

INVERTER

Heatsink Protrusion Attachment

< FR-A7CN01 to 11 >

Thank you for selecting the Mitsubishi inverter option unit.

This instruction manual gives handling information and precautions for use of this equipment. Incorrect handling might cause an unexpected fault. Before using the equipment, please read this manual carefully to use the equipment to its optimum. Please forward this instruction manual to the end user.

Safety Precautions

- ⚠ While power is on or for some time after power-off, do not touch the inverter and attachment as they will be extremely hot. Doing so can cause burns.
- ⚠ Transport the product using the correct method that corresponds to the weight. Failure to observe this could lead to injuries. Take special care with the edge sections.
- ⚠ Do not allow conductive foreign matter such as screws, metal chips, or combustible foreign matter such as oil enter the inverter.

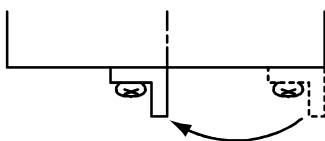
This attachment allows approximately 70% of the heat generated by the inverter to be radiated outside the enclosure by protruding the inverter heatsink section out from the rear side of the enclosure.

1. Preparation

- 1) Confirm the attachment type.
- 2) Confirm that the following parts are enclosed with the indicated quantity.

No.	Name	Attachment Type/Quantity					
		FR-A7CN 01 to 03	FR-A7CN04	FR-A7CN05 to 07	FR-A7CN08, 09	FR-A7CN10	FR-A7CN11
1)	Upper installation frame	1	1	1	1	1	1
2)	Upper cover	1	1	1	1	1	1
3)	Lower installation frame	1	1	*1)	*1)	*1)	*1)
4)	Frame installation screw	4 (M5)	4 (M8)	*2)	*2)	*2)	*2)
5)	Cover installation screw	2 (M4)	2 (M4)	6 (M4)	6 (M4)	6 (M4)	6 (M4)
6)	Right installation frame	—	—	1	1	1	1
7)	Left installation frame	—	—	1	1	1	1
8)	Sticker	—	—	—	2	—	—

*1) For the FR-A7CN05 to 11 lower installation frame, use an inverter frame by changing its' installation position.



*2) Use inverter screws

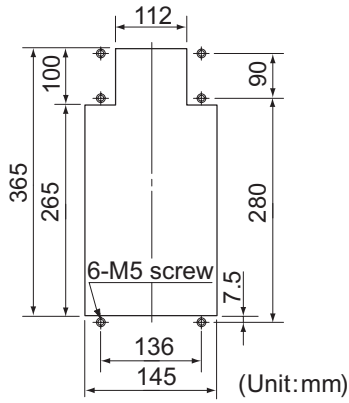
(3) Applicable inverter

Applicable Inverter	Applicable Attachment										
	FR-A7CN01	FR-A7CN02	FR-A7CN03	FR-A7CN04	FR-A7CN05	FR-A7CN06	FR-A7CN07	FR-A7CN08	FR-A7CN09	FR-A7CN10	FR-A7CN11
FR-F720	2.2K 3.7K 5.5K	7.5K 11K	15K	18.5K 22K 30K	37K	—	45K 55K	—	—	75K 90K 110K	—
FR-F740	0.75K 1.5K 2.2K 3.7K 5.5K	7.5K 11K	15K 18.5K	22K 30K	—	37K	45K 55K 75K	90K	110K	132K 160K	—
FR-A720	1.5K 2.2K 3.7K	5.5K 7.5K	11K	15K 18.5K 22K	30K	—	37K 45K	—	—	—	55K
FR-A740	0.4K 0.75K 1.5K 2.2K 3.7K	5.5K 7.5K	11K 15K	18.5K 22K	—	30K	37K 45K 55K	75K	90K	110K 132K	—

2. Installation

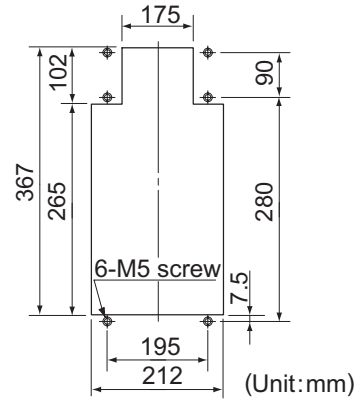
1) Cut the enclosure with the following dimensions according to the inverter capacity.

FR-A7CN01



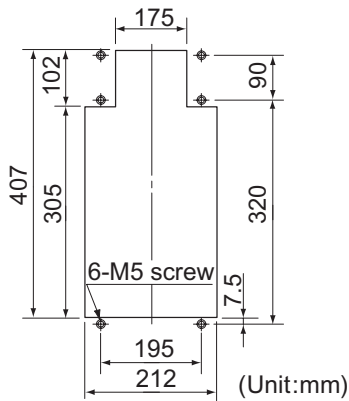
Applicable Inverter Type
FR-F720-2.2K to 5.5K
FR-F740-0.75K to 5.5K
FR-A720-1.5K to 3.7K
FR-A740-0.4K to 3.7K

FR-A7CN02



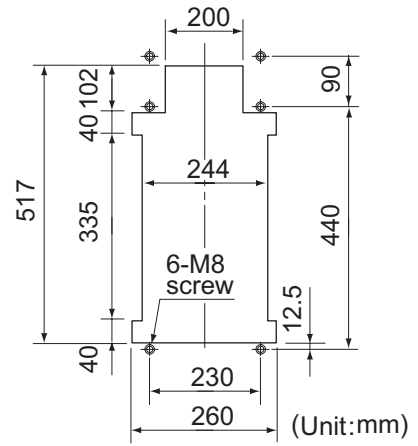
Applicable Inverter Type
FR-F720-7.5K, 11K
FR-F740-7.5K, 11K
FR-A720-5.5K, 7.5K
FR-A740-5.5K, 7.5K

FR-A7CN03



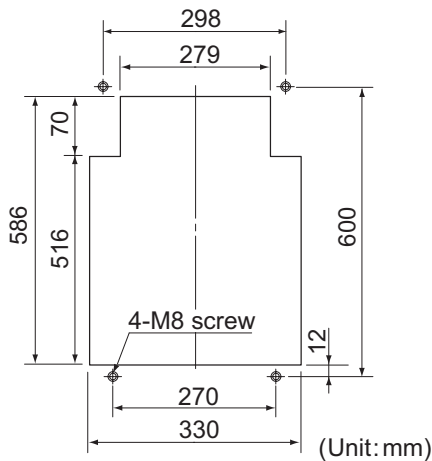
Applicable Inverter Type
FR-F720-15K
FR-F740-15K, 18.5K
FR-A720-11K
FR-A740-11K, 15K

FR-A7CN04



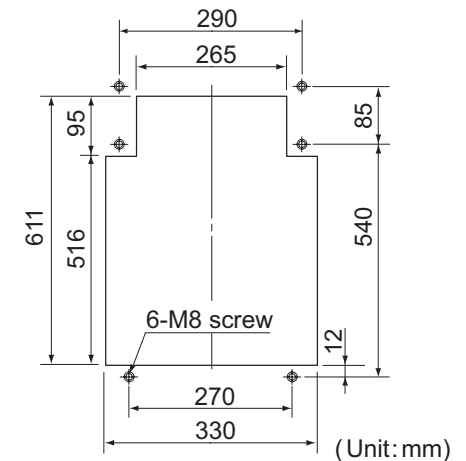
Applicable Inverter Type
FR-F720-18.5K to 30K
FR-F740-22K, 30K
FR-A720-15K to 22K
FR-A740-18.5K, 22K

FR-A7CN05



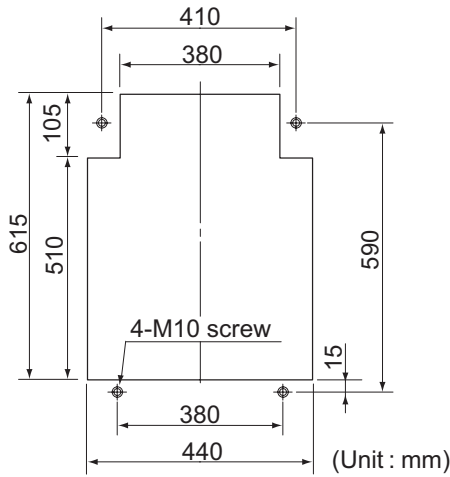
Applicable Inverter Type
FR-F720-37K
FR-A720-30K

FR-A7CN06



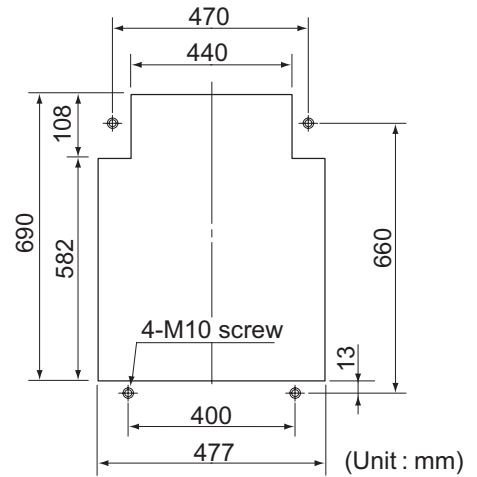
Applicable Inverter Type
FR-F740-37K
FR-A740-30K

FR-A7CN07



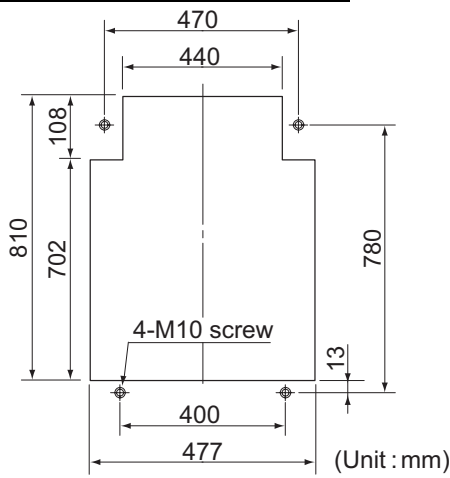
Applicable Inverter Type
FR-F720-45K, 55K
FR-F740-45K, 55K, 75K
FR-A720-37K, 45K
FR-A740-37K, 45K, 55K

FR-A7CN08, 09



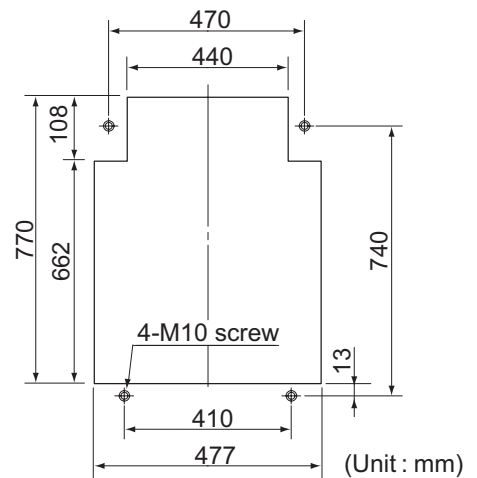
Applicable Inverter Type
FR-F740-90K, 110K
FR-A740-75K, 90K

FR-A7CN10



Applicable Inverter Type
FR-F720-75K, 90K, 110K
FR-F740-132K, 160K
FR-A740-110K, 132K

FR-A7CN11



Applicable Inverter Type
FR-A720-55K

2) Refer to "4. Heatsink protrusion attachment and inverter assembly " to assemble.
 After assembly, install the inverter in the enclosure.

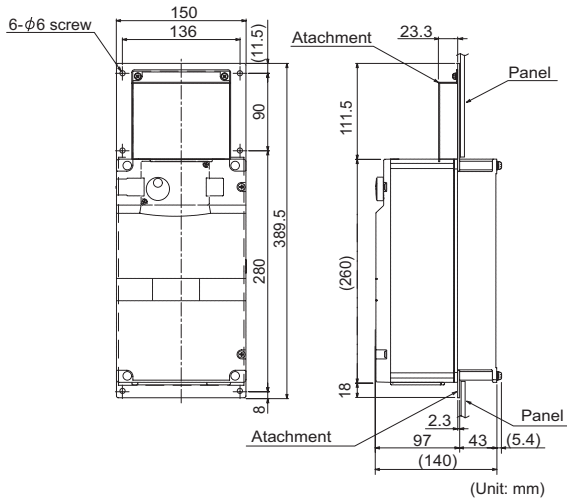
CAUTION

- Having a cooling fan, the cooling section which comes out of the enclosure cannot be used in the environment of water drops, oil, mist, dust, etc.
 - Be careful not to drop screws, dust etc. into the inverter and cooling fan section.
 - There is 1mm of clearance between the FR-A7CN and inverter. (The inverter is not in an enclosed condition)
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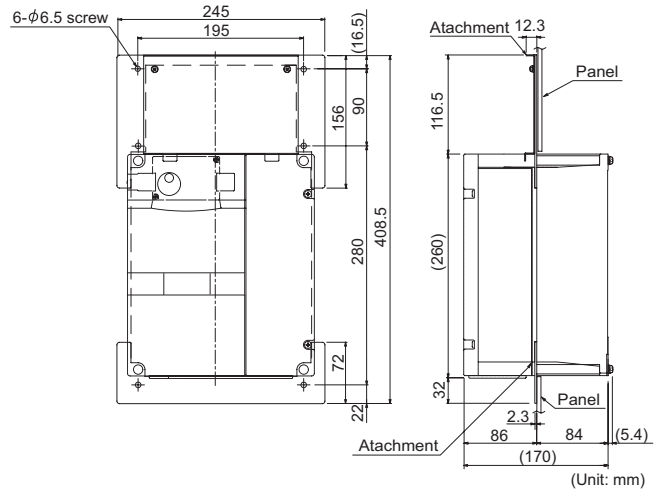
3. Outline dimension drawings

(- - - - - : Panel cut dimensions)

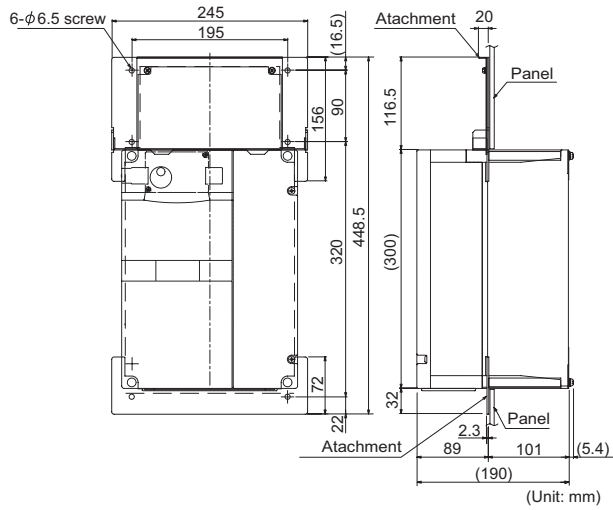
FR-A7CN01



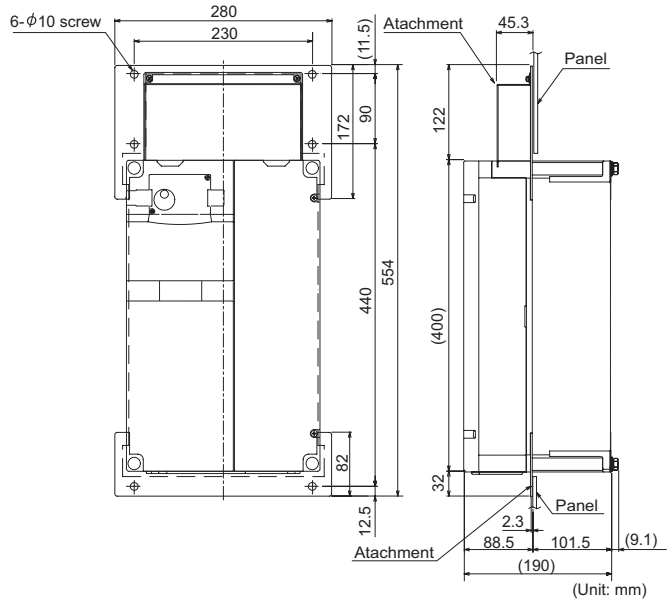
FR-A7CN02



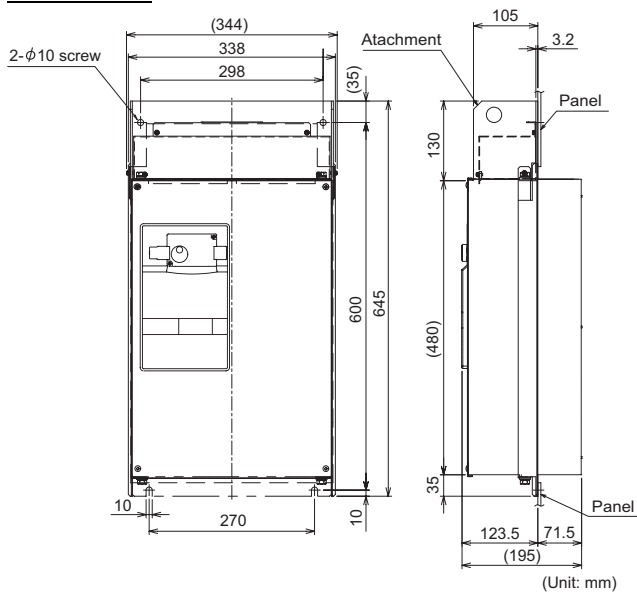
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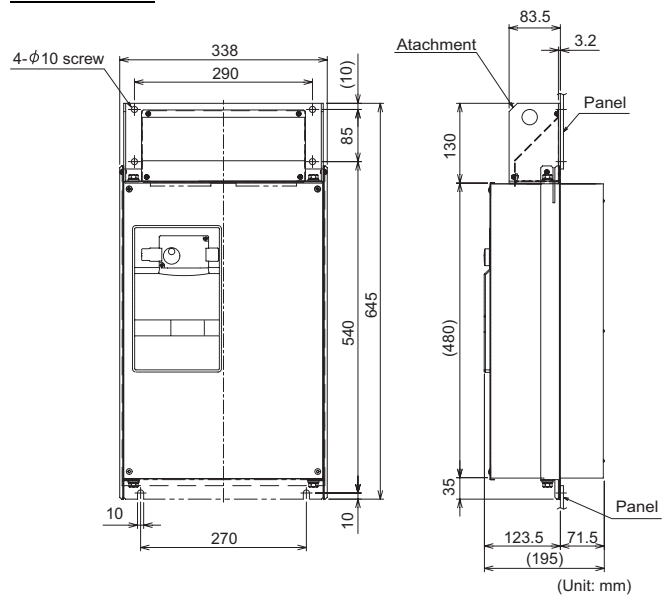
FR-A7CN04



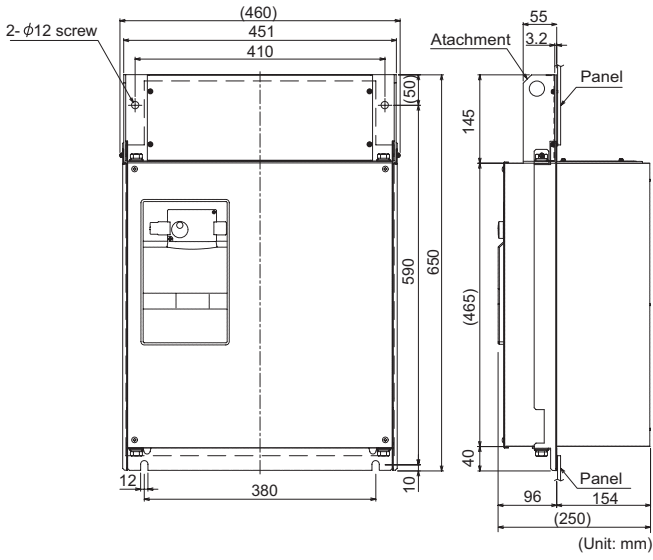
FR-A7CN05



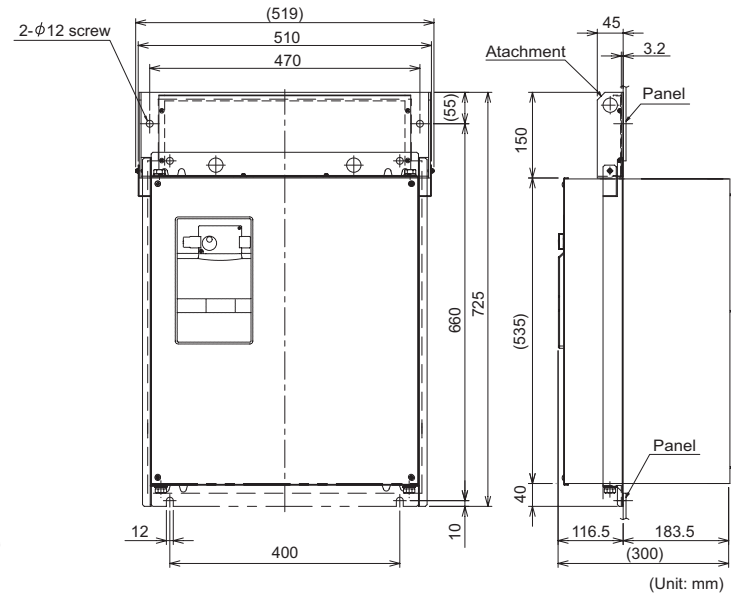
FR-A7CN06



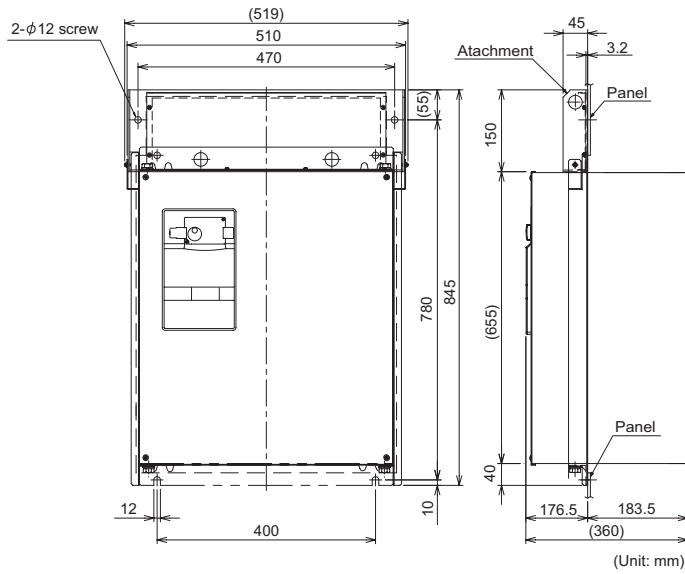
FR-A7CN07



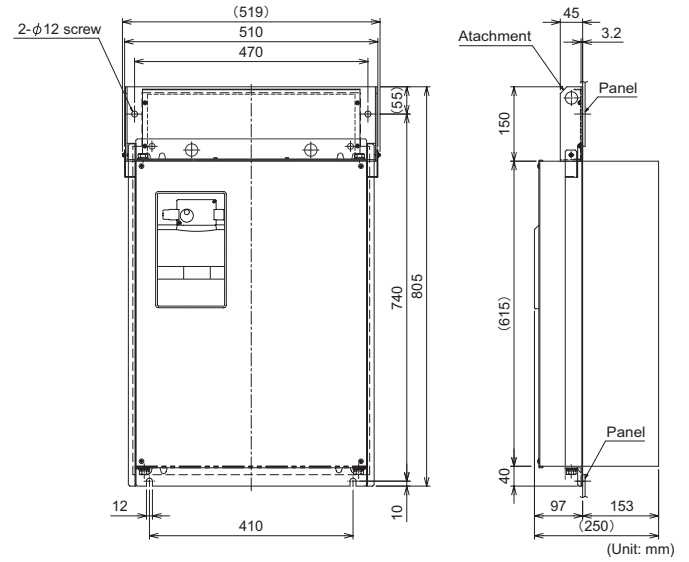
FR-A7CN08, 09



FR-A7CN10

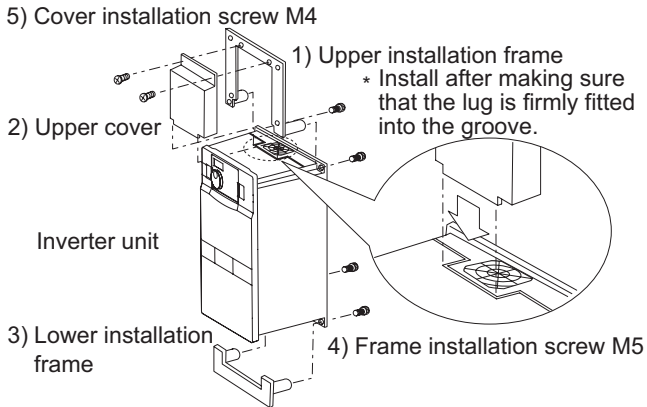


FR-A7CN11

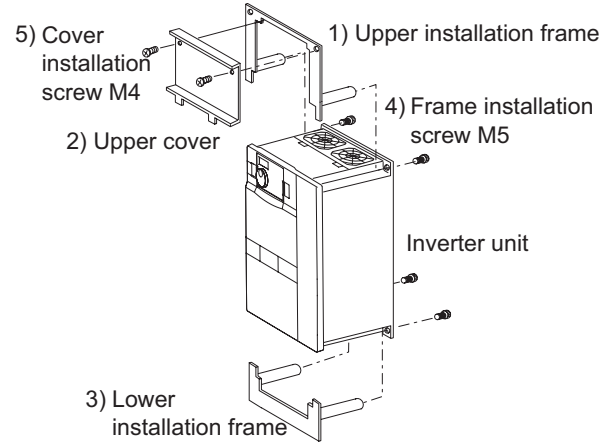


4. Heatsink protrusion attachment and inverter assembly

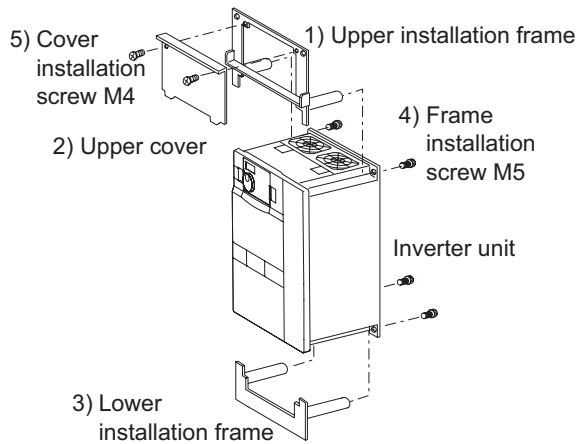
FR-A7CN01



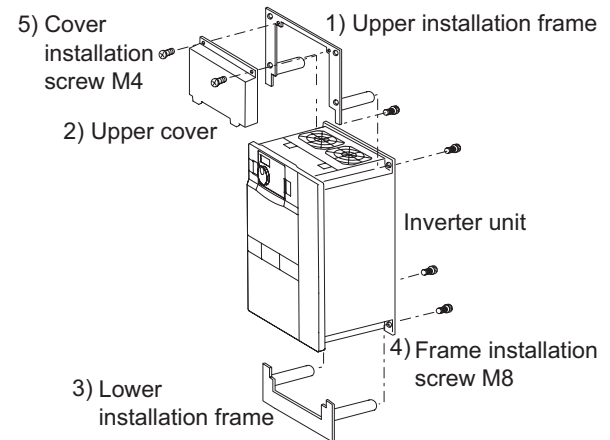
FR-A7CN02



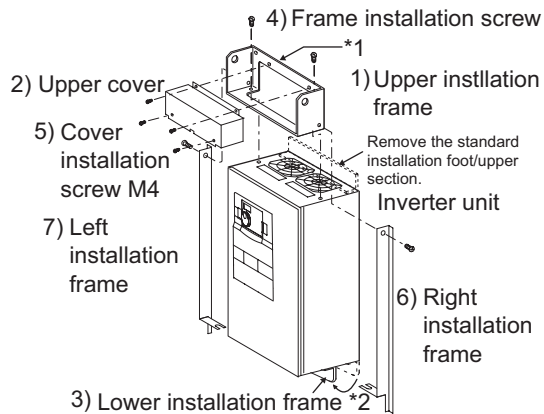
FR-A7CN03



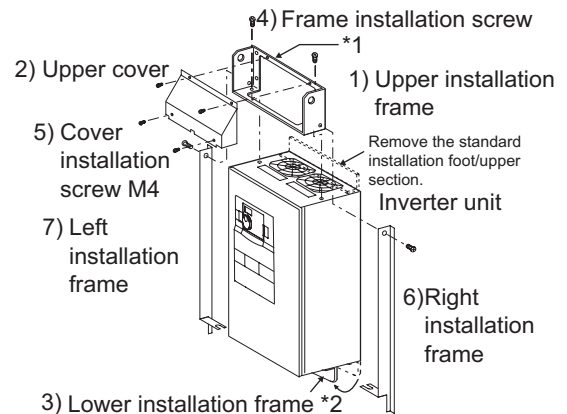
FR-A7CN04



FR-A7CN05



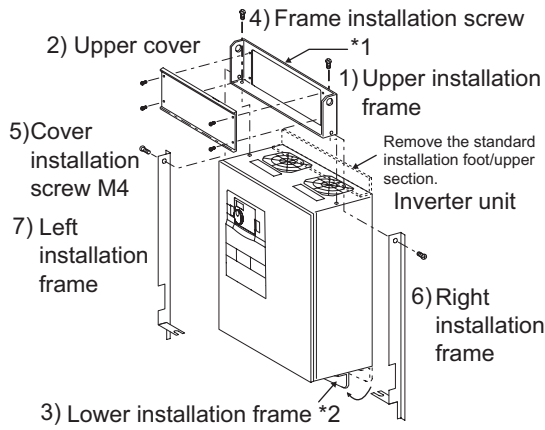
FR-A7CN06



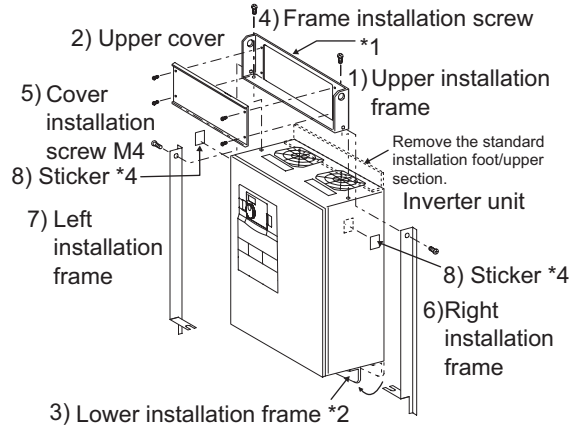
*1 When carrying the inverter, etc., do not hold it by the upper frame section of "upper installation frame". Doing so may change the frame shape.

*2 Change the position of the standard installation foot/lower section.
Screw up both left and right installation frames and a lower installation frame together.

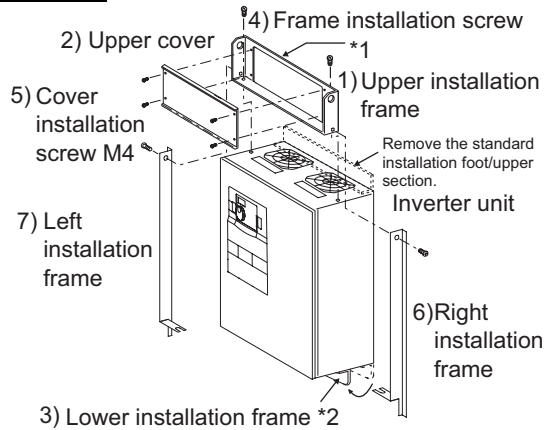
FR-A7CN07



FR-A7CN08, 09



FR-A7CN10

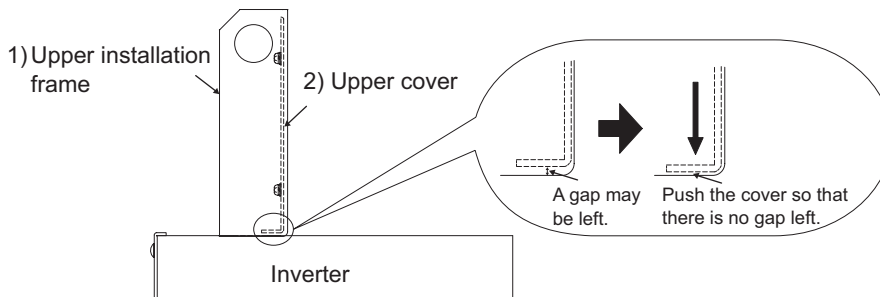


*1 When carrying the inverter, etc., do not hold it by the upper frame section of "1) upper installation frame". Doing so may change the frame shape.

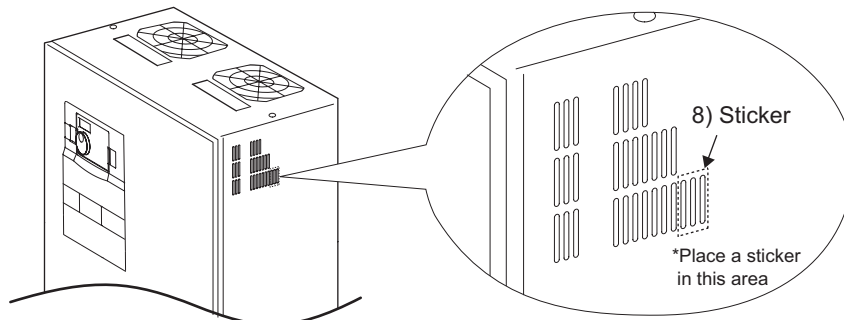
*2 Change the position of the "standard installation foot/lower section" (same as "3) lower installation frame") and screw up both "6) 7) left and right installation frames".

*3 For the FR-A7CN07 to 11, fit the "2) upper cover" to the "1) upper installation frame" first, and then install the "1) upper installation frame" to the inverter.

When installing an "2) upper cover" to the "1) upper installation frame", a gap may be left between the lower part of the "upper cover" and "upper installation frame". Install the upper cover after making sure that there is no gap.



*4 Place a "8) sticker" before installing the heatsink protrusion attachment. Slits are on the left and right sides of the inverter. Cover the slits on both sides with stickers.



REMARKS

* Replacement procedure of the cooling fan
 When replacing the cooling fan, "remove the upper cover 2)" and replace the cooling fan from the opening. (Refer to the inverter manual for details.)