Installation Guide

Battery Cabinet

Model: 40Ah-12V, 65Ah-12V, 100Ah-12V

Table of Contents

40Ah-12V Battery Cabinet

1. Cabinet Overlook

- Dimension (D x W x H): 900 mm x 626 mm x 1220 mm
- Net weight for empty cabinet: 103kg
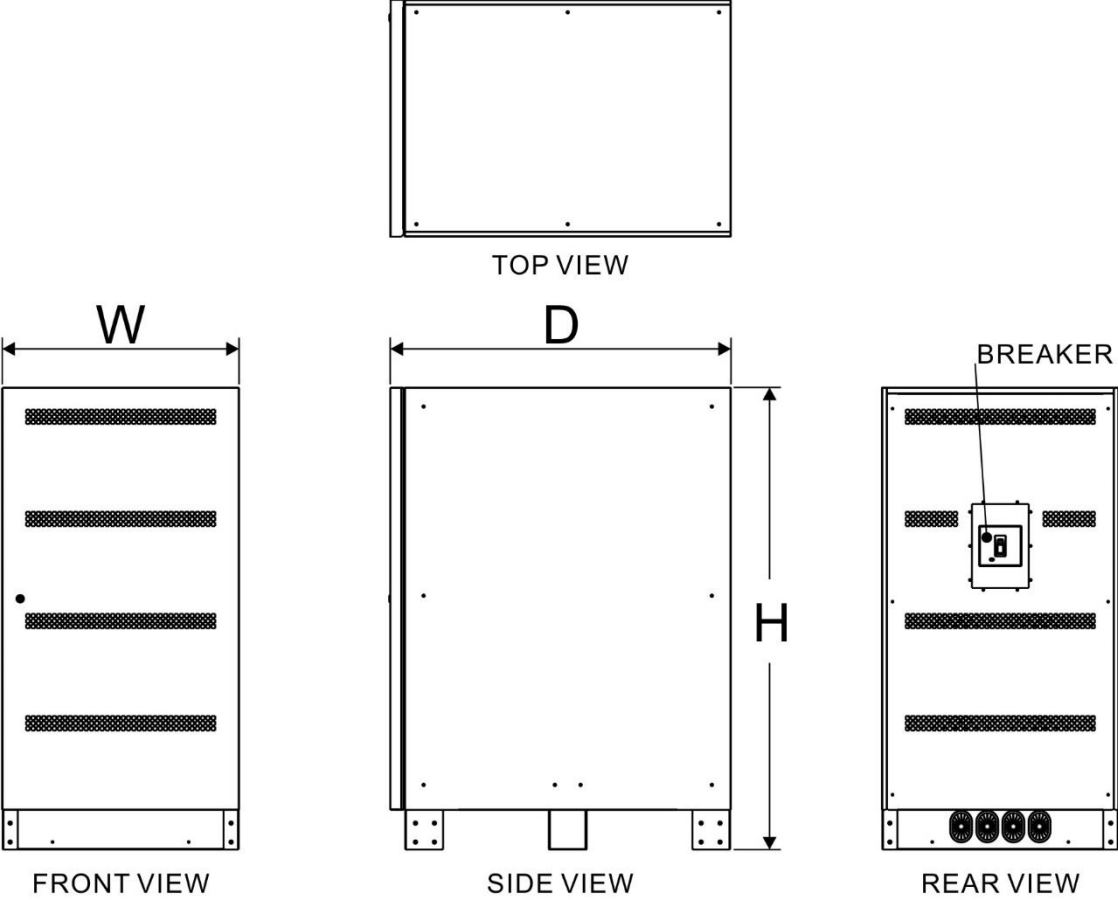
TOP VIEW

W

FRONT VIEW

D
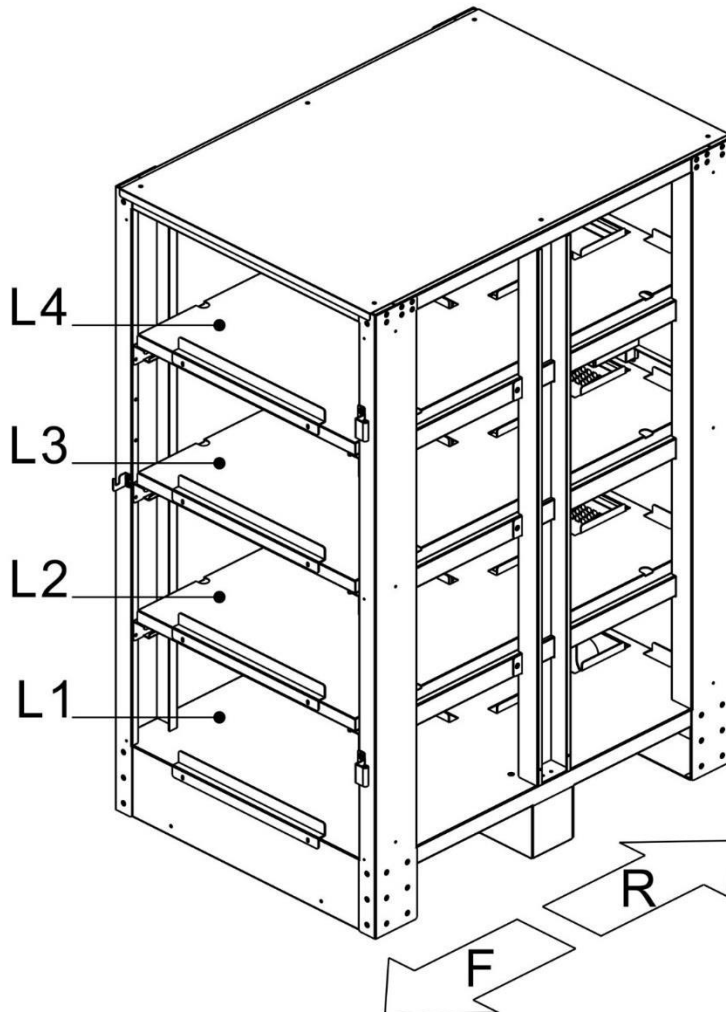
H

SIDE VIEW

BREAKER

REAR VIEW
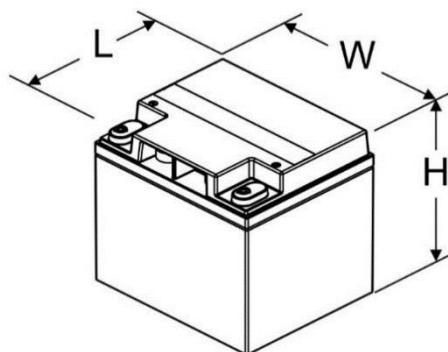
2. Preparation
2-1. Mechanical Overview

- Battery cabinet
  The "F" marks the front side of the battery cabinet.
  The "R" marks the rear side of the battery cabinet.

- Battery shelf
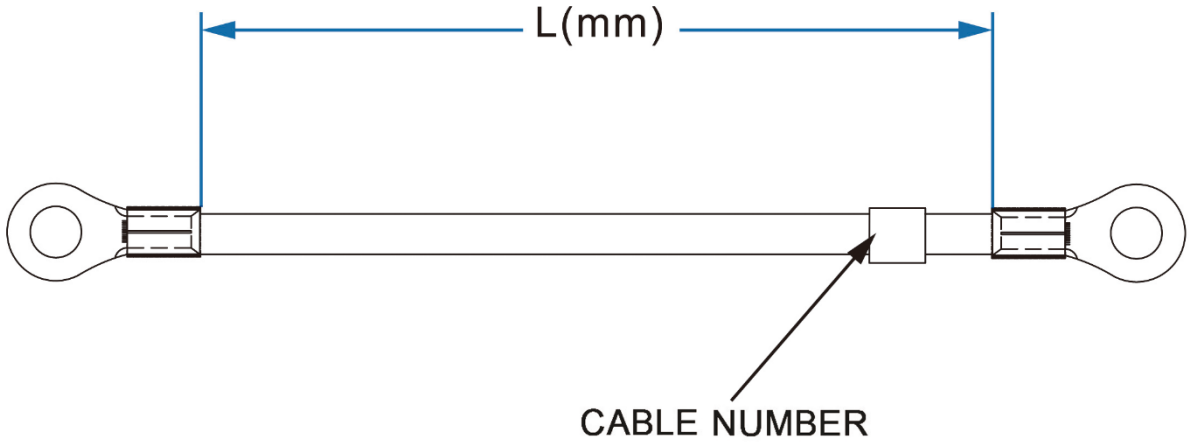 The cabinet includes four trays, from L1 (bottom) to L4 (top).

2-2. Battery Requirement

- Lead-Acid cell type and quantity : 12V 40Ah x 40 pieces
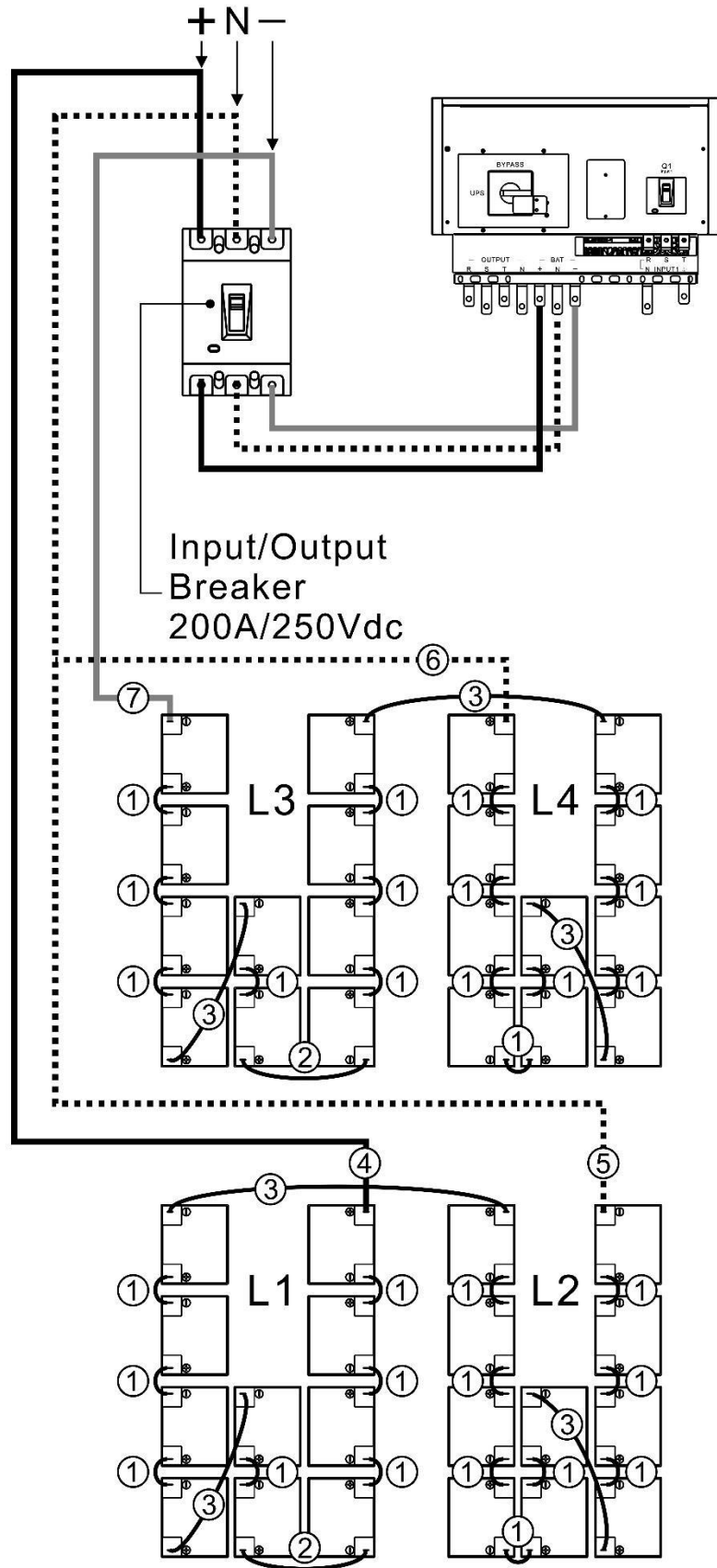- Maximum size for lead-acid battery (L x W x H) :165 x 197 x 170 mm.
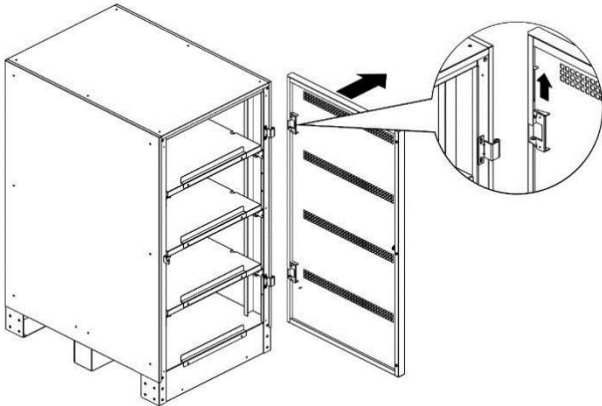
2-3. Cable Specification

L(mm)

CABLE NUMBER

ITEM	DESCRIPTION	CABLE LENGTH (mm)	QUANTITY (PCS)	CABLE NUMBER
①	#1 AWG cable	200	30	1
②	#1 AWG cable	350	2	2
③	#1 AWG cable	470	6	3
④	#1 AWG cable	900	1	BAT +
⑤	#1 AWG cable	600	1	N1
⑥	#1 AWG cable	320	1	N2
⑦	#1 AWG cable	300	1	BAT -

2-4. Battery Wiring
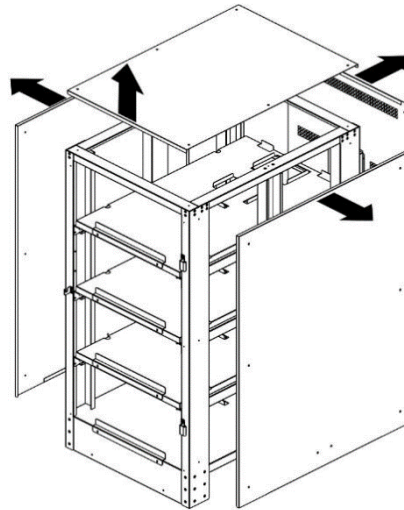

Input/Output
Breaker
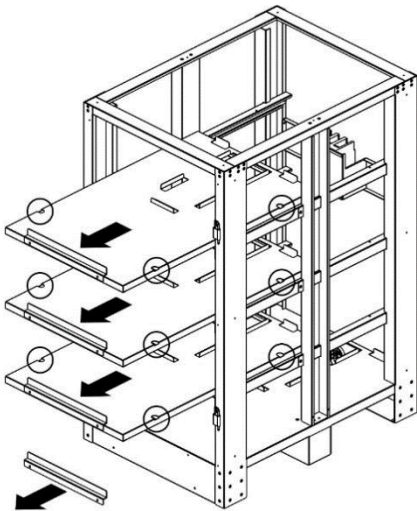200A/250Vdc

3. Installation

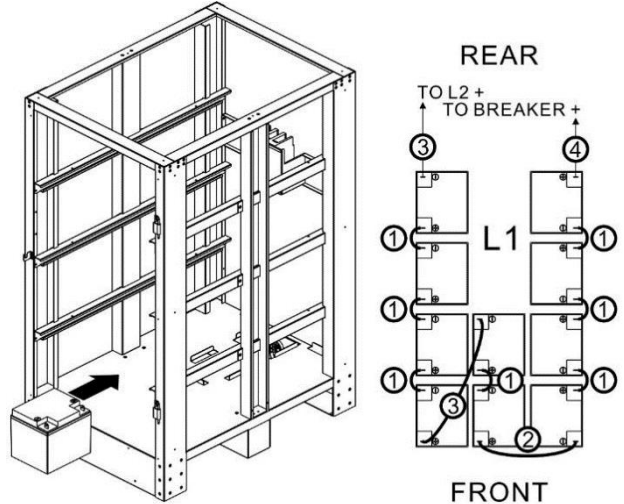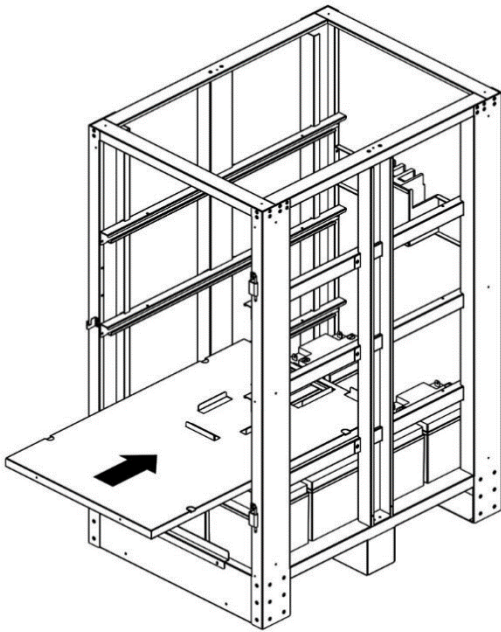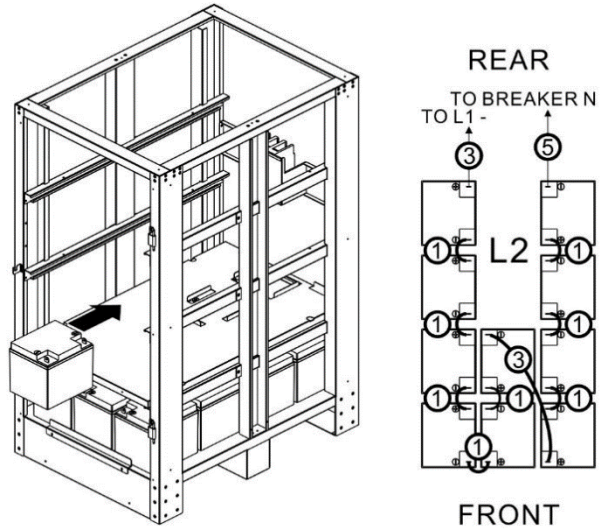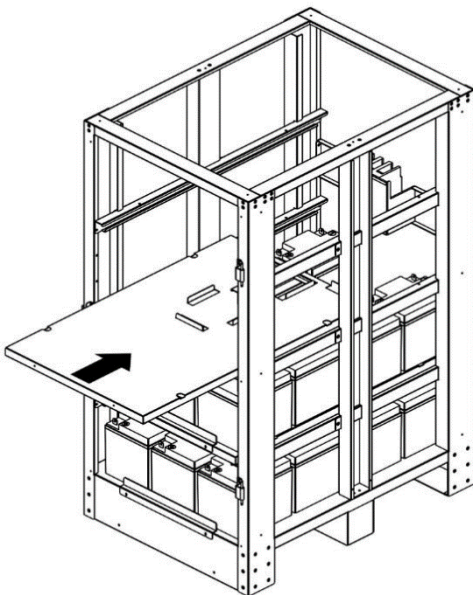| Step 1: Pull out the latch from the front door hinge to remove door.	Step 2: Remove M4 screws with a Phillips screwdriver. Then, take out the side, top and rear panels.
Step 3: Remove M6 screws from each tray. Then, remove all trays from cabinet as shown below.	Step 4: Install batteries. Please install battery inside of cabinet from the bottom (L1) to the top (L4). See below figure for internal wiring on the bottom layer (L1). Refer to the table and diagram in section 2-3 for the appropriate wire jumper needed.

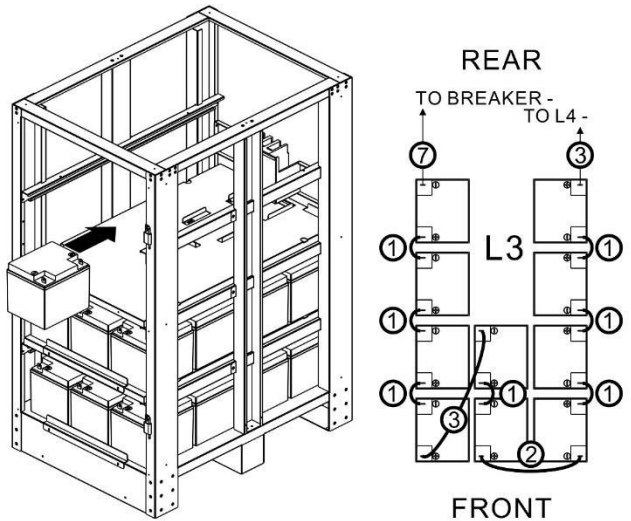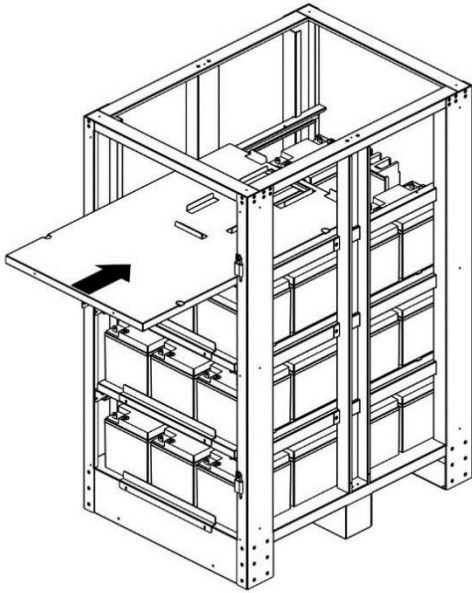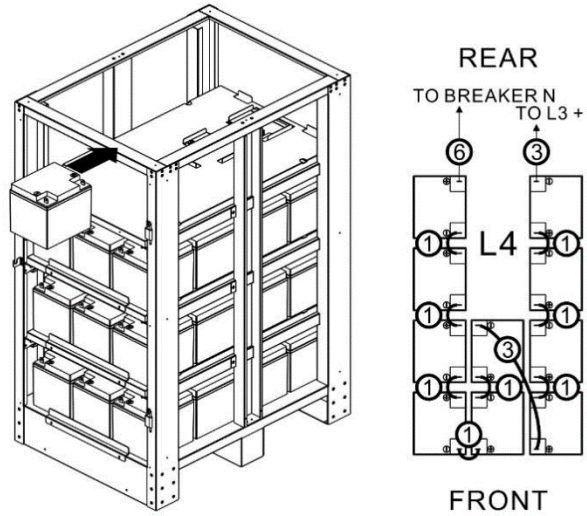|	
Step 5: Use the saved M6 screws to secure the battery tray L2.	Step 6: See the below figure for internal wiring on the second battery layer L2. Refer to the table and diagram in section 2-3 for the appropriate wire jumper needed.
Step 7: Use the saved M6 screws to secure the battery tray L3.	Step 8: See the below figure for internal wiring on the third battery layer L3. Refer to the table and diagram in section 2-3 for the appropriate wire jumper needed.

Step 9: Use the saved M6 screws to secure the battery tray L4.

Step 10: See the below figure for internal wiring on the top battery layer L4. Refer to the table and diagram in section 2-3 for the appropriate wire jumper needed.
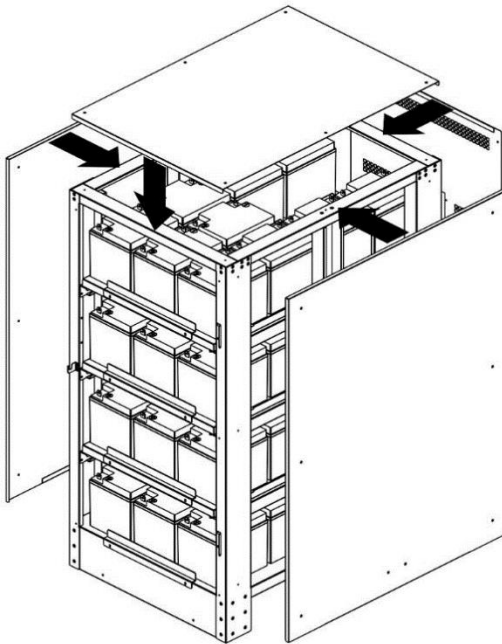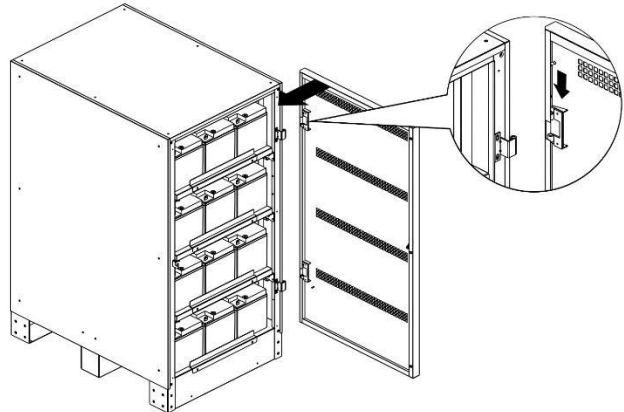
REAR

TO BREAKER N

TO L3 +

⑥   ③

① L4 ①

① ① ③ ① ①

① ① ①

①

FRONT

Step 11: Use the saved M4 screws to reinstall and secure the side, top and rear panels to the battery cabinet frame.
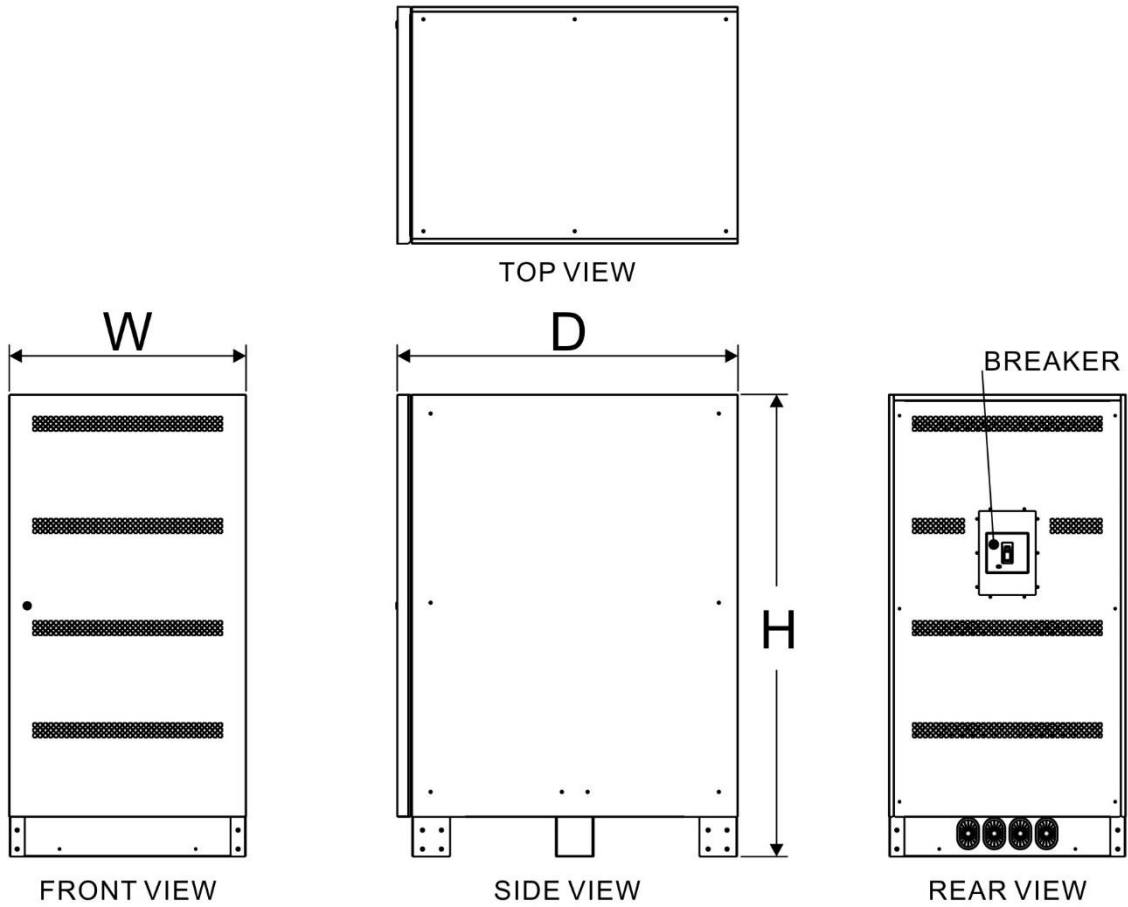
Step 12: Insert the latch to the door hinge and put the front door back to original position.

65Ah-12V Battery Cabinet

1. Cabinet Overlook

- Dimension (D x W x H): 1135 mm x 826 mm x 1500 mm
- Net weight for empty cabinet: 157.6kg

TOP VIEW

FRONT VIEW   SIDE VIEW   REAR VIEW
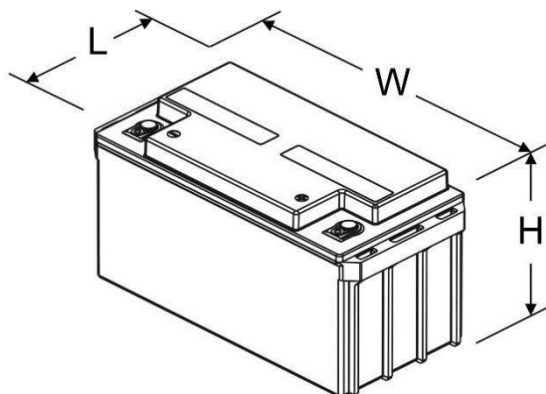
2. Preparation

2-1. Mechanical Overview

- Battery cabinet
  The "F" marks the front side of the battery cabinet.
  The "R" marks the rear side of the battery cabinet.

- Battery shelf
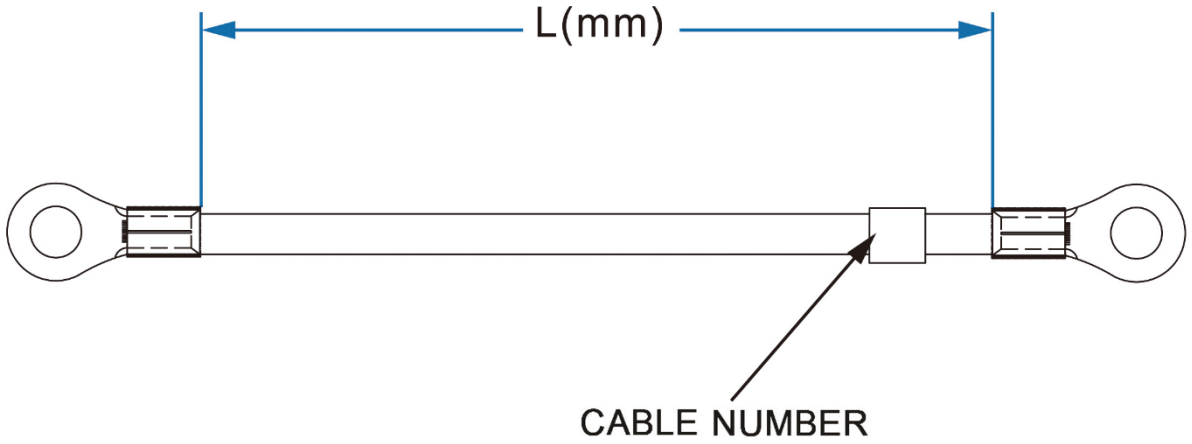 The cabinet includes four trays, from L1 (bottom) to L4 (top).
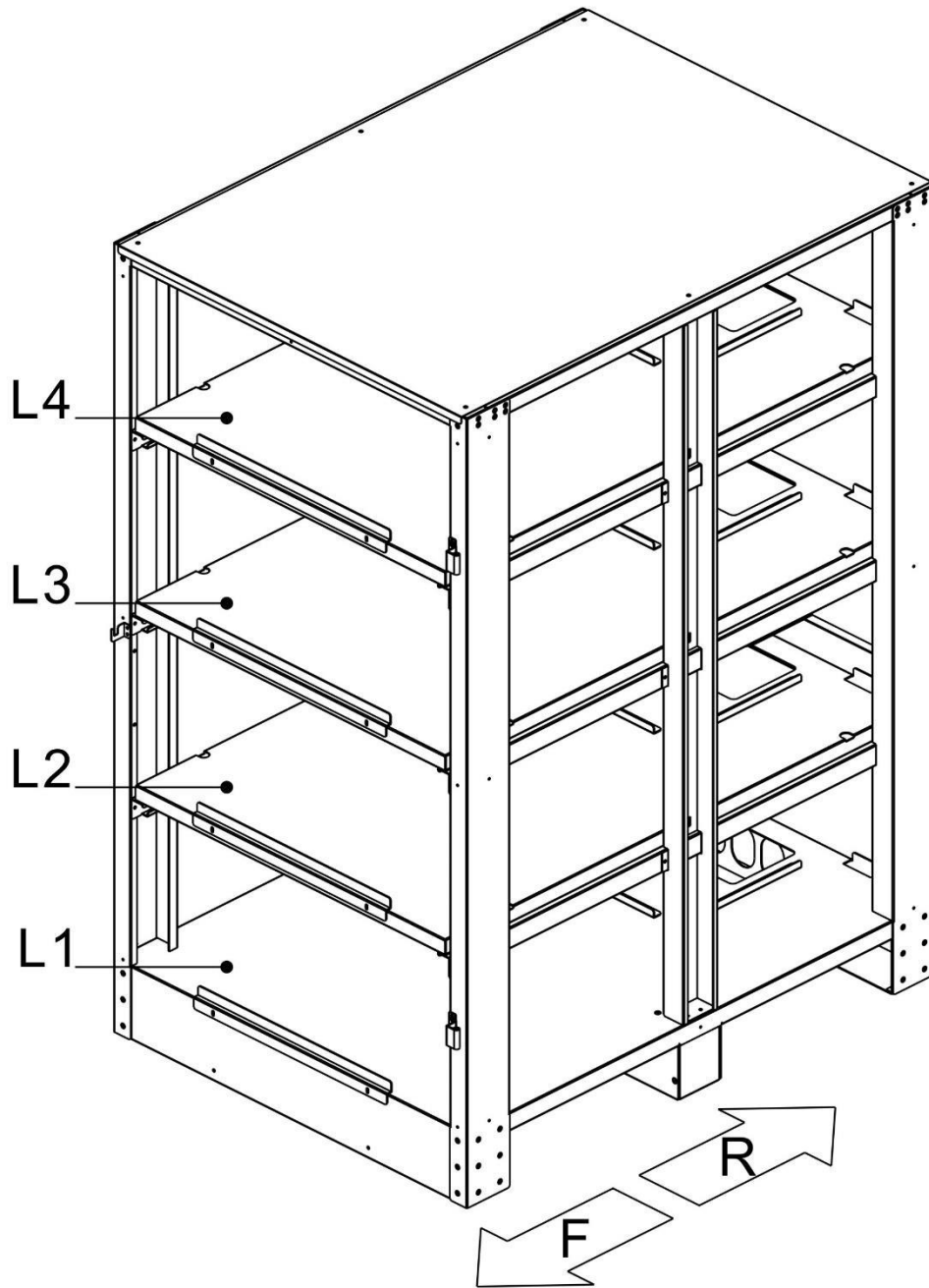
2-2. Battery Requirement

□ Lead-Acid cell type and quantity : 12V 65Ah x 40 pieces
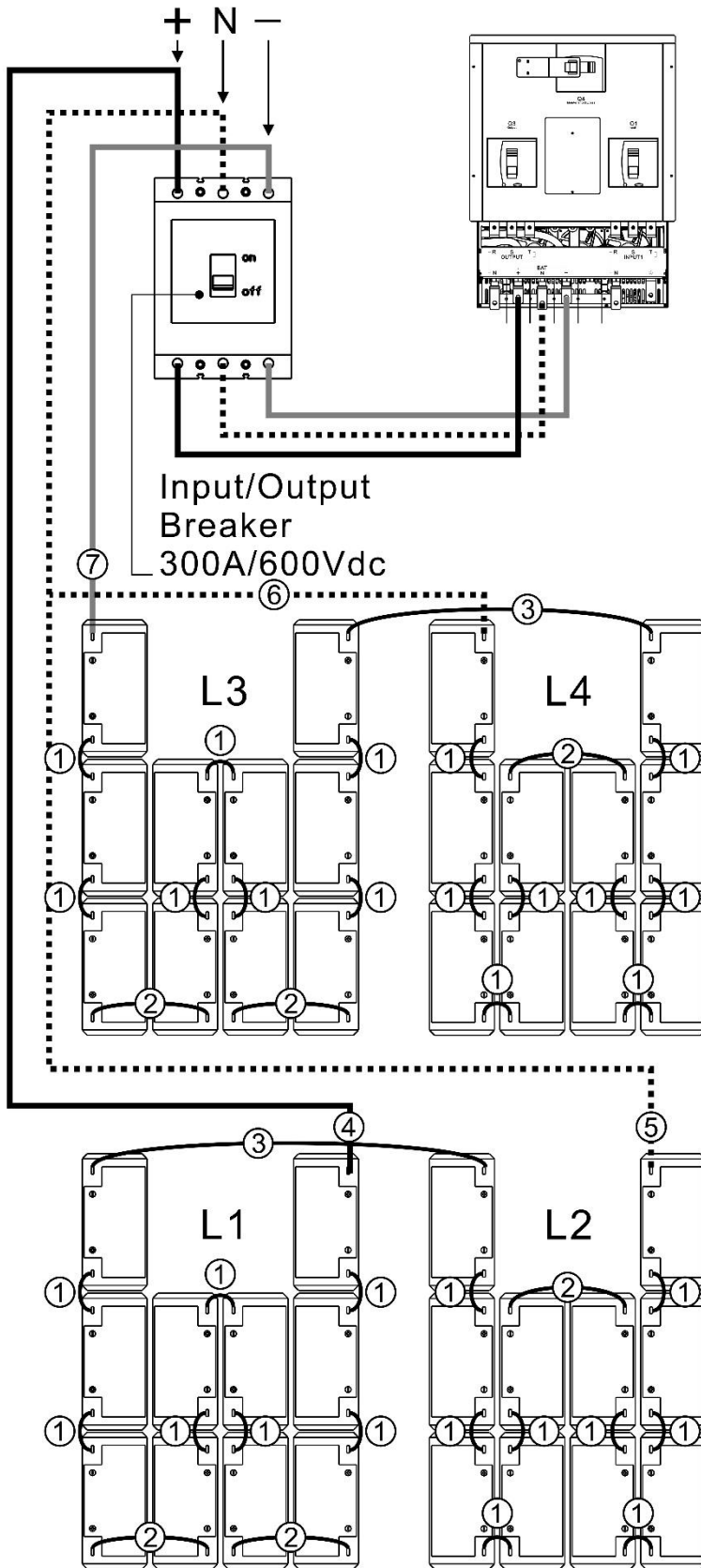□ Maximum size for lead-acid battery (L x W x H) :166 x 350 x 175 mm.
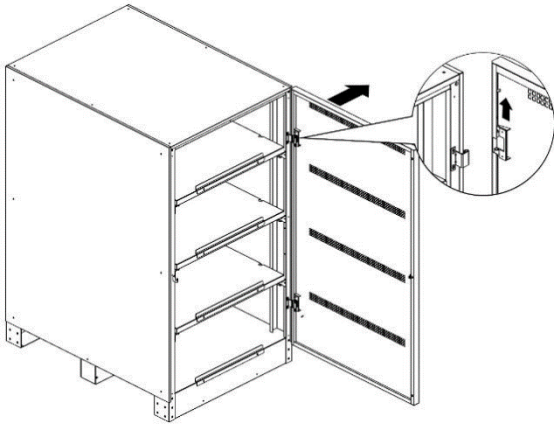
2-3. Cable Specification

L(mm)

CABLE NUMBER

ITEM	DESCRIPTION	CABLE LENGTH (mm)	QUANTITY (PCS)	CABLE NUMBER
①	#1 AWG cable	200	30	1
②	#1 AWG cable	300	2	2
③	#1 AWG cable	650	6	3
④	#1 AWG cable	800	1	BAT +
⑤	#1 AWG cable	450	1	N1
⑥	#1 AWG cable	800	1	N2
⑦	#1 AWG cable	500	1	BAT -

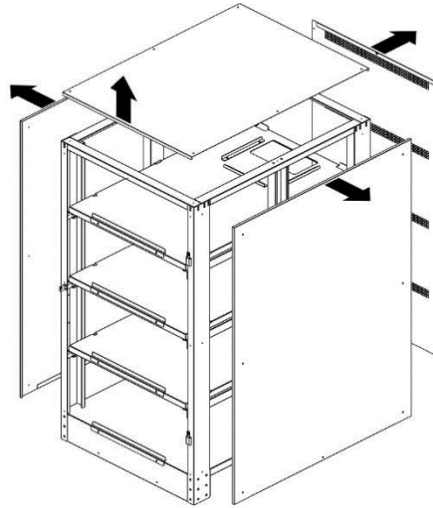## 2-4. Battery Wiring

Input/Output
Breaker
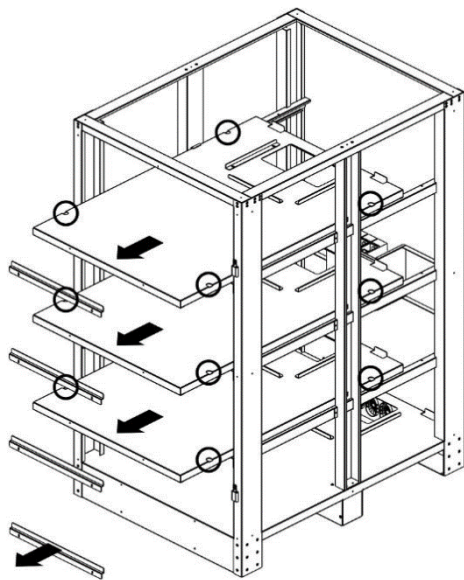300A/600Vdc

3. Installation

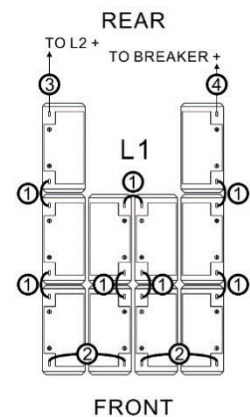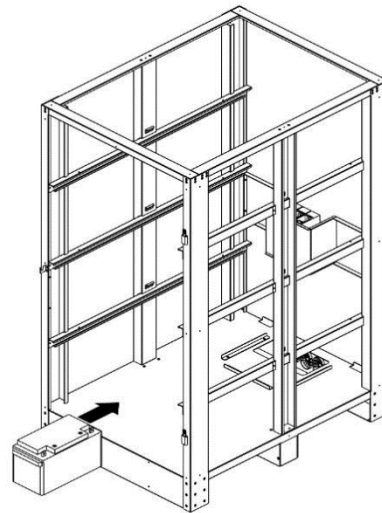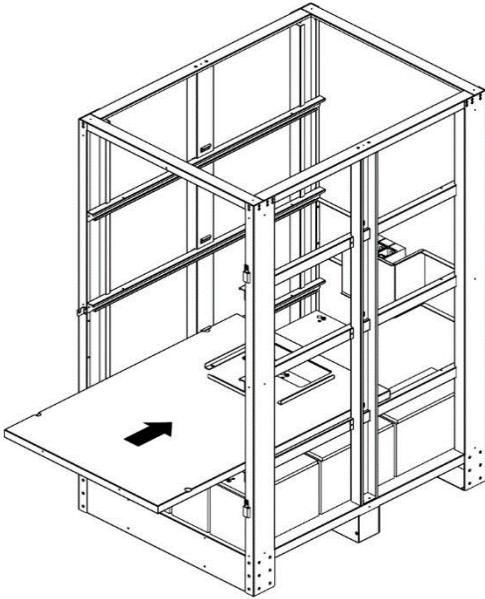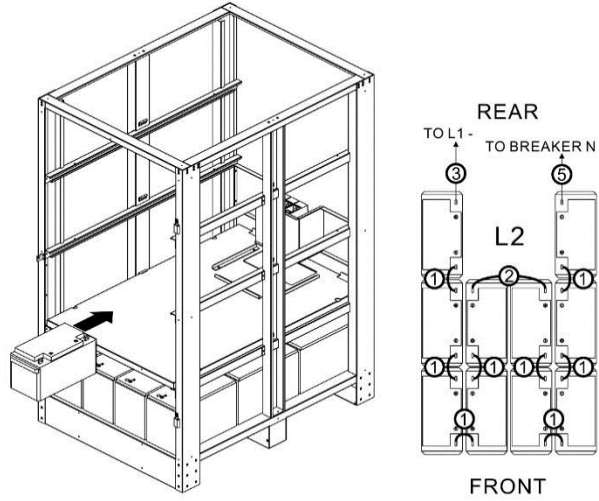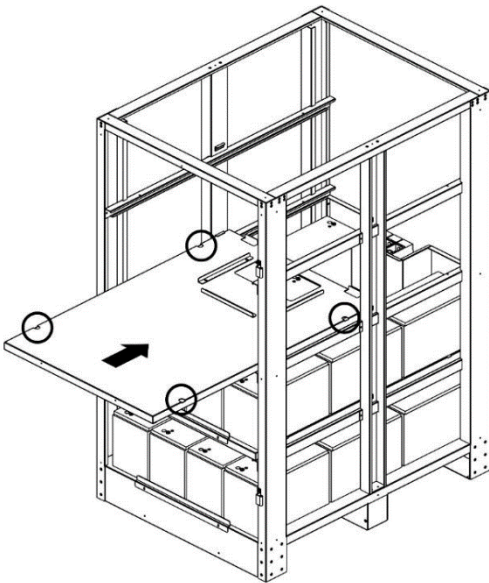| Step 1: Pull out the latch from the front door hinge to remove door.	Step 2: Remove M4 screws with a Phillips screwdriver. Then, take out the side, top and rear panels.
Step 3: Remove M6 screws from each tray. Then, remove all trays from cabinet as shown below.	Step 4: Install batteries. Please install battery inside of cabinet from the bottom (L1) to the top (L4). See below figure for internal wiring on the bottom layer (L1). Refer to the table and diagram in section 2-3 for the appropriate wire jumper needed.

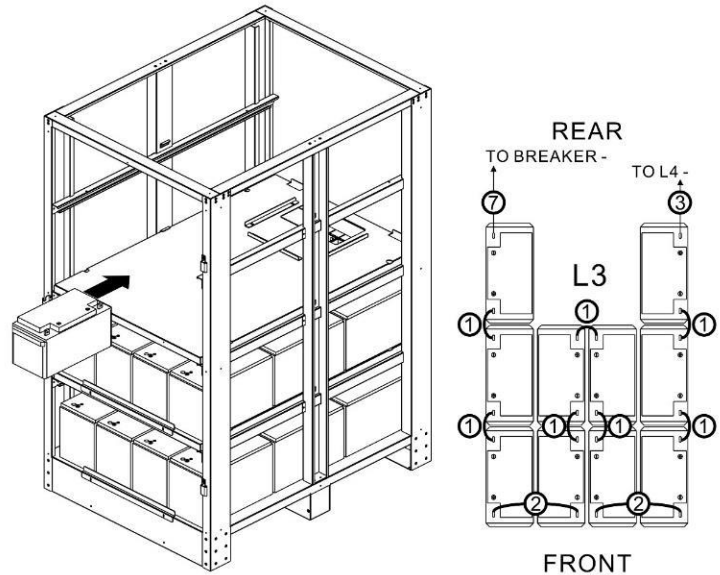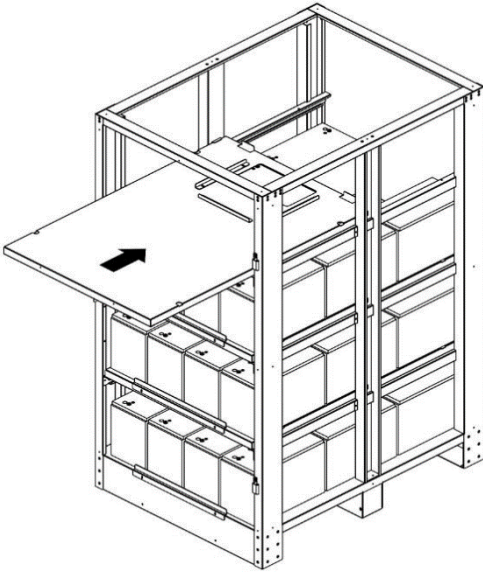| Step 5: Use the saved M6 screws to secure the battery tray L2.	Step 6: See the below figure for internal wiring on the second battery layer L2. Refer to the table and diagram in section 2-3 for the appropriate wire jumper needed.
Step 7: Use the saved M6 screws to secure the battery tray L3.	Step 8: See the below figure for internal wiring on the third battery layer L3. Refer to the table and diagram in section 2-3 for the appropriate wire jumper needed.

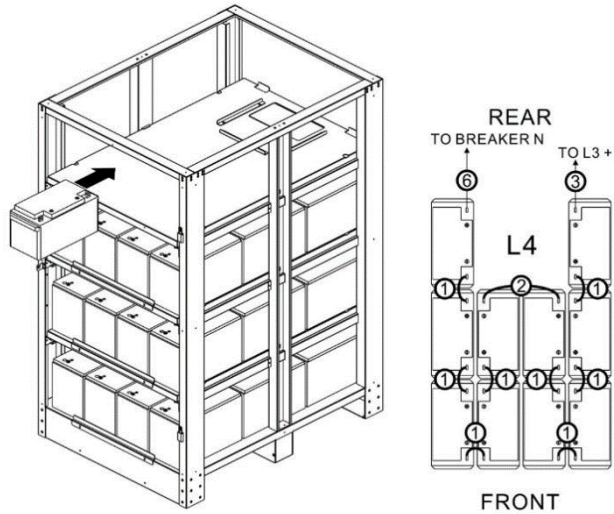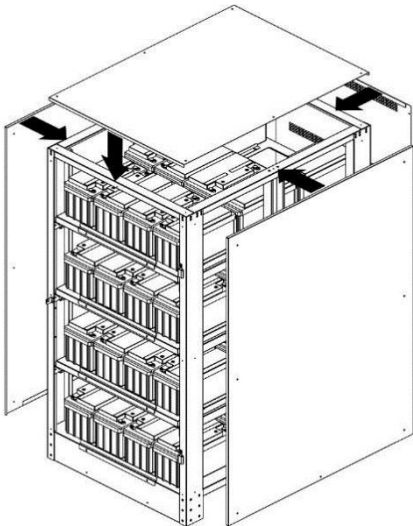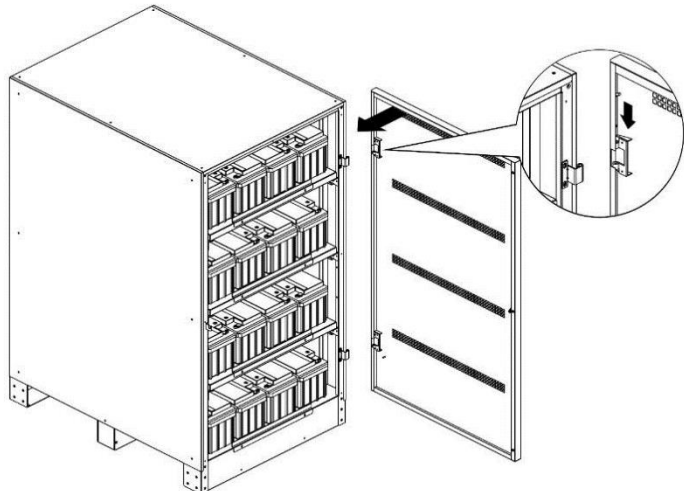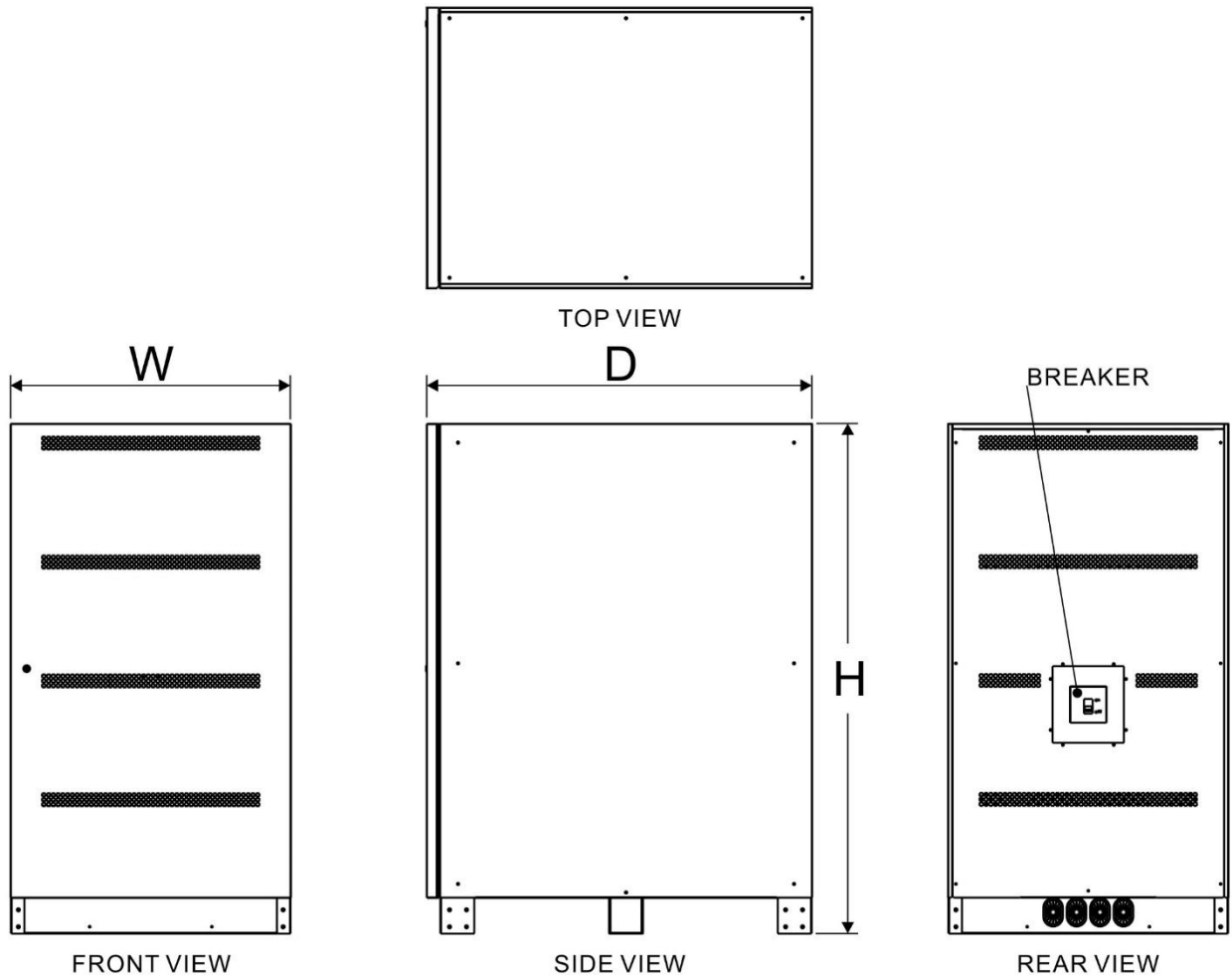| Step 9: Use the saved M6 screws to secure the battery tray L4.	Step 10: See the below figure for internal wiring on the top battery layer L4. Refer to the table and diagram in section 2-3 for the appropriate wire jumper needed.
	REAR TO BREAKER N TO L3 + ⑥ ③ L4 FRONT
Step 11: Use the saved M4 screws to reinstall and secure the side, top and rear panels to the battery cabinet frame.	Step 12: Insert the latch to the door hinge and put the front door back to original position.

100Ah-12V Battery Cabinet

1. Cabinet Overlook

- ☐ Dimension (D x W x H): 1135 mm x 826 mm x 1500 mm
- ☐ Net weight for empty cabinet: 157.6kg

TOP VIEW

W   D   BREAKER

H

FRONT VIEW   SIDE VIEW   REAR VIEW

2. Preparation

2-1. Mechanical Overview

- ☐ Battery cabinet
  The "F" marks the front side of the battery cabinet.
  The "R" marks the rear side of the battery cabinet.

- ☐ Battery shelf
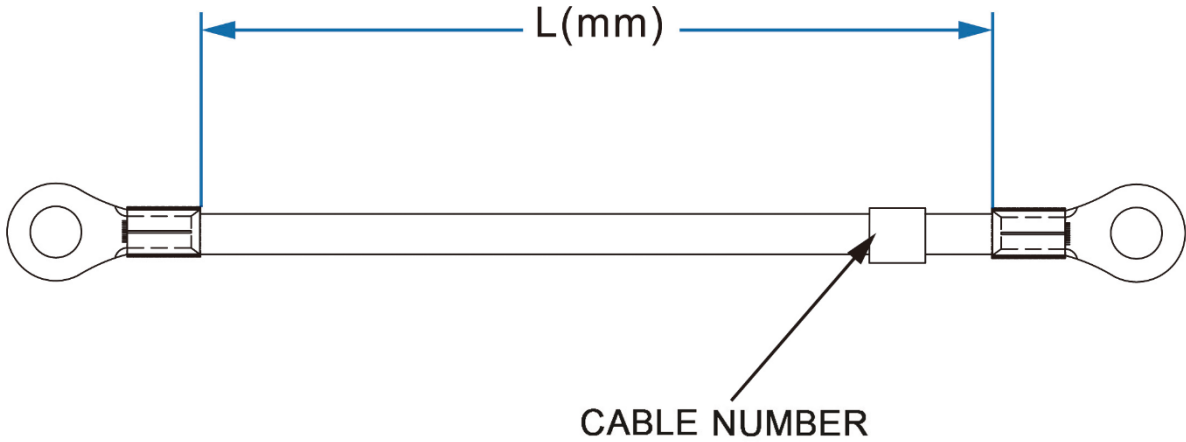 The cabinet includes four trays, from L1 (bottom) to L4 (top).

L4

L3

L2

L1

R

F
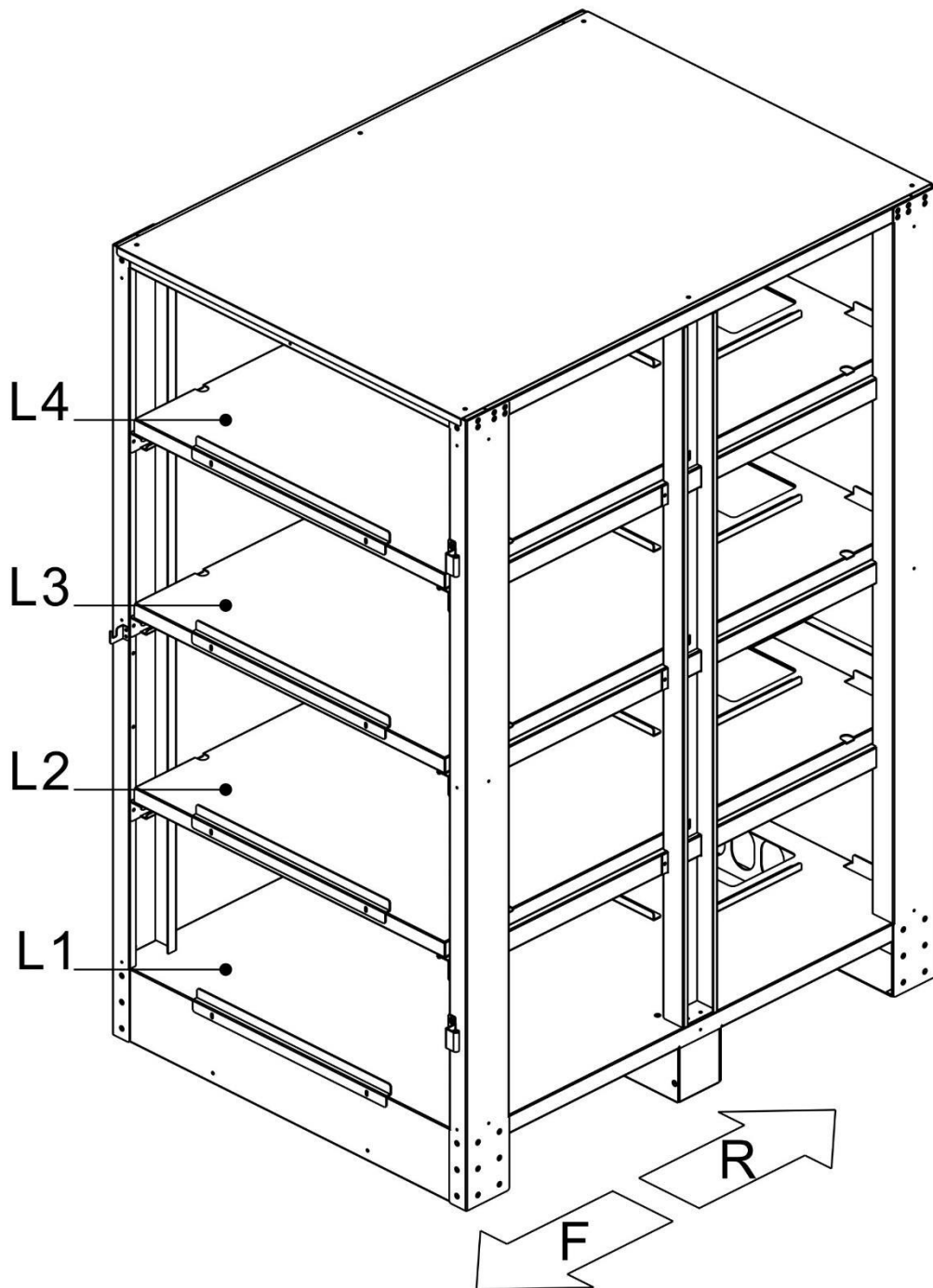
2-2. Battery Requirement

☐ Lead-Acid cell type and quantity : 12V 100Ah x 40 pieces
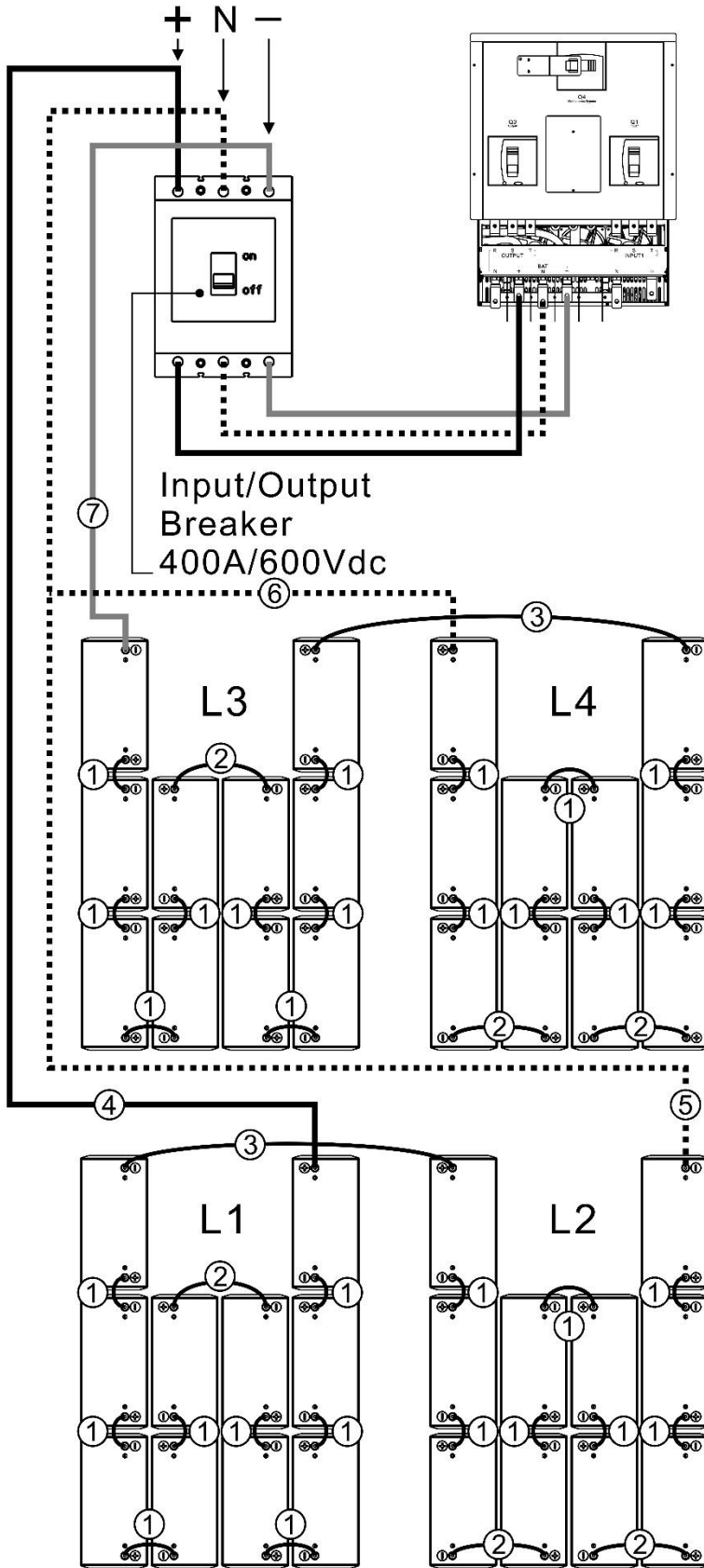☐ Maximum size for lead-acid battery (L x W x H) :170 x 343 x 217 mm.
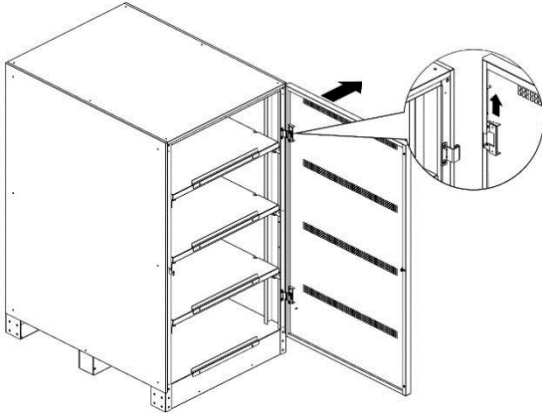

L

W

H
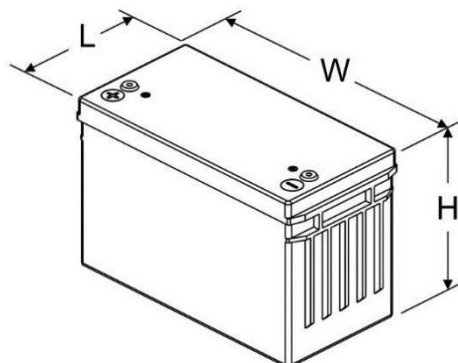
2-3. Cable Specification

CABLE NUMBER

ITEM	DESCRIPTION	CABLE LENGTH (mm)	QUANTITY (PCS)	CABLE NUMBER
①	#4/0 AWG cable (black)	200	30	1
②	#4/0 AWG cable (black)	300	2	2
③	#4/0 AWG cable (black)	650	6	3
④	#4/0 AWG cable (black)	800	1	BAT +
⑤	#4/0 AWG cable (black)	450	1	N1
⑥	#4/0 AWG cable (black)	800	1	N2
⑦	#4/0 AWG cable (black)	500	1	BAT -

2-4. Battery Wiring

Input/Output
Breaker
400A/600Vdc

3. Installation

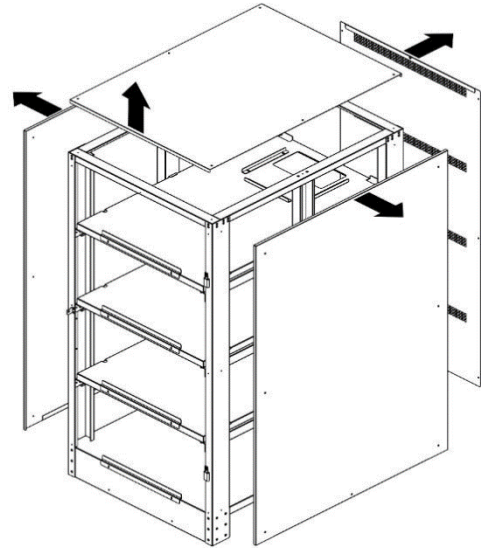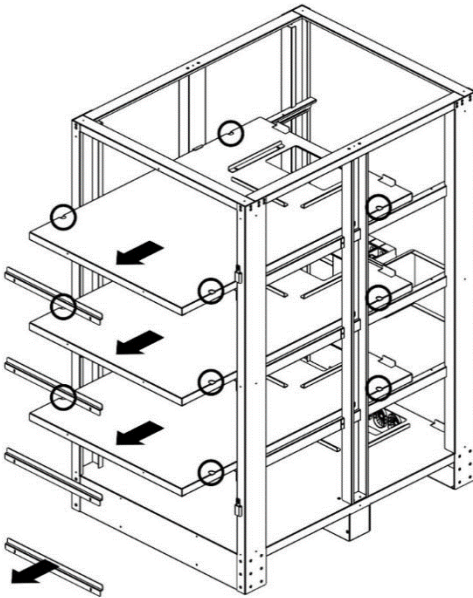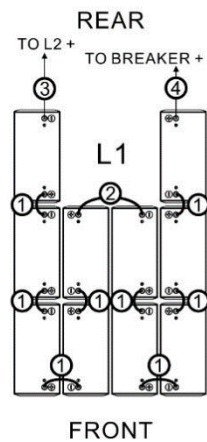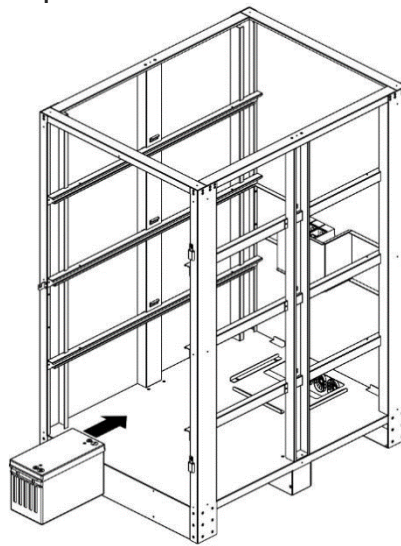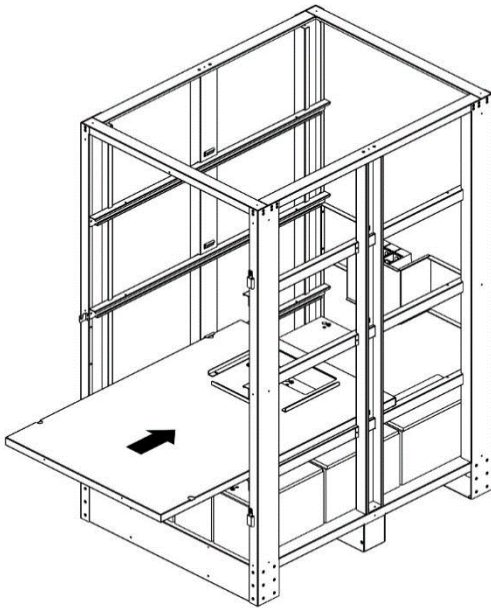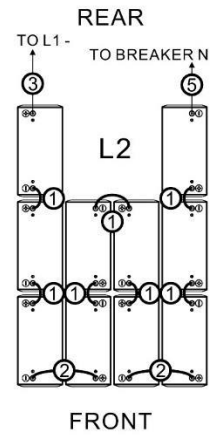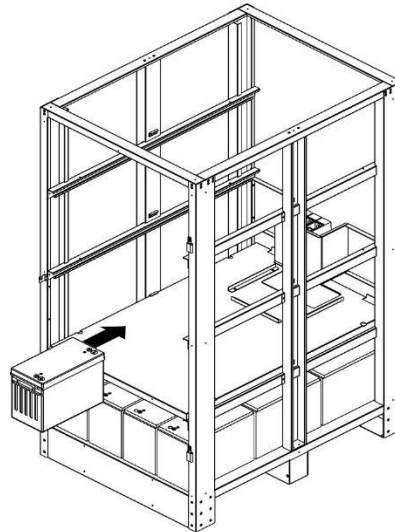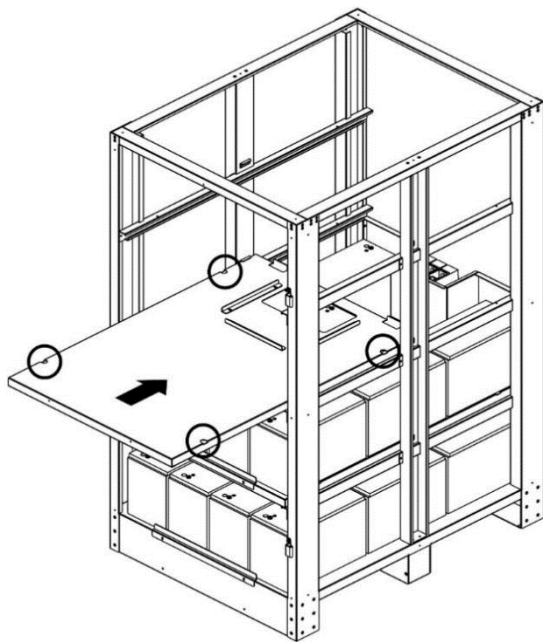|	
Step 1: Pull out the latch from the front door hinge to remove door.	Step 2: Remove M4 screws with a Phillips screwdriver. Then, take out the side, top and rear panels.
Step 3: Remove M6 screws from each tray. Then, remove all trays from cabinet as shown below.	Step 4: Install batteries. Please install battery inside of cabinet from the bottom (L1) to the top (L4). See below figure for internal wiring on the bottom layer (L1). Refer to the table and diagram in section 2-3 for the appropriate wire jumper needed.

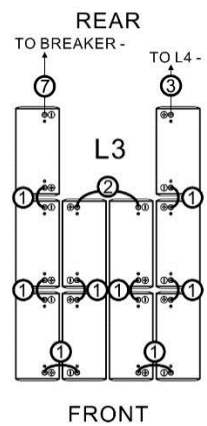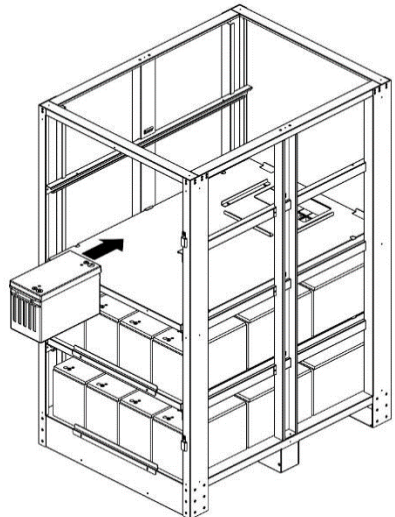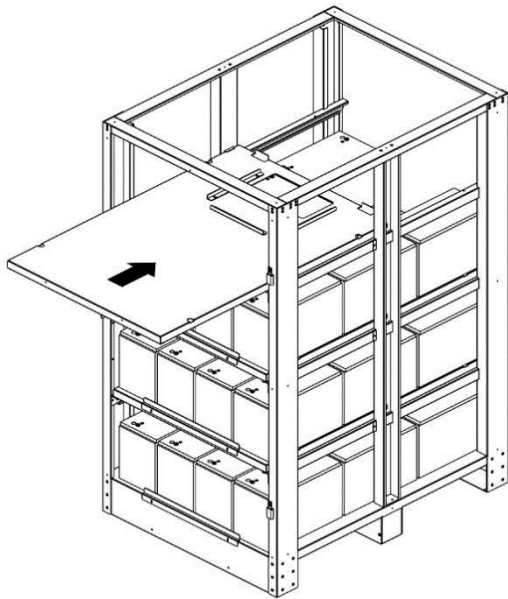| Step 5: Use the saved M6 screws to secure the battery tray L2.	Step 6: See the below figure for internal wiring on the second battery layer L2. Refer to the table and diagram in section 2-3 for the appropriate wire jumper needed.
	L2 diagram: REAR, TO L1 –, TO BREAKER N, FRONT
Step 7: Use the saved M6 screws to secure the battery tray L3.	Step 8: See the below figure for internal wiring on the third battery layer L3. Refer to the table and diagram in section 2-3 for the appropriate wire jumper needed.
	L3 diagram: REAR, TO BREAKER –, TO L4 –, FRONT

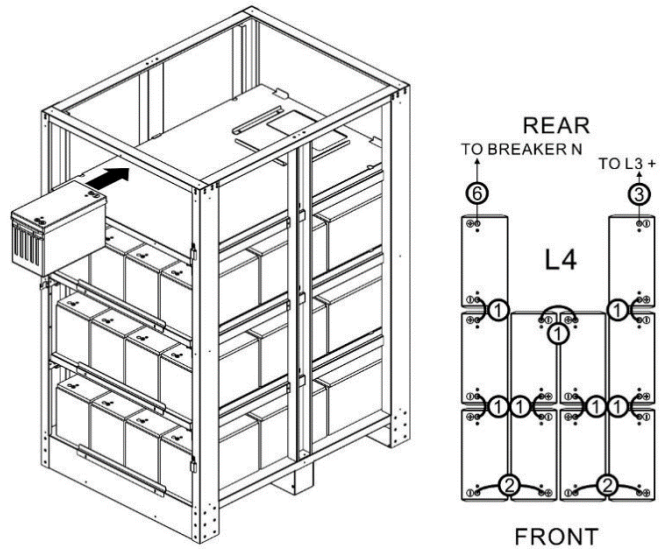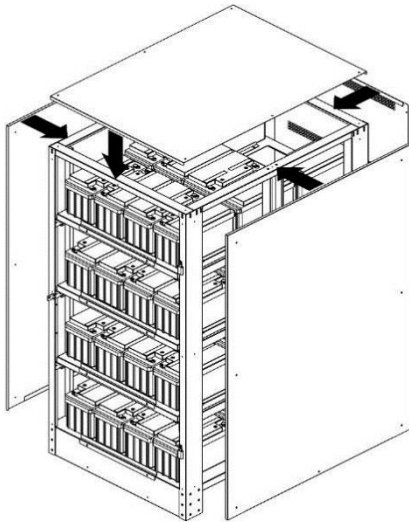|	
Step 9: Use the saved M6 screws to secure the battery tray L4. 	Step 10: See the below figure for internal wiring on the top battery layer L4. Refer to the table and diagram in section 2-3 for the appropriate wire jumper needed.
Step 11: Use the saved M4 screws to reinstall and secure the side, top and rear panels to the battery cabinet frame. 	Step 12: Insert the latch to the door hinge and put the front door back to original position.