypass	The system is in bypass in response to a critical event or an inverter off request.	
Alarm	Warning	System operation mode - Maintenance bypass	The system load is supplied through maintenance bypass breaker (MBB).	
Alarm	Critical	System operation mode - Off	The system output power is turned off.	
Alarm	Warning	System operation mode - Requested static bypass	The system is in bypass in response to the UPS front-panel or a user-initiated software command, typically for maintenance.	
Alarm	Critical	System operation mode - Static bypass standby	The system is in static bypass standby operation in response to a critical event or an inverter off request.	
Alarm	Warning	Temperature of input and/or output transformer is too high	Temperature of input and/or output transformer is too high.	
Alarm	Warning	UOB redundant monitoring not working correctly	The two redundant AUX switches of UOB do not report the same status	
Alarm	Warning	UPS locked in static bypass mode: Activated	Input contact for UPS locked in static bypass mode is activated.	
Alarm	Warning	UPS operation mode - Battery	On battery power in response to an input power problem or due to a transfer out of eConversion.	
Alarm	Critical	UPS operation mode - Forced static bypass	The UPS is in forced static bypass.	
Alarm	Warning	UPS operation mode - Maintenance bypass	The UPS load is supplied through Maintenance Bypass Breaker (MBB).	
Alarm	Critical	UPS operation mode - Off	The output power is turned off.	
Alarm	Warning	UPS operation mode - Requested static bypass	The UPS is in bypass in response to the UPS front-panel or a user-initiated software command, typically for maintenance.	
Alarm	Warning	UPS operation mode - Static bypass standby	The UPS is ready to enter static bypass but awaits permission from the system. UPS output is off.	
Alarm	Critical	UPS surveillance detected fault	UPS surveillance has detected a fault.	Please contact Schneider Electric.

Schneider Electric
35 rue Joseph Monier
92500 Rueil Malmaison
France

+ 33 (0) 1 41 29 70 00



As standards, specifications, and design change from time to time,
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