

# Easy UPS 3M

## For Internal and External Batteries

### Operation

60-200 kVA 400 V and 50-100 kVA 208 V  
10/2023



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# Important Safety Instructions — SAVE THESE INSTRUCTIONS

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



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



This is the safety alert symbol. It is used to alert 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.

Per IEC 62040-1: "Uninterruptible power systems (UPS) -- Part 1: Safety Requirements," this equipment, including battery access, must be inspected, installed and maintained by a skilled person.

The skilled person is a person with relevant education and experience to enable him or her to perceive risks and to avoid hazards which the equipment can create (reference IEC 62040, section 3.102).

## Electromagnetic Compatibility

### **NOTICE**

#### **RISK OF ELECTROMAGNETIC DISTURBANCE**

This is a product Category C3 according to IEC 62040-2. This is a product for commercial and industrial applications in the second environment - installation restrictions or additional measures may be needed to prevent disturbances. The second environment includes all commercial, light industry, and industrial locations other than residential, commercial, and light industrial premises directly connected without intermediate transformer to a public low-voltage mains supply. The installation and cabling must follow the electromagnetic compatibility rules, e.g.:

- the segregation of cables,
- the use of shielded or special cables when relevant,
- the use of grounded metallic cable tray and supports.

**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 UPS system 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.**



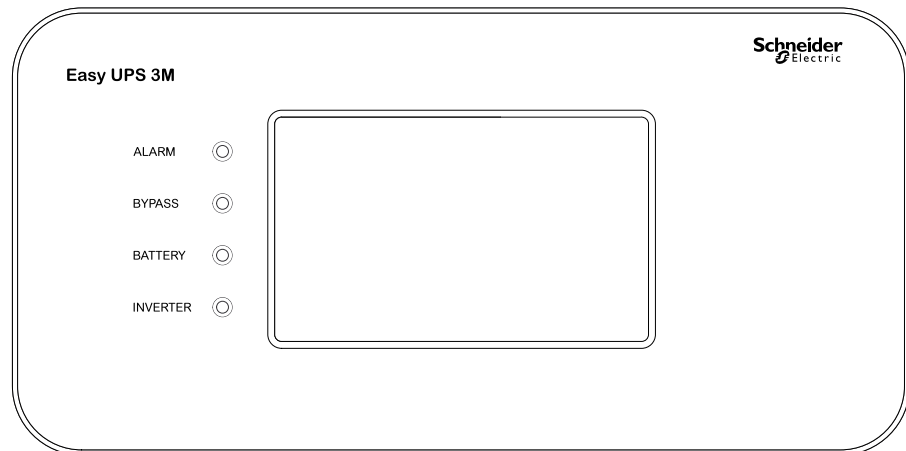
## Symbols Used in the Product

	This is the earthing/ground symbol.
	This is the protective earth/equipment grounding conductor symbol.
	This is the direct current symbol. It is also referred to as DC.
	This is the alternating current symbol. It is also referred to as AC.
	This is the positive polarity symbol. It is used to identify the positive terminal(s) of equipment which is used with, or generates direct current.
	This is the negative polarity symbol. It is used to identify the negative terminal(s) of equipment which is used with, or generates direct current.
	This is the battery symbol.
	This is the static bypass switch symbol. It is used to indicate switches that are designed to bypass the UPS normal operation, in cases of high inrush or fault conditions.
	This is the AC/DC converter (rectifier) symbol. It is used to identify an AC/DC converter (rectifier) and, in case of plug-in devices, to identify the relevant receptacles.
	This is the DC/AC converter (inverter) symbol. It is used to identify an DC/AC converter (inverter) and, in case of plug-in devices, to identify the relevant receptacles.
	This is the fuse symbol. It is used to identify fuse boxes or their locations.
	This is the input symbol. It is used to identify an input terminal when it is necessary to distinguish between inputs and outputs.
	This is the output symbol. It is used to identify an output terminal when it is necessary to distinguish between inputs and outputs.
	This is the switch disconnecter symbol. It is used to identify the disconnecting device in the form of switch that protects the equipment from short circuit or heavy load current. It opens the circuits once the current flow crosses its maximum limit.
	This is the circuit breaker symbol. It is used to identify the disconnecting device in the form of circuit breaker that protects the equipment from short circuit or heavy load current. It opens the circuits once the current flow crosses its maximum limit.
	This is the circuit breaker/switch symbol. It is used to identify the disconnecting device in the form of circuit breaker or switch that protects the equipment from short circuit or heavy load current. It opens the circuits once the current flow crosses its maximum limit.

N	This is the neutral symbol. It is used to identify the neutral conductors or their locations.
L	This is the phase conductor symbol. It is used to identify the phase conductors or their locations.

# Overview

## User Interface



## Status LEDs

LED	State	Description
ALARM	Steady red	Critical alarm
	Flashing red	Warning alarm
	Off	No alarm condition
BYPASS	Steady yellow	The load is supplied by the bypass source
	Flashing yellow	There is an alarm condition on the bypass source
	Off	The load is not supplied by the bypass source
BATTERY	Steady yellow	The load is supplied by the battery source
	Flashing yellow	The battery source is unavailable
	Off	The load is not supplied by the battery source
INVERTER	Steady green	Inverter on
	Off	Inverter off

## EPO

Only use the EPO button in case of emergency.

It can be configured whether, when the EPO button is pressed, the UPS should:

- turn off the rectifier, inverter, charger, and static bypass and stop supplying the load immediately, or
- transfer to static bypass mode and keep supplying the load.

**⚠ DANGER****HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

The UPS control circuit will remain active after the EPO has been pushed if mains is available.

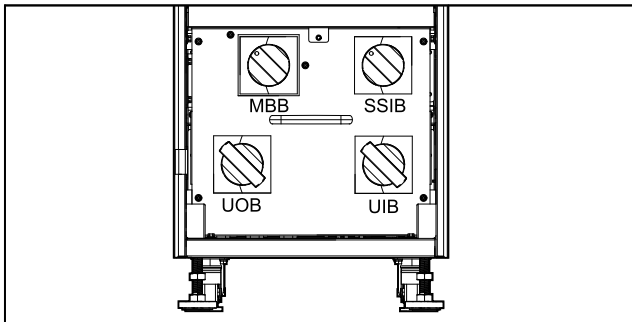
**Failure to follow these instructions will result in death or serious injury.**

## Display Menu Tree

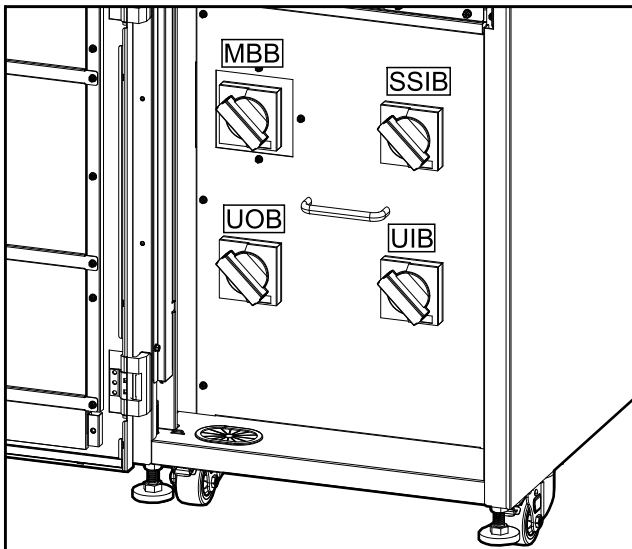
- **Status**
  - **Input**
  - **Output**
  - **Battery**
  - **Bypass**
  - **Status information**
- **Alarms**
  - **Active alarms**
  - **Enable buzzer/Disable buzzer**
  - **Log**
- **Settings**
  - **General settings**
    - **Language settings**
    - **Display settings**
    - **Network**
    - **Password settings**
    - **Date and time**
    - **UPS information**
  - **Advanced settings**
    - **System settings**
    - **Output settings**
    - **Bypass settings**
    - **Parallel settings**
    - **Battery settings**
    - **Contacts and relays**
- **Service**
  - **Battery self-test**
  - **Export data to USB**
  - **Display calibration**
  - **LCM settings**
- **Control**
  - **Inverter ON/OFF**
  - **Clear alarm(s)**
  - **Self-test**
- **About**

## Location of Breakers and Switches

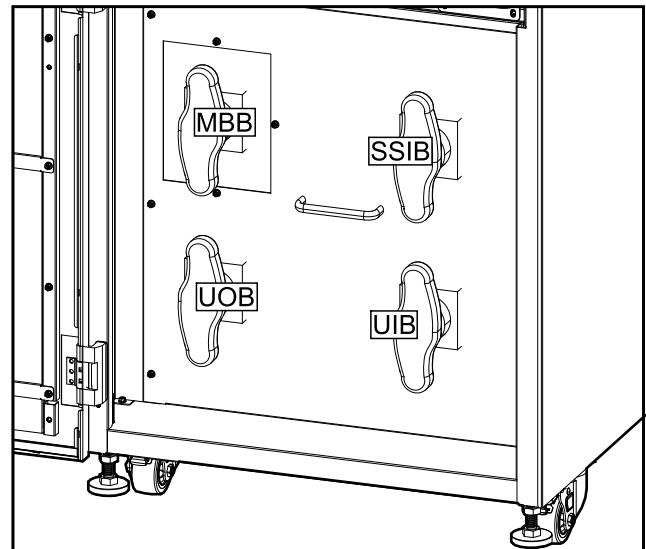
### 60-100 kVA 400 V/50 kVA 208 V UPS for External Batteries



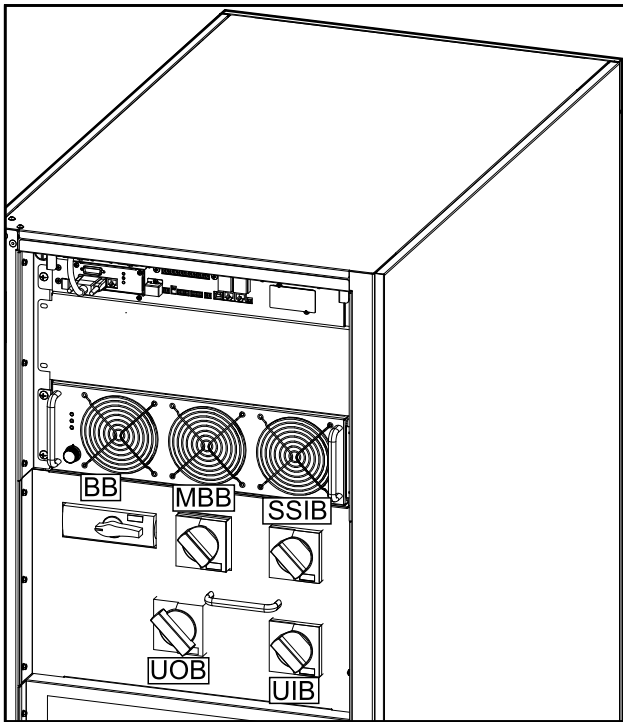
### 120-160 kVA 400 V/60-80 kVA 208 V UPS for External Batteries



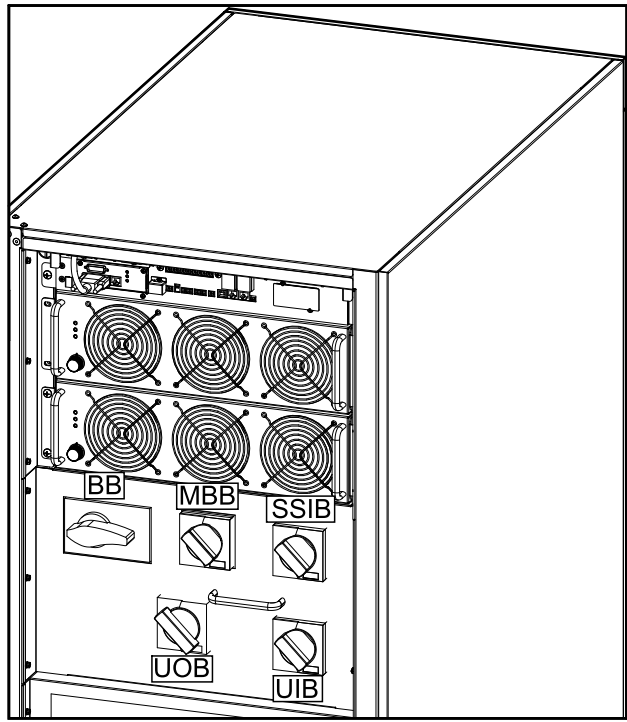
### 200 kVA 400 V/100 kVA 208 V UPS for External Batteries



Front View of the 60 kVA 400 V UPS for Internal Batteries

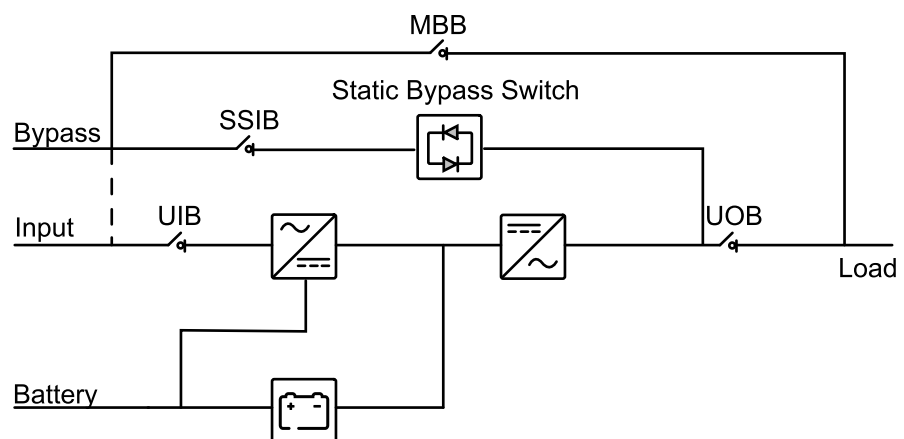


Front View of the 80 kVA 400 V UPS for Internal Batteries



## Overview of Single UPS

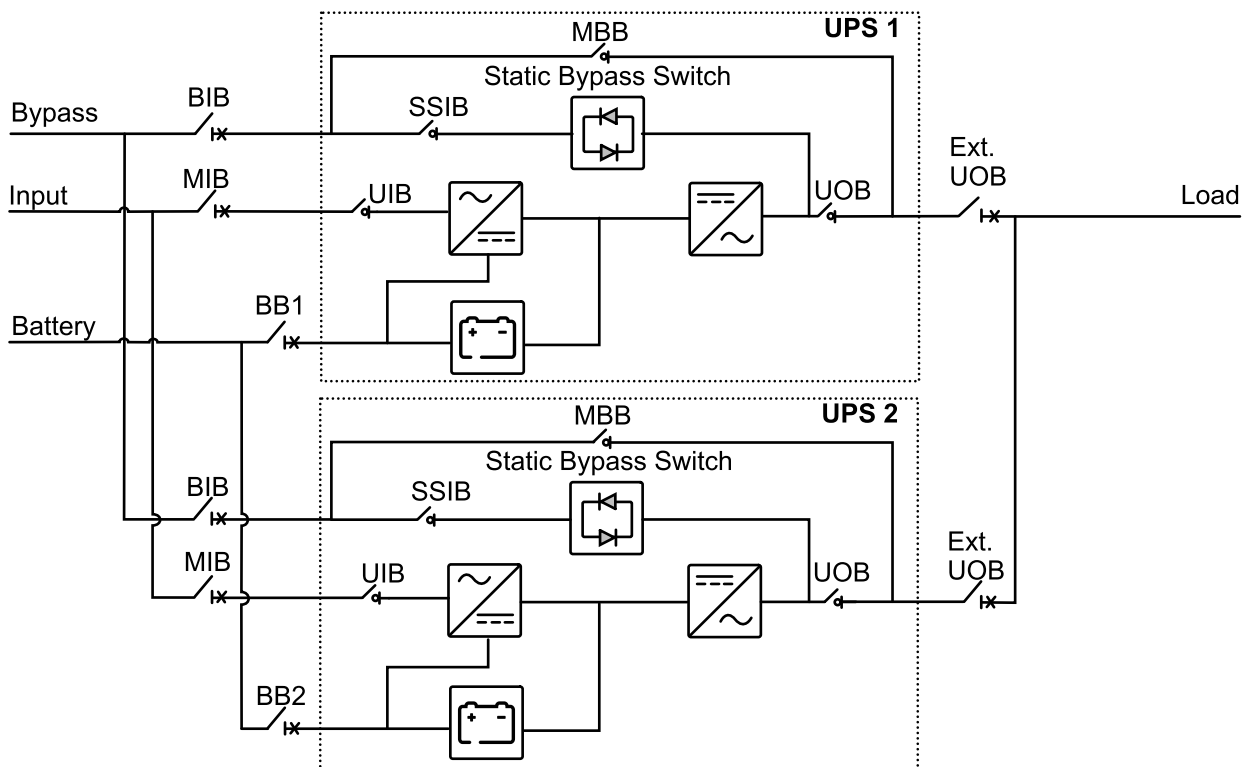
UIB	Unit input switch
SSIB	Static switch input switch
UOB	Unit output switch
MBB	Maintenance bypass switch



# Overview of 1+1 Redundant Parallel System with Common Battery Bank

MIB	Mains input breaker
BIB	Bypass input breaker
UIB	Unit input switch
SSIB	Static switch input switch
UOB	Unit output switch
Ext. UOB	External unit output breaker
MBB	Maintenance bypass switch
Ext. MBB	External maintenance bypass breaker
BB1	Battery breaker 1
BB2	Battery breaker 2

**NOTE:** Common battery banks are not supported in systems with internal batteries.

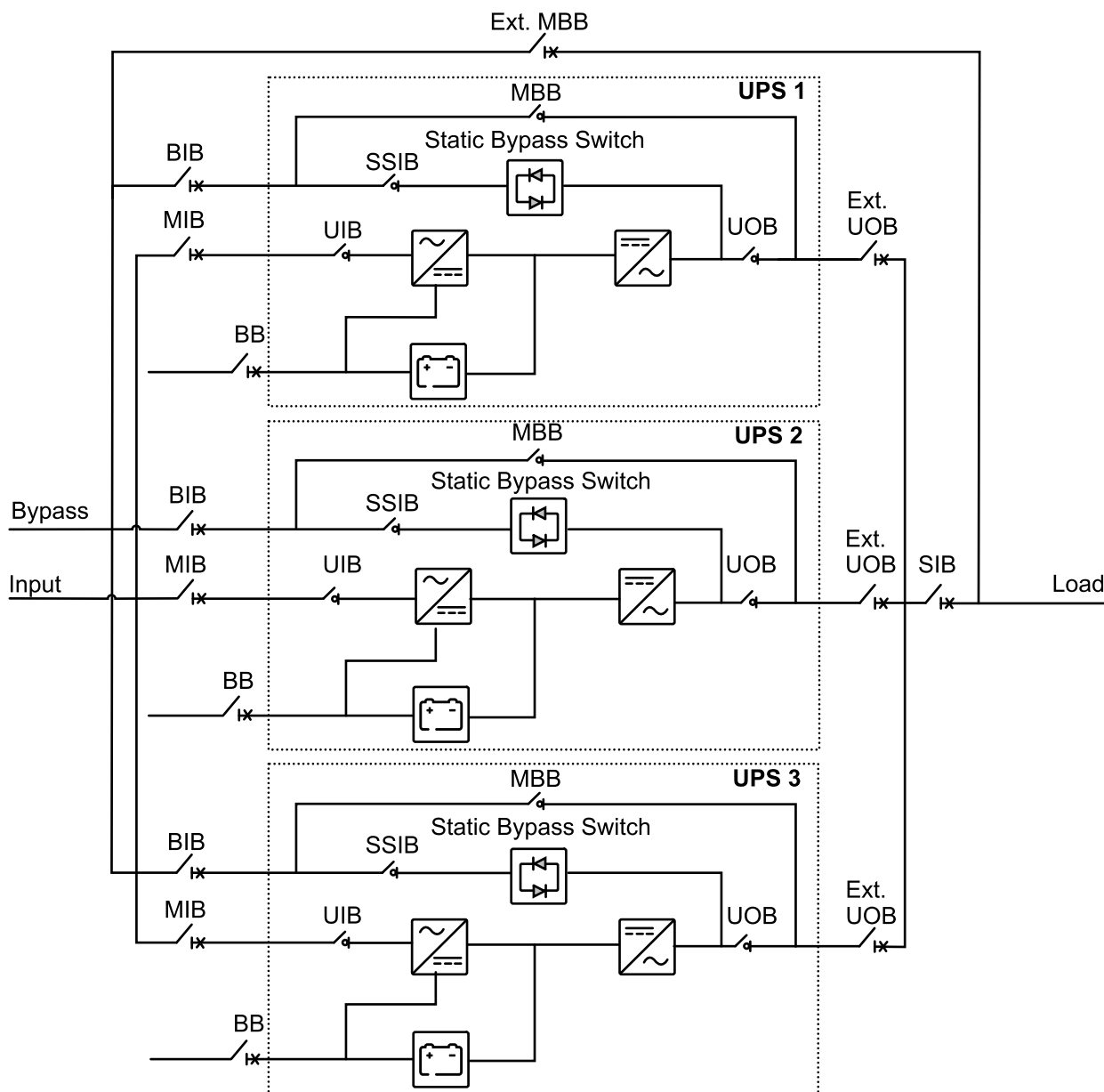


## Overview of Parallel System

MIB	Mains input breaker
BIB	Bypass input breaker
UIB	Unit input switch
SSIB	Static switch input switch
UOB	Unit output switch
Ext. UOB	External unit output breaker
MBB	Maintenance bypass switch
Ext. MBB	External maintenance bypass breaker
SIB	System isolation breaker
BB	Battery breaker

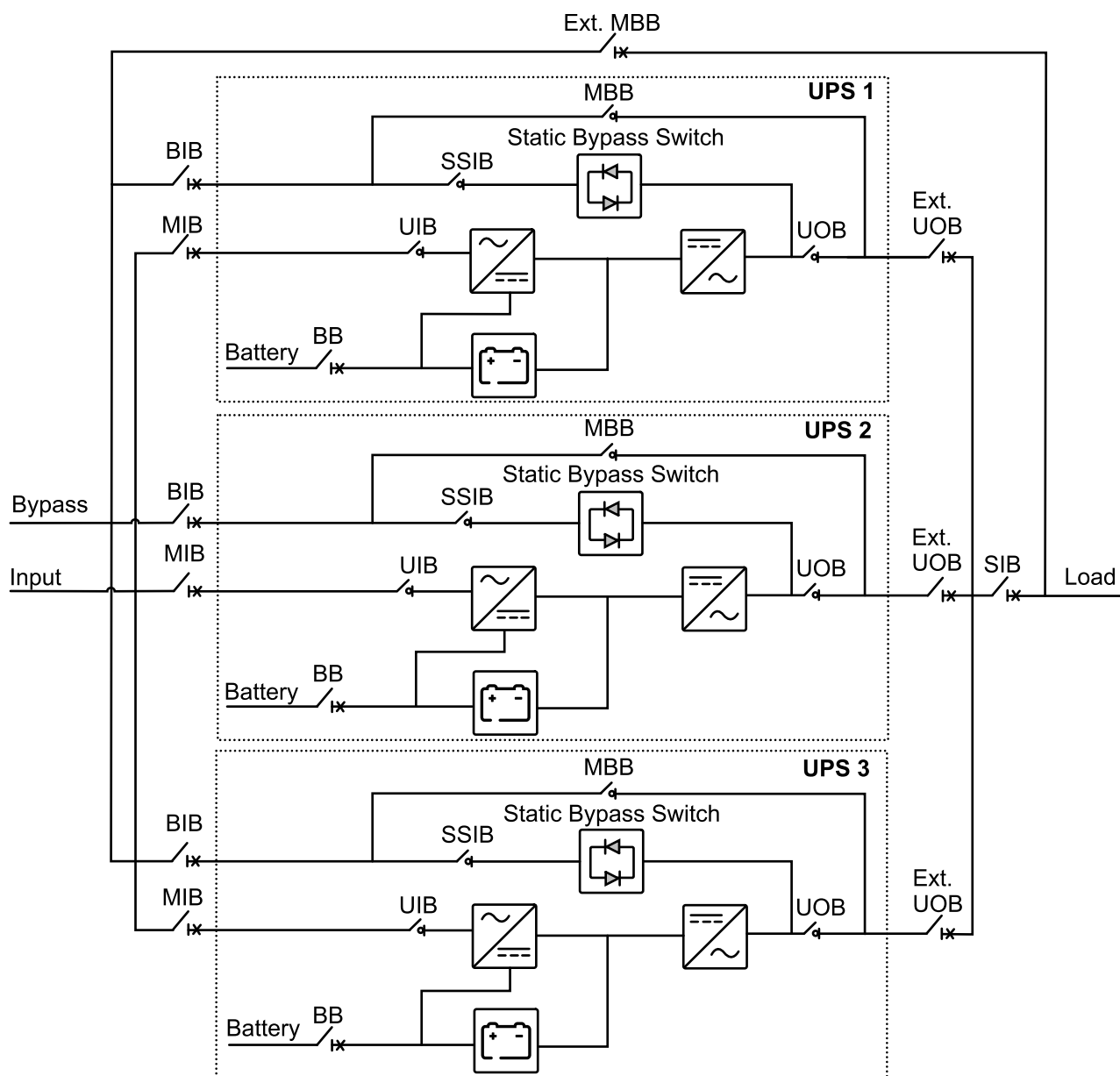
**NOTE:** In parallel systems with an external maintenance bypass breaker Ext. MBB, the maintenance bypass breakers/switches MBB must be padlocked in the open (OFF) position.

### UPSs for External Batteries





## UPSs for Internal Batteries



The impedance of the bypass paths need to be controlled in a parallel UPS system. When operating in bypass mode, the parallel load sharing is determined by the total impedance of the bypass path comprising cables, switchgear, static bypass switch, and cable formation.

## ***NOTICE***

### **RISK OF EQUIPMENT DAMAGE**

To ensure correct load sharing in bypass operation in a parallel system, the following recommendations apply:

- The bypass cables must be the same length for all UPSs.
- The output cables must be the same length for all UPSs.
- The input cables must be the same length for all UPSs in a single mains system.
- Cable formation recommendations must be followed.
- The reactance of busbar layout in the bypass/input and output switchgear must be the same for all UPSs.

If the above recommendations are not followed the result can be uneven load sharing in bypass and overload of individual UPSs.

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

# Operation Modes

## Normal Mode

The UPS provides power to the connected load from mains. The UPS converts mains to conditioned power for the connected load while recharging the batteries (float or boost charge).

### LED Status

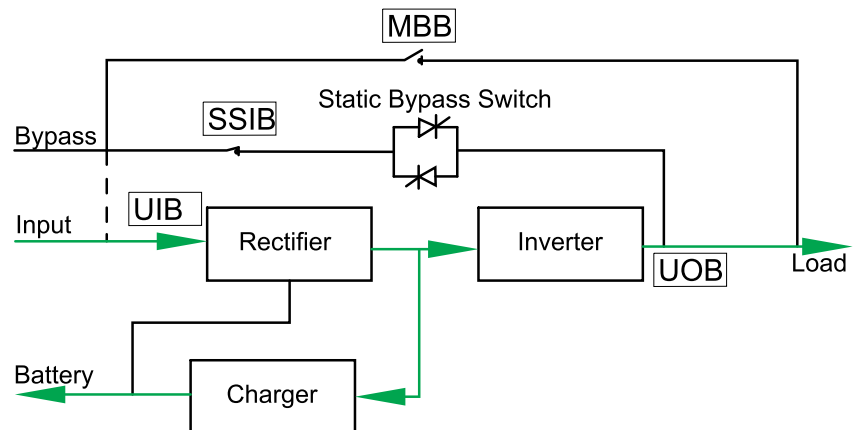
ALARM 

BYPASS 

BATTERY 

INVERTER 

### Power Flow



## Battery Mode

The UPS transfers to battery mode if the mains supply fails. The UPS provides power to the connected load from the connected batteries for a finite period. When the mains supply returns, the UPS transfers back to normal mode.

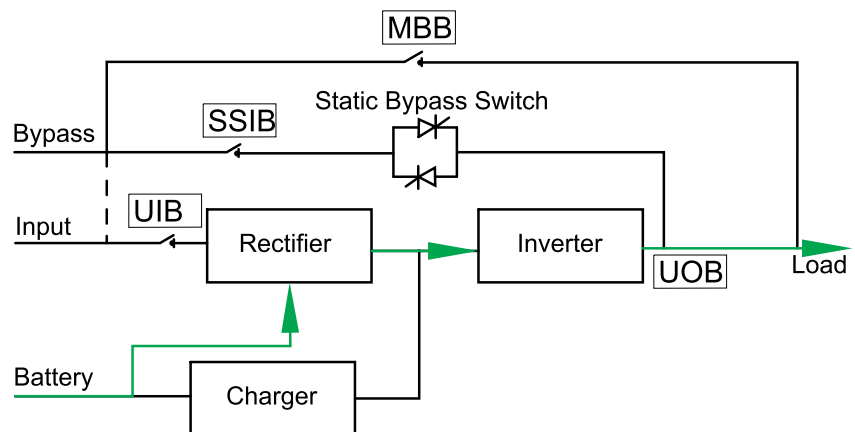
### LED Status

ALARM 

BYPASS 

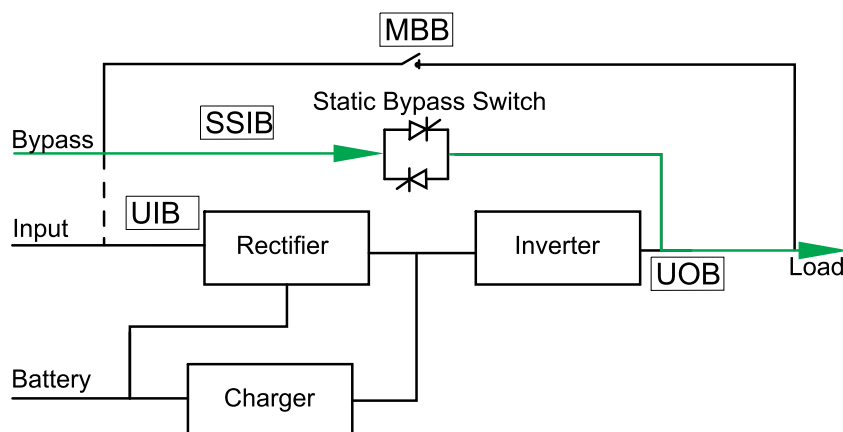
BATTERY 

INVERTER 

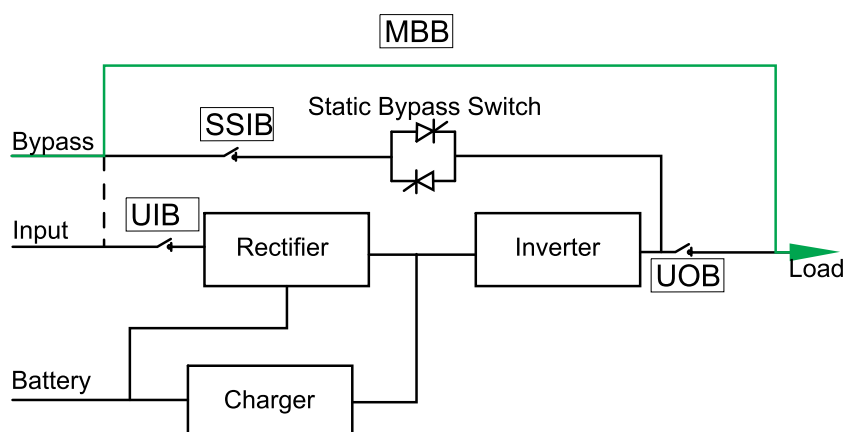


## Static Bypass Mode

The UPS supplies the load with power from the bypass source. If the conditions for normal or battery mode are not met, the load will be transferred from the inverter to the bypass source with no interruption in power to the load.

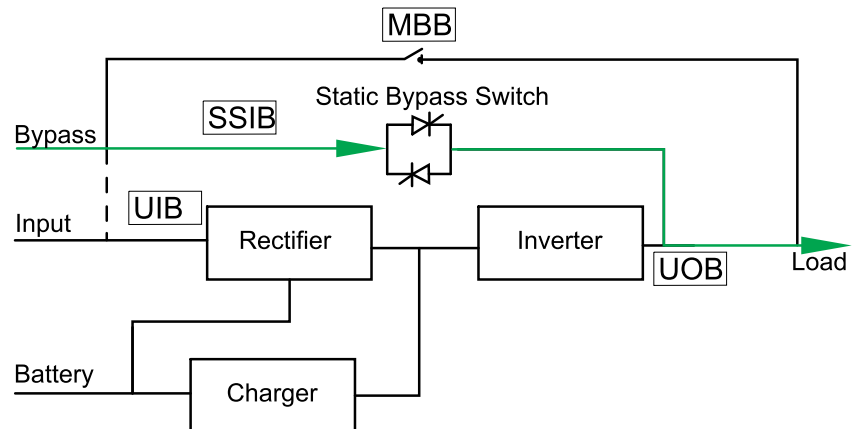
**LED Status**ALARM BYPASS BATTERY INVERTER **Power Flow****Maintenance Bypass Mode**

In maintenance bypass mode, the mains is sent via the external MBB to the load. Battery backup is not available in maintenance bypass mode.

**LED Status**ALARM BYPASS BATTERY INVERTER **Power Flow****ECO Mode**

In ECO mode the UPS is configured to use static bypass mode as the preferred operation mode under predefined circumstances. The inverter is in standby in ECO mode and in case of interruption to the mains, the UPS transfers to battery mode and the load is supplied from the inverter.

**NOTE:** This mode is disabled by default, please contact Schneider Electric to enable this mode. If ECO mode is enabled, you cannot exit this operation mode by using the display, please also contact Schneider Electric for assistance.

**LED Status**ALARM BYPASS BATTERY INVERTER **Power Flow****Autostart Mode**

When autostart is enabled, the UPS automatically restarts the inverter and bypass when the mains returns. By default autostart is enabled.

**NOTE:** If autostart is disabled, the inverter and bypass will not restart automatically when the mains return.

**Frequency Converter Mode**


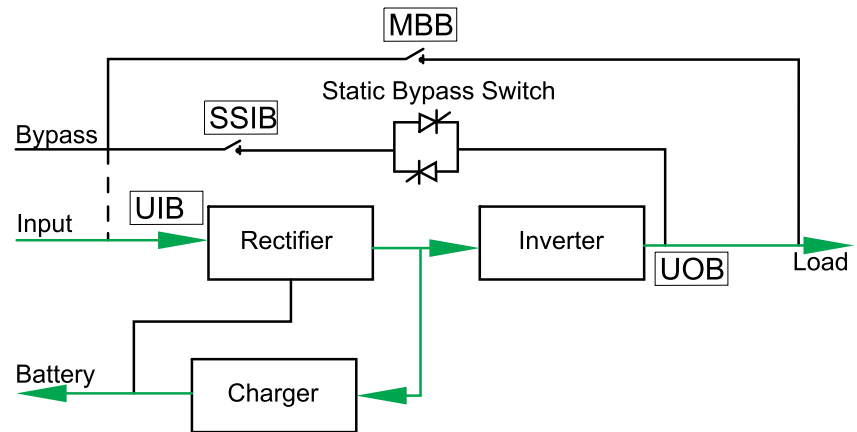
In frequency converter mode, the UPS presents a stable output frequency (at 50 or 60 Hz) and the static bypass switch is not available.

**NOTICE****RISK OF EQUIPMENT DAMAGE OR LOAD DROP**

In frequency converter mode the UPS cannot run in static bypass or maintenance bypass mode. Before turning the UPS into frequency converter mode, you must contact a Schneider Electric-certified partner to make sure

- the SSIB and the MBB are in the OFF (opened) position (Schneider Electric strongly recommends to lock these with a padlock available from Schneider Electric)
- no cables are connected to the bypass terminals

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

**LED Status**ALARM BYPASS BATTERY INVERTER **Power Flow**

## LBS Mode (Optional)

**NOTE:** LBS mode requires connection of optional synchronization cables. Refer to the installation manual for more information.

When LBS mode is enabled, the output of two independent UPS systems (single or parallel) will be synchronized. Synchronization of the output is not supported when both UPS systems are in static bypass mode or maintenance bypass mode.

# Operation Procedures

## View System Status Information

1. From the home screen of the display select **Status**.
2. You can now select to view status information for:
  - **Input**
  - **Output**
  - **Battery**
  - **Bypass**
  - **Status information**


## Start Up a Single UPS in Normal Mode

**NOTE:** When the UPS starts up, any stored settings will be used.

1. Check that all disconnection devices are in the OFF (open) position.
2. Turn the SSIB to the ON (closed) position.  
The display turns on and the Home screen is shown.
3. Turn the UOB to the ON (closed) position.  
Wait approximately 30 seconds until the bypass LED turns steady yellow. The UPS starts up in static bypass mode.
4. Turn the UIB to the ON (closed) position.  
The rectifier ramps up. When the rectifier is ready, the inverter starts up and synchronizes with bypass.

The LEDs on the user interface show as follows:

ALARM 

BYPASS 

BATTERY 

INVERTER 

5. Wait approximately 20 seconds until inverter LED turns steady green, the UPS transfers automatically from static bypass mode to normal mode.

The LEDs on the user interface show as follows:

ALARM 

BYPASS 

BATTERY 

INVERTER 

6. Turn the battery breaker BB(s) to the ON (closed) position.

## Transfer a Single UPS from Normal Mode to Static Bypass Mode

1. From the home screen on the display select **Control > Inverter OFF**.

The UPS transfers from normal to static bypass mode without an interruption to the load.

The LEDs on the user interface show as follows:

ALARM 

BYPASS 

BATTERY 

INVERTER 

## Transfer a Single UPS from Static Bypass Mode to Normal Mode

**NOTE:** The UPS will normally transfer automatically from static bypass to normal mode. This procedure can be used to manually transfer to normal mode if the bypass frequency or voltage is above the specified limits.



1. From the home screen of the display select **Control > Inverter ON**.

The LEDs on the user interface show as follows:

ALARM 

BYPASS 

BATTERY 

INVERTER 

## Transfer a Single UPS from Normal Mode to Maintenance Bypass Mode

1. From the home screen on the display select **Control > Inverter OFF**.
2. Turn the MBB to the ON (closed) position.  
The load is now supplied via maintenance bypass.
3. Turn the BB(s) to the OFF (open) position.
4. Turn the UIB to the OFF (open) position.
5. Turn the SSIB to the OFF (open) position.
6. Turn the UOB to the OFF (open) position.

### **DANGER**

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

- Wait at least 5 minutes before removing the cover of the UPS after the display has turned off to allow for the capacitors to fully discharge.
- Always measure for hazardous voltages on all terminals before working on the UPS.

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

## Transfer a Single UPS from Maintenance Bypass Mode to Normal Mode

1. Check that all disconnection devices except MBB are in the OFF (open) position.
2. Turn the SSIB to the ON (closed) position.  
The display turns on and the Home screen is shown.
3. Turn the unit output breaker UOB to the ON (closed) position. Wait approximately 20 seconds until the bypass LEDs turn yellow.  
The UPS starts up in static bypass mode.

4. Turn the unit input breaker UIB to the ON (closed) position.  
The rectifier ramps up.
5. Turn the battery breaker BB(s) to the ON (closed) position.
6. Turn the maintenance bypass breaker MBB to the OFF (open) position.  
The UPS automatically transfers to normal mode.

ALARM 

BYPASS 

BATTERY 

INVERTER 

## Transfer a Parallel System from Normal Mode to Maintenance Bypass Mode

### **DANGER**

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

To completely isolate the UPSs, all upstream disconnection devices (MIB, BIB, and SIB) must be in the OFF (open) position.

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

1. From the home screen on the display select **Control > Inverter OFF > Parallel OFF**.  
All UPSs will turn to static bypass mode.
2. Turn the Ext. MBB to the ON (closed) position.  
The load is now supplied via the external maintenance bypass.
3. Turn the BBs of all UPSs to the OFF (open) position.
4. Turn the MIBs and BIBs of all UPSs to the OFF (open) position if available.
5. Turn the UIBs and the SSIBs of all UPSs to the OFF (open) position.
6. Turn the UOBs of all UPSs and the SIB to OFF (open) position.

### **DANGER**

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

- Wait at least 5 minutes before removing the cover of the UPS after the display has turned off to allow for the capacitors to fully discharge.
- Always measure for hazardous voltages on all terminals before working on the UPS.

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

## Transfer a Parallel System from Maintenance Bypass Mode to Normal Mode

1. Check that:
  - a. All upstream disconnection devices (MIB, BIB, and SIB) are in the OFF (open) position.
  - b. All UPS disconnection devices (UIB, SSIB, and UOB) and the Ext. UOB are in the ON (closed) position.
  - c. The BBs are in the OFF (open) position.
2. Turn the SIB and the UOB of all UPSs to ON (closed) position.
3. Turn the BIB and the SSIB of all UPSs to the ON (closed) position.  
Wait approximately 20 seconds until the bypass LEDs turn yellow.
4. Turn the Ext. MBB to the OFF (open) position.
5. Turn the MIB and the UIB of all UPSs to the ON (closed) position.  
When the inverter LED turns steady green, the parallel system automatically transfers from static bypass to normal mode.
6. Turn the BBs of all UPSs to the ON (closed) position.

The LEDs on the user interfaces show as follows:

ALARM 

BYPASS 

BATTERY 

INVERTER 

The parallel system is now in normal mode.

## Isolate a Single UPS from the Parallel System

Use this procedure to shut down one UPS in a running parallel system.

**NOTE:** Before initiating this procedure, ensure that the remaining UPS units can supply the load.

1. Turn the SSIB of the UPS to the OFF (open) position.
2. From the home screen on the display select **Control > Inverter OFF > Single OFF**.
3. Turn the BBs of the UPS to the OFF (open) position.
4. Turn the MIB of the UPS to the OFF (open) position.
5. Turn the BIB of the UPS to the OFF (open) position.
6. Turn the Ext. UOB of the UPS to the OFF (open) position.

**⚡⚠ DANGER****HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- Wait at least 5 minutes before removing the cover of the UPS after the display has turned off to allow for the capacitors to fully discharge.
- Always measure for hazardous voltages on all terminals before working on the UPS.

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

## Start Up and Add a UPS to a Running Parallel System

Use this procedure to start up a UPS and add it to a running parallel system.

**IMPORTANT:** Before a UPS can be added to a parallel system, the parallel system must be configured by Schneider Electric.

**⚡⚠ DANGER****HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

Ensure that the Ext. UOB, the MIB, and the BIB for the UPS are in the OFF (open) position before connecting power cables to the UPS.


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

1. On the new UPS check that:
  - a. All UPS disconnection devices (UIB, SSIB, and UOB) and the Ext. UOB are in the OFF (open) position.
  - b. The BB(s) are in the OFF (open) position.
2. Turn the Ext. UOB of the UPS to the ON (closed) position.
3. Turn the MIB and the BIB of the UPS to the ON (closed) position.
4. Turn the UIB, the SSIB, and the UOB of the UPS to the ON (closed) position.

When the inverter LED turns steady green, the UPS has joined the running parallel system.

The LEDs on the user interface show as follows:

ALARM 

BYPASS 

BATTERY 

INVERTER 

5. Turn the BB(s) of the UPS to the ON (closed) position.
6. Verify correct load sharing between the parallel UPS units.

# Configuration

## Default Settings

Setting	Default Value		Available Settings
	UPS for External Batteries	UPSs for Internal Batteries	
Display brightness	63	63	1-63
Backlight timeout (sec)	60	60	10-255
Device ID	1	1	1-255
Baud rate	9600	9600	2400, 4800, 9600, 14400, 19200
Password timeout (minutes)	3	3	0-120
Date	2015-01-01	2015-01-01	
Time	00:00:00	00:00:00	
Operation mode	Single mode	Single mode	Single mode, ECO mode, Parallel mode, Parallel ECO mode
Autostart	Enable	Enable	Enable, Disable
Self-aging load rate (%)	60	60	18-100
Frequency converter mode	Disable	Disable	Disable, Enable
LBS operation	LBS disabled	LBS disabled	LBS disabled, LBS master, LBS slave
Transfer delay (sec)	1	1	0- 20
Par. transfer delay (sec)	10	10	0 -200
EPO transfers to bypass	Disable	Disable	Disable, Enable
Output frequency (Hz)	50	50	50, 60
Output voltage (V)	400	400	200, 208, 220, 380, 400, 415
Output volt. compensation (%)	0.0	0.0	-5.0, -4.5, -4.0, -3.5, -3.0, -2.5, -2.0, -1.5, -1.0, -0.5, 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0
Min. bypass RMS voltage (V)	-10	-10	-10, -15, -20, -30
Max. bypass RMS voltage (V)	10	10	10, 15, 20, 25
Bypass frequency range (%)	10	10	1, 2, 4, 5, 10
Output slew rate (Hz/sec)	0.5	0.5	0.5-2.0
Use bypass ON with overheated SCR	Disable	Disable	Disable, Enable
Allowed transfers to bypass	10	10	3-10
Parallel ID	1	1	1-6
Number of parallel UPSs	2	2	2-6
Number of par. redundant UPSs	0	0	0, 1, 2,3, 4, 5
Number of battery strings	1	3	1-32
Battery blocks per string	32	40	32, 34, 36, 38, 40, 42, 44, 46, 48, 50
Battery block capacity (Ah)	7	7	7-2000
Periodic boost charge (M)	0	0	0-24
Maximum charge current	0.1	0.1	0.05-0.15

Setting	Default Value		Available Settings
	UPS for External Batteries	UPSs for Internal Batteries	
Float voltage (V)	2.25	2.25	2.20-2.29
Boost voltage (V)	2.30	2.30	2.30-2.40
Boost charge duration (minutes)	240	240	0-999
Float temp. compensation	0.000	0.000	0.000-0.007
Boost charge	Disable	Disable	Enable, Disable
Alarm for no battery connected	Enable	Enable	Enable, Disable
Common battery bank	No	No	Yes, No
External batt. breaker status	Enable	Enable	Disable, Enable
Battery breaker trip	Enable	Enable	Disable, Enable
Backfeed on bypass	Enable	Enable	Disable, Enable
External MBB status	Disable	Disable	Disable, Enable
OUT 01	Disable	Disable	Disable, Common alarm, In normal operation, On battery, Static bypass, Maintenance bypass, Output overload, Fan inoperable, Battery inoperable, Battery disconnected, Battery voltage low, Input out of tol., Bypass out of tol., EPO active
OUT 02	Disable	Disable	
OUT 03	Disable	Disable	
OUT 04	Disable	Disable	
IN 01	Disable	Disable	Disable, INV ON, INV OFF, Battery inoperable, Genset on, Custom alarm 3, Custom alarm 4, Disable ECO, Force INV OFF
IN 02	Disable	Disable	
IN 03	Disable	Disable	
IN 04	Disable	Disable	
Self-test settings	Disable auto self-test	Disable auto self-test	Disable auto self-test, self-test every month, self-test every day
Self-test every	0 Day 0 hour 0 minute	0 Day 0 hour 0 minute	
Self-test type	Customize	Customize	10 seconds, 10 minutes, EOD, -10%, Customize
Air filter check (months)	3	3	0, 3, 4, 5, 12
Air filter counter (days)	0	0	

## Set the Display Language

1. From the home screen of the display select **Settings > General settings > Language settings**.
2. Select your preferred language.
3. Tap **Save settings**.

## Configure the Display Settings

1. From the home screen of the display select **Settings > General settings > Display settings**.

**Schneider Electric** Single system

Normal mode Logout 0 0 0

Display brightness: 60

Backlight timeout (sec): 180

Save settings

2. Set the **Display brightness** by choosing a value between 1 and 63.
3. Set the **Backlight timeout (sec)** by choosing a value between 10 and 255.
4. Tap **Save settings**.

## Configure the Network Settings

1. From the home screen of the display select **Settings > General settings > Network**.

**Schneider Electric** Single system

Normal mode Logout 0 0 0

Device ID 1






Baud rate: 9600

Save settings

2. Set the **Device ID** for communication using the left and right arrows. Choose between 1-255.
3. Set the **Baud rate** for communication using the left and right arrows. Choose between 2400, 4800, 9600, 14400, and 19200.
4. Tap **Save settings**.

## Change the Display Password






1. From the home screen of the display select **Settings > General settings > Password settings**.

Schneider Electric		Single system	
	Normal mode	Logout	 0  0  0
Old password:	<input type="text"/>		
New password:	<input type="text"/>		
Repeat new password:	<input type="text"/>		
Password timeout (minutes)	0		
<input type="button" value="Save settings"/>			

2. Type in **Old password**.
3. Type in **New password** and **Confirm new password**.
4. Set the time in minutes for automatic log out of the display after inactivity. Choose a value between 0 and 120.
5. Tap **Save settings**.

## Set the Date and Time

1. From the home screen of the display select **Settings > General settings > Date and time**.

Schneider Electric		Single system	
	Normal mode	Logout	 0  0  0
Date:	XXXX-XX-XX		
Time:	XX:XX:XX		
<input type="button" value="Save settings"/>			

2. Set the **Date** using the keypad.
3. Set the **Time** using the keypad.
4. Tap **Save settings**.



## Configure the UPS Settings

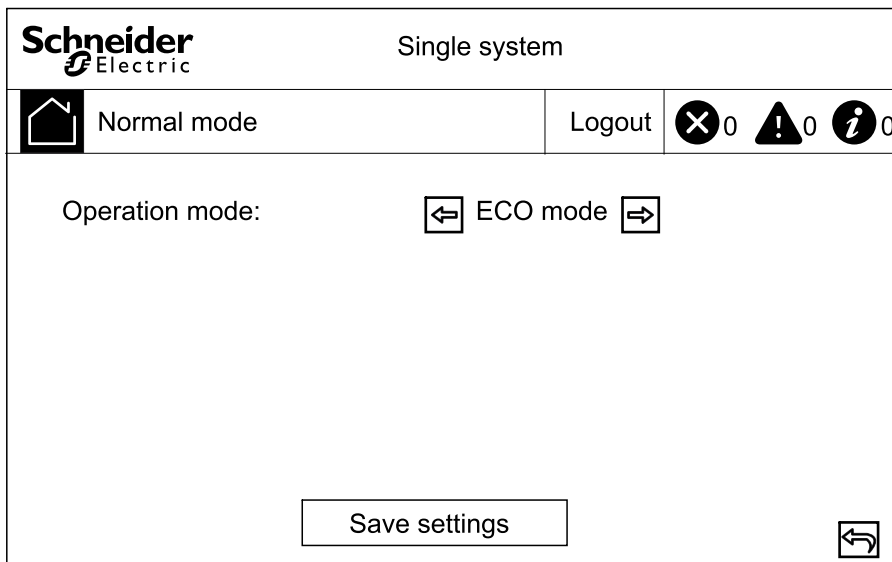
### NOTICE

#### RISK OF EQUIPMENT DAMAGE

Only trained personnel following the required training must make modifications to the UPS system parameters.

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

1. From the home screen of the display select **Settings > Advanced settings > System settings**.



2. Set the System mode. Choose between:
  - Choose **ECO mode** to use static bypass mode as the preferred operation mode.
  - Choose **Single mode** for a single UPS.
3. Tap **Save settings**.

## Configure the Output Settings












### NOTICE

#### RISK OF EQUIPMENT DAMAGE

Only trained personnel following the required training must make modifications to the UPS system parameters.

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











1. From the home screen of the display select **Settings > Advanced settings > Output settings**.

Schneider Electric		Single system	
	Normal mode	Logout	 0  0  0
Output frequency (Hz):	 50 		
Output voltage (V):	 400 		
Output volt. compensation (%):	 0.0 		
<input type="button" value="Save settings"/>			

2. Set the **Output frequency (Hz)**. Choose between 50 and 60 Hz.
3. Set the **Output voltage (V)**. Choose between 200, 208, 220, 380, 400, and 415 V.
4. Set the output voltage compensation (%). Choose a value between –5 and 5.
5. Tap **Save settings**.













## Configure the Battery Settings

1. From the home screen of the display select **Settings > Advanced settings > Battery settings** and configure the following settings.









Schneider Electric		100kVA	Single system	
	Normal mode	Logout	 0  0  0	
Number of battery strings:	 X 			
Battery blocks per string:	 XX 			
Battery block capacity (Ah):	XX			
Periodic boost charge (M):	X			
<input type="button" value="Save settings"/>				

- a. **Number of battery strings:** Set the number of battery strings in the battery solution.
- b. **Battery blocks per string:** Set the number of battery blocks in one battery string.
- c. **Battery block capacity (Ah):** Set the rated capacity of the battery block.
- d. **Periodic boost charge (M):** Set the interval in months for changing from float charge to boost charge.

2. Tap arrow down and complete the following settings:

Schneider Electric		Single system	
 Normal mode	Logout	 0	 0
Maximum charge current:	 0.10 		
Float voltage (V):	 2.25 		
Boost voltage (V):	 2.30 		
Boost charge duration (min):	240		
Save settings			

- Maximum charge current:** Choose a value between 0.05 and 0.15 C.
  - Float voltage (V):** Choose a value between 2.20 and 2.29
  - Boost voltage (V):** Set the upper limit for the boost charge voltage of a battery cell. Choose a value between 2.30 and 2.40.
  - Boost charge duration (minutes):** Set the duration of the boost charge. Choose a value between 0 and 999 minutes.
3. Tap arrow down and complete the following setting:

Schneider Electric		100kVA	Single system	
 Normal mode	Logout	 0	 0	 0
Float temp. compensation:	 0.003 			
Save settings				















- Float temp. compensation:** Choose a value between 0.000 and 0.007 V/°C per cell.
4. Tap **Save settings**.

## Configure the Input Contacts and Output Relays

- From the home screen of the display select **Settings > Advanced settings > Contacts and relays**.
















## 2. Enable or Disable the following features:

- **External batt. breaker status**
- **Battery breaker trip**
- **Backfeed on bypass**
- **External MBB status**

Schneider Electric		100kVA	Single system
	Normal mode	Logout	 0  0  0
External batt. breaker status:	 Disable 		
Battery breaker trip:	 Disable 		
Backfeed on bypass:	 Disable 		
External MBB status:	 Disable 		
<div>Save settings</div>			

## 3. Tap arrow down and set the function for each of the configurable output relays. Choose between:

- |                              |                               |
|------------------------------|-------------------------------|
| • <b>Disable</b>             | • <b>Fan inoperable</b>       |
| • <b>Common alarm</b>        | • <b>Battery inoperable</b>   |
| • <b>In normal operation</b> | • <b>Battery disconnected</b> |
| • <b>On battery</b>          | • <b>Battery voltage low</b>  |
| • <b>Static bypass</b>       | • <b>Input out of tol.</b>    |
| • <b>Maintenance bypass</b>  | • <b>Bypass out of tol.</b>   |
| • <b>Output overload</b>     | • <b>EPO active</b>           |

Schneider Electric		Single system
	Normal mode	Logout
		 0  0  0
OUT 01:	 Disable 	
OUT 02:	 Disable 	
OUT 03:	 Disable 	
OUT 04:	 Disable 	
<div>Save settings</div>		

4. Tap arrow down and set the function for each of the configurable input contacts. Choose between:

- **Disable**
- **INV ON**
- **INV OFF**
- **Battery inoperable**
- **Genset on**
- **Custom alarm 3**
- **Custom alarm 4**
- **Disable ECO**
- **Force INV OFF**

The screenshot shows the 'Single system' configuration screen. At the top, the Schneider Electric logo is on the left, and 'Single system' is on the right. Below the logo is a 'Normal mode' button with a house icon. To the right of this is a 'Logout' button and three status indicators: a crossed circle with '0', a warning triangle with '0', and an information circle with '0'. The main area contains four rows for input contacts: IN 01, IN 02, IN 03, and IN 04. Each row has a left arrow button, the word 'Disable', a right arrow button, and a vertical arrow button (up for IN 01 and IN 02, down for IN 03 and IN 04). At the bottom, there is a 'Save settings' button and a back arrow button.

5. Tap **Save settings**.

## Configure Life Cycle Monitoring

1. From the home screen of the display select **Service > LCM settings**.

The screenshot shows the 'Single system' configuration screen for Life Cycle Monitoring (LCM) settings. At the top, the Schneider Electric logo is on the left, followed by '100kVA' and 'Single system'. Below the logo is a 'Normal mode' button with a house icon. To the right of this is a 'Logout' button and three status indicators: a crossed circle with '0', a warning triangle with '0', and an information circle with '0'. The main area contains two rows for LCM settings: 'Air filter check (months):' with a left arrow button, the value '0', and a right arrow button; and 'Air filter counter (days):' with the value '0'. At the bottom, there is a 'Save settings' button and a back arrow button.

2. Set the time in months between air filter checks. The system will generate a **Check air filter** message when it is time to check the air filters.
3. Tap **Save settings**.

## Enable/Disable Buzzer

1. From the home screen of the display select **Alarm(s)** and then select to either **Enable buzzer** or **Disable buzzer**.
2. Confirm your selection.

# Maintenance

## Parts Replacement

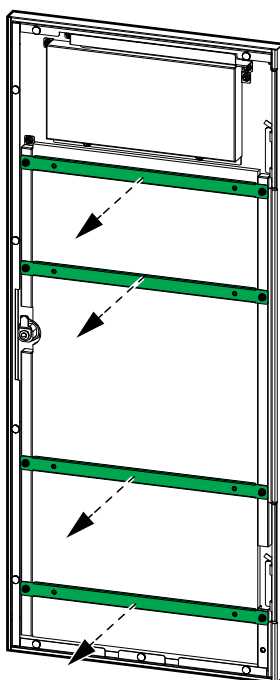
### Determine if you need a Replacement Part

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

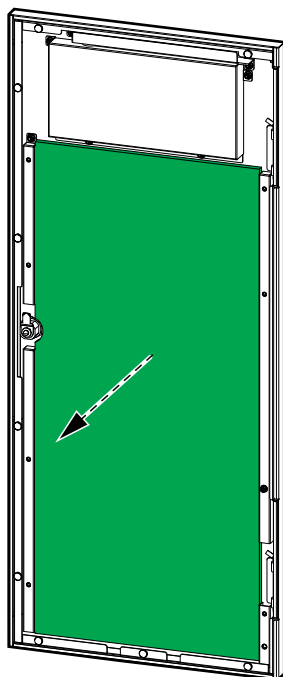
1. In the event of an alarm condition, scroll through the alarm lists, record the information, and provide it to the representative.
2. Write down the serial number of the unit so that you will have it easily accessible when you contact Schneider Electric.
3. If possible, call Schneider Electric from 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.

### Replace the Air Filter

1. Open the front door of the UPS.
2. Loosen the screws and remove the metal brackets.



3. Replace the dust filter.



4. Reinstall the metal brackets and fasten with the screws.
5. Close the front door.
6. Reset the air filter counter in the display.

## Replace a Battery String

### **DANGER**

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

Batteries can present a risk of electric shock and high short-circuit current. The following precautions must be observed when working on batteries

- Remove watches, rings, or other metal objects.
- Use tools with insulated handles.
- Wear protective glasses, gloves and boots.
- Do not lay tools or metal parts on top of batteries.
- Set the battery breaker BB to the open (OFF) position before starting this procedure.

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

### **DANGER**

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

- Servicing of batteries must only be performed or supervised by qualified personnel knowledgeable of batteries and the required precautions. Keep unqualified personnel away from batteries.
- Do not dispose of batteries in a fire as they can explode.
- Do not open, alter, or mutilate batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.

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

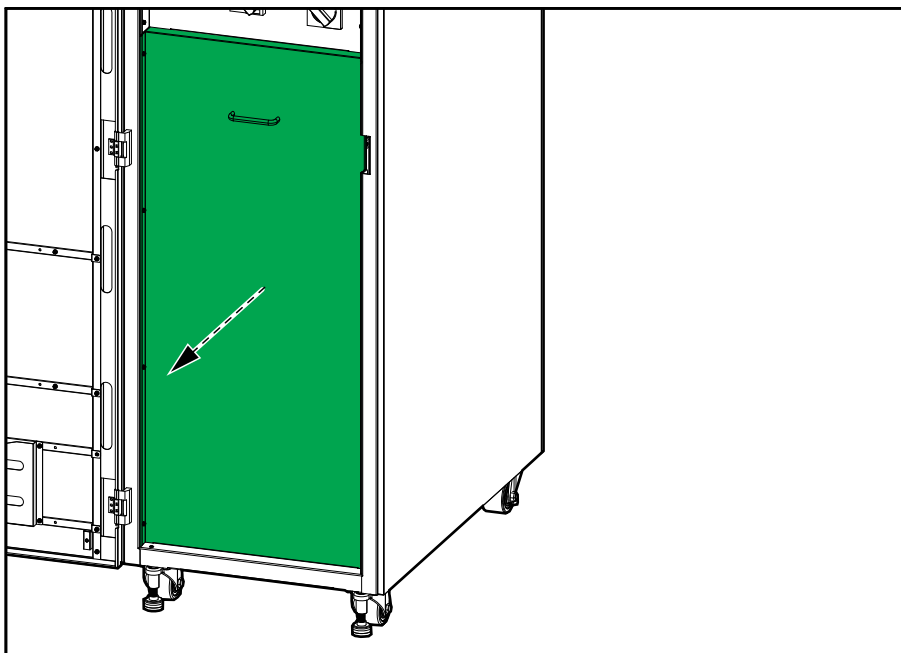


**⚠ WARNING****RISK OF EQUIPMENT DAMAGE**

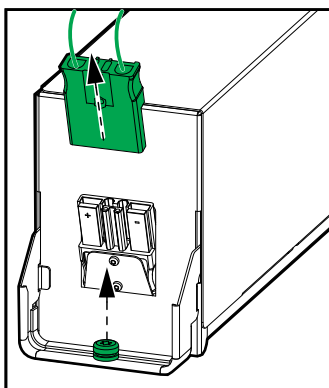
- When replacing battery modules, always replace with the same battery module and always replace the entire battery string (four battery modules).
- Batteries must not be stored more than six months due to the requirement of recharging.

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

1. Set the battery breaker BB to the open (OFF) position.
2. Remove the plate in front of the battery modules.

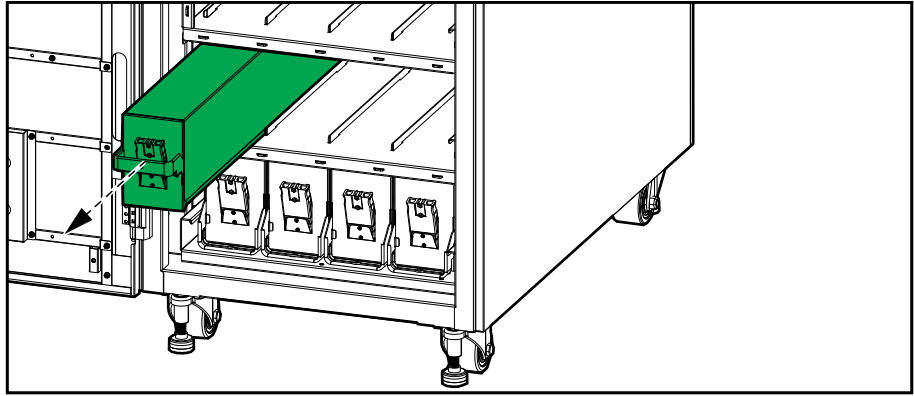


3. Disconnect the power terminal from the front of the battery module.



4. Remove the screw from the battery module handle and lift the handle upwards.

5. Pull the battery module carefully out of the slot.

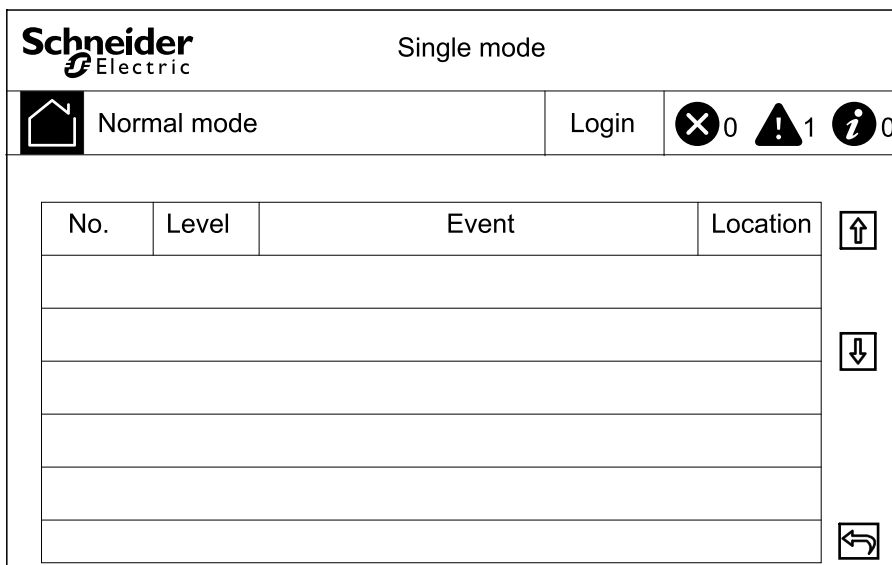


6. Repeat for all battery modules in the battery string. One row is one battery string.
7. Push the replacement battery modules into the UPS.
8. Lower the handles on the battery modules and fasten to the shelf with the screws.
9. Connect the power terminals to the front of the battery modules.
10. Reinstall the plate in front of the battery modules.
11. Set the battery breaker BB to the closed (ON) position.

# Troubleshooting

## View the Active Alarms

1. From the home screen of the display select **Alarm(s) > Active alarm(s)**.



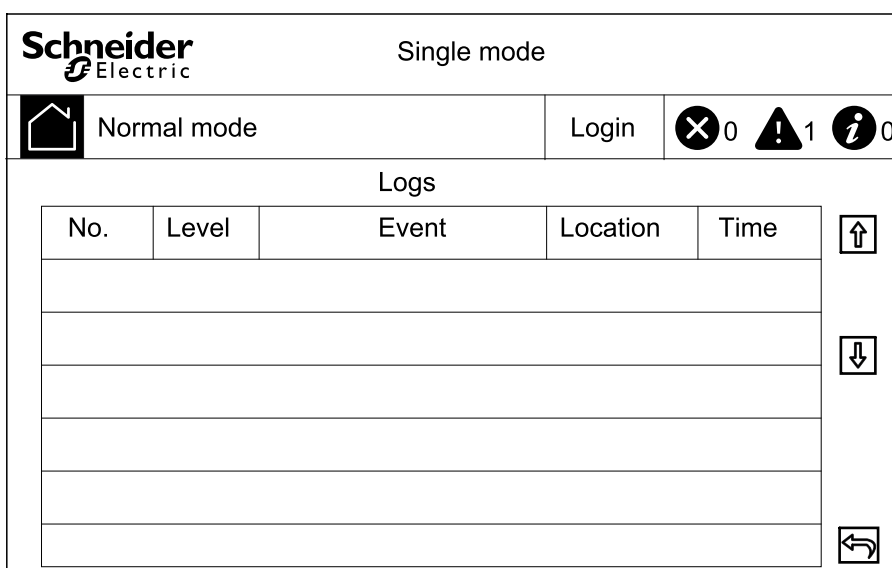
2. You can browse through the list of active alarms using the arrows.

## Clear Alarm

1. Select **Control > Clear Alarm(s)** to clear the alarm list.

## View the Log

1. From the home screen of the display select **Alarm(s) > Log**.



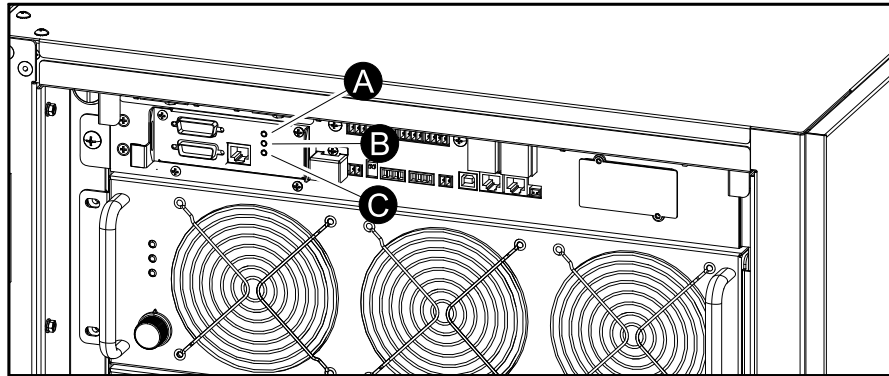
2. You can browse through the list of events using the arrows.

## Calibrate the Display

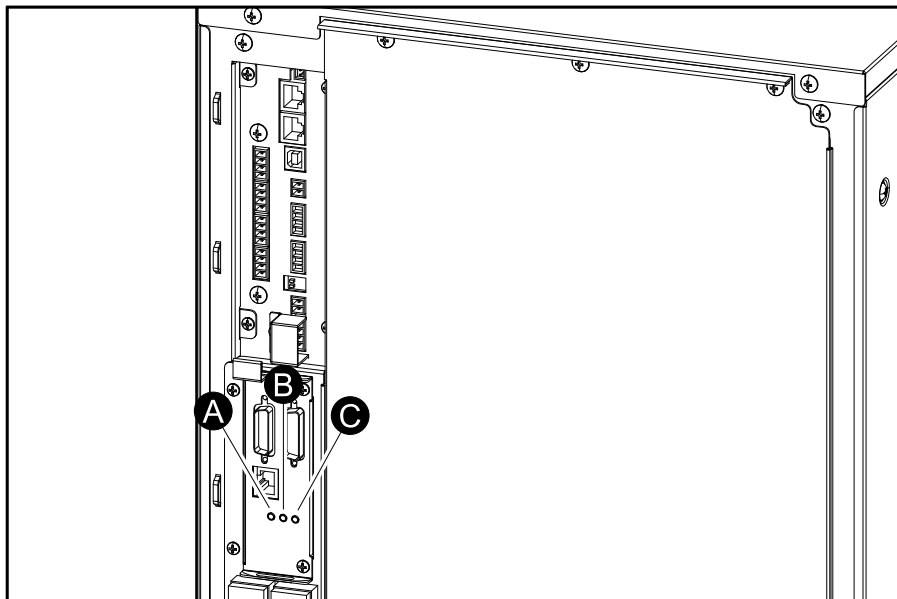
1. Select **Service > Display calibration**.
2. Tap the crosses on the display to complete the calibration.

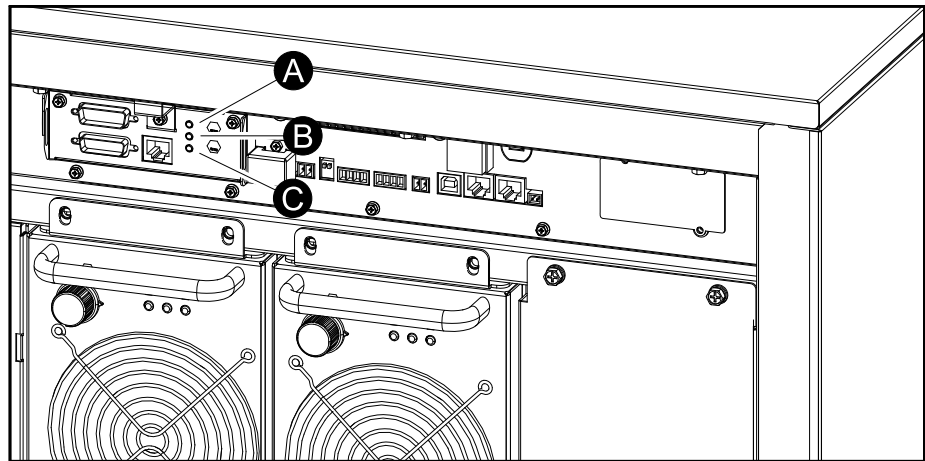
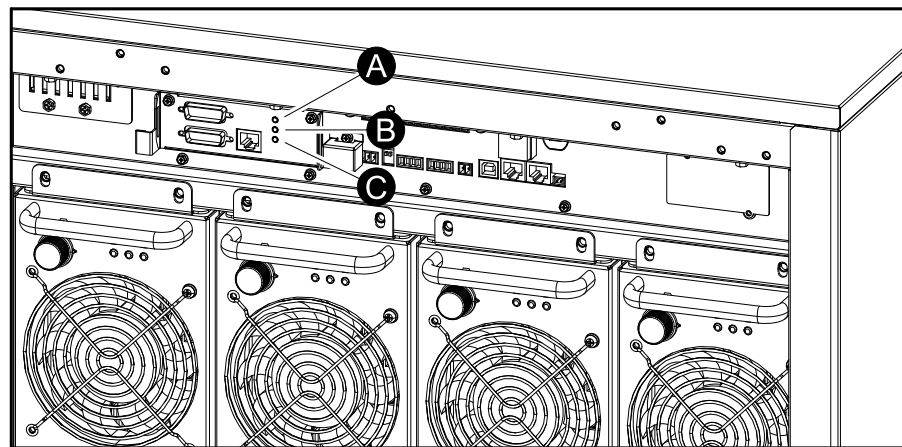
## Status LEDs on the Communication Interface

Front View of the 60-80 kVA 400 V UPS for Internal Batteries



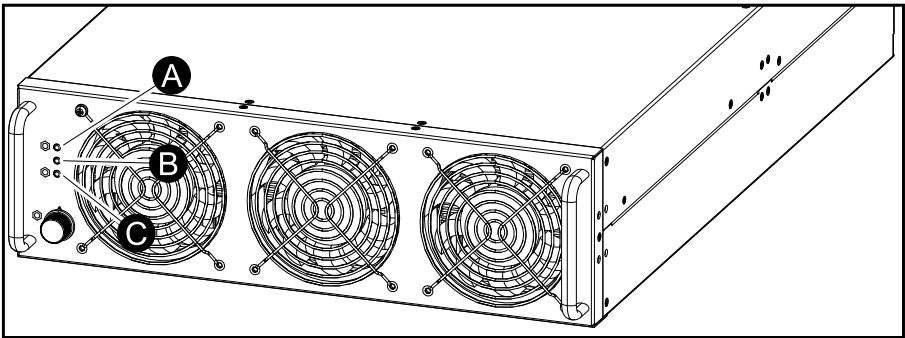
Rear View of 60-100 kVA 400 V/50 kVA 208 V UPS for External Batteries



**Front View of 120-160 kVA 400 V/60-80 kVA 208 V UPS for External Batteries****Front View of 200 kVA 400 V/100 kVA 208 V UPS for External Batteries**

LED	State	Description
A. Abnormal	Steady red	Critical alarm present
	Off	No critical alarm present
B. Alarm	Steady yellow	Warning alarm present
	Off	No warning alarm present
C. Normal	Steady green	Normal condition
	Flashing green	Self-testing in progress/UPS is parallel master
	Off	UPS is off

## Status LEDs on the Power Block



LED	State	Description
A. Abnormal	Steady red	Critical alarm present
	Off	No critical alarm present
B. Alarm	Steady yellow	Warning alarm present
	Off	No warning alarm present
C. Normal	Steady green	Inverter is on
	Flashing green	Self-testing in progress/inverter is on standby
	Off	Power block is off



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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990-5995E-001