

# Symmetra™ MW

## Receiving and Unpacking

10/2015



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

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

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# Important Safety Information

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**

### **⚠ WARNING**

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

- Do not unpack the units before the time of installation.
- Cover the units and store the units in an indoor, temperature-controlled area, free of conductive contaminants, where the units are protected from moisture until the time of startup. Moisture inside the cabinet can create hazardous short-circuits.

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

## **⚠ 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.**

## **Storage Conditions**

Storage Temperature	-50 to 40 °C (-58 to 104 °F)
Storage Relative Humidity	0 - 95%
Storage Elevation	0-15000 m (0-50000 ft)

# Weights and Dimensions

## Weights and Dimensions for Systems with Internal Bypass

UPS System	Weight kg (lbs)	Height mm (in)	Width mm (in)	Depth mm (in)
400 kW	2426 (5349)	2032 (80)	2114 (83)	1067 (42)
600 kW	3368 (7426)	2032 (80)	2536 (100)	1067 (42)
800 kW	4591 (10115)	2032 (80)	3539 (139)	1067 (42)
1000 kW	5445 (11998)	2032 (80)	3959 (156)	1067 (42)

## Weights and Dimensions for Systems with External Bypass

**NOTE:** Weights and dimensions are without the external bypass.

UPS System	Weight kg (lbs)	Height mm (in)	Width mm (in)	Depth mm (in)
800 kW	3995 (8809)	2032 (80)	3716 (146)	1067 (42)
1000 kW	4893 (10765)	2032 (80)	4138 (163)	1067 (42)
1200 kW	6310 (13914)	2032 (80)	4646 (183)	1067 (42)
1400 kW	7016 (15470)	2032 (80)	5068 (200)	1067 (42)
1600 kW	7309 (16080)	2032 (80)	5490 (216)	1067 (42)

# Shipping Dimensions

## Shipping Dimensions for Systems with Internal Bypass

UPS System	Package	Height mm (in)	Width mm (in)	Depth mm (in)
400 kW	UPS	2235 (88)	2280 (90)	1280 (50)
	Power module x 2	570 (22)	1450 (57)	910 (36)
600 kW	600 kW inverter	2235 (88)	1676 (66)	1280 (50)
	I/O with static switch	2235 (88)	1676 (66)	1280 (50)
	Power module x 3	570 (22)	1450 (57)	910 (36)
800 kW	800 kW inverter	2235 (88)	1880 (74)	1280 (50)
	I/O with static switch	2235 (88)	2062 (81)	1280 (50)
	Power module x 4	570 (22)	1450 (57)	910 (36)
1000 kW	1000 kW Inverter	2235 (88)	2280 (90)	1280 (50)
	I/O with static switch	2235 (88)	2062 (81)	1280 (50)
	Power module x 5	570 (22)	1450 (57)	910 (36)

## Shipping Dimensions for Systems with External Bypass

UPS System	Package	Height mm (in)	Width mm (in)	Depth mm (in)
800 kW	800 kW inverter	2235 (88)	1880 (74)	1280 (50)
	Input/Output	2200 (87)	1300 (52)	1280 (50)
	Control	2200 (87)	1300 (52)	1280 (50)
	Power module x 4	570 (22)	1450 (57)	910 (36)
	External bypass	2200 (87)	1300 (52)	1280 (50)
1000 kW	1000 kW Inverter	2235 (88)	2280 (90)	1280 (50)
	Input/Output	2200 (87)	1300 (52)	1280 (50)
	Control	2200 (87)	1300 (52)	1280 (50)
	Power module x 5	570 (22)	1450 (57)	910 (36)
	External bypass	2200 (87)	1300 (52)	1280 (50)
1200 kW	600 kW inverter x 2	2235 (88)	1676 (66)	1280 (50)
	Control/input/output	2235 (88)	2286 (90)	1280 (50)
	Power module x 6	570 (22)	1450 (57)	910 (36)
1400 kW	600 kW inverter	2235 (88)	1676 (66)	1280 (50)
	800 kW inverter	2235 (88)	1880 (74)	1280 (50)
	Control/input/output	2235 (88)	2286 (90)	1280 (50)
	Power module x 7	570 (22)	1450 (57)	910 (36)
1600 kW	800 kW inverter x 2	2235 (88)	1880 (74)	1280 (50)
	Control/input/output	2235 (88)	2286 (90)	1280 (50)
	Power module x 8	570 (22)	1450 (57)	910 (36)

# Receiving

## External Inspection

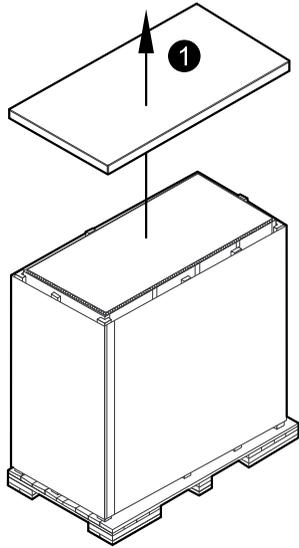
When the shipment arrives, inspect the shipping material for any signs of damage or mishandling. Check tilt and impact indicators. Do not attempt to install the system if a damage is apparent. If any damage is noted, contact Schneider Electric and file a damage claim with the shipping agency within 24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

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

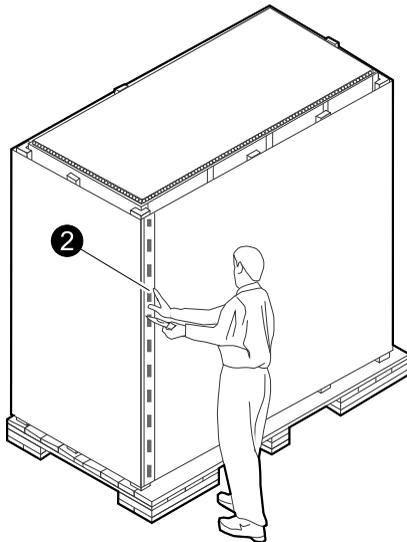
Verify that labelled units match the order confirmation.

# Unpacking

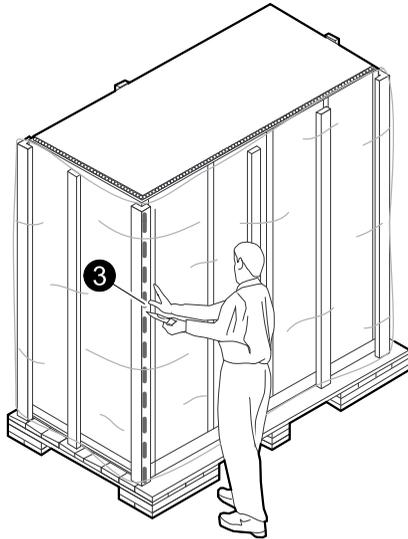
1. Remove the cardboard top cover.



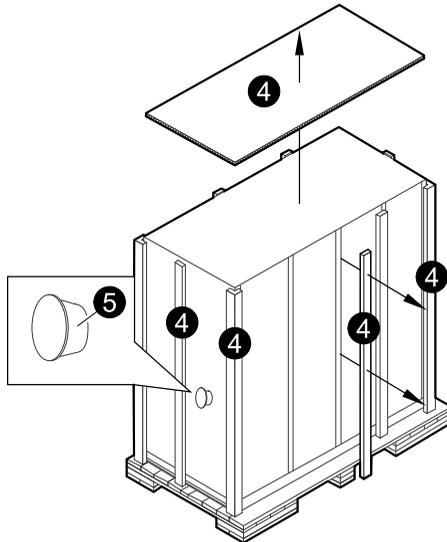
2. Cut along the edges of the cardboard protection using a knife and remove the cardboard casing.



3. Cut along the corner protections with a knife to open and remove the plastic wrap.



4. Remove the cardboard top protection from the top of the cabinet. Remove all the polythene side and corner protection.



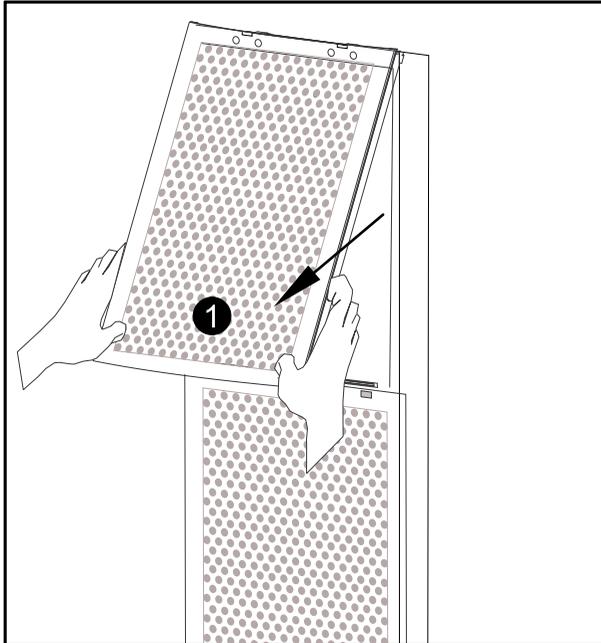
5. Remove the corrosion inhibitor attached to the side panel.

**NOTE:** Shipping materials are recyclable. Please reuse or dispose of the shipping materials appropriately.

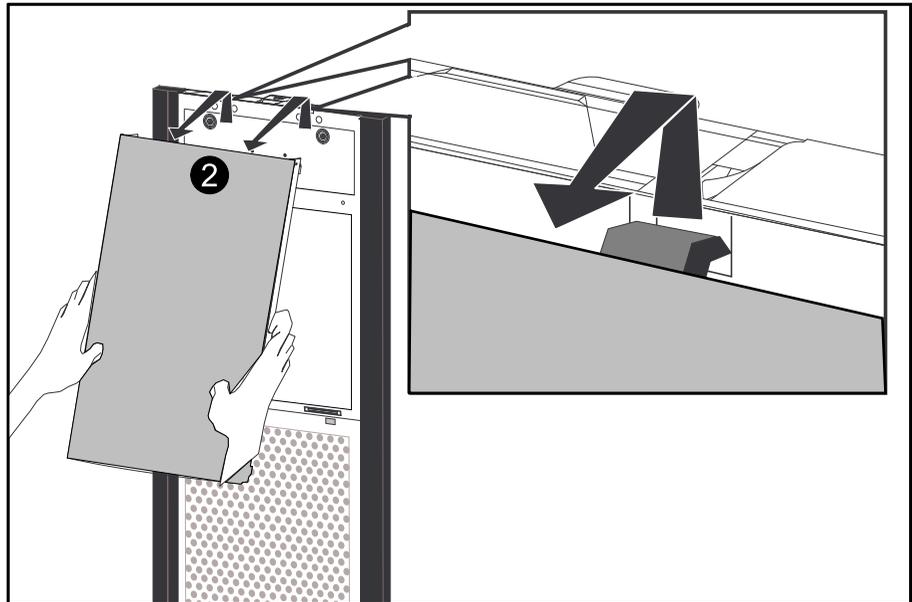
# Temporary Removal of Dead Front Panels

Before positioning the UPS in the final installation area, remove finishing panels (product documentation is stored inside the cabinet – save this for later use). Put the panels in a place where they will not be damaged.

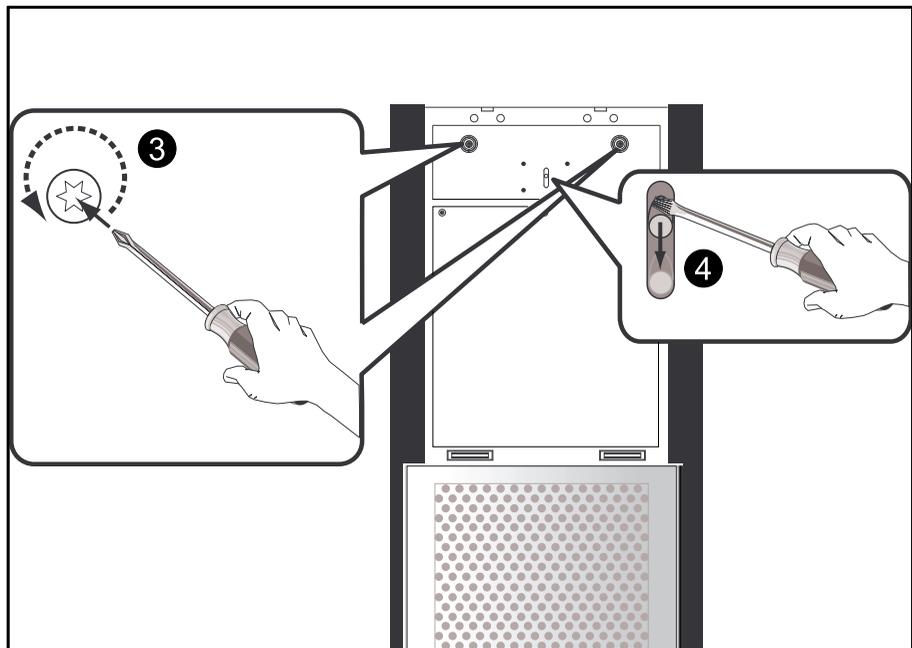
1. Pull the upper part of the top finishing panel free of the UPS.



2. Lift the top finishing panel free of UPS section and remove.



3. Loosen the 2 screws behind the top finishing panels using a torx screw driver. Save the screws for reinstallation.



4. Using the screwdriver, press down the lock mechanism to release the dead front panel holding the remaining finishing panels. Slant the dead front panel forward and lift it off.
5. Remove the two pieces of corner polythene protection behind the two end front panels. Do not reinstall the polythene protection.

# Move to Installation Site

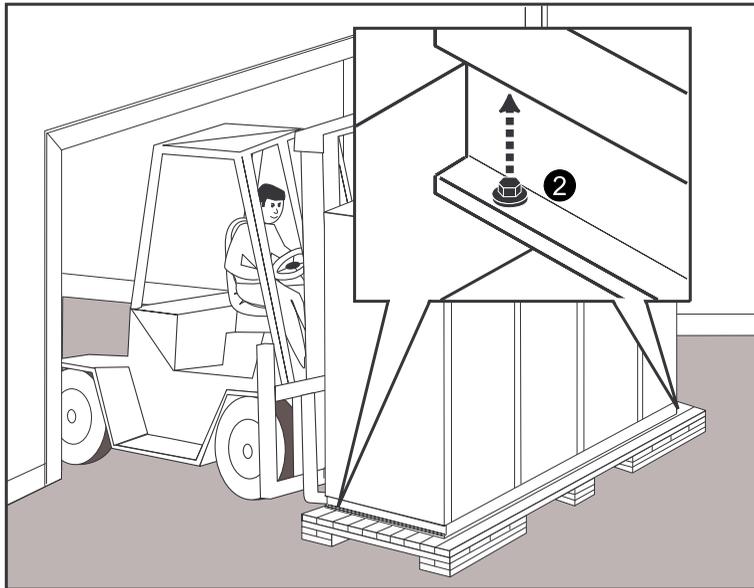
## ⚠ CAUTION

### RISK OF INJURY AND EQUIPMENT DAMAGE

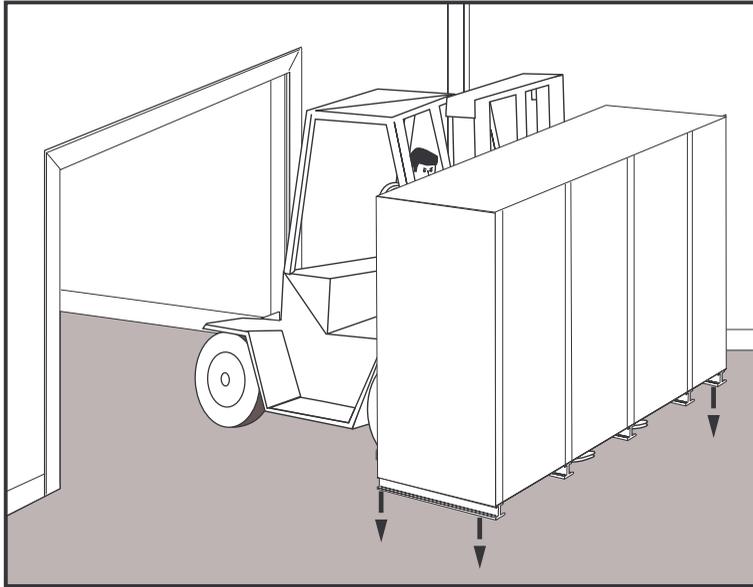
- Check that the doorway is wide and tall enough for the UPS to be moved through it on a forklift or a pallet jack. If the doorway dimensions do not meet the recommendations below, the UPS can be lowered through the roof by a crane (proceed to *Roof Entry*, page 19).
- Ensure that the forklift can sustain the total weight of the UPS.
- Ensure that the floor can support the total weight of the UPS.

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

1. Move the UPS to the installation site with a forklift.
2. While keeping the UPS elevated on the forklift, use a wrench to remove the M12 bolts securing the UPS to the pallet.



3. Remove the pallet.



## Roof Entry

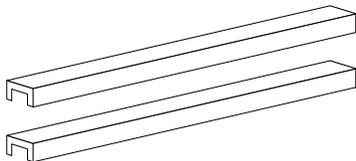
### ⚠ WARNING

#### HAZARD OF PERSONAL INJURY AND EQUIPMENT DAMAGE

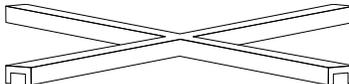
Schneider Electric recommends using iron bars and steel wires/steel chains/nylon straps (not supplied) in accordance with the following. See the center of gravity values below for each system.

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

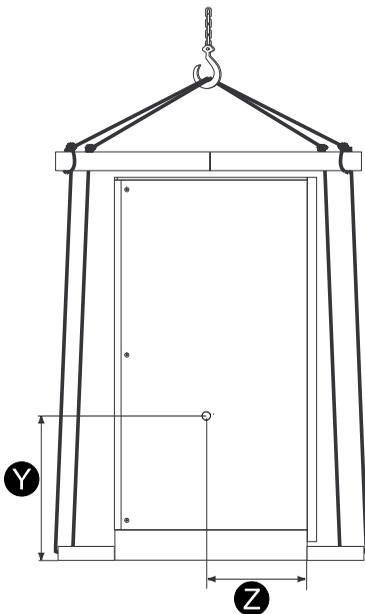
Bottom Iron Bars – 80 mm (3 in) U-profile



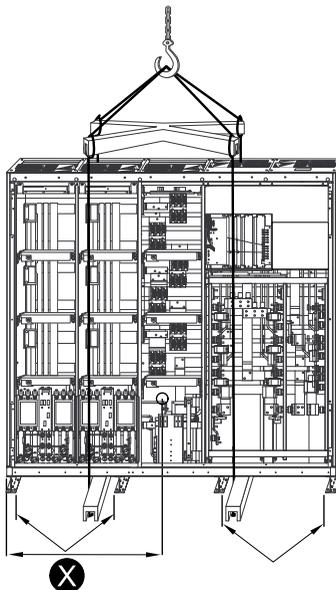
Top Iron Bars – 80 mm (3 in) U-profile



Side View



Front View



## Center of Gravity for Systems with Internal Bypass

UPS System	Cabinet	X-Distance mm (in)	Y-Distance mm (in)	Z-Distance mm (in)
400 kW	UPS	893 (35.16)	741 (29.17)	542 (21.34)
600 kW	600 kW inverter	626 (24.65)	621 (24.45)	562 (22.13)
	I/O with static switch	685 (26.97)	956 (37.64)	527 (20.75)
800 kW	800 kW inverter	846 (33.31)	777 (30.59)	532 (20.94)
	I/O with static switch	941 (37.05)	954 (37.56)	443 (17.44)
1000 kW	1000 kW inverter	1061 (41.77)	775 (30.51)	532 (20.94)
	I/O with static switch	941 (37.05)	954 (37.56)	443 (17.44)

## Center of Gravity for Systems with External Bypass

UPS System	Cabinet	X-Distance mm (in)	Y-Distance mm (in)	Z-Distance mm (in)
800 kW	800 kW inverter	846 (33.31)	777 (30.59)	532 (20.94)
	Input/output	529 (20.83)	1017 (40.04)	500 (19.69)
	Control	533 (20.98)	1009 (39.72)	431 (16.97)
	1 MW external bypass	513 (20.20)	1009 (39.72)	431 (16.97)
1000 kW	1000 kW inverter	1048 (41.26)	615 (24.21)	565 (22.24)
	Input/output	529 (20.83)	1017 (40.04)	500 (19.69)
	Control	533 (20.98)	1009 (39.72)	431 (16.97)
	1 MW external bypass	513 (20.20)	1009 (39.72)	431 (16.97)
1200 kW	600 kW inverter	626 (24.65)	621 (24.45)	562 (22.13)
	Control/input/output	1121 (44.13)	754 (29.69)	561 (22.09)
	2 MW external bypass	508 (20.00)	963 (37.91)	437 (17.20)
1400 kW	600 kW inverter	626 (24.65)	621 (24.45)	562 (22.13)
	800 kW inverter	846 (33.31)	777 (30.59)	532 (20.94)
	Control/input/output	1121 (44.13)	754 (29.69)	561 (22.09)
	2 MW external bypass	508 (20.00)	963 (37.91)	437 (17.20)
1600 kW	800 kW inverter	846 (33.31)	777 (30.59)	532 (20.94)
	Control/input/output	1121 (44.135)	754 (29.69)	561 (22.09)
	2 MW external bypass	508 (20.00)	963 (37.91)	437 (17.20)





Schneider Electric

35 rue Joseph Monier  
92500 Rueil Malmaison  
France

+ 33 (0) 1 41 29 70 00

[www.schneider-electric.com](http://www.schneider-electric.com)

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