

# INVERTER

## DIN Rail Mounting Attachment <FR-UDA01, 02, 03>

Thank you for choosing the Mitsubishi transistorized inverter option unit. This instruction manual gives handling information and precautions for using this product. Incorrect handling might cause an unexpected fault. Before using the equipment, always read this manual carefully to use it to its optimum. Please forward this manual to the end user.

### Safety Instructions

- ⚠ Do not touch inverter, power saving drive, and DIN rail installation attachment while power is ON or right after power is shut down because these devices are extremely hot. Touching these devices can cause a burn.
- ⚠ Carry the product in a correct manner according to its weight. Not doing so can cause injury. Also, be careful of the edges.
- ⚠ Always inspect the product after mounting. Not doing so can cause it to drop due to incorrect installation, resulting in an accident.

This product is the attachment to install an inverter or energy saving drive to a DIN rail.

## 1. Preparation

- Check the attachment type to confirm that the product is as you ordered.
- Following models are compatible with DIN rail installation attachment. Do not use the attachment to a non-compatible model.

Inverter/energy saving drive	Capacity of compatible inverter/energy saving drive			
	FR-UDA01	FR-UDA02	FR-UDA03	
FR-E700	200V class	FR-E720-0.1K to 0.75K	FR-E720-1.5K, 2.2K	FR-E720-3.7K
	Single-phase 100V class	FR-E710W-0.1K to 0.4K	FR-E710W-0.75K	—
	Single-phase 200V class	FR-E720S-0.1K to 0.4K	FR-E720S-0.75K, 1.5K	—
FR-D700	200V class	FR-D720-0.1K to 0.75K	FR-D720-1.5K, 2.2K	FR-D720-3.7K
	400V class	—	FR-D740-0.4K to 3.7K	—
	Single-phase 100V class	FR-D710W-0.1K to 0.4K	FR-D710W-0.75K	—
FR-S500	Single-phase 200V class	FR-D720S-0.1K to 0.75K	FR-D720S-1.5K	—
	200V class	FR-S520E-0.1K to 0.75K	FR-S520E-1.5K, 2.2K	FR-S520E-3.7K
	400V class	—	FR-S540E-0.4K to 3.7K	—
FR-S500	Single-phase 100V class	FR-S510WE-0.1K to 0.4K	FR-S510WE-0.75K	—
	Single-phase 200V class	FR-S520SE-0.1K to 0.75K	FR-S520SE-1.5K	—
	200V class	FR-C520-0.1K, 0.2K, 0.4K, 0.75K	FR-C520-1.5K, 2.2K	FR-C520-3.7K
FR-F500J*	200V class	FR-F520J-0.4K, 0.75K	FR-F520J-1.5K, 2.2K	FR-F520J-3.7K
	400V class	—	FR-F540J-0.4K to 3.7K	—
FR-FP500J*	200V class	—	FR-FP520J-0.4K to 2.2K	FR-FP520J-3.7K
	400V class	—	FR-FP540J-0.4K to 3.7K	—

\* Filterpack (FR-BFP) of FR-F500J and FP500J series cannot be installed to a DIN rail installation attachment.

- The attachment is applicable to the DIN, EN, IEC standard-compliant 35mm wide rails given below. Do not use the attachment with other rails.

Applicable Rail	Rail Specifications
TH35-7.5	Rail width 35mm, height 7.5mm
TH35-15	Rail width 35mm, height 15mm

- Due to the mechanical strength of the rail, the rail mounting screw pitch should be no more than the corresponding value indicated in the following table.

### DIN rail mounting screw pitch L (mm)

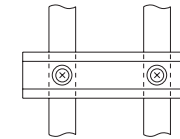
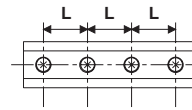
(a) Channel mounting	TH35-7.5	100	—	—	—
	TH35-15	500	500	300	200
(b) Enclosure surface mounting	TH35-7.5	250	150	—	—
	TH35-15	500	500	500	500
Compatible inverter/energy saving drive	FR-E720-0.1K, 0.2K FR-E720S-0.1K, 0.2K FR-E710W-0.1K, 0.2K	FR-E720-0.4K, 0.75K FR-E720S-0.4K, 0.75K FR-E710W-0.4K	FR-E720-1.5K, 2.2K FR-E720S-1.5K FR-E710W-0.75K	FR-E720-3.7K	
	FR-D720-0.1K, 0.2K FR-D720S-0.1K, 0.2K FR-D710W-0.1K, 0.2K	FR-D720-0.4K, 0.75K FR-D720S-0.4K, 0.75K FR-D710W-0.4K	FR-D720-1.5K, 2.2K FR-D720S-1.5K FR-D740-0.4K to 3.7K FR-D710W-0.75K	FR-D720-3.7K	
	FR-S520E-0.1K, 0.2K FR-S520SE-0.1K, 0.2K FR-S510WE-0.1K, 0.2K	FR-S520E-0.4K, 0.75K FR-S520SE-0.4K, 0.75K FR-S510WE-0.4K	FR-S520E-1.5K, 2.2K FR-S540E-0.4K to 3.7K FR-S520SE-1.5K FR-S510WE-0.75K	FR-S520E-3.7K	
	FR-C520-0.1K, 0.2K	FR-C520-0.4K, 0.75K	FR-C520-1.5K, 2.2K	FR-C520-3.7K	
	—	FR-F520J-0.4K, 0.75K	FR-F520J-1.5K, 2.2K FR-F540J-0.4K to 3.7K	FR-F520J-3.7K	
	—	—	FR-FP520J-0.4K to 2.2K FR-FP540J-0.4K to 3.7K	FR-FP520J-3.7K	

—: Must not be mounted

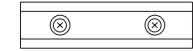
Note: If the mounted models of different pitches are used together on the same DIN rail, choose the minimum mounting screw pitch.

### Mounting screw pitch

Mounting screw pitch



(a) Channel mounting



(b) Enclosure surface mounting

- When the inverter is mounted on the DIN rail, it can endure continuous vibration equivalent to (approximately) 2.45m/s<sup>2</sup>.

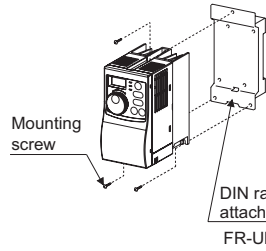
Frequency	Acceleration	Amplitude	Sweep Count
10 to 55Hz	—	0.075mm	10 times (1 octave*/1 minute)
55 to 150Hz	9.8m/s <sup>2</sup>	—	

\* Octave indicates the interval between any two frequencies having a ratio of 2 to 1.

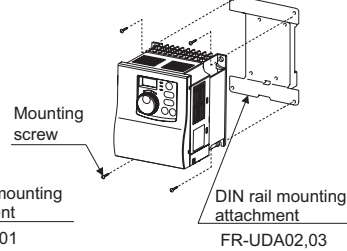
## 2. Installation of DIN Rail Mounting Attachment to Inverter

- When installing the DIN rail mounting attachment to the inverter, first remove the inverter's front cover in accordance with the inverter instruction manual.
- Precautions for installation
  - Be careful so that the mounting screws do not enter the inverter.

Installation of FR-UDA01



Installation of FR-UDA02, 03

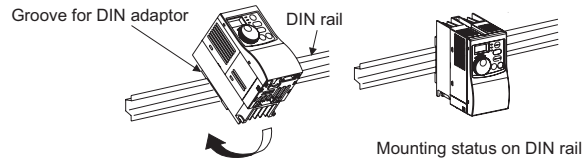


Recommended installation screw size	Inverter
M4 × 0.7L=12	FR-E720-0.1K to 3.7K
	FR-E720S-0.1K to 1.5K
	FR-E710W-0.1K to 0.75K
	FR-D720-0.1K to 3.7K
	FR-D740-0.4K to 3.7K
	FR-D720S-0.1K to 1.5K
	FR-D710W-0.1K to 0.75K
	FR-S520E-0.1K to 0.75K, 3.7K
	FR-S520SE-0.1K to 0.75K
	FR-S510WE-0.1K to 0.4K
M4 × 0.7L=16	FR-C520-0.1K to 0.75, 3.7K
	FR-F520J-0.4K, 0.75K, 3.7K
	FR-FP520J-3.7K
	FR-S520E-1.5K, 2.2K
	FR-S540E-0.4K to 3.7K
	FR-S520SE-1.5K
	FR-S510WE-0.75K
	FR-C520-1.5K, 2.2K
	FR-F520J-1.5K, 2.2K
	FR-F540J-0.4K to 3.7K
FR-FP520J-0.4K to 2.2K	
FR-FP540J-0.4K to 3.7K	

## 3. Mounting and Dismounting to and from DIN Rail

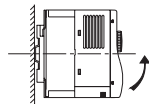
- Mounting
 

To prevent the inverter from dropping due to a mounting fault, insert the top of the groove into the top side of the DIN rail and press the inverter against the DIN rail to fix. Make sure that the inverter has been fixed securely.

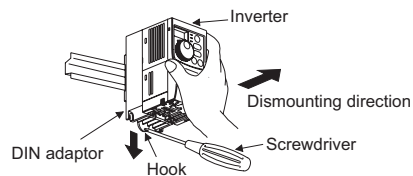


- Inspection after mounting
 

To check whether the inverter has been mounted to the DIN rail securely or not, push up the inverter (with force at about 3N·m) as shown below. If the inverter does not come off, the inverter is mounted securely. If it comes off, mount it to the DIN rail then push it up again.



- Dismounting
  - Using a flat-blade screwdriver (6 × 100), pull down the hook at the bottom of the DIN adaptor.
  - With the hook pulled down, pull the inverter toward you to dismount it from the DIN rail.



## 4. DIN Rail Mounting Attachment Outline Dimension Drawings

