

# INVERTER

## Heatsink Protrusion Attachment




### <FR-E7CN01 to 06>

Thank you for choosing this Mitsubishi Electric inverter option.

This Instruction Manual provides handling information and precautions for use of the equipment. Incorrect handling might cause an unexpected fault. Before using this inverter, always read this Instruction Manual carefully to use the equipment to its optimum performance.

Please forward this Instruction Manual to the end user.

#### **This section is specifically about safety matters**

-  While power is ON or for some time after power-OFF, do not touch the inverter and the attachment as they will be extremely hot. Touching these devices may cause a burn.
-  The product must be transported in a suitable method which corresponds with the product mass. Failure to do so may lead to injuries. Special attention must be paid to the edges of the product.
-  Foreign conductive objects must be prevented from entering the inverter. That includes screws and metal fragments or other flammable substance such as oil.

This attachment is used to protrude the inverter heatsink to the rear panel of enclosure. This attachment dissipates about 70% of the heat generated by the inverter.

## 1. Applicable inverter

Applicable inverter		Applicable attachment					
		FR-E7CN01	FR-E7CN02	FR-E7CN03	FR-E7CN04	FR-E7CN05	FR-E7CN06
E700	FR-E720-1.5K, 2.2K FR-E720S-0.75K, 1.5K	○					
	FR-E720-3.7K		○				
	FR-E720-5.5K, 7.5K			○			
	FR-E740-1.5K, 2.2K, 3.7K FR-E720S-2.2K				○		
	FR-E740-5.5K, 7.5K					○	
	FR-E720-11K, 15K FR-E740-11K, 15K						○
D700	FR-D720-1.5K, 2.2K FR-D720S-1.5K FR-D740-1.5K, 2.2K, 3.7K	○					
	FR-D720-3.7K		○				
	FR-D720S-2.2K				○		
	FR-D720-5.5K, 7.5K FR-D740-5.5K, 7.5K					○	
	FR-D720-11K, 15K FR-D740-11K, 15K						○
F700PJ	FR-F720PJ-1.5K, 2.2K FR-F740PJ-1.5K, 2.2K, 3.7K	○					
	FR-F720PJ-3.7K		○				
	FR-F720PJ-5.5K, 7.5K FR-F740PJ-5.5K, 7.5K					○	
	FR-F720PJ-11K, 15K FR-F740PJ-11K, 15K						○

○ : Applicable

## 2. Product confirmation and assembly example

(1) The following items are provided in a package. Check the contents and the quantity.

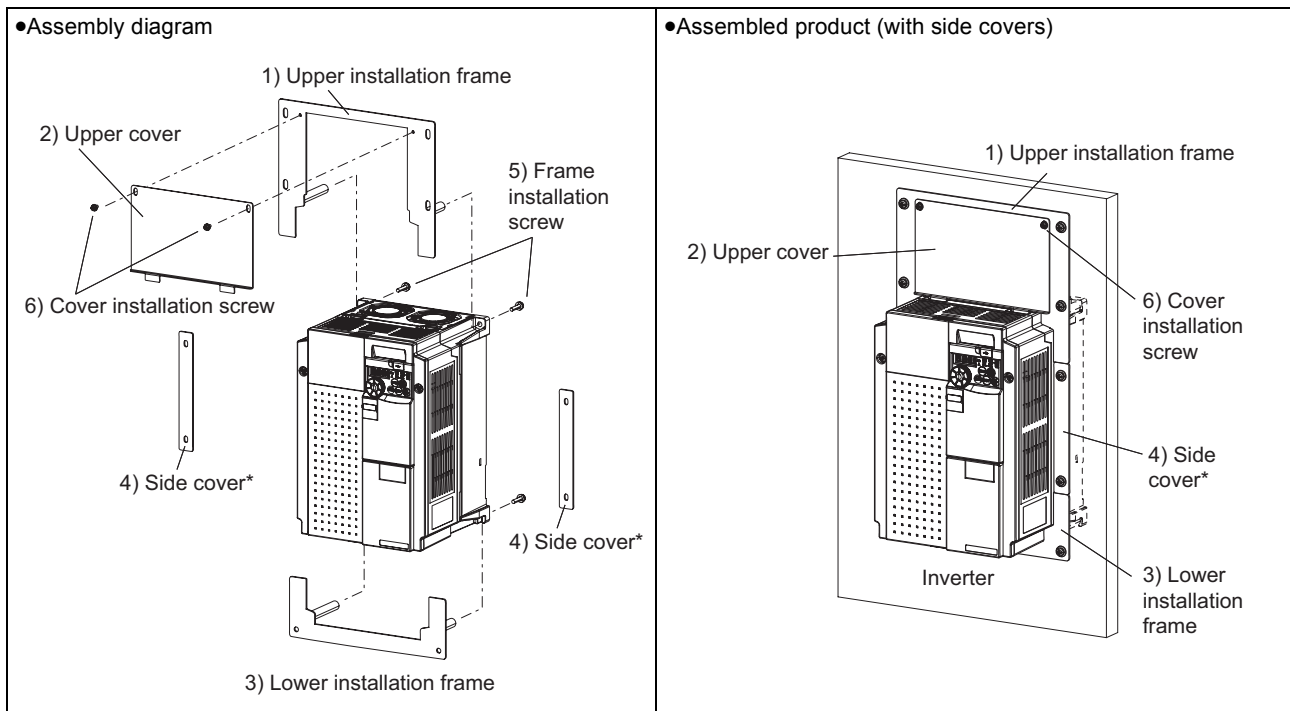
No.	Name	Attachment model				
		FR-E7CN01, 02	FR-E7CN03	FR-E7CN04	FR-E7CN05	FR-E7CN06
1)	Upper installation frame	1	1	1	1	1
2)	Upper cover	1	1	1	1	1
3)	Lower installation frame	1	1	1	1	1
4)	Side cover*	2	2	2	-	-
5)	Frame installation screw	4 (M4×12)	4 (M5×20)	4 (M4×12)	4 (M4×16)	4 (M5×20)
6)	Cover installation screw	4 (M4×8)	2 (M4×8)	4 (M4×8)	2 (M4×8)	2 (M4×8)

\* Use the side covers for a rectangular cut that is made on an enclosure. (Refer to *page 3* for enclosure cut dimensions.)

(2) Part names

No.	Name	Description
1)	Upper installation frame	A frame for securing the inverter onto the (upper) enclosure surface.
2)	Upper cover	A cover for the fan-replacement hole of the upper frame.
3)	Lower installation frame	A frame for securing the inverter onto the (lower) enclosure surface.
4)	Side cover	Covers to fill the space around a cut that is made on an enclosure.
5)	Frame installation screw	Screws to mount the upper and lower frames to the inverter body.
6)	Cover installation screw	Screws to mount the upper and side covers to the enclosure.

(3) Assembly example  
FR-E7CN03



\* Use the side covers for a rectangular cut that is made on an enclosure. Refer to *page 3* for enclosure cut dimensions. (FR-E7CN05 and 06 do not have side covers.)



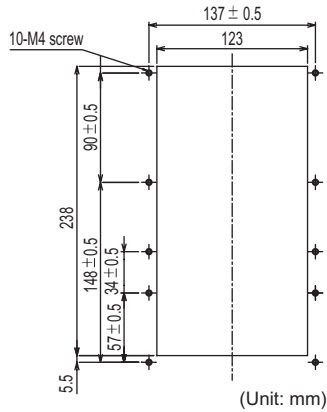
### REMARKS

To replace a cooling fan, remove "2) upper cover" first, then replace the fan through the hole. (For the details, refer to the Instruction Manual of the inverter.)

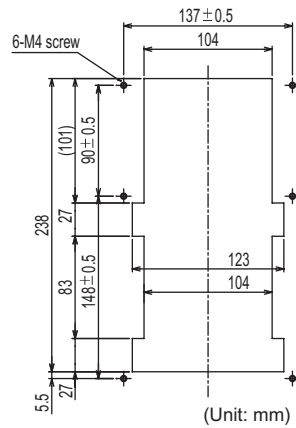
### 3. Enclosure cut dimensions

Cut an enclosure to the following dimensions according to the inverter capacity.

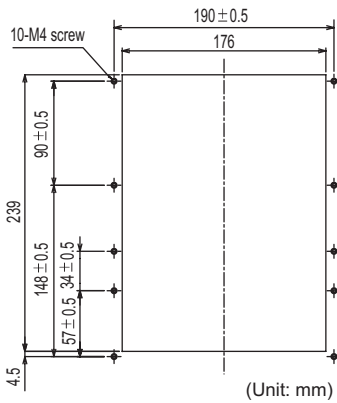
FR-E7CN01 (with side covers)



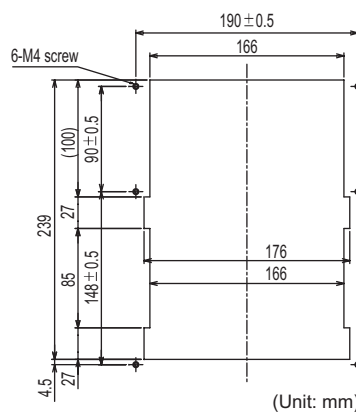
FR-E7CN01 (without side covers)



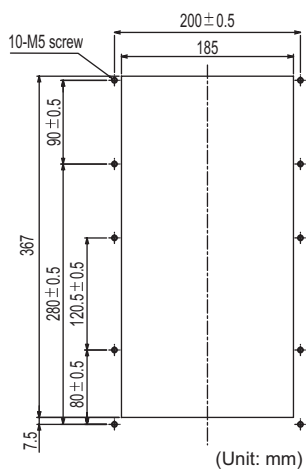
FR-E7CN02 (with side covers)



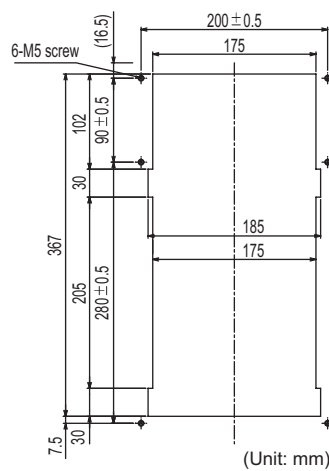
FR-E7CN02 (without side covers)



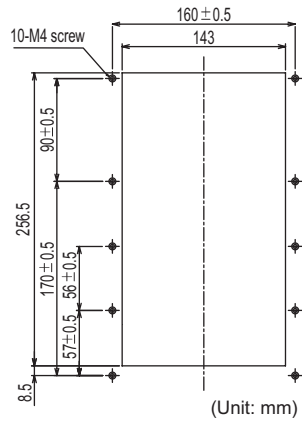
FR-E7CN03 (with side covers)



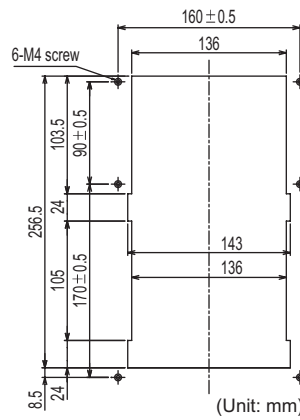
FR-E7CN03 (without side covers)



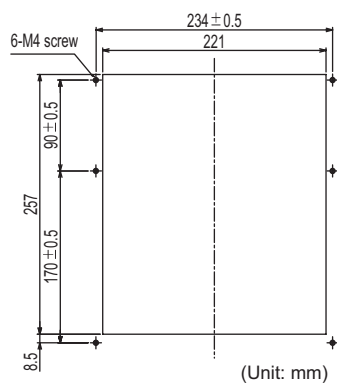
**FR-E7CN04 (with side covers)**



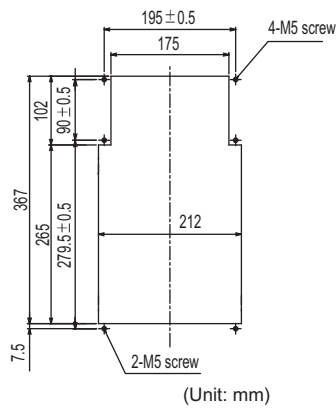
**FR-E7CN04 (without side covers)**



**FR-E7CN05**



**FR-E7CN06**



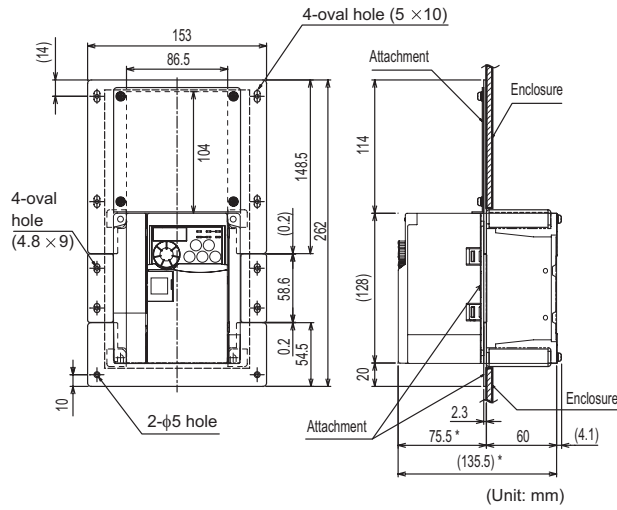
**NOTE**

- The cooling section, which comes out of the enclosure, has a cooling fan. Because of this, this attachment cannot be used in an environment with water drops, oil, mist, dust, etc.
- Be careful not to drop screws, dust, etc. into the inverter and cooling fan section.
- The heatsink protrusion attachment is mounted to the inverter with about 1mm space between their mounting surfaces.

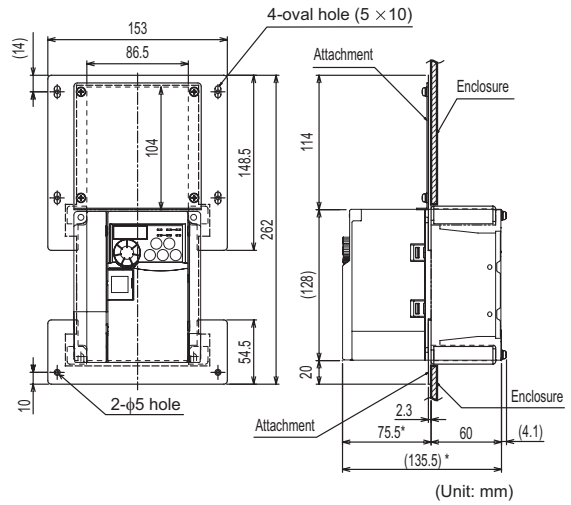
# 4. Outline dimension

(----- : enclosure cut lines)

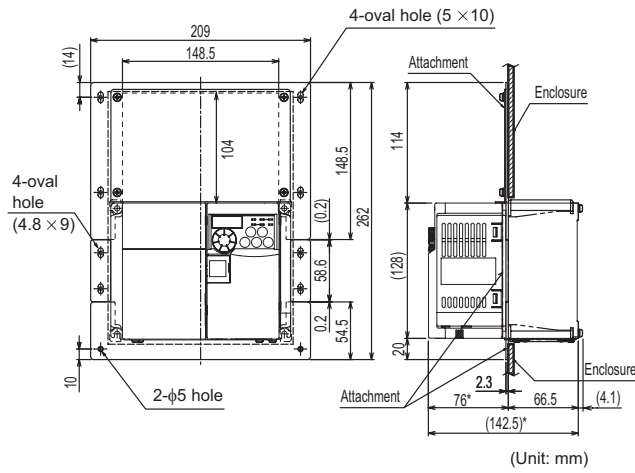
**FR-E7CN01 (with side covers)**



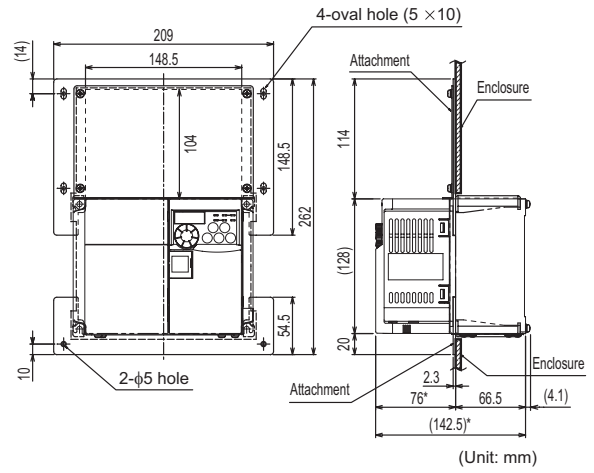
**FR-E7CN01 (without side covers)**



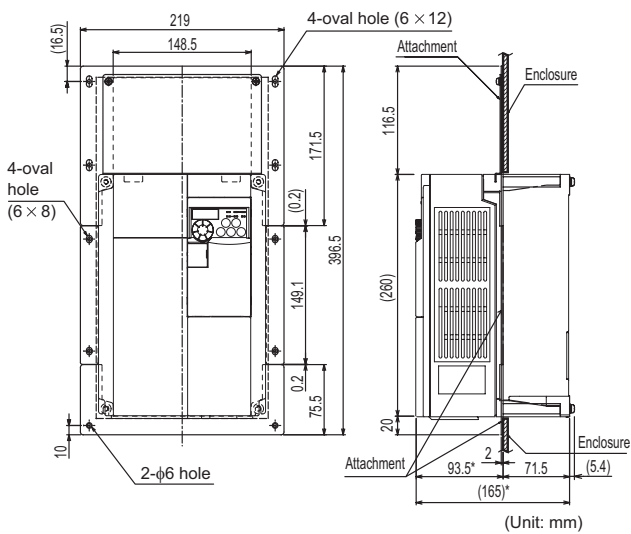
**FR-E7CN02 (with side covers)**



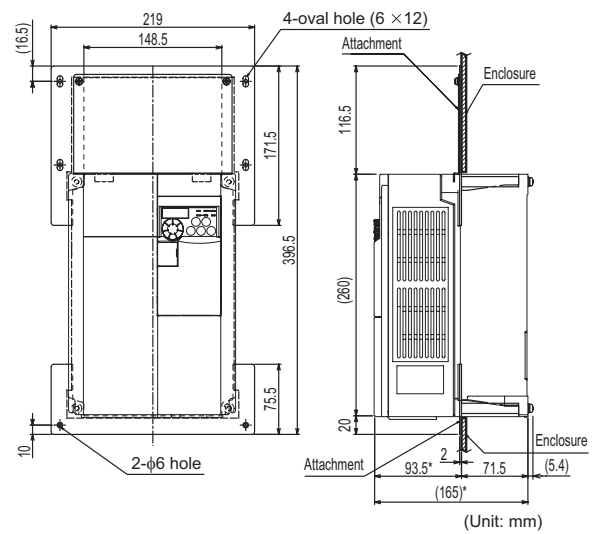
**FR-E7CN02 (without side covers)**



**FR-E7CN03 (with side covers)**

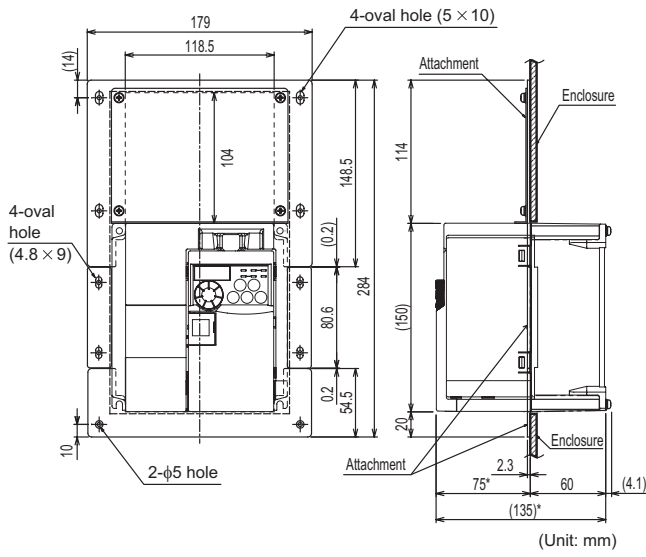


**FR-E7CN03 (without side covers)**

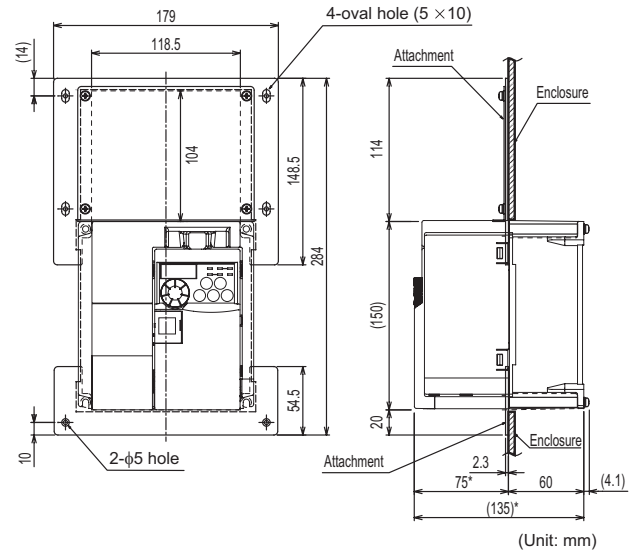


\* The dimensions are different for the FR-E700 series inverters with plug-in options.

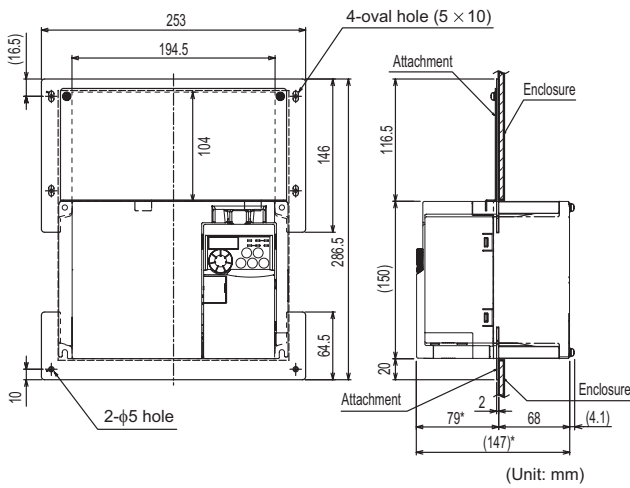
**FR-E7CN04 (with side covers)**



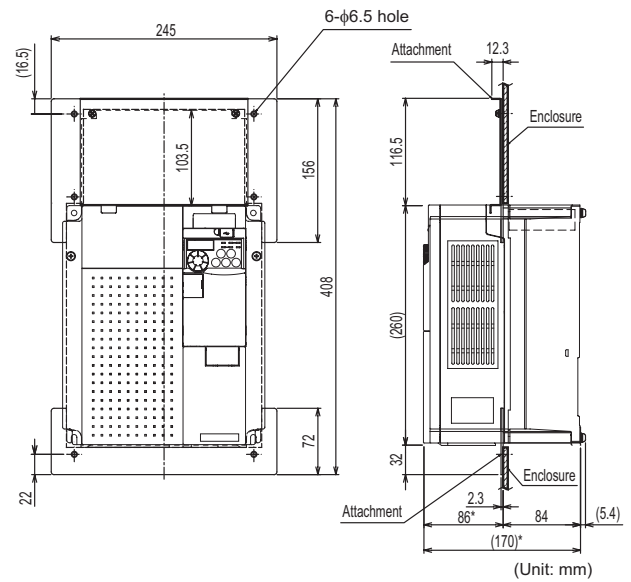
**FR-E7CN04 (without side covers)**



**FR-E7CN05**



**FR-E7CN06**



The dimensions are different for the FR-E700 series inverters with plug-in options.

# MEMO

# **mitsubishi electric corporation**

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