# **Wall-Mounted Maintenance Bypass Panel**

# For Galaxy VS, Easy UPS 3S, and Easy UPS 3M Installation

GVSBPSU10K20H, GVSBPSU20K60H, GVSBPSU80K120H

Latest updates are available on the Schneider Electric website 9/2023







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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.

## **ADANGER**

**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.

## **AWARNING**

**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.

## **ACAUTION**

**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 C2 UPS product. In a residential environment, this product may cause radio inference, in which case the user may be required to take additional measures.

Failure to follow these instructions can result in equipment damage.

## **Safety Precautions**

## **AADANGER**

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

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

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

## **AADANGER**

## 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.

## **AADANGER**

## 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 breakers, battery breakers, cabling, etc.) and environmental requirements. No responsibility is assumed by Schneider Electric if these requirements are not respected.

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

## **AADANGER**

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

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

- IEC 60364 (including 60364–4–41- protection against electric shock, 60364–4–42 protection against thermal effect, and 60364–4–43 protection against overcurrent), or
- 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.

## **AADANGER**

#### 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.

## **AADANGER**

#### 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.

## **AADANGER**

#### 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 UPS.

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

## **AAWARNING**

#### 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 the installation 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.

## **Additional Safety Precautions After Installation**

## **AADANGER**

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

Do not install the UPS system until all construction work has been completed and the installation room has been cleaned. If additional construction work is needed in the installation room after this product has been installed, turn off the product and cover the product with the protective packaging bag the product was delivered in.

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

## **Electrical Safety**

This manual contains important safety instructions that should be followed during the installation and maintenance of the UPS system.

## **AADANGER**

## 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.
- Disconnection devices for AC and DC must be provided by others, be readily accessible, and the function of the disconnect device marked for its function.
- Turn off all power supplying the UPS system before working on or inside the equipment.
- Before working on the UPS system, check for hazardous voltage between all terminals including the protective earth.
- The UPS contains an internal energy source. Hazardous voltage can be
  present even when disconnected from the mains supply. Before installing or
  servicing the UPS system, ensure that the units are OFF and that mains and
  batteries are disconnected. Wait five minutes before opening the UPS to
  allow the capacitors to discharge.
- The UPS 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.

When the UPS input is connected through external isolators that, when opened, isolate the neutral or when the automatic backfeed isolation is provided external to the equipment or is connected to an IT power distribution system, a label must be fitted at the UPS input terminals, and on all primary power isolators installed remotely from the UPS area and on external access points between such isolators and the UPS, by the user, displaying the following text (or equivalent in a language which is acceptable in the country in which the UPS system is installed):

# **AADANGER**

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

Risk of voltage backfeed. Before working on this circuit: Isolate the UPS and check for hazardous voltage between all terminals including the protective earth.

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

990-5912D-001

## **Specifications**

NOTE: Maximum short circuit rating: 10 kA RMS symmetrical.

**NOTE:** GVSBPSU80K120H can support a load of up to 120 kW/kVA as long as the neutral current (250 A) is not exceeded:

- at 380 V, the maximum neutral current capability is reached with a 95 kVA non-linear load.
- at 400 V, the maximum neutral current capability is reached with a 100 kVA non-linear load.

## **Recommended Upstream Protection**

Refer to the UPS installation manual for recommended upstream protection.

## **Recommended Cable Sizes**

## **ADANGER**

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

All wiring must comply with all applicable national and/or electrical codes. The maximum allowable cable size is 16 mm² for GVSBPSU10K20H, 70 mm² for GVSBPSU20K60H, and 150 mm² for GVSBPSU80K120H.

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

**NOTE:** Aluminum cables are not supported in a 80-100 kW simplified 1+1 parallel system.

Refer to the UPS installation manual for recommended cable sizes.

## **Torque Specifications**

Bolt size	Torque
M4	1.7 Nm
M5	2.2 Nm
M6	5 Nm
M8	17.5 Nm
M10	30 Nm
M12	50 Nm

# Maintenance Bypass Panel Shipping Weights and Dimensions

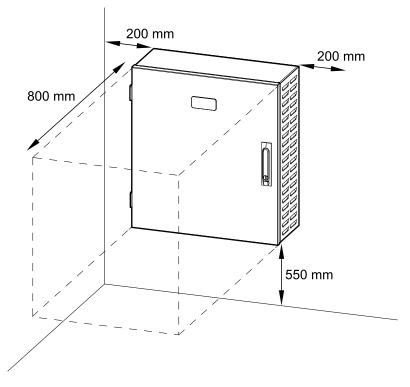
Commercial reference	Weight kg	Height mm <sup>1</sup>	Width mm	Depth mm¹
GVSBPSU10K20H	20	260	530	590
GVSBPSU20K60H	40	440	730	810
GVSBPSU80K120H	55	490	840	1220

## **Maintenance Bypass Panel Weights and Dimensions**

Commercial reference	Weight kg	Height mm	Width mm	Depth mm
GVSBPSU10K20H	12	450	400	150
GVSBPSU20K60H	25	600	550	220
GVSBPSU80K120H	40	800	600	280

## **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.



<sup>1.</sup> The product is packaged in a horizontal position, so the shipping height and depth dimensions differ from the product itself.

# **Environment**

	Operating	Storage
Temperature	0 °C to 40 °C	-25 °C to 55 °C
Relative humidity	5-95% non-condensing	10-80% non-condensing
Elevation	0-3000 m	
Protection class	IP20	
Color	RAL 9003, gloss level 85%	

# Compliance

Safety	IEC 62040-1: 2017, Edition 2.0, Uninterruptible Power Systems (UPS) - Part 1: Safety requirements
Performance	IEC 62040-3: 2011-03, 2nd edition Uninterruptible Power Systems (UPS) - Part 3: Method of specifying the performance and test requirements
Environmental	IEC 62040-4: 2013-04, 1st edition Uninterruptible Power Systems (UPS) - Part 4: Environmental aspects – Requirements and reporting
Markings	CE
Earthing system	TN-C, TN-S, TT
Overvoltage category	OVCIII
Protective class	
Pollution degree	2

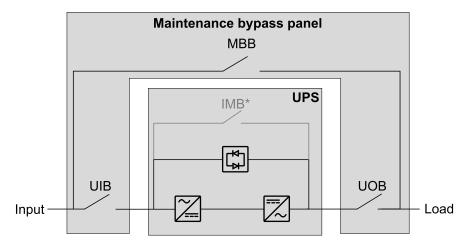
## **One Line Diagrams**

## **Galaxy VS One Line Diagrams**

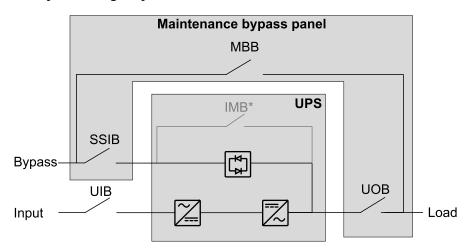
UIB	Unit input breaker
SSIB	Static switch input breaker
MBB	Maintenance bypass breaker
IMB	Internal maintenance breaker
UOB	Unit output breaker
SIB	System isolation breaker

**NOTE:** The internal maintenance breaker IMB\* in the Galaxy VS UPS cannot be used in a system with an maintenance bypass panel and the internal maintenance breaker IMB\* must be padlocked in the open position.

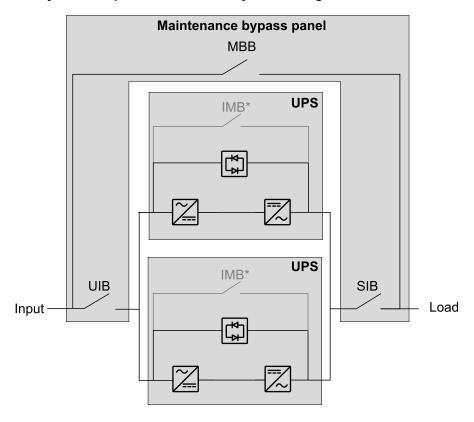
Galaxy VS - Single System - Single Mains



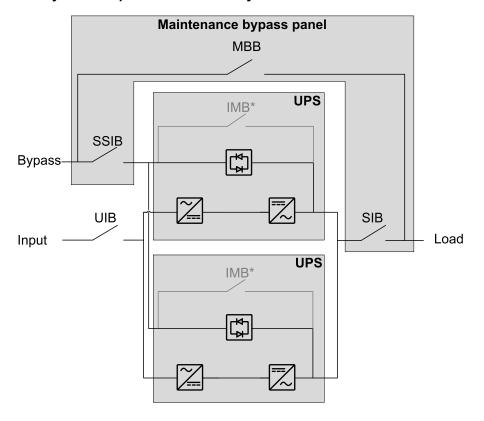
Galaxy VS - Single System - Dual Mains



Galaxy VS - Simplified 1+1 Parallel System - Single Mains



Galaxy VS - Simplified 1+1 Parallel System - Dual Mains

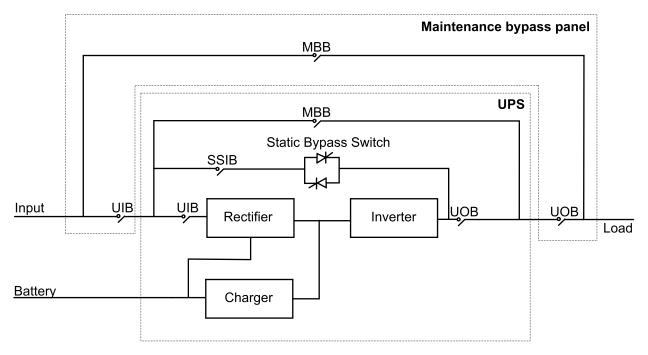


## Easy UPS 3S and Easy UPS 3M One Line Diagrams

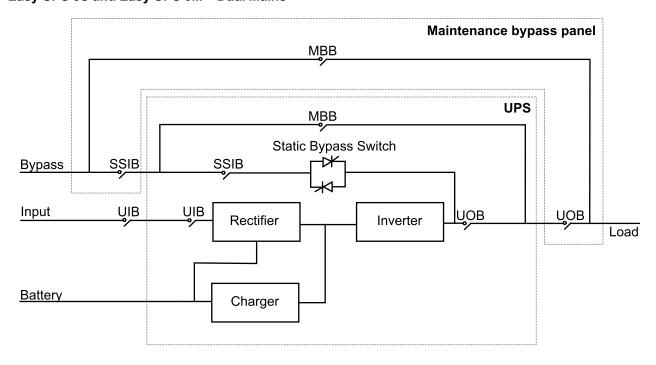
UIB	Unit input breaker
SSIB	Static switch input breaker
MBB	Maintenance bypass breaker
UOB	Unit output breaker

**NOTE:** The internal MBB in the Easy UPS 3S/3M cannot be used in a system with a parallel maintenance bypass panel and the internal MBB must be padlocked in the open position. Only use the Ext. MBB in the parallel maintenance bypass panel for maintenance bypass operation.

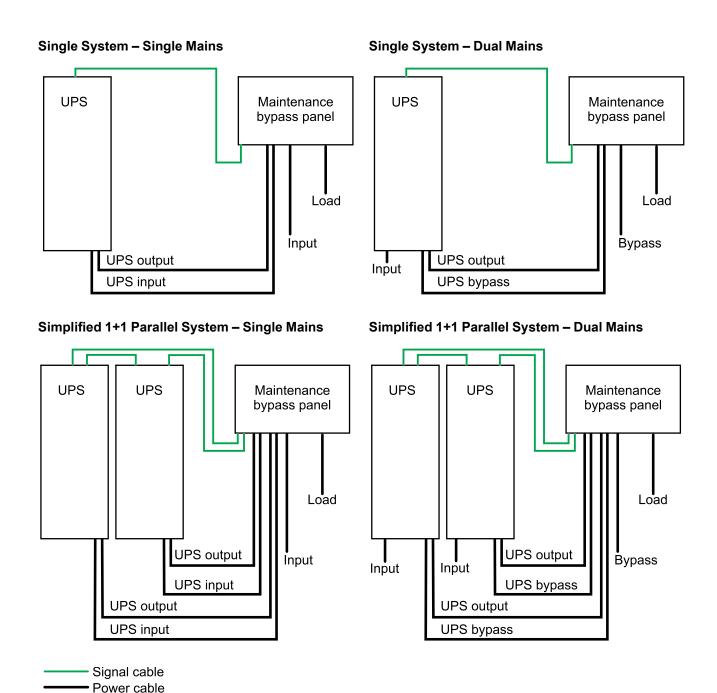
#### Easy UPS 3S and Easy UPS 3M - Single Mains



## Easy UPS 3S and Easy UPS 3M - Dual Mains



# **Installation Procedure for Galaxy VS UPS**



- 1. Mount the Maintenance Bypass Panel to the Wall, page 19.
- 2. Prepare the Maintenance Bypass Panel for Cables, page 21.
- 3. Only in countries where required: Remove the Neutral Jumpers, page 22.
- 4. Connect the Power Cables for a 3:3 UPS System, page 23.
- 5. Do one of the following:
  - Connect the Signal Cables for Galaxy VS UPS Single System, page 28, or
  - Connect the Signal Cables for Galaxy VS UPS Simplified 1+1 Parallel System, page 31.
- 6. Add Translated Safety Labels to Your Product, page 41.

7. Final Installation, page 42.

For moving or decommissioning the maintenance bypass panel after installation has been completed, see Decommission or Move the Maintenance Bypass Panel to a New Location, page 43.

# Installation Procedure for Easy UPS 3S and Easy UPS 3M

## Single System - Single Mains Single System - Dual Mains **UPS UPS** Maintenance Maintenance bypass panel bypass panel Load Load Input **Bypass UPS** output **UPS** output Input **UPS** bypass **UPS** input Signal cable · Power cable

- 1. Mount the Maintenance Bypass Panel to the Wall, page 19.
- 2. Prepare the Maintenance Bypass Panel for Cables, page 21.
- 3. Remove the Neutral Jumpers, page 22.
- 4. Do one of the following:
  - For 3:3 UPS system: Connect the Power Cables for a 3:3 UPS System, page 23, or
  - For 3:1 UPS system: Connect the Power Cables for a 3:1 UPS System, page 26.
- Connect the Signal Cables for Easy UPS 3S and Easy UPS 3M Single System, page 38.
- 6. Add Translated Safety Labels to Your Product, page 41.
- 7. Final Installation, page 42.

For moving or decommissioning the maintenance bypass panel after installation has been completed, see Decommission or Move the Maintenance Bypass Panel to a New Location, page 43.

# Mount the Maintenance Bypass Panel to the Wall

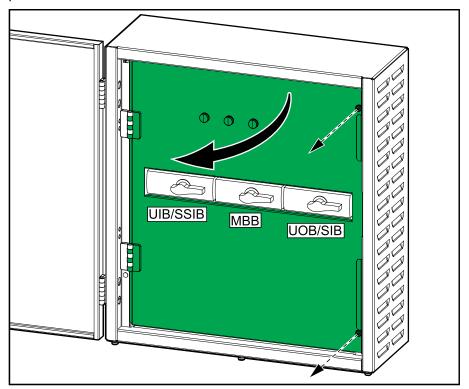
## **A**CAUTION

## **RISK OF INJURY OR EQUIPMENT DAMAGE**

- Mount the maintenance bypass panel to a wall or a rack that is structurally sound and able to support the weight of the unit.
- Use appropriate hardware for the wall/rack type.

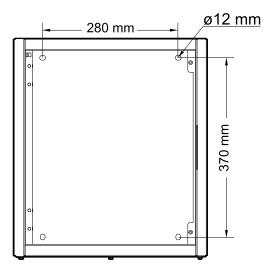
Failure to follow these instructions can result in injury or equipment damage.

1. Remove the screws and open the inner door in the maintenance bypass panel.



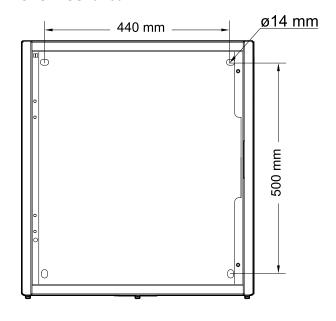
2. Measure and mark the four mounting hole locations on the wall.

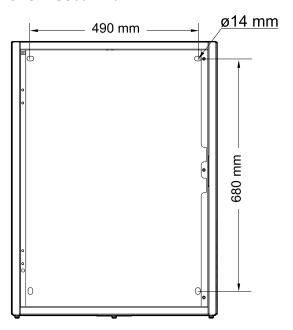
## **GVSBPSU10K20H**



#### GVSBPSU20K60H

#### GVSBPSU80K120H





- 3. Drill holes in the four marked locations and mount the anchor bolts.
- 4. Mount the maintenance bypass panel to the wall.

# **Prepare the Maintenance Bypass Panel for Cables**

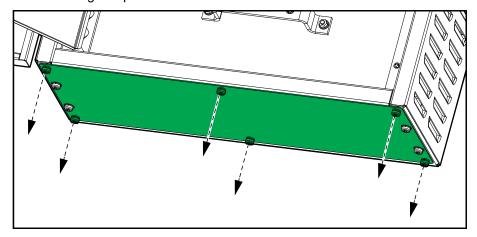
## **A DANGER**

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

Do not drill or punch holes with the gland plates installed and do not drill or punch holes in close proximity to the maintenance bypass panel.

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

1. Remove the gland plate.



2. Drill or punch holes for cables or grommets in the gland plate.

## **ADANGER**

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Ensure that there are no sharp edges that can damage the cables.

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

3. Install grommets (if applicable) and reinstall the gland plate.

# **Remove the Neutral Jumpers**

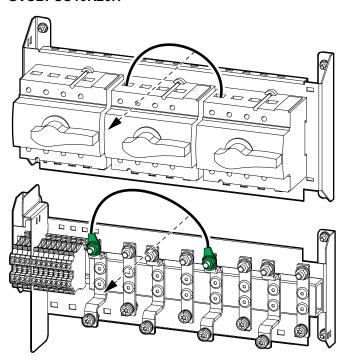
**NOTE:** The neutral jumper makes a bolted connection of the neutral so that the neutral is not disconnected when the 4-pole breakers are opened.

**NOTE:** Only remove the neutral jumpers in a Galaxy VS installation, if this is a local requirement. Removal of the neutral jumpers is an **option** for a Galaxy VS installation.

**NOTE:** Always remove the neutral jumpers in an Easy UPS 3S installation or in an Easy UPS 3M installation. Removal of the neutral jumpers is **mandatory** for an Easy UPS 3S or an Easy UPS 3M installation.

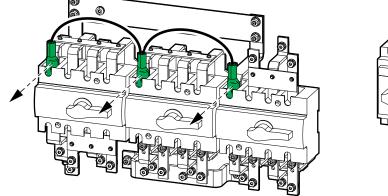
1. Remove the neutral jumpers from the breakers.

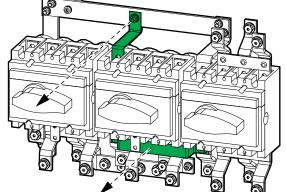
#### GVSBPSU10K20H



#### **GVSBPSU20K60H**

#### GVSBPSU80K120H



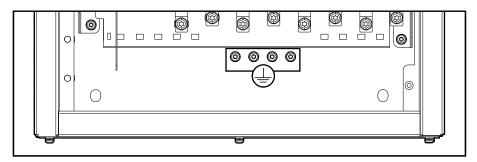


# Connect the Power Cables for a 3:3 UPS System

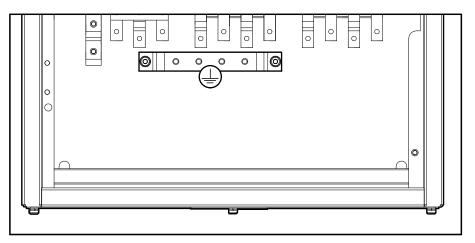
**NOTE:** For a simplified 1+1 parallel system, install the power cables from the two UPSs on the front and rear side of the busbar using the same bolt.

1. Connect the PE cables to the PE busbar.

## **GVSBPSU10K20H**



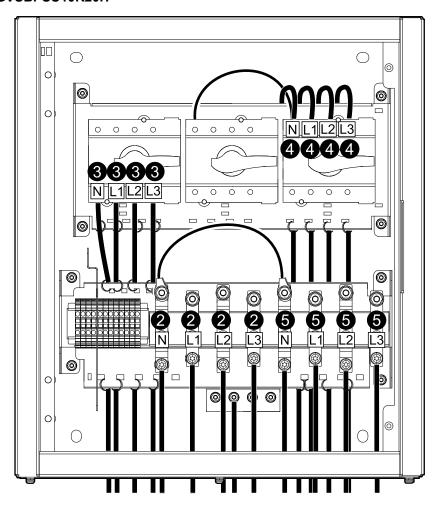
## GVSBPSU20K60H and GVSBPSU80K120H



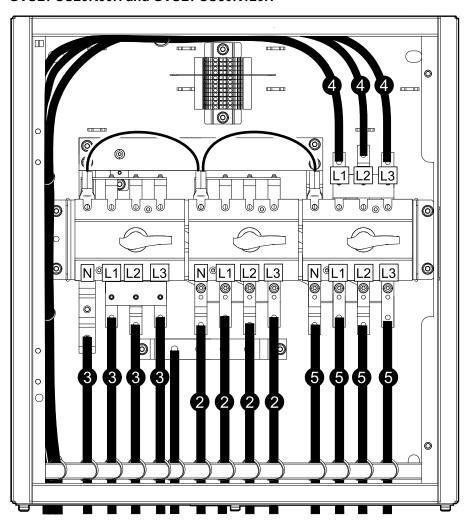
- 2. Do one of the following:
  - For single mains: Connect the input cables from utility/mains.
  - For dual mains: Connect the bypass cables from utility/mains.
- 3. Do one of the following:
  - For single mains: Connect the UPS input cables.
  - For dual mains: Connect the UPS bypass cables.
- 4. Connect the UPS output cables.

5. Connect the load cables.

## **GVSBPSU10K20H**



## GVSBPSU20K60H and GVSBPSU80K120H

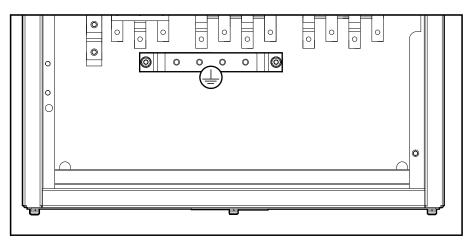


6. Fasten the cables with cable ties (provided) to the cable reliefs in the left side, top, and bottom of the maintenance bypass panel.

# Connect the Power Cables for a 3:1 UPS System

1. Connect the PE cables to the PE busbar.

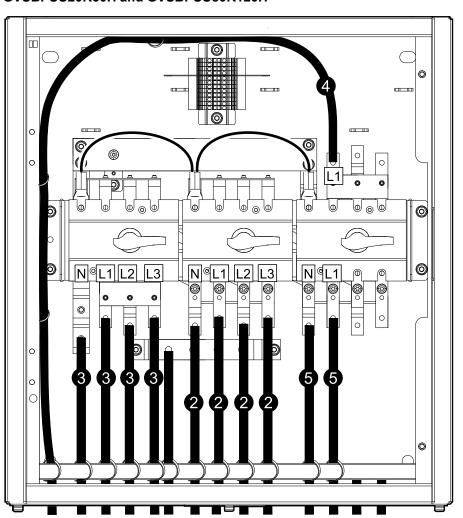
## GVSBPSU20K60H and GVSBPSU80K120H



- 2. Do one of the following:
  - For single mains: Connect the input cables from utility/mains.
  - For dual mains: Connect the bypass cables from utility/mains (L1 and N only).
- 3. Do one of the following:
  - For single mains: Connect the UPS input cables.
  - For dual mains: Connect the UPS bypass cables (L1 and N only).
- 4. Connect the UPS output cables.

5. Connect the load cables.

## GVSBPSU20K60H and GVSBPSU80K120H

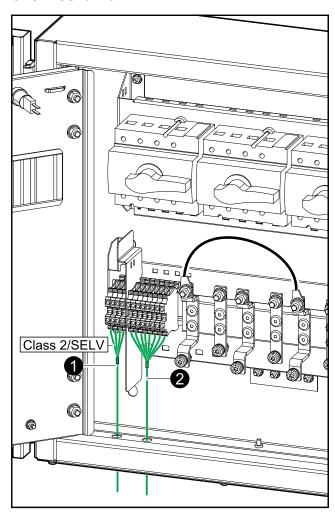


6. Fasten the cables with cable ties (provided) to the cable reliefs in the left side, top, and bottom of the maintenance bypass panel.

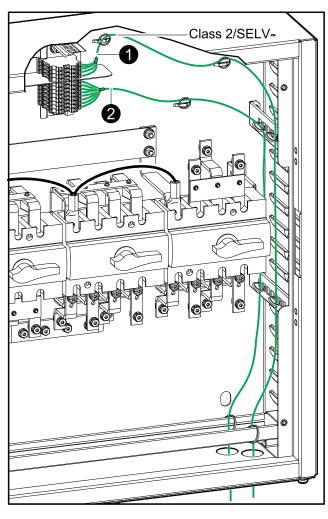
# **Connect the Signal Cables for Galaxy VS UPS – Single System**

**NOTE:** Route the signal cables separately from the power cables and route the Class 2/SELV cables separately from the non-Class 2/non-SELV cables.

#### **GVSBPSU10K20H**



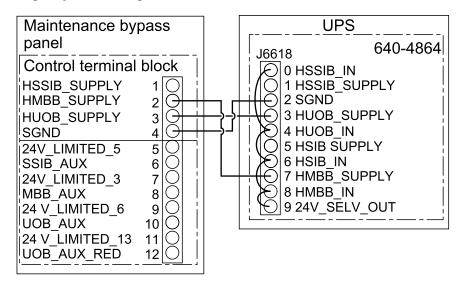
#### GVSBPSU20K60H and GVSBPSU80K120H



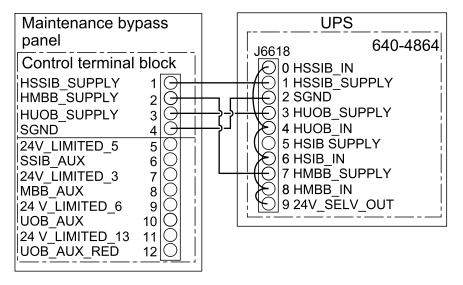
 Connect the Class 2/SELV signal cables for the breaker indicator lights from the control terminal block in the maintenance bypass panel to the UPS as per your configuration.

**NOTE:** The breaker indicator light circuit is considered Class 2/SELV. Class 2/SELV circuits must be isolated from the primary circuitry. Do not connect any circuit to the breaker indicator light terminals unless it can be confirmed that the circuit is Class 2/SELV.

#### Single System - Single Mains

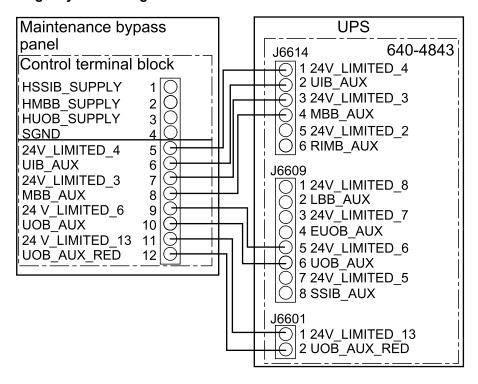


#### Single System - Dual mains

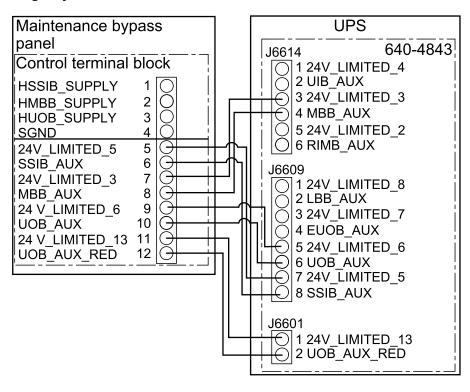


2. Connect the non-Class 2/non-SELV signal cables from the control terminal block in the maintenance bypass panel to the UPS as per your configuration.

#### Single System - Single Mains



#### Single System - Dual Mains



3. Pull up the slack in the signal cables and fasten the signal cables to the cable reliefs.

# Connect the Signal Cables for Galaxy VS UPS – Simplified 1+1 Parallel System

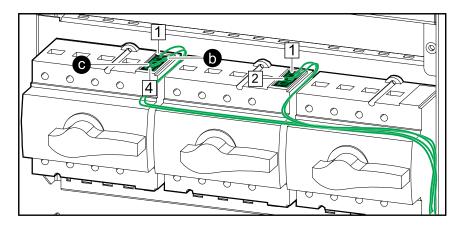
**NOTE:** The breaker indicator lights are supplied by UPS 1 and will only work while UPS 1 is powered.

**NOTE:** The AUX switches are in optional parallel installation kit GVSOPT006 provided with the UPS.

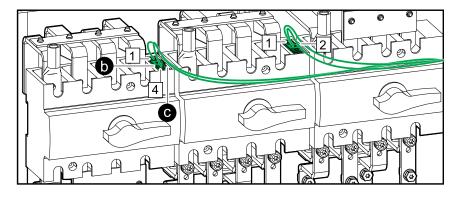
**NOTE:** Route the signal cables separately from the power cables and route the Class 2/SELV cables separately from the non-Class 2/non-SELV cables.

- 1. Install an AUX switch in the unit input breaker UIB/static switch input breaker SSIB and the maintenance bypass breaker MBB.
  - a. Remove the AUX switch cover on the UIB/SSIB and MBB breaker.
  - b. Install the AUX switch from kit GVSOPT006 in the UIB/SSIB and MBB breaker.
  - c. Connect the non-Class 2/non-SELV signal cables to the AUX switch in the UIB/SSIB and MBB breaker.
  - d. Reinstall the AUX switch cover on the UIB/SSIB and MBB breaker.
  - e. **Only for GVSBPSU80K120H**: Fasten the signal cables to the plastic tabs to ensure correct separation from the busbars.

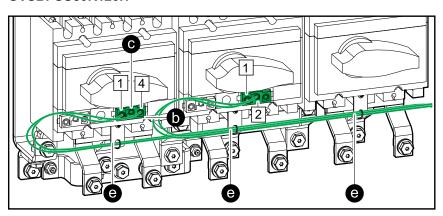
## **GVSBPSU10K20H**



#### **GVSBPSU20K60H**



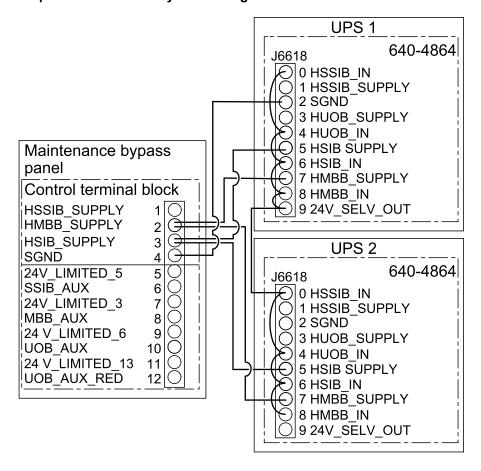
#### GVSBPSU80K120H



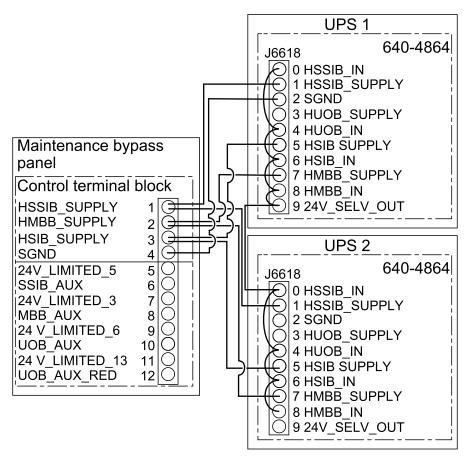
2. Connect the Class 2/SELV signal cables for the breaker indicator lights from the control terminal block in the maintenance bypass panel to the UPSs as per your configuration.

**NOTE:** The breaker indicator light circuit is considered Class 2/SELV. Class 2/SELV circuits must be isolated from the primary circuitry. Do not connect any circuit to the breaker indicator light terminals unless it can be confirmed that the circuit is Class 2/SELV.

#### Simplified 1+1 Parallel System - Single Mains



## Simplified 1+1 Parallel System - Dual mains



3. **On UPS 2**: Cut the preinstalled jumper between pins 8 and 9 on the terminal connector for J6618 on board 640-4864.

## **NOTICE**

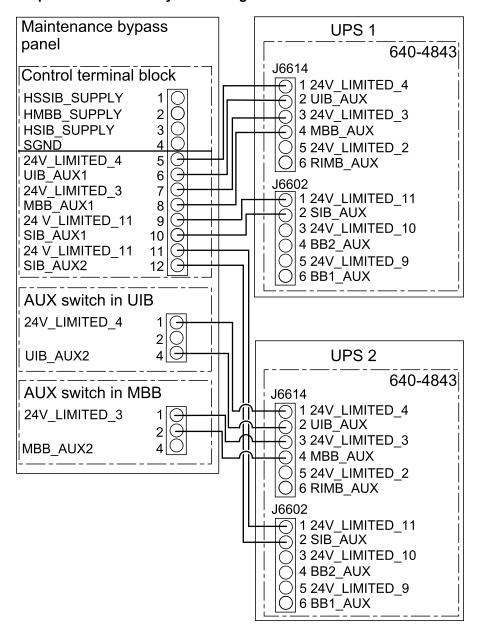
## RISK OF INCORRECT EQUIPMENT BEHAVIOR

Cut the preinstalled jumper between pins 8 and 9 on terminal J6618 on board 640-4864 on UPS 2. The 24 V\_SELV\_OUT cannot be supplied from both UPSs.

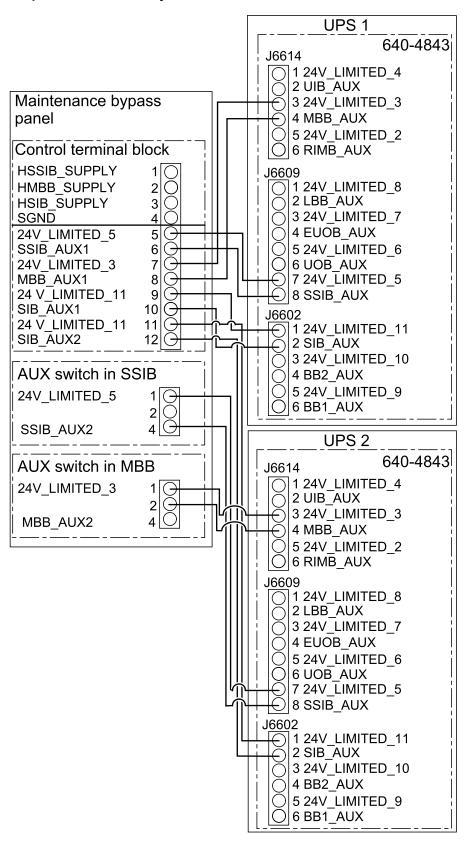
Failure to follow these instructions can result in equipment damage.

4. Connect the non-Class 2/non-SELV signal cables from the control terminal block in the maintenance bypass panel to the UPSs as per your configuration.

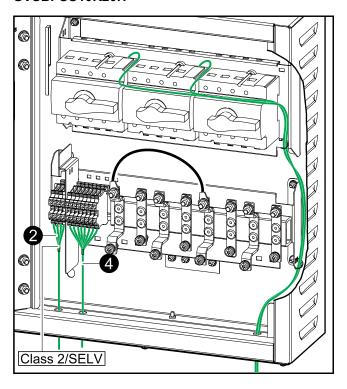
Simplified 1+1 Parallel System - Single Mains



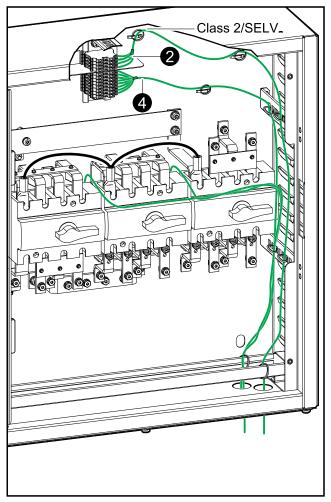
Simplified 1+1 Parallel System - Dual Mains



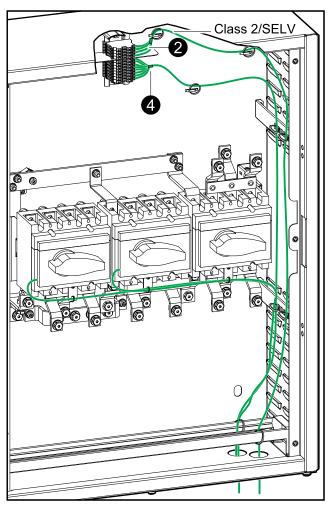
#### **GVSBPSU10K20H**



#### **GVSBPSU20K60H**



#### GVSBPSU80K120H



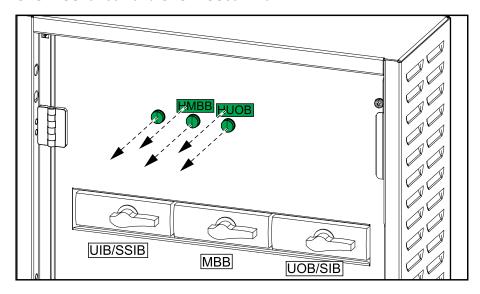
5. Pull up the slack in the signal cables and fasten the signal cables to the cable reliefs.

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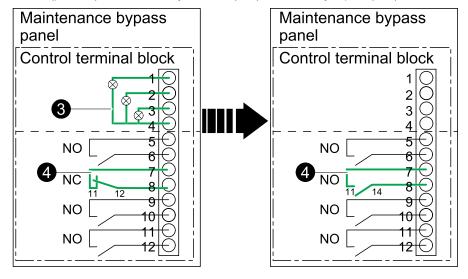
# Connect the Signal Cables for Easy UPS 3S and Easy UPS 3M – Single System

1. Remove the three breaker indicator lights and the breaker indicator light labels from the maintenance bypass panel. The breaker indicator lights are not supported with the Easy UPS 3S and the Easy UPS 3M.

#### GVSBPSU20K60H and GVSBPSU80K120H



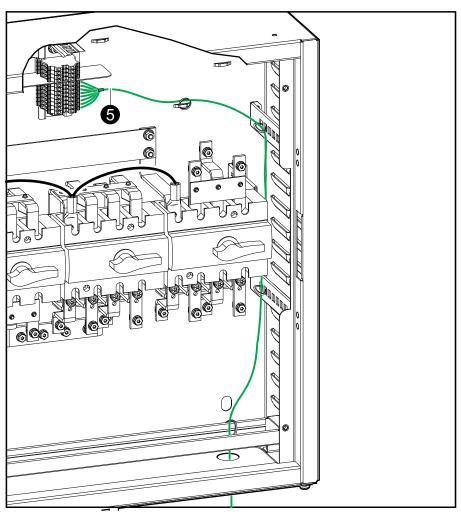
- 2. Install three round blanking plugs (not provided) in the holes in the inner door.
- 3. On the control terminal block, remove the internal connections for the breaker indicator lights (pin 1-4).
- 4. On the control terminal block, modify the internal connection for the MBB AUX switch (pin 7-8) from Normally Closed (NC) to Normally Open (NO).



5. Connect the Class 2/SELV signal cables from the control terminal block in the maintenance bypass panel to the UPS as per your configuration.

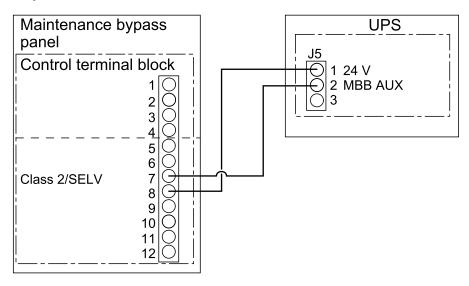
**NOTE:** Route the signal cables separately from the power cables and route the Class 2/SELV cables separately from the non-Class 2/non-SELV cables.

#### GVSBPSU20K60H and GVSBPSU80K120H

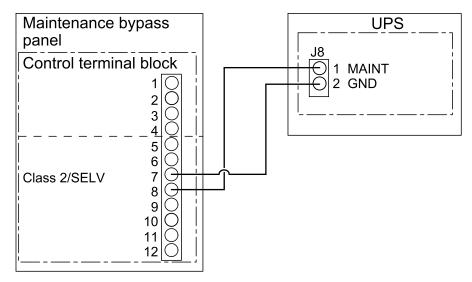


**NOTE:** There is no dedicated input contact on Easy UPS 3S for MBB. By default use J5 configurable input contact, configure as **Main CB NO**.

#### Easy UPS 3S



#### Easy UPS 3M



6. Pull up the slack in the signal cables and fasten the signal cables to the cable reliefs.

## **Add Translated Safety Labels to Your Product**

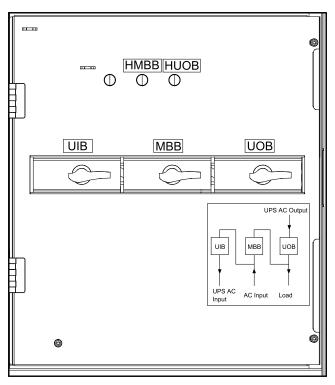
The safety labels on your product are in English and French. Sheets with translated safety labels are provided with your product.

- 1. Find the sheets with translated safety labels provided with your product.
- 2. Check which 885-XXX numbers are on the sheet with translated safety labels
- 3. Locate the safety labels on your product that match the translated safety labels on the sheet look for the 885-XXX numbers.
- 4. Add the replacement safety label in your preferred language to your product on top of the existing French safety label.

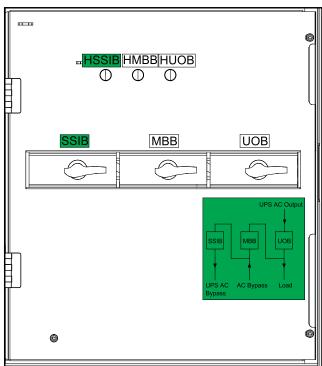
## **Final Installation**

- 1. Close the inner door and fasten it with the screws.
- 2. Add labels to the breaker indicator lamps, the breakers, and the diagram label according to your system. The labels are provided with this manual.

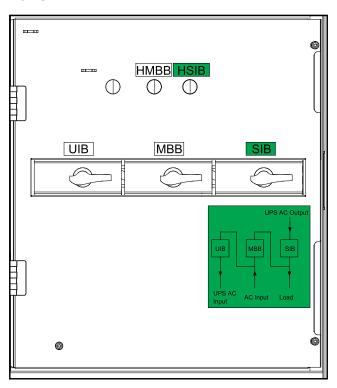
#### Labels in Single System - Single Mains



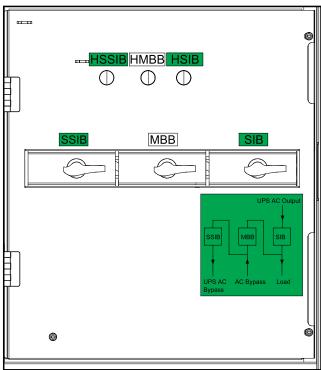
Labels in Single System - Dual Mains



Labels in Simplified 1+1 Parallel System – Single Mains



Labels in Simplified 1+1 Parallel System – Dual Mains



## **Decommission or Move the Maintenance Bypass Panel to a New Location**

- Shut down the UPS completely follow the instructions in the UPS operation manual.
- 2. Lockout/Tagout all breakers in the switchgear in the OFF (open) position.
- 3. Lockout/Tagout all battery breakers in the switchgear/battery solution in the OFF (open) position.
- 4. Verify that all upstream breakers are in the OFF (open) position.

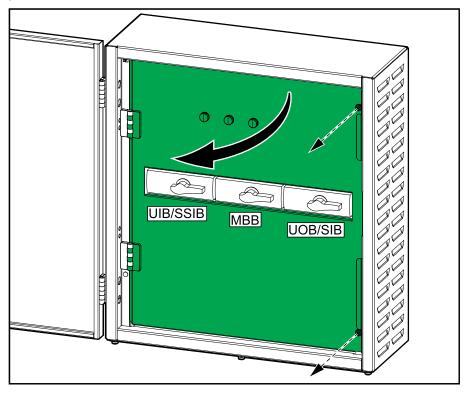
### **AADANGER**

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

Verify that all upstream breakers are in the OFF (open) position.

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

- 5. Open the front door of the maintenance bypass panel.
- 6. Lockout/Tagout UIB/SSIB, MBB, and UOB/SIB in the maintenance bypass panel in the OFF (open) position.
- 7. Remove the screws and open the inner door in the maintenance bypass panel.



8. Measure for and verify ABSENCE of voltage on each input/bypass busbar, UPS input/UPS bypass busbar, UPS output busbar, and load busbar before continuing.

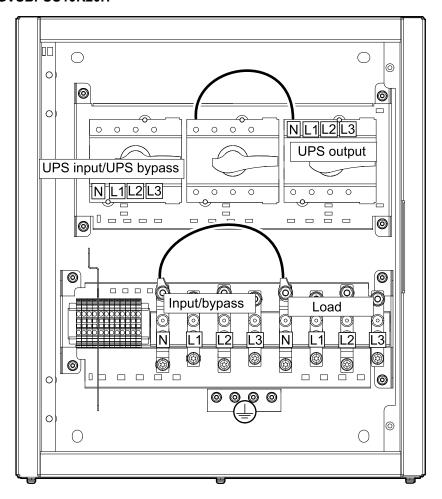
## **AADANGER**

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

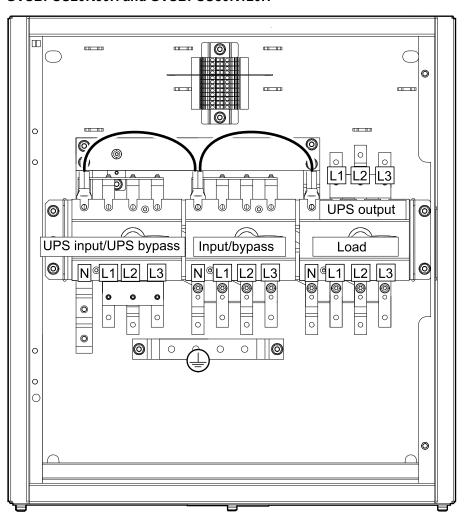
Measure for and verify ABSENCE of voltage on each input/bypass busbar, UPS input/UPS bypass busbar, UPS output busbar, and load busbar before continuing.

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

#### **GVSBPSU10K20H**



#### GVSBPSU20K60H and GVSBPSU80K120H



- 9. Disconnect and remove all power cables from the maintenance bypass panel. See Connect the Power Cables for a 3:3 UPS System, page 23 or Connect the Power Cables for a 3:1 UPS System, page 26 for details.
- 10. Disconnect and remove all signal cables from the maintenance bypass panel. See Connect the Signal Cables for Galaxy VS UPS – Single System, page 28, Connect the Signal Cables for Galaxy VS UPS – Simplified 1+1 Parallel System, page 31 or Connect the Signal Cables for Easy UPS 3S and Easy UPS 3M – Single System, page 38 for details.
- 11. Remove the four screws from the wall and remove the maintenance bypass panel from the wall.

## **A**CAUTION

#### **HEAVY LOAD**

The maintenance bypass panel is heavy (50 kg). Use appropriate tools to safely lift the maintenance bypass panel.

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

- 12. Close the inner door and fasten it with the screws.
- 13. Close and lock the front door of the maintenance bypass panel.

#### 14. For transport:

### **AWARNING**

#### TIPPING HAZARD

For transport of the maintenance bypass panel ensure:

- that personnel performing the transport have necessary skills and have received adequate training;
- to use appropriate tools to safely lift and transport the product;
- to protect the product against damage by using appropriate protection (like wrapping or packaging).

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

Transportation requirements:

- Mount the maintenance bypass panel in a horizontal position in the center of a suitable pallet with minimum pallet dimensions: 840 mm x 1220 mm. The pallet must be suitable for the weight of the maintenance bypass panel (50 kg).
- Mount the maintenance bypass panel to the pallet with appropriate means of fixation that can withstand vibrations and shocks during loading, transport, and unloading.
- The original shipping pallet in combination with the original transportation brackets can be reused, if in undamaged condition.

#### **AWARNING**

#### **UNEXPECTED EQUIPMENT BEHAVIOR**

Do not lift the maintenance bypass panel with a forklift/pallet truck directly as it may bend or damage the maintenance bypass panel.

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

- 15. Perform one of the following:
  - Decommission the maintenance bypass panel, OR
  - Move the maintenance bypass panel to a new location to install it.
- 16. Only for installing the maintenance bypass panel in a new location: Follow the installation manual to install the maintenance bypass panel in the new location. See Installation Procedure for Galaxy VS UPS, page 16 or Installation Procedure for Easy UPS 3S and Easy UPS 3M, page 18 for installation overview. Reinstallation and startup must only be performed by qualified personnel.

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

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