

# Easy UPS 3M

## Classic Battery Cabinet

### Installation

E3MCBC7A, E3MCBC7B, E3MCBC10A, E3MCBC10B, E3MCBC10C, E3MCBC10D,  
E3MCBC10E

10/2019



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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.

## Safety Precautions

### DANGER

#### 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.**

### DANGER

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

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

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

### DANGER

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

The product must be installed according to the specifications and requirements as defined by Schneider Electric. It concerns in particular the external and internal protections (upstream 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.**

### DANGER

#### 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.**

### DANGER

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

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

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

**⚠️⚠️ DANGER**

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

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

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

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

**⚠️⚠️ DANGER**

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

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

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

**⚠️⚠️ WARNING**

**HAZARD OF ARC FLASH**

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

## Electrical Safety

### **DANGER**

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

- Electrical equipment must be installed, operated, serviced, and maintained only by qualified personnel.
- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices.
- Turn off all power supplying the 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.**

### **DANGER**

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

In systems where backfeed protection is not part of the standard design, an automatic isolation device (backfeed protection option or other device meeting the requirements of IEC/EN 62040-1 or UL1778 5th Edition – depending on which of the two standards apply to your local area) must be installed to prevent hazardous voltage or energy at the input terminals of the isolation device. The device must open within 15 seconds after the upstream power supply fails and must be rated according to the specifications.

**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 remote 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):

### **DANGER**

#### 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.**

## Battery Safety

### **DANGER**

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

- Battery circuit breakers must be installed according to the specifications and requirements as defined by Schneider Electric.
- 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.
- Disconnect charging source prior to connecting or disconnecting battery terminals.
- 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.**

### **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.
- Disconnect the charging source prior to connecting or disconnecting battery terminals.
- Determine if the battery is inadvertently grounded. If inadvertently grounded, remove source from ground. Contact with any part of a grounded battery can result in electric shock. The likelihood of such shock can be reduced if such grounds are removed during installation and maintenance (applicable to equipment and remote battery supplies not having a grounded supply circuit).

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

### **DANGER**

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

When replacing batteries, always replace with the same type and number of batteries or battery packs. Refer to the label in the classic battery cabinet for information on batteries in your system.

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

**▲ CAUTION****RISK OF EQUIPMENT DAMAGE**

- Wait until the system is ready to be powered up before installing batteries in the system. The time duration from battery installation until the UPS system is powered up must not exceed 72 hours or 3 days.
- Batteries must not be stored more than six months due to the requirement of recharging. If the UPS system remains de-energized for a long period, we recommend that you energize the UPS system for a period of 24 hours at least once every month. This charges the batteries, thus avoiding irreversible damage.

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

# Specifications

<b>NOTICE</b>
<p><b>HAZARD OF EQUIPMENT DAMAGE</b></p> <p>Refer to the UPS installation manual for detailed specifications for the UPS system.</p> <p><b>Failure to follow these instructions can result in equipment damage.</b></p>

## Classic Battery Cabinet Specifications

<b>DANGER</b>
<p><b>HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH</b></p> <p>The classic battery cabinet must only be used with the Easy UPS 3M.</p> <p><b>Failure to follow these instructions will result in death or serious injury.</b></p>

Classic Battery Solution	Battery Type	Battery Breaker	Number of Battery Blocks
E3MCBC7A	SWL1100	Compact NSX250S DC (LV438219+LV430100)	40
E3MCBC7B	XP12V1800	Compact NSX250S DC (LV438219+LV430101)	36
E3MCBC10A	XP12V2500	Compact NSX400S DC (LV438272)	36
E3MCBC10B	XP12V3000	Compact NSX400S DC (LV438272)	36
E3MCBC10C	XP12V3000	Compact NSX400S DC (LV438272)	40
E3MCBC10D	XP12V2500	Compact NSX630S DC (LV438274)	2x36
E3MCBC10E	XP12V3000	Compact NSX630S DC (LV438274)	2x36

## Trip Settings

### 60-100 kVA UPS

Classic Battery Solution	Battery Breaker	60 kVA UPS		80 kVA UPS		100 kVA UPS	
		Ir (A)	Im (A)	Ir (A)	Im (A)	Ir (A)	Im (A)
E3MCBC7A	Compact NSX250S DC (LV438219+LV430100)	160	440 (fixed)	180	440 (fixed)	-	-
2xE3MCBC7A	Compact NSX250S DC (LV438219+LV430100)	140	440 (fixed)	140	440 (fixed)	140	440 (fixed)
E3MCBC7B	Compact NSX250S DC (LV438219+LV430101)	200	520 (fixed)	250	520 (fixed)	250	520 (fixed)
2xE3MCBC7B	Compact NSX250S DC (LV438219+LV430101)	175	520 (fixed)	175	520 (fixed)	175	520 (fixed)
E3MCBC10A	Compact NSX400S DC (LV438272)	280	1000	280	1000	320	1000

**60-100 kVA UPS (Continued)**

Classic Battery Solution	Battery Breaker	60 kVA UPS		80 kVA UPS		100 kVA UPS	
		Ir (A)	Im (A)	Ir (A)	Im (A)	Ir (A)	Im (A)
E3MCBC10B	Compact NSX400S DC (LV438272)	280	1000	280	1000	320	1000
E3MCBC10C	Compact NSX400S DC (LV438272)	280	1000	280	1000	280	1000
E3MCBC10D	Compact NSX630S DC (LV438274)	420	1500	420	1500	420	1500
E3MCBC10E	Compact NSX630S DC (LV438274)	420	1500	420	1500	420	1500

**120-200 kVA UPS**

Classic Battery Solution	Battery Breaker	120 kVA UPS		160 kVA UPS		200 kVA UPS	
		Ir (A)	Im (A)	Ir (A)	Im (A)	Ir (A)	Im (A)
2xE3MCBC7A	Compact NSX250S DC (LV438219)	160	440 (fixed)	–	–	–	–
2xE3MCBC7B <sup>1</sup>	Compact NSX250S DC (LV438219)	200	520 (fixed)	250	520 (fixed)	–	–
E3MCBC10A	Compact NSX400S DC (LV438272)	360	1000	–	–	–	–
2xE3MCBC10A <sup>1</sup>	Compact NSX400S DC (LV438272)	280	1000	280	1000	320	1000
E3MCBC10B	Compact NSX400S DC (LV438272)	360	1000	–	–	–	–
2xE3MCBC10B <sup>1</sup>	Compact NSX400S DC (LV438272)	280	1000	280	1000	320	1000
E3MCBC10C	Compact NSX400S DC (LV438272)	320	1000	400	1000	400	1000
2xE3MCBC10C <sup>1</sup>	Compact NSX400S DC (LV438272)	280	1000	280	1000	280	1000
E3MCBC10D	Compact NSX630S DC (LV438274)	420	1500	480	1500	600	1500
2xE3MCBC10D <sup>1</sup>	Compact NSX630S DC (LV438274)	420	1500	420	1500	420	1500
E3MCBC10E	Compact NSX630S DC (LV438274)	420	1500	480	1500	600	1500
2xE3MCBC10E <sup>1</sup>	Compact NSX630S DC (LV438274)	420	1500	420	1500	420	1500
E3MCBC10A+ E3MCBC10D <sup>2</sup>	Compact NSX400S DC (LV438272)	280	280	280	280	280	280
	Compact NSX630S DC (LV438274)	420	420	420	420	420	420
E3MCBC10B+ E3MCBC10E <sup>2</sup>	Compact NSX400S DC (LV438272)	280	280	280	280	280	280
	Compact NSX630S DC (LV438274)	420	420	420	420	420	420

1. Both battery breakers must be closed when supplying loads higher than 120 kVA  
 2. Both battery breakers must be closed to support full load



## Recommended Cable Sizes

⚠ **DANGER**

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 70 mm<sup>2</sup>.

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

**NOTE:** Overcurrent protection is to be provided by others.

Cable sizes in this manual are based on table B.52.3 (52–C2) of IEC 60364–5–52 with the following assertions:

- 90 °C conductors
- An ambient temperature of 30 °C
- Use of copper conductors
- Installation method C

Protective Earth (PE) cables are sized in accordance with table 54.3 of IEC 60364-4-54, Article 543.

If the ambient temperature is greater than 30 °C, larger conductors are to be selected in accordance with the correction factors of the IEC.

### 60-100 kVA UPS

Classic Battery Solution	60 kVA UPS		80 kVA UPS		100 kVA UPS	
	DC ± and N (mm <sup>2</sup> )	PE (mm <sup>2</sup> )	DC ± and N (mm <sup>2</sup> )	PE (mm <sup>2</sup> )	DC ± and N (mm <sup>2</sup> )	PE (mm <sup>2</sup> )
E3MCBC7A	35	16	50	25	–	–
2xE3MCBC7A	35	16	35	16	35	16
E3MCBC7B	50	25	70	35	70	35
2xE3MCBC7B	50	25	50	25	50	25
E3MCBC10A	2x50	50	2x50	50	2x50	50
E3MCBC10B	2x50	50	2x50	50	2x50	50
E3MCBC10C	2x50	50	2x50	50	2x50	50
E3MCBC10D	2x70	70	2x70	70	2x70	70
E3MCBC10E	2x70	70	2x70	70	2x70	70

### 120-200 kVA UPS

Classic Battery Solution	120 kVA UPS		160 kVA UPS		200 kVA UPS	
	DC ± and N (mm <sup>2</sup> )	PE (mm <sup>2</sup> )	DC ± and N (mm <sup>2</sup> )	PE (mm <sup>2</sup> )	DC ± and N (mm <sup>2</sup> )	PE (mm <sup>2</sup> )
2xE3MCBC7A <sup>3</sup>	35	16	50	25	–	–
2xE3MCBC7B <sup>3</sup>	70	35	70	35	70	35
E3MCBC10A	120	70	–	–	–	–
2xE3MCBC10A <sup>3</sup>	95	50	95	50	120	70
E3MCBC10B	120	70	–	–	–	–
2xE3MCBC10B <sup>3</sup>	95	50	95	50	120	70
E3MCBC10C	95	50	150 or 2x70	95	150 or 2x70	95
2xE3MCBC10C <sup>3</sup>	95	50	95	50	95	50
E3MCBC10D	150 or 2x70	95	2x95	95	2x120	120

3. Both battery breakers must be closed when supplying loads higher than 120 kVA

**120-200 kVA UPS (Continued)**

Classic Battery Solution	120 kVA UPS		160 kVA UPS		200 kVA UPS	
	DC ± and N (mm <sup>2</sup> )	PE (mm <sup>2</sup> )	DC ± and N (mm <sup>2</sup> )	PE (mm <sup>2</sup> )	DC ± and N (mm <sup>2</sup> )	PE (mm <sup>2</sup> )
2xE3MCBC10D <sup>4</sup>	150	95	150	95	150	95
E3MCBC10E	150 or 2x70	95	2x95	95	2x120	120
2xE3MCBC10E <sup>4</sup>	150	95	150	95	150	95
E3MCBC10A+ E3MCBC10D <sup>5</sup>	95	95	95	95	95	95
	150	150	150	150	150	150
E3MCBC10B+ E3MCBC10E <sup>5</sup>	95	95	95	95	95	95
	150	150	150	150	150	150

**Torque Specifications**

Bolt size	Torque
M4	1.7 Nm (1.25 lb-ft / 15 lb-in)
M5	2.2 Nm (1.62 lb-ft / 19.5 lb-in)
M6	5 Nm (3.69 lb-ft / 44.3 lb-in)
M8	17.5 Nm (12.91 lb-ft / 154.9 lb-in)
M10	30 Nm (22 lb-ft / 194.7 lb-in)

**Classic Battery Cabinet Weights and Dimensions**

	Maximum Weight kg	Height mm (in)	Width mm (in)	Depth mm (in)
E3MCBC7A	736	1900	710	845
E3MCBC7B	909	1900	710	845
E3MCBC10A	1097	1900	1010	845
E3MCBC10B	1277	1900	1010	845
E3MCBC10C	1404	1900	1010	845
E3MCBC10D	1100	1900	1010	845
	1082	1900	1010	845
E3MCBC10E	1280	1900	1010	845
	1262	1900	1010	845

**Classic Battery Cabinet Shipping Weights and Dimensions**

	Weight kg	Height mm	Width mm	Depth mm
E3MCBC7A	756	1980	815	970
E3MCBC7B	929	1980	815	970
E3MCBC10A	1117	1980	1130	970
E3MCBC10B	1297	1980	1130	970

4. Both battery breakers must be closed when supplying loads higher than 120 kVA  
 5. Both battery breakers must be closed to support full load

	Weight kg	Height mm	Width mm	Depth mm
E3MCBC10C	1424	1980	1130	970
E3MCBC10D	1120	1980	1130	970
	1102	1980	1130	970
E3MCBC10E	1300	1980	1130	970
	1282	1980	1130	970

## Environment

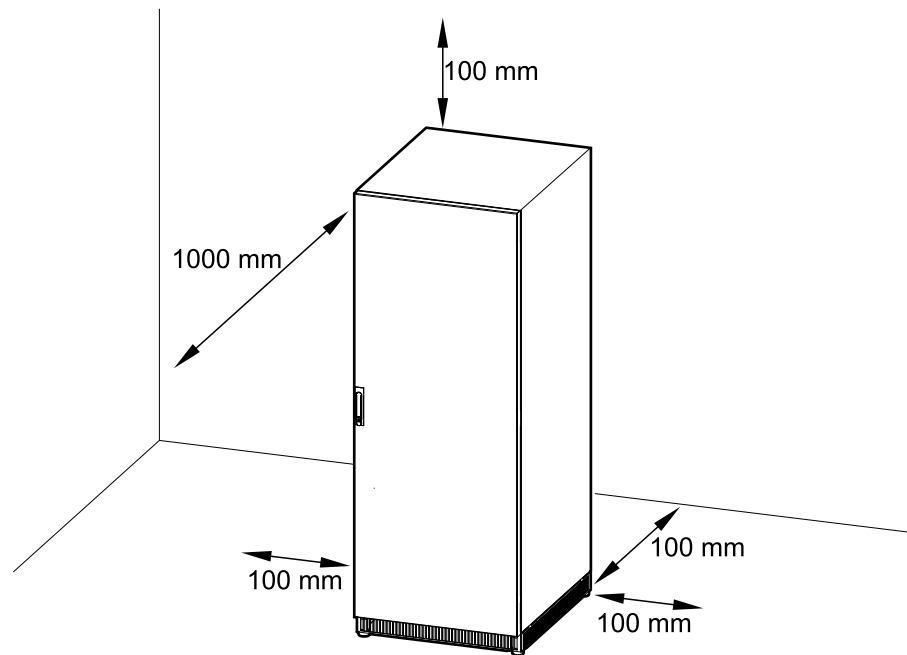
**NOTE:** The distance between the battery bank and the UPS must not exceed 200 m. Contact Schneider Electric for installations with a longer distance.

	Operating	Storage
Temperature	0 °C to 40 °C (32 °F to 104 °F)	-15 °C to 40 °C (5 °F to 104 °F)

## 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.

**NOTE:** The room should be ventilated to prevent the concentration of the dihydrogen generated by the battery cabinet. Recommended minimum airflow: 2.41 m<sup>3</sup>/h.



# Installation Procedure

1. *Unpack the Cabinet, page 16.*
2. *Connect the Signal Cables, page 18.*
3. *Connect the Power Cables, page 21.*

## Receiving

### External Inspection

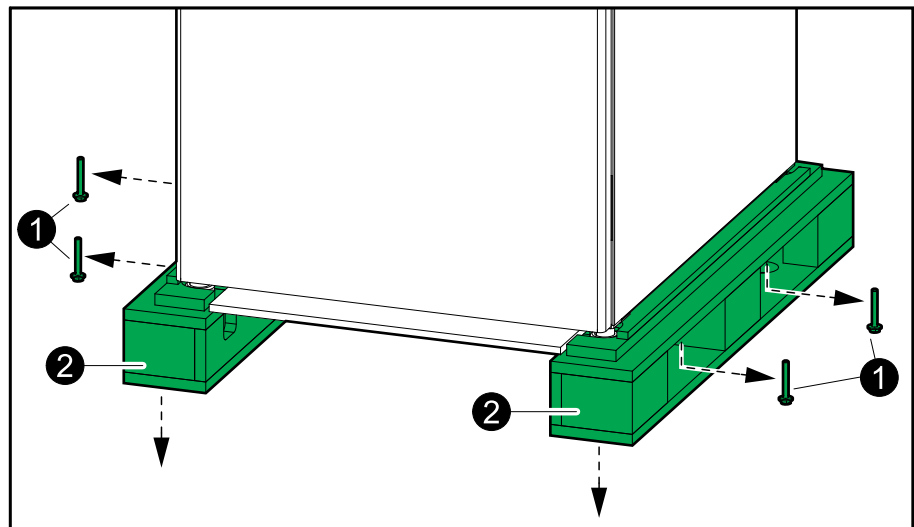
When the shipment arrives, inspect the shipping material for any signs of damage or mishandling. Check tilt and impact indicators. Do not attempt to install the system if a damage is apparent. If any damage is noted, contact Schneider Electric and file a damage claim with the shipping agency within 24 hours.

Compare the components of the shipment with the bill of lading. Report any missing items to the carrier and to Schneider Electric immediately.

Verify that labelled units match the order confirmation.

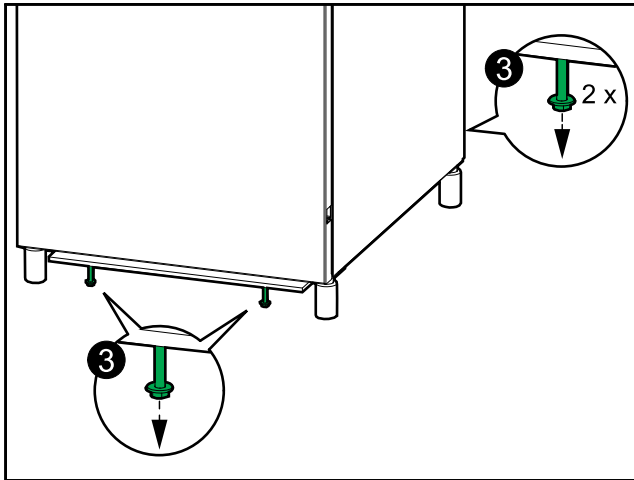
### Unpack the Cabinet

1. Remove the indicated bolts.
2. Lift up the cabinet with a forklift and remove the pallet parts.

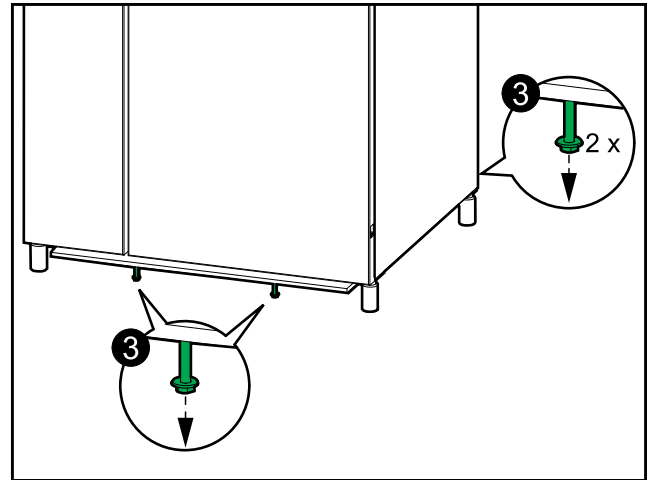


3. Lower the cabinet to the floor and remove the indicated bolts.

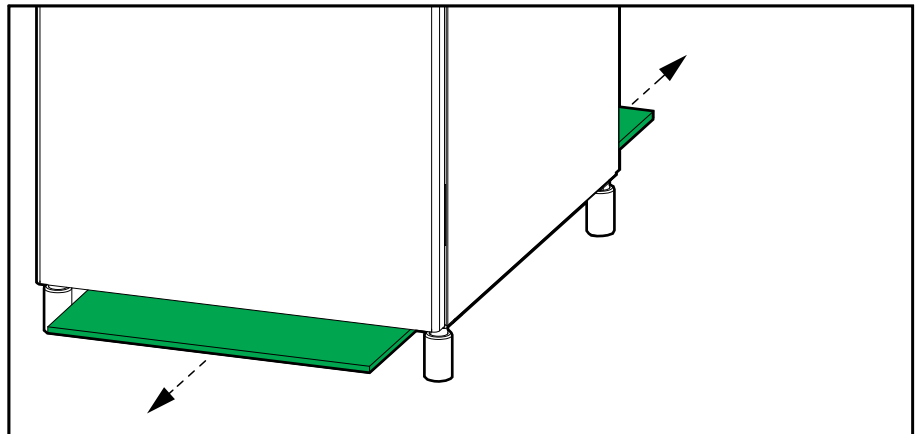
**700 mm Wide Classic Battery Cabinet**



**1000 mm Wide Classic Battery Cabinet**



4. Remove the wooden plates.



## Optional Cable Kits for Line-Up Solutions

Two cable kits are available:

- E3MOPT003: Cable kit that includes power cables and signal cables for installation of one classic battery cabinet adjacent to the 60–100 kVA UPS. This cable kit is for the 700 mm wide Easy UPS 3M Classic Battery Cabinet.
- E3MOPT004: Cable kit that includes power cables and signal cables for installation of one classic battery cabinet adjacent to the 60–100 kVA UPS. This cable kit is for the 1000 mm wide Easy UPS 3M Classic Battery Cabinet.

## Connect the Signal Cables

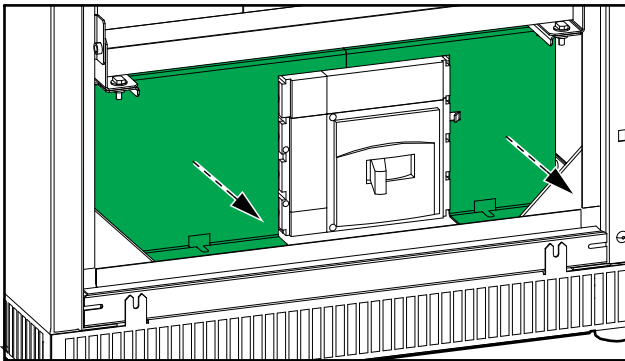
**NOTE:** Route the signal cables separately from the power cables to ensure sufficient isolation.

**NOTE:** Use double isolated signal cables. The signal cables must have a minimum rating of 600 V.

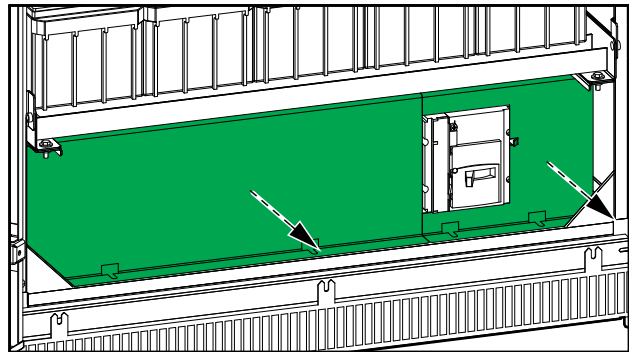
**NOTE:** The length of the battery temperature signal cable is 5m.

1. Open the front door of the classic battery cabinet(s).
2. Lockout/Tagout the battery breaker.
3. Remove the left and right breaker protection plates.

**700 mm Wide Classic Battery Cabinet**



**1000 mm Wide Classic Battery Cabinet**

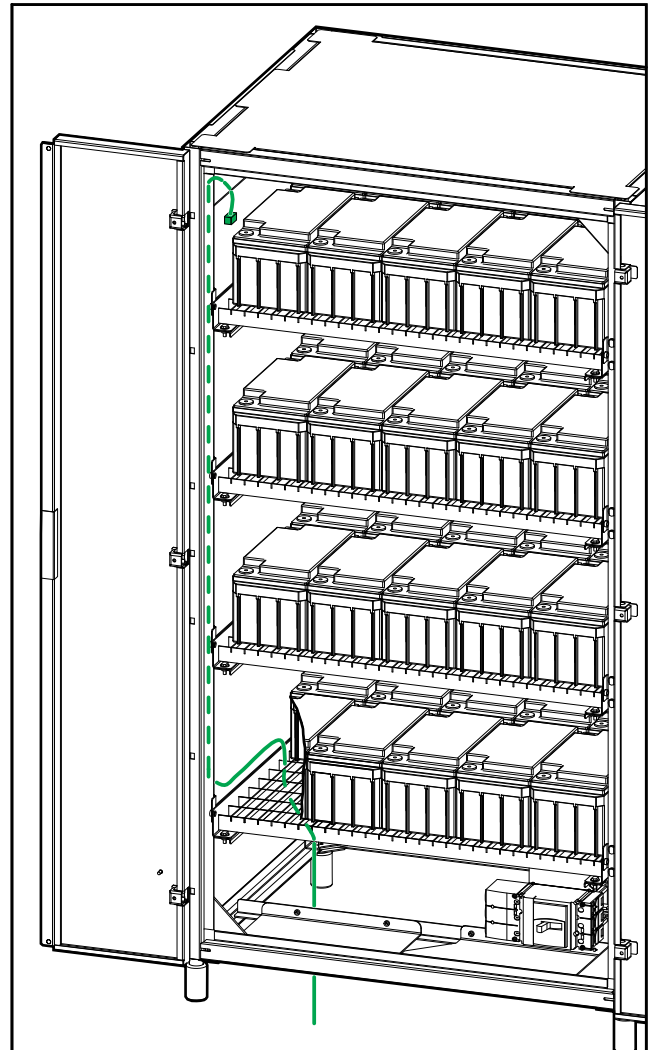
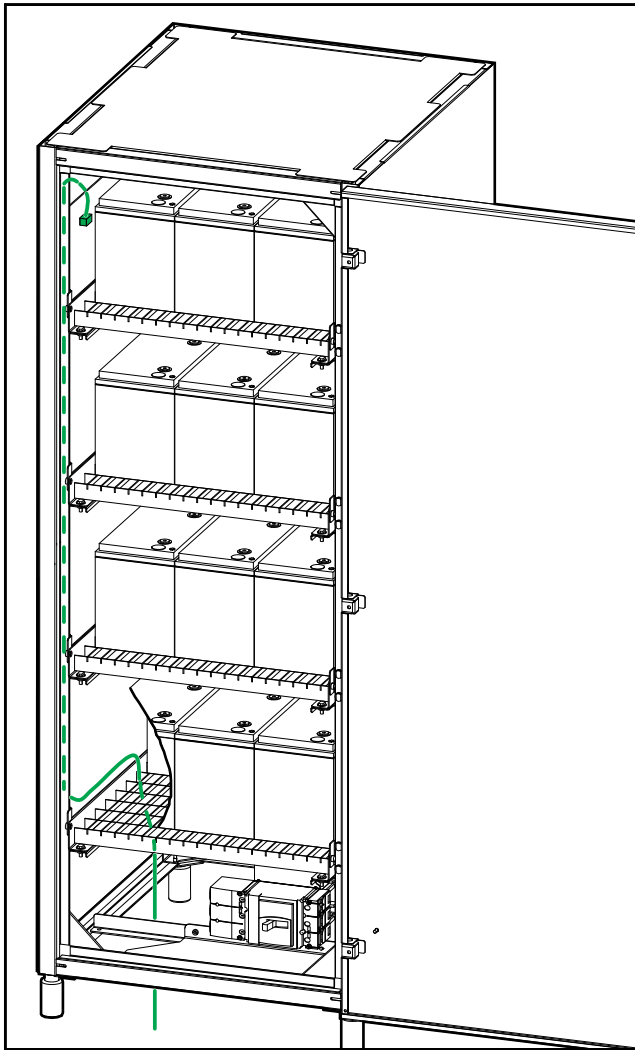


4. Install the temperature sensor provided with the UPS in the top of the classic battery cabinet.

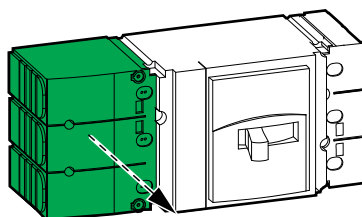
<b>▲ WARNING</b>
<b>HAZARD OF FIRE</b>
Position the temperature sensor as described to ensure correct temperature measurements.
<b>Failure to follow these instructions can result in death, serious injury, or equipment damage.</b>

700 mm Wide Classic Battery Cabinet

1000 mm Wide Classic Battery Cabinet

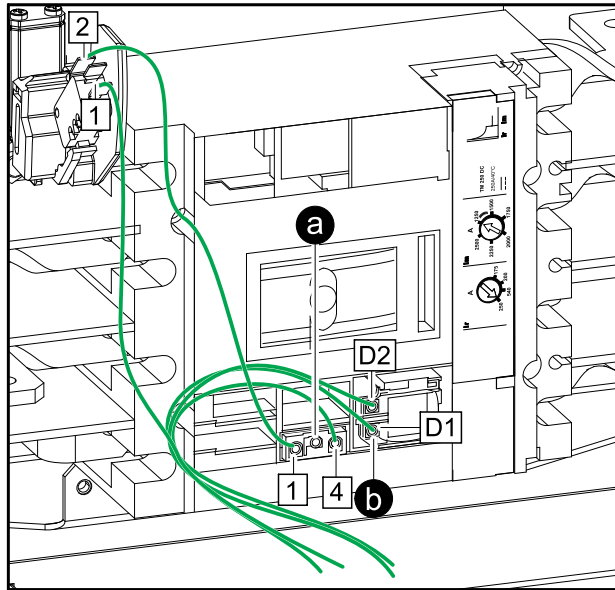
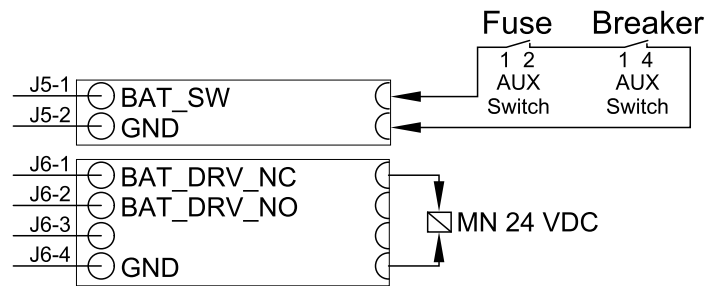


5. Route the battery temperature cable through the bottom of the classic battery cabinet to the UPS dry contact terminals BAT\_T-1 and BAT\_T-2. on the back of the UPS.
6. Remove the terminal cover from the left side of the battery breaker.



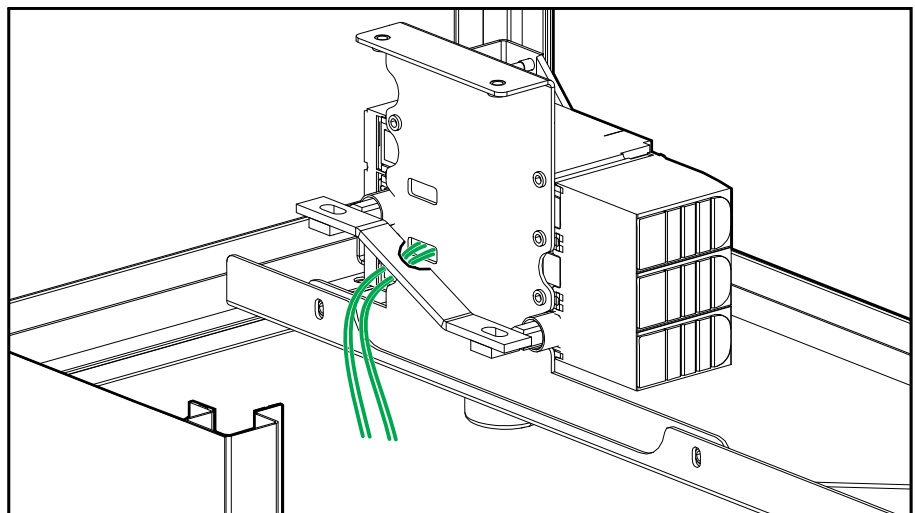
- Remove the cover from the battery breaker and connect the signal cables to the breaker.

**NOTE:** AUX switch signal cables and fuse cables are SELV and must be double isolated from the DC cables.



- Route the signal cables from behind the battery breaker and out through the bottom of the classic battery cabinet and connect the signal cables:

**Rear View of the Battery Breaker**



- Connect the AUX switch signal cables from the classic battery cabinet to J5-1 and J5-2 in the UPS.
  - Connect the undervoltage trip coil signal cables from the battery breaker to J6-1 and J6-4 in the UPS.
  - Fasten the signal cables with cable ties (provided) to the cable relief.
- Reinstall the breaker cover on the battery breaker.



## Connect the Power Cables

### **⚡ ⚠ DANGER**

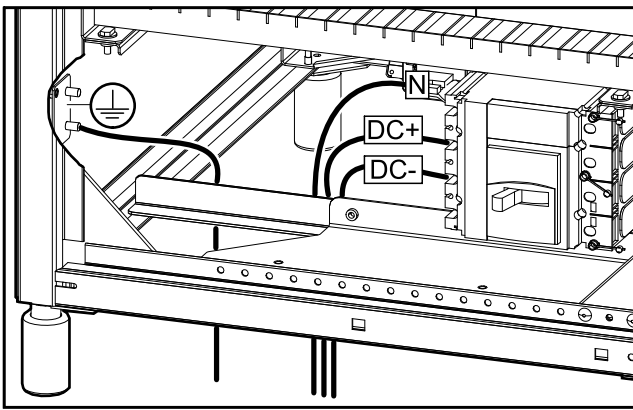
#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

Perform a total power off of the UPS before connecting the battery cables to the classic battery cabinet.

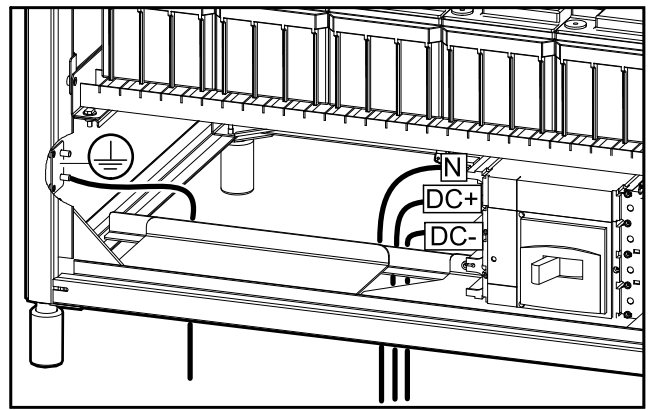
**Failure to follow these instructions will result in death or serious injury.**

1. Lockout/Tagout the battery breaker.
2. Route the PE cable through the bottom of the classic battery cabinet and connect the PE cable.

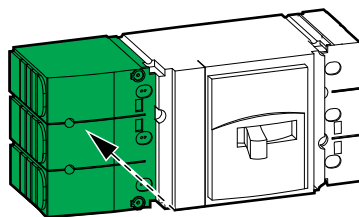
**700 mm Wide Classic Battery Cabinet**



**1000 mm Wide Classic Battery Cabinet**

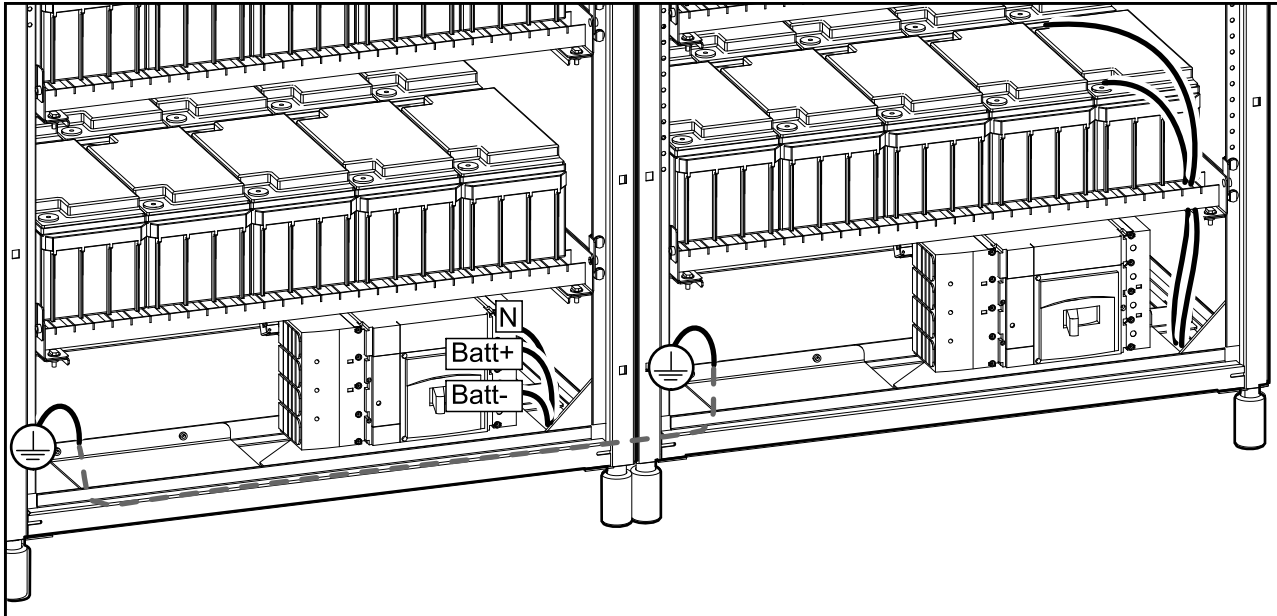


3. Route the DC cables from the UPS through the bottom of the classic battery cabinet and connect the battery cables (N, DC+, DC-). Use lock washers (not provided) when connecting the DC cables.
4. Reinstall the terminal cover on the left side of the battery breaker and remove the terminal cover from the right side of the battery breaker.



5. In battery solutions with two classic battery cabinets:
  - a. Connect the PE cable between the two classic battery cabinets.
  - b. Connect the battery cables (N, Batt+, Batt-) from the batteries in the classic battery cabinet without a circuit breaker to the right side of the battery breaker in the other classic battery cabinet.

### Battery Solution with two 1000 mm Wide Classic Battery Cabinets



6. Interconnect the batteries on each shelf. Refer to the connection diagram on the inside of the front door.

## **⚡⚠ 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

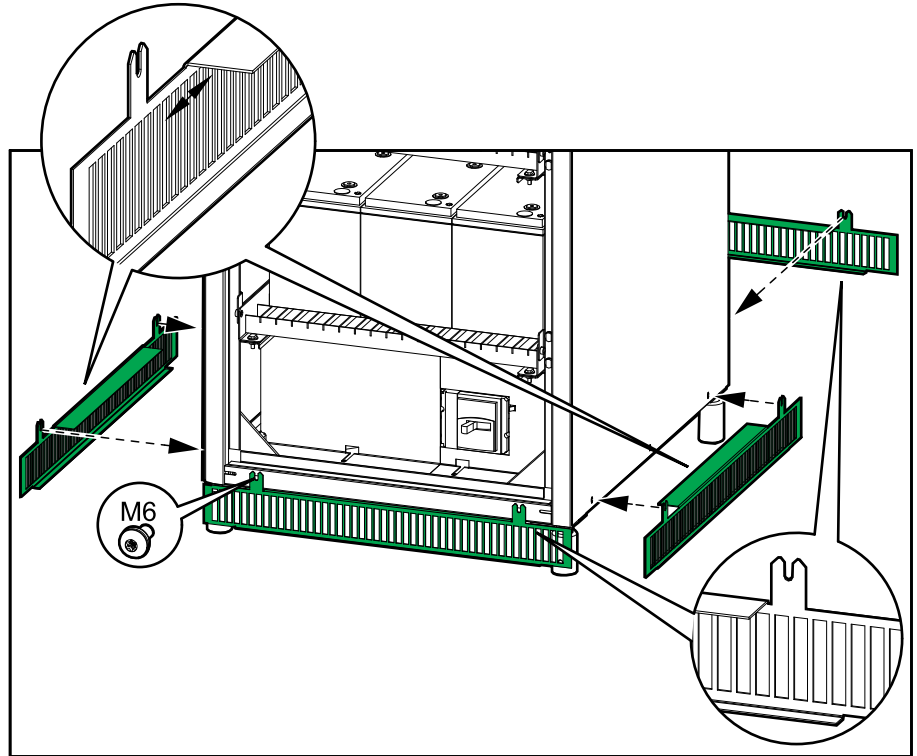
- Remove watches, rings, or other metal objects.
- Use tools with insulated handles.
- Wear protective glasses, gloves and boots.
- Do not lay tools or metal parts on top of batteries.
- Disconnect the charging source prior to connecting or disconnecting battery terminals.
- Determine if the battery is inadvertently grounded. If inadvertently grounded, remove source from ground. Contact with any part of a grounded battery can result in electric shock. The likelihood of such shock can be reduced if such grounds are removed during installation and maintenance (applicable to equipment and remote battery supplies not having a grounded supply circuit).

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

7. Close the front door of the classic battery cabinet(s).

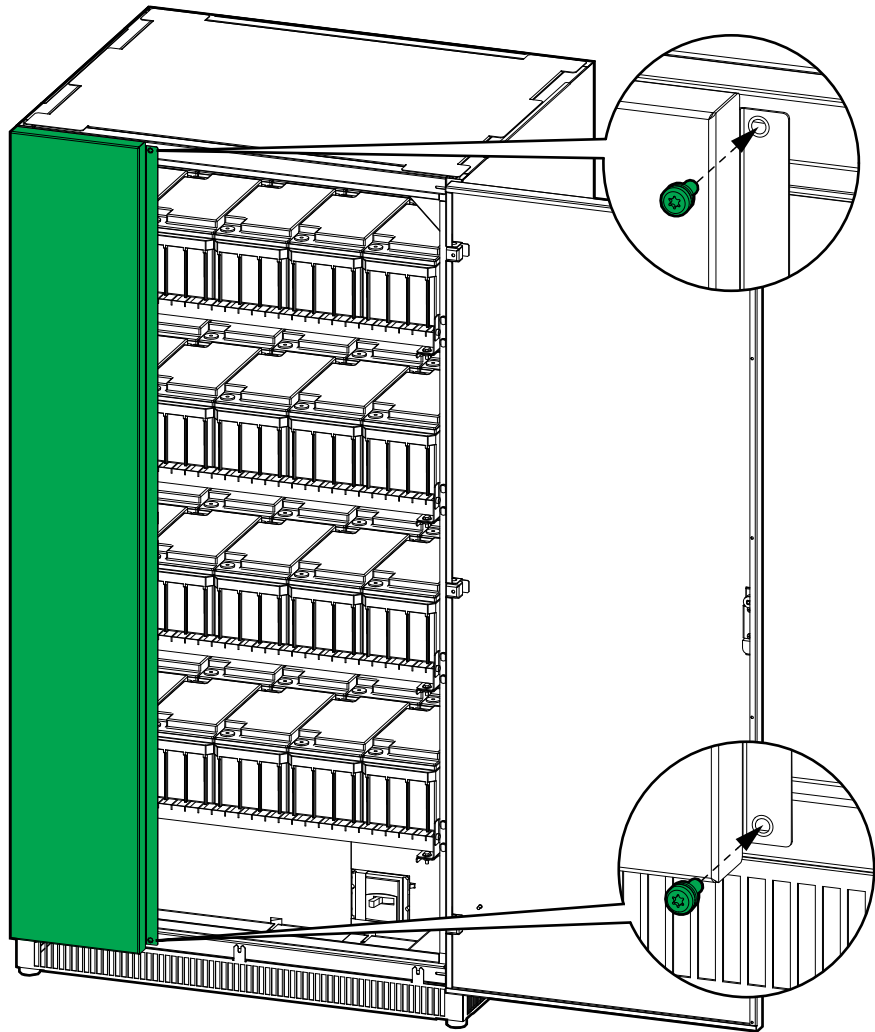
## Final Installation

1. Install the provided kick plates on the front, rear, and sides of the classic battery cabinet.



2. Close the door(s). On the 1000 mm wide classic battery cabinet, install two screws to close the left door.

### 1000 mm Wide Classic Battery Cabinet









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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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