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Thank you for purchasing LS Variable Frequency Drives!

SAFETY INSTRUCTIONS

To prevent injury and property damage, follow these instructions. Incorrect operation due to ignoring instructions will cause harm or damage. The seriousness of which is indicated by the following symbols.



DANGER

This symbol indicates the instant death or serious injury if you don't follow instructions



WARNING

This symbol indicates the possibility of death or serious injury



CAUTION

This symbol indicates the possibility of injury or damage to property

- The meaning of each symbol in this manual and on your equipment is as follows.



This is the safety alert symbol.

Read and follow instructions carefully to avoid dangerous situation.



This symbol alerts the user to the presence of "dangerous voltage" inside the product that might cause harm or electric shock.

- After reading this manual, keep it in the place that the user always can contact easily.
- This manual should be given to the person who actually uses the products and is responsible for their maintenance.



WARNING

- **Do not remove the cover while power is applied or the unit is in operation.**
Otherwise, electric shock could occur.
- **Do not run the inverter with the front cover removed.**
Otherwise, you may get an electric shock due to high voltage terminals or charged capacitor exposure.
- **Do not remove the cover except for periodic inspections or wiring, even if the input power is not applied.**
Otherwise, you may access the charged circuits and get an electric shock.
- **Wiring and periodic inspections should be performed at least 10 minutes after disconnecting the input power and after checking the DC link voltage is discharged with a meter (below DC 30V).**
Otherwise, you may get an electric shock.
- **Operate the switches with dry hands.**
Otherwise, you may get an electric shock.
- **Do not use the cable when its insulating tube is damaged.**
Otherwise, you may get an electric shock.
- **Do not subject the cables to scratches, excessive stress, heavy loads or pinching.**
Otherwise, you may get an electric shock.



CAUTION

- **Install the inverter on a non-flammable surface. Do not place flammable material nearby.**
Otherwise, fire could occur.
- **Disconnect the input power if the inverter gets damaged.**
Otherwise, it could result in a secondary accident and fire.
- **Do not touch the inverter while the input power is applied or after removed. It will remain hot for a couple of minutes.**
Otherwise, you may get bodily injuries such as skin-burn or damage.
- **Do not apply power to a damaged inverter or to an inverter with parts missing even if the installation is complete.**
Otherwise, electric shock could occur.
- **Do not allow lint, paper, wood chips, dust, metallic chips or other foreign matter into the drive.**
Otherwise, fire or accident could occur.

OPERATING PRECAUTIONS

- **Make sure the assembly to the specified torque, do not over tighten the screw to the specified torque.**
Otherwise, it could result in product damage.

1. Product Overview

This installation guide is applied to the LSLV – S100 / H100 drive series Flange Option..

This option is designed to provide the attachment of heat sink on the outside of panel designed for radiating the heat easier.

2. Before using the product

Perform the following tasks after receiving the flange option.

- ◆ Inspect the flange option for damage.
If the flange option appears damaged upon receipt, contact the shipper immediately.

- ◆ Check the label of model whether it is as same as the model number printed on the package of the flange option.

3. Installation Procedure

- ◆ Flange Option Assembly and Installation Procedure

DANGER! Electrical Shock Hazard : Do not connect or disconnect wiring while the power is on. Failure to comply will result in death or serious injury.

Wiring and periodic inspections should be performed at least 10 minutes after disconnecting the input power

And after checking the DC link voltage is discharged with a meter (below DC 30V)

3.1 H100 0.8~30kW

① Insert the Flange Option to fit on the product side Base fastening both sides positions as shown in the

Figure 1.

② Using the included Bolt and tighten with the specific torque to prevent loose.

- M4 torque : 15.9~20.1 (kfg·cm)

- M5 torque : 20.8~39.2 (kfg·cm)

③ Fasten the Flange Option with the reminder using included Bolt.

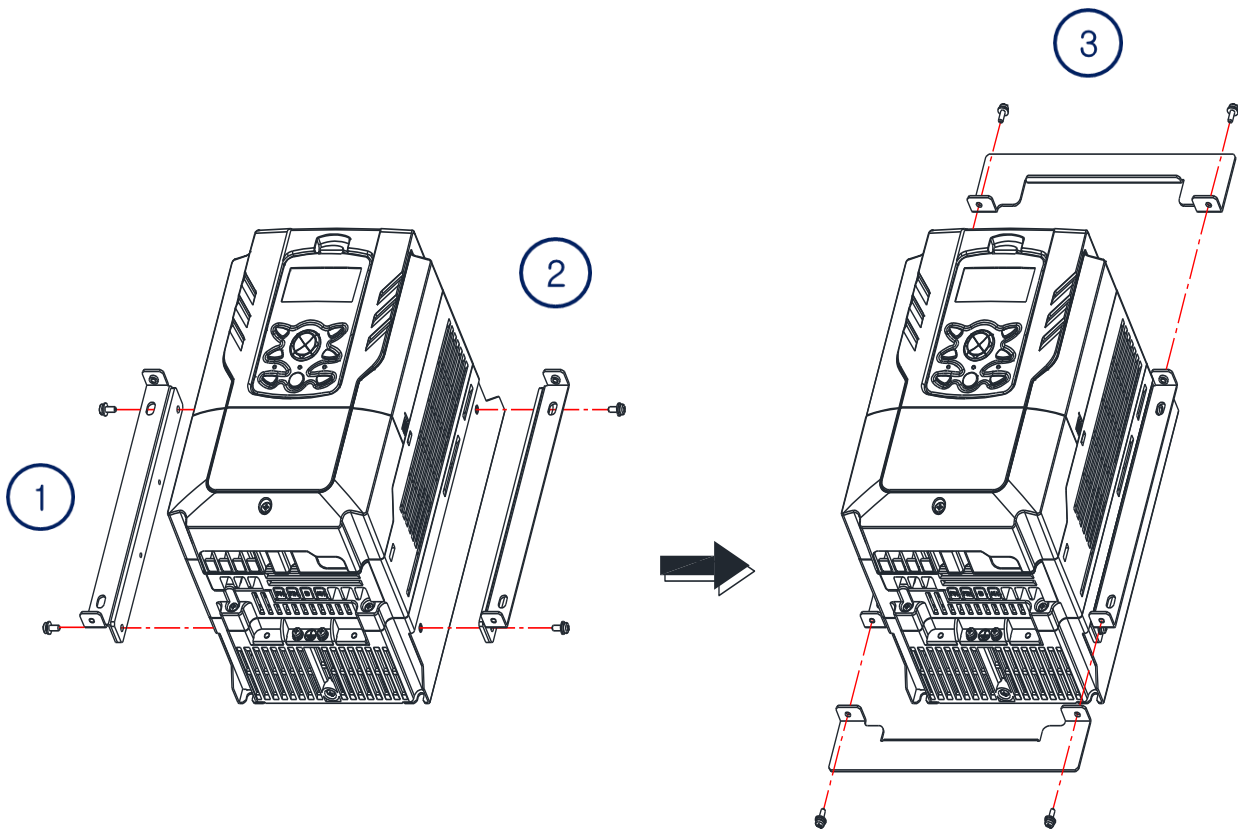


Figure 1. Install and Side Viewing

3.2 H100 37~90kW

① Insert the Flange Option to fit on the product side Base fastening both sides positions as shown in the Figure 2.

② Using the included Bolt and tighten with the specific torque to prevent loose.

- M6 torque : 51.1~64.9 (kfg-cm)

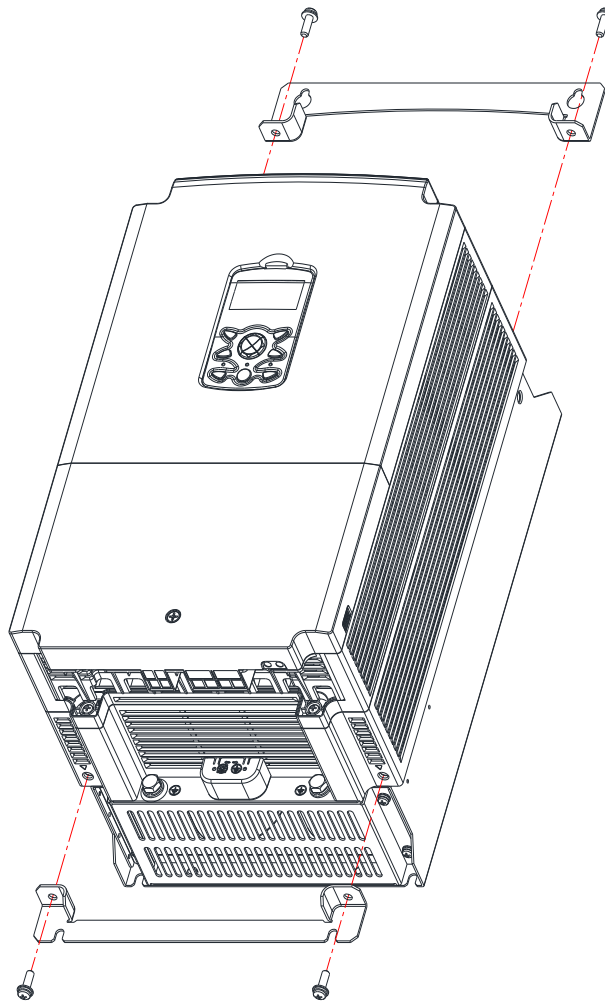


Figure 2. Install and Side Viewing

3.3 H100 110~185kW

① Insert the Flange Option to fit on the product side Base fastening both sides positions as shown in the

Figure 3.

② Using the included Bolt and tighten with the specific torque to prevent loose.

- M6 torque : 51.1~64.9 (kfg-cm)

- M10 torque : 89.7~122.0 (kfg-cm)

- M12 torque : 182.4~215 (kfg-cm)

③ Fasten the Flange Option with the reminder using included Bolt.

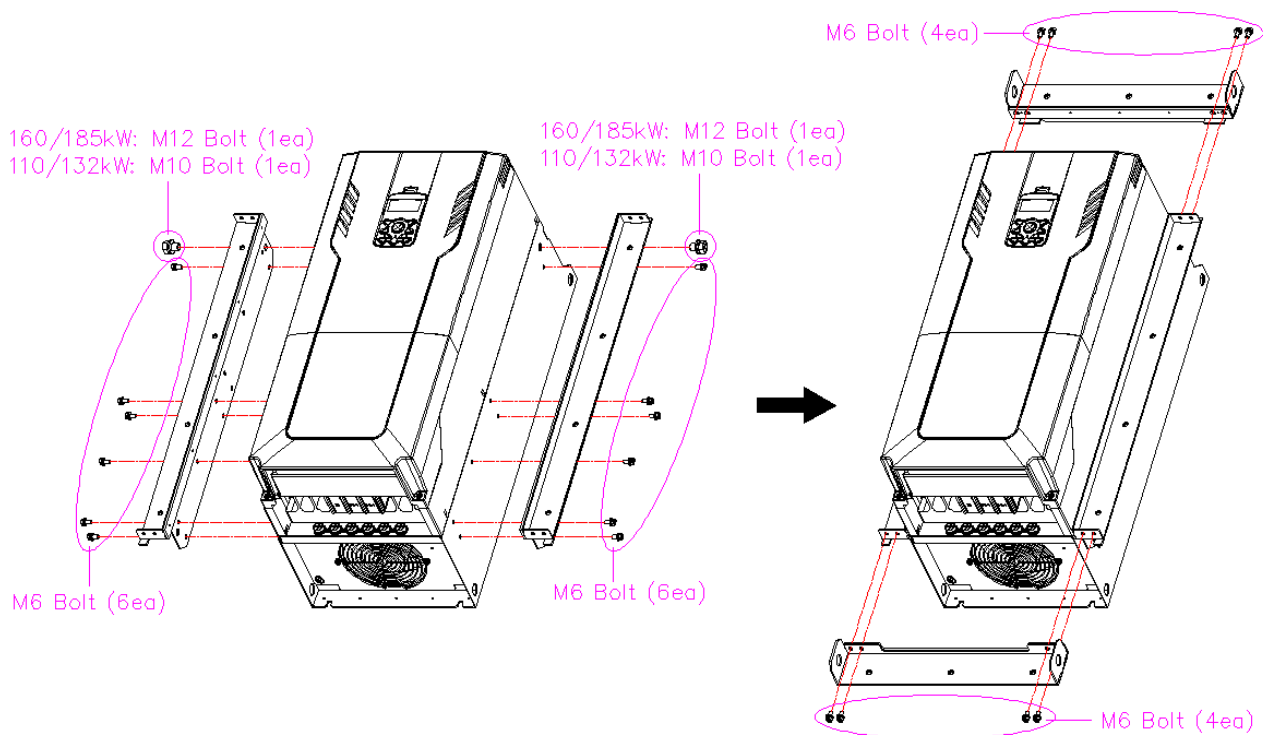


Figure 3. Install and Side Viewing

3.4 H100 220/250kW

① Insert the Flange Option to fit on the product side Base fastening both sides positions as shown in the Figure 4.

② Using the included Bolt and tighten with the specific torque to prevent loose.

- M6 torque : 51.1~64.9 (kfg·cm)

- M12 torque : 182.4~215 (kfg·cm)

③ Fasten the Flange Option with the reminder using included Bolt.

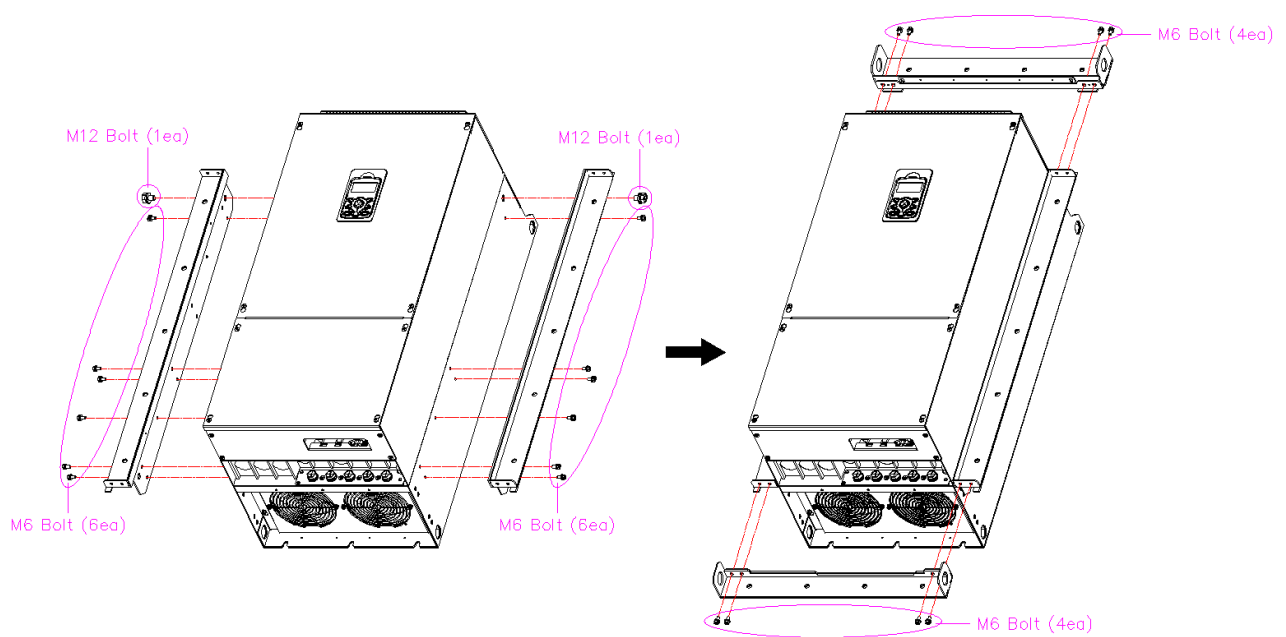


Figure 4. Install and Side Viewing

3.5 H100 315~500kW

① Insert the Flange Option to fit on the product side Base fastening both sides positions as shown in the

Figure 5.

② Using the included Bolt and tighten with the specific torque to prevent loose.

- M6 torque : 51.1~64.9 (kfg·cm)

- M8 torque : 61.2~91.8 (kfg·cm)

③ Fasten the Flange Option with the reminder using included Bolt.

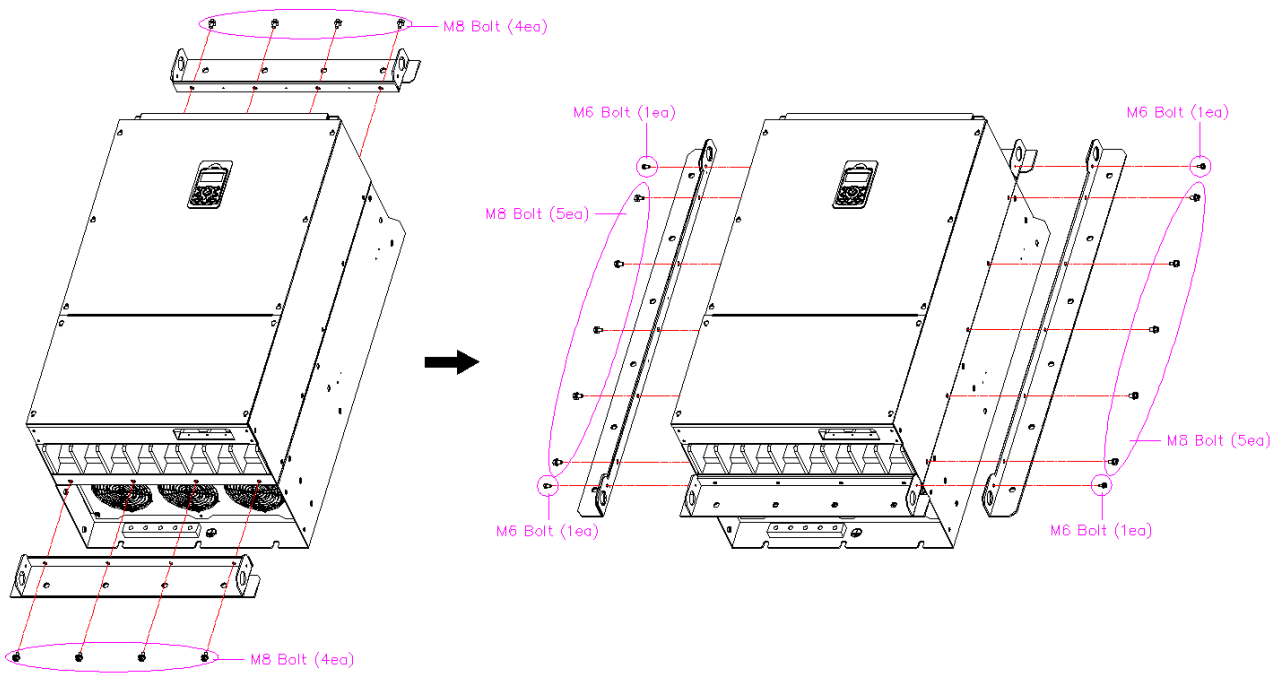
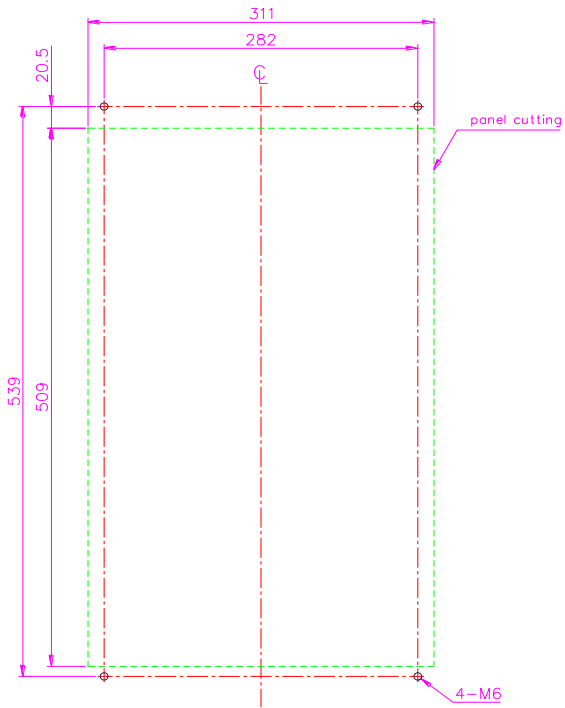


Figure 5. Install and Side Viewing

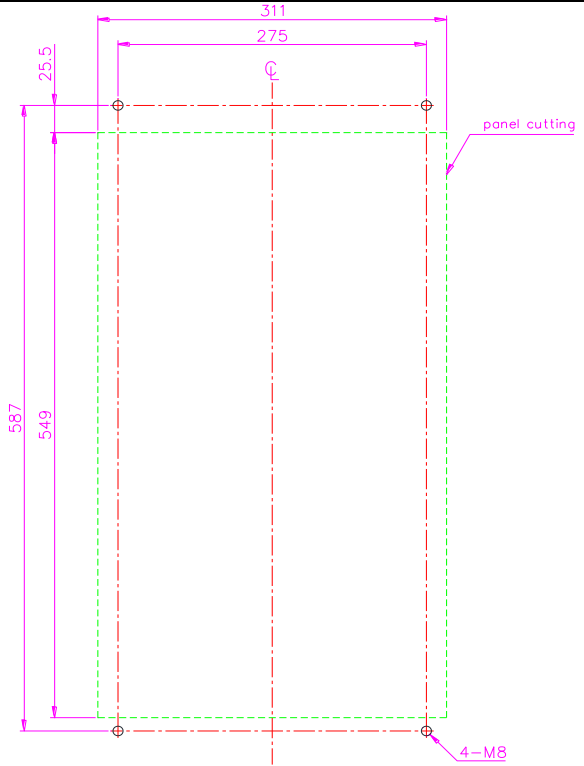
4. H100 Flange Option Cutting Area Size

| 0.8~11kW – 2/4 | 15kW – 2/4 , 18.5kW – 4 |
|--------------------------|-------------------------|
| | |
| 18.5kW – 2 , 22/30kW – 4 | 37kW – 4 |
| | |

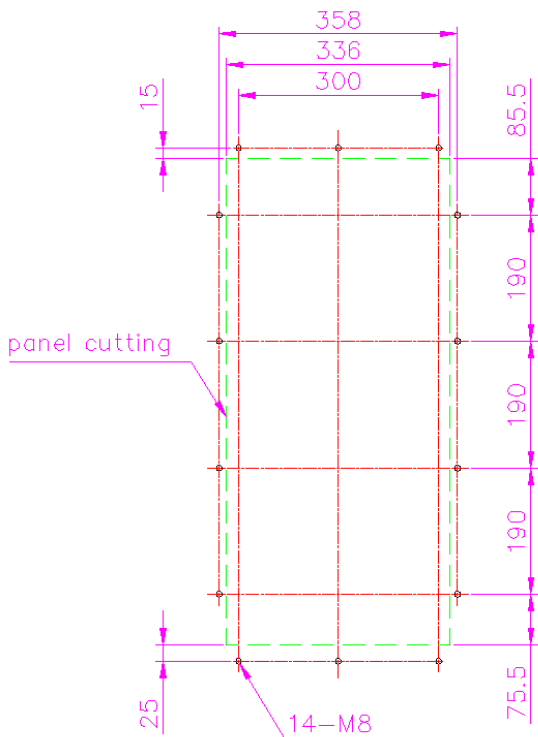
45/55kW – 4



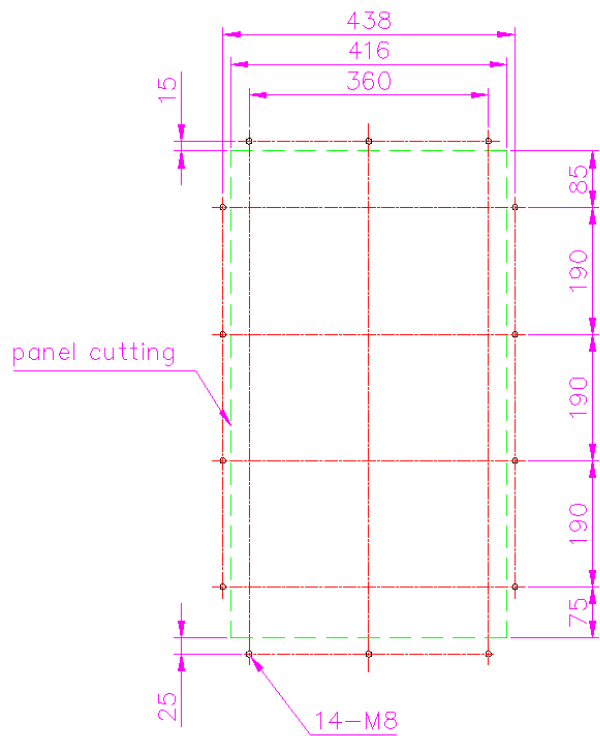
75/90kW – 4



110/132kW-4

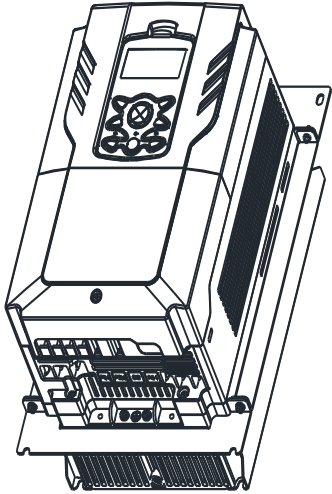


160/185kW-4

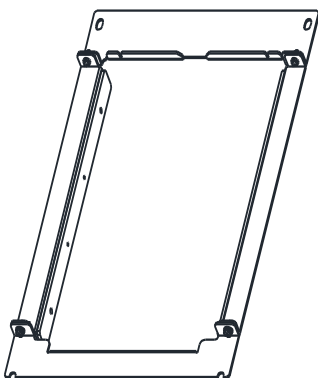
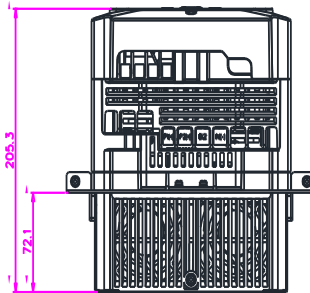
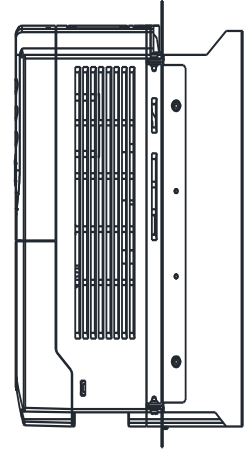
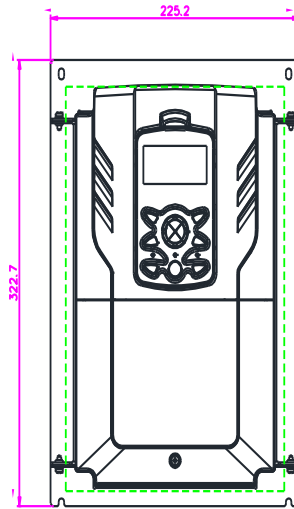


| 220/250kW-4 | 315/355/400kW-4 |
|---|---|
| <p>Technical drawing of the 220/250kW-4 flange. The drawing shows a grid of 18-M10 bolts arranged in 4 rows and 5 columns. Dimensions are provided in millimeters: overall width 496, inner width 466, distance between bolt columns 420, and distance between bolt rows 140. Vertical dimensions from top to bottom are 15, 110, 190, 180, 180, 190, and 92. A dashed green line indicates the 'panel cutting' location. The bolt specification is 18-M10.</p> | <p>Technical drawing of the 315/355/400kW-4 flange. The drawing shows a grid of 20-M12 bolts arranged in 4 rows and 5 columns. Dimensions are provided in millimeters: overall width 688, inner width 618, distance between bolt columns 480, and distance between bolt rows 160. Vertical dimensions from top to bottom are 25, 22.5, 200, 200, 200, 200, 200, and 22.5. A dashed green line indicates the 'panel cutting' location. The bolt specification is 20-M12.</p> |
| 500kW-4 | |
| <p>Technical drawing of the 500kW-4 flange. The drawing shows a grid of 20-M12 bolts arranged in 4 rows and 5 columns. Dimensions are provided in millimeters: overall width 864, inner width 794, distance between bolt columns 600, and distance between bolt rows 200. Vertical dimensions from top to bottom are 25, 49.5, 200, 200, 200, 200, 200, and 29.5. A dashed green line indicates the 'panel cutting' location. The bolt specification is 20-M12.</p> | |

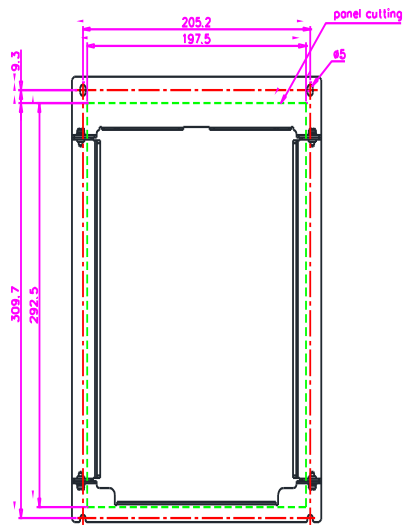
LSLV H100 15kW – 2/4, 18.5kW – 4



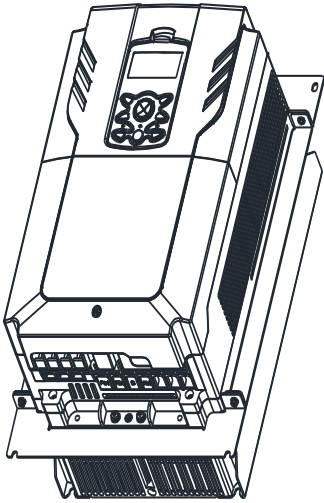
Drive + Flange



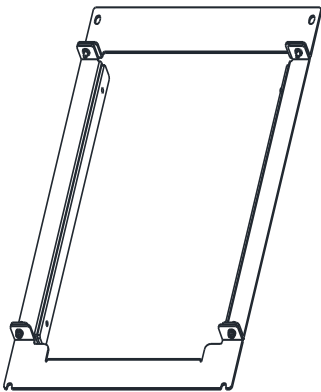
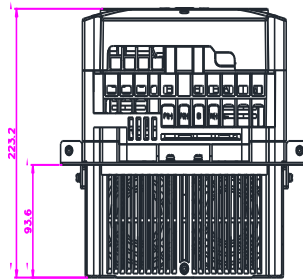
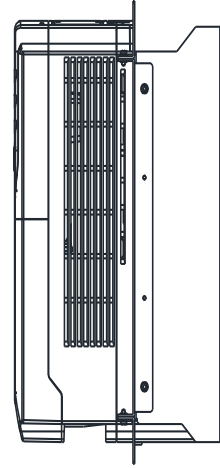
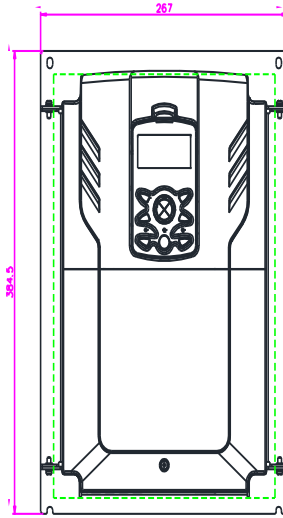
Flange



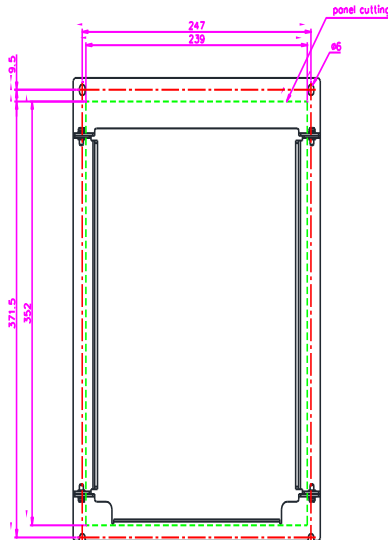
LSLV H100 18.5kW – 2, 22~30kW – 4



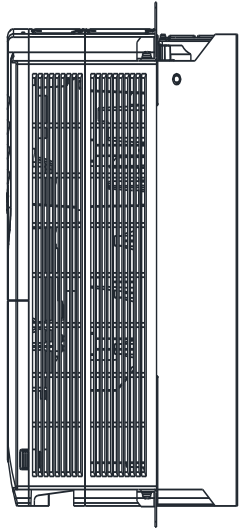
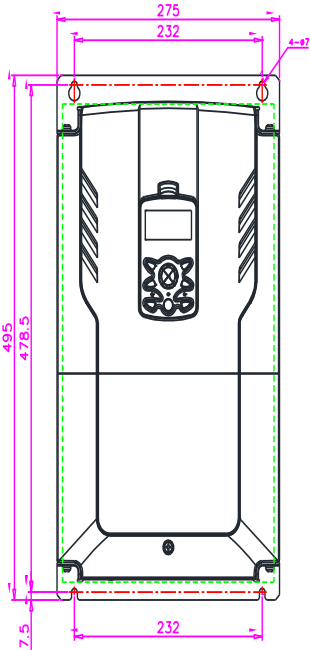
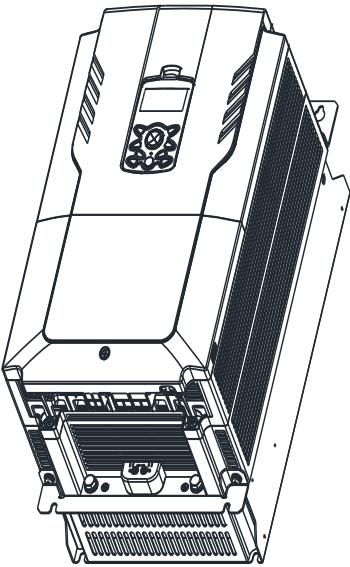
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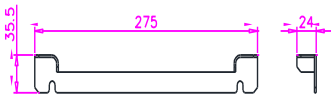
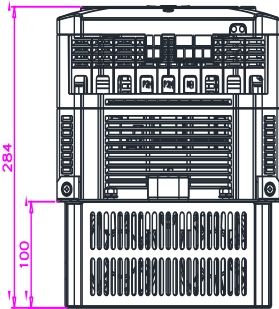
Flange



LSLV H100 37kW – 4

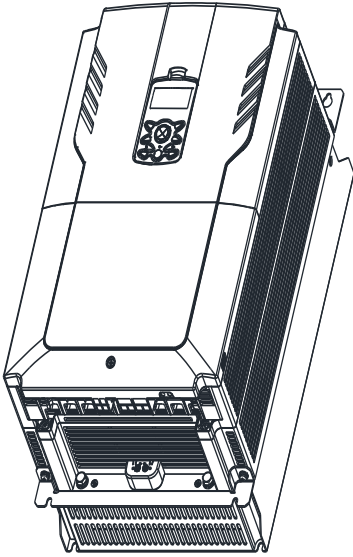


Drive + Flange

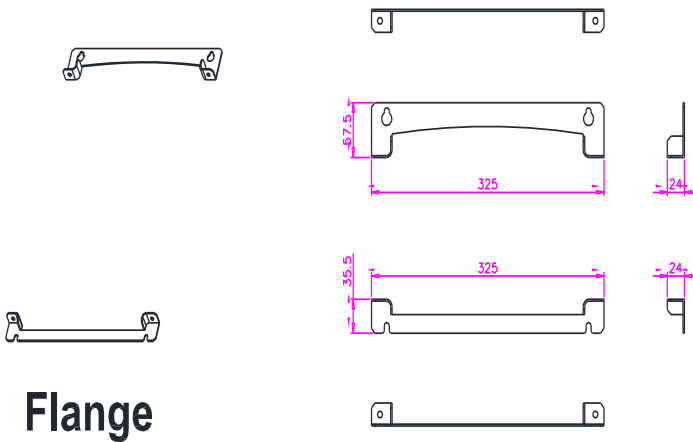
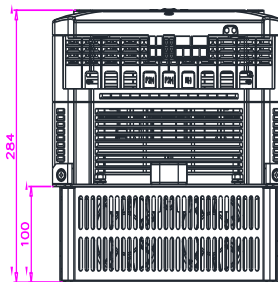
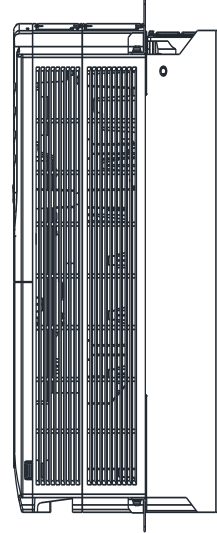
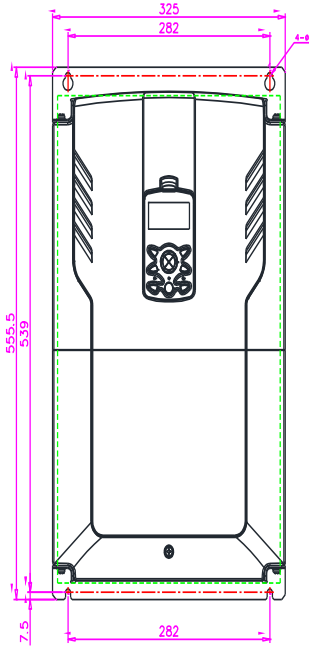


Flange

LSLV H100 45~55kW – 4

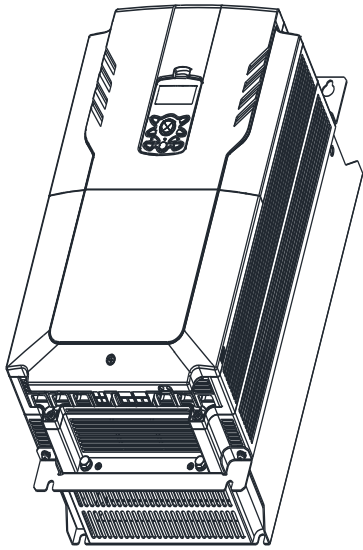


Drive + Flange

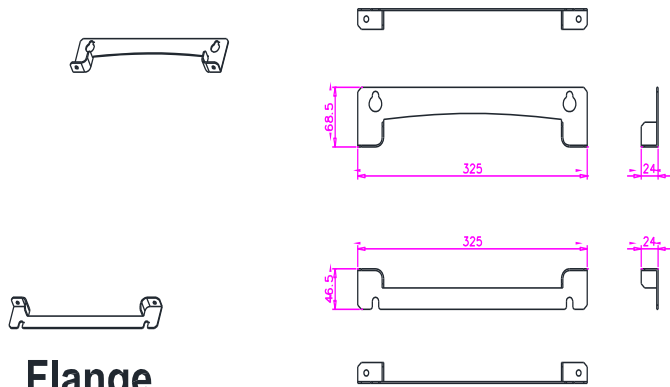
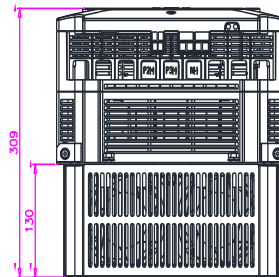
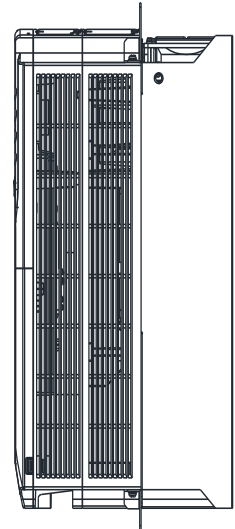
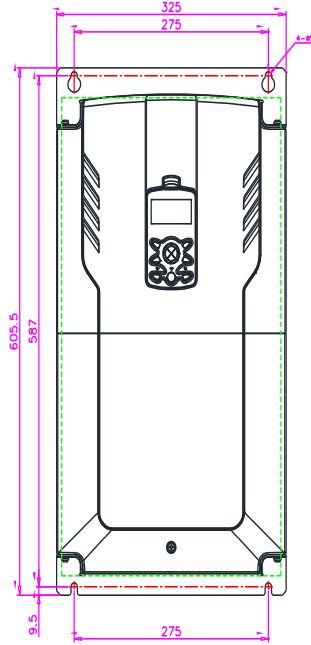


Flange

LSLV H100 75~90kW – 4

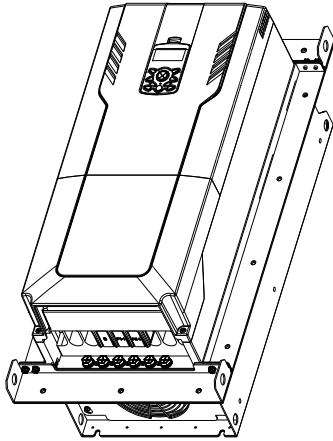


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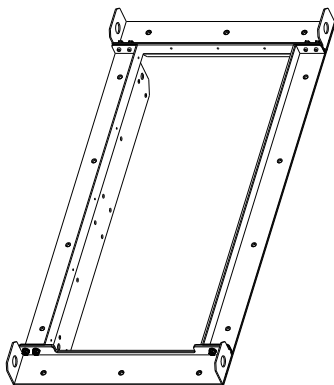
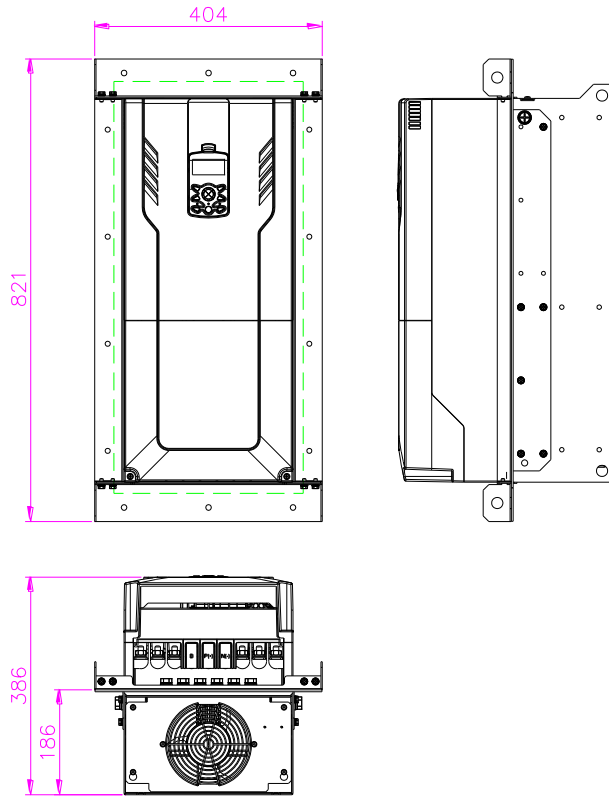


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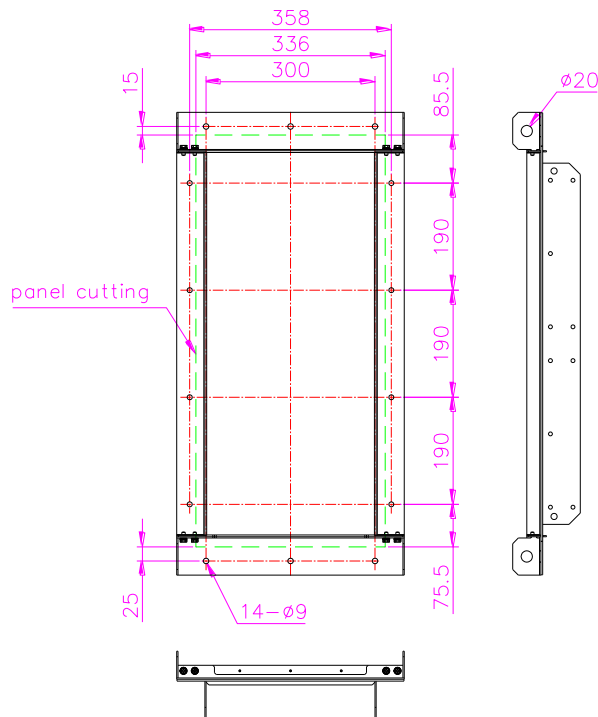
LSLV H100 110~132kW – 4



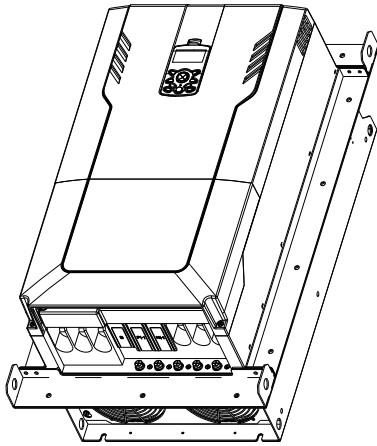
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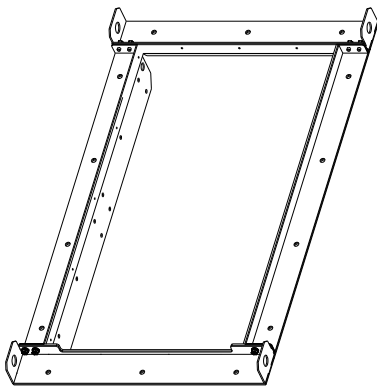
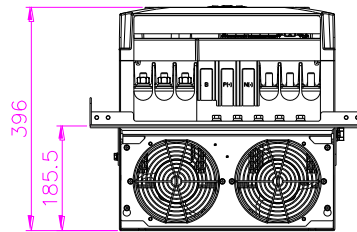
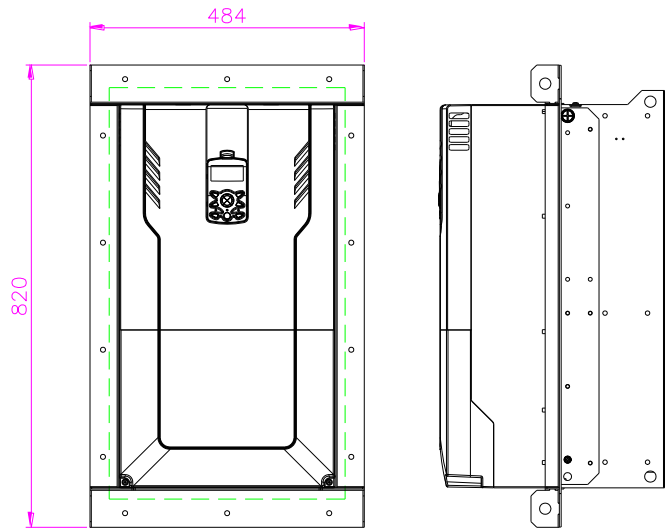
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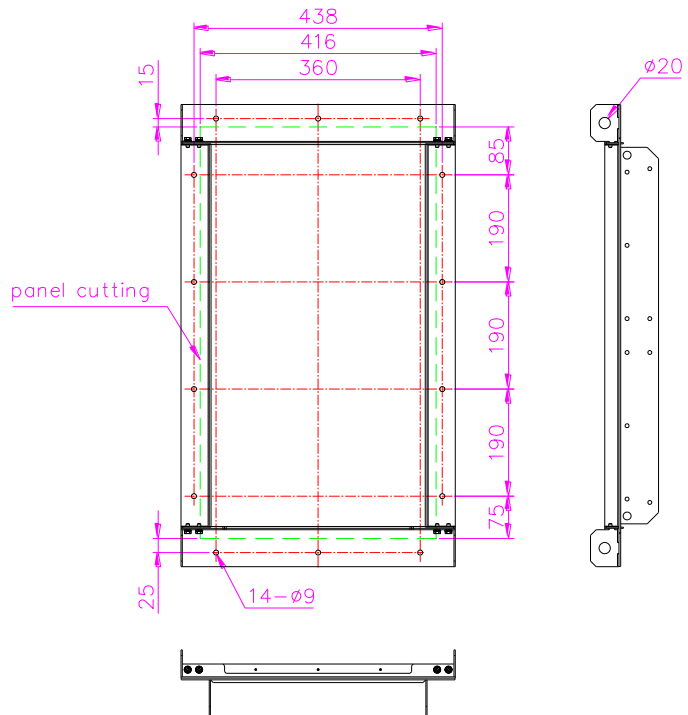
LSLV H100 160~185kW – 4



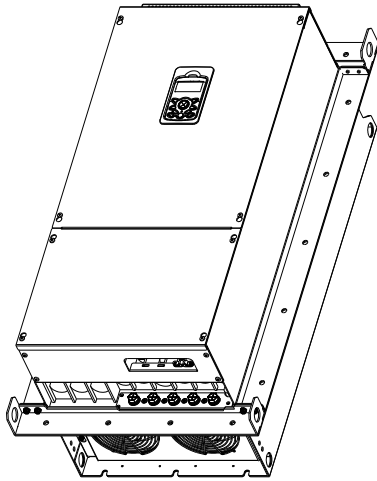
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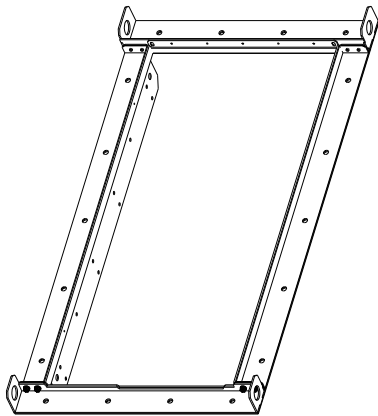
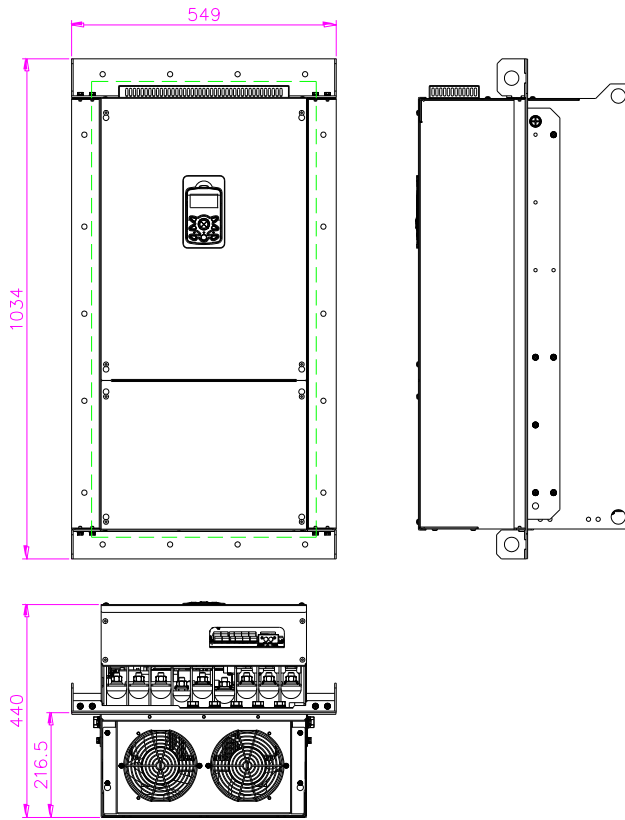
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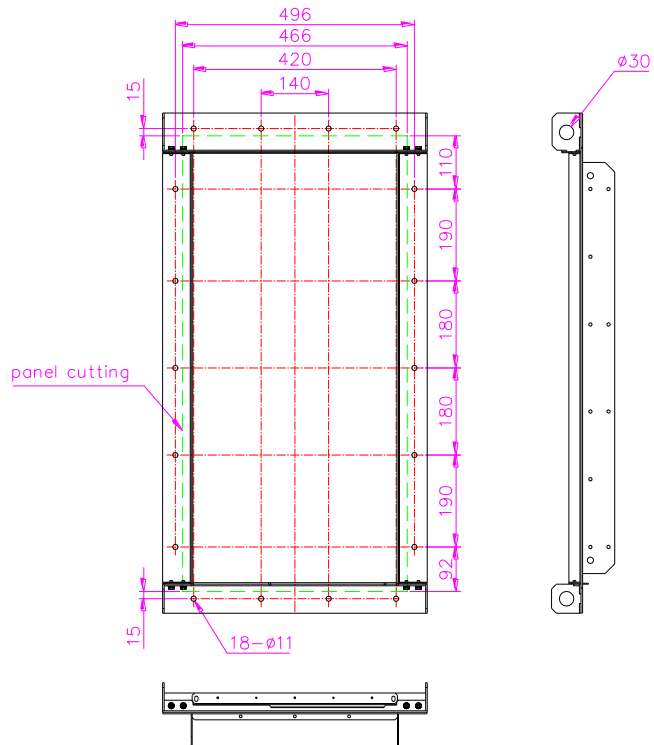
LSLV H100 220~250kW – 4



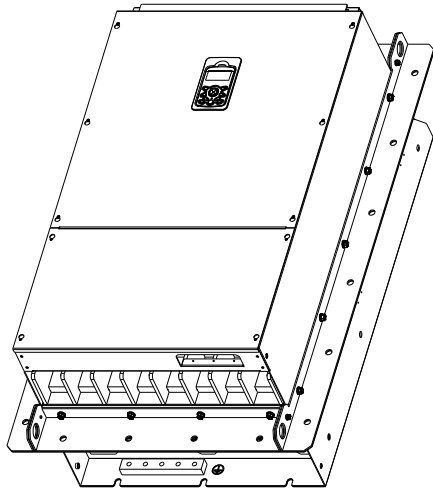
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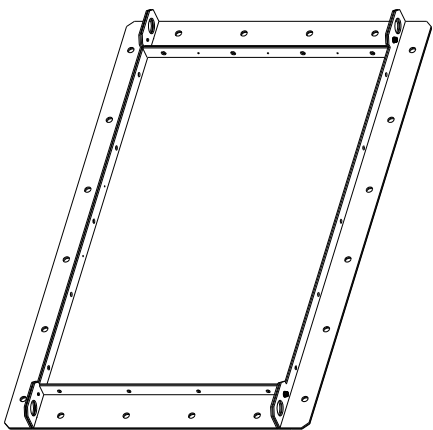
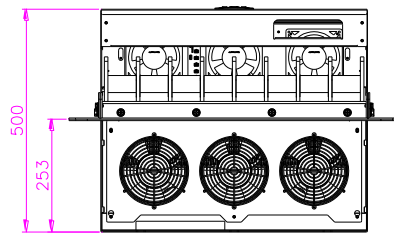
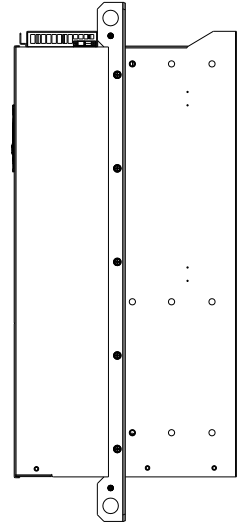
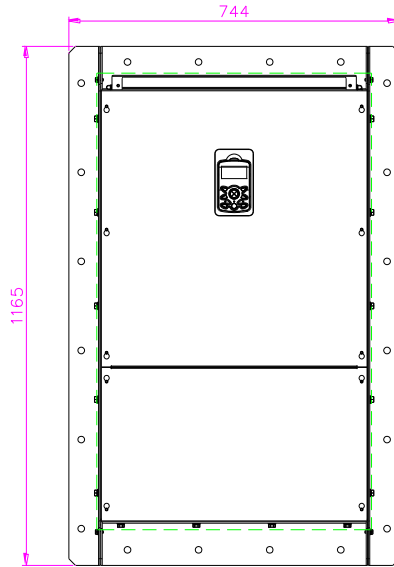
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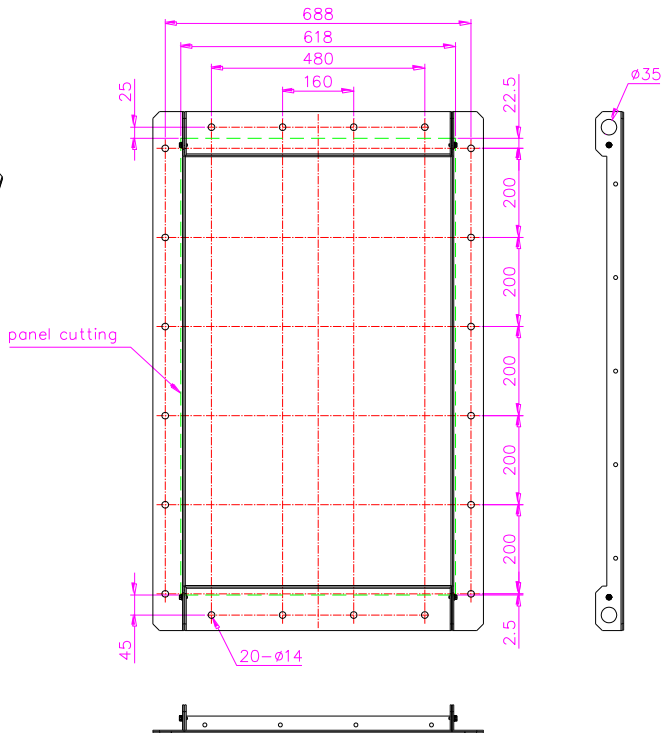
LSLV H100 315~400kW – 4



Drive + Flange



Flange



6. Revision History

| No | Date | Editiion | Changes |
|----|---------|---------------|---------|
| 1 | 2018.07 | First Edition | - |
| | | | |
| | | | |