

Information for Replacement of FR-A700
Series with FR-A800 Series

Size, connection, parameters, and options concerning replacement are stated on the following pages.

1. REPLACING INVERTER

The FR-A800 series has two specifications types: FM type and CA type.

When replacing the FR-A700 series of the Japanese specifications, select the FM type (FR-A800-K-1).

2. SIZE

When the FR-A700 series is replaced with the FR-A800 series, the FR-A800 series 280K or lower has the same installation size as that of the corresponding FR-A700 series.

For details of the sizes, refer to the outline dimension drawings on the following pages.

[Inverter alone]

Existing inverter	Replacing inverter	Installation size
FR-A720-0.4K	FR-A820-0.4K	Same
FR-A720-0.75K	FR-A820-0.75K	Same
FR-A720-1.5K	FR-A820-1.5K	Same
FR-A720-2.2K	FR-A820-2.2K	Same
FR-A720-3.7K	FR-A820-3.7K	Same
FR-A720-5.5K	FR-A820-5.5K	Same
FR-A720-7.5K	FR-A820-7.5K	Same
FR-A720-11K	FR-A820-11K	Same
FR-A720-15K	FR-A820-15K	Same
FR-A720-18.5K	FR-A820-18.5K	Same
FR-A720-22K	FR-A820-22K	Same
FR-A720-30K	FR-A820-30K	Same
FR-A720-37K	FR-A820-37K	Same
FR-A720-45K	FR-A820-45K	Same
FR-A720-55K	FR-A820-55K	Same
FR-A720-75K	FR-A820-75K	Same
FR-A720-90K	FR-A820-90K	Same
FR-A740-0.4K	FR-A840-0.4K	Same
FR-A740-0.75K	FR-A840-0.75K	Same
FR-A740-1.5K	FR-A840-1.5K	Same
FR-A740-2.2K	FR-A840-2.2K	Same
FR-A740-3.7K	FR-A840-3.7K	Same
FR-A740-5.5K	FR-A840-5.5K	Same
FR-A740-7.5K	FR-A840-7.5K	Same
FR-A740-11K	FR-A840-11K	Same
FR-A740-15K	FR-A840-15K	Same
FR-A740-18.5K	FR-A840-18.5K	Same
FR-A740-22K	FR-A840-22K	Same
FR-A740-30K	FR-A840-30K	Same
FR-A740-37K	FR-A840-37K	Same
FR-A740-45K	FR-A840-45K	Same
FR-A740-55K	FR-A840-55K	Same
FR-A740-75K	FR-A840-75K	Same
FR-A740-90K	FR-A840-90K	Same
FR-A740-110K	FR-A840-110K	Same
FR-A740-132K	FR-A840-132K	Same
FR-A740-160K	FR-A840-160K	Same
FR-A740-185K	FR-A840-185K	Same
FR-A740-220K	FR-A840-220K	Same
FR-A740-250K	FR-A840-250K	Same
FR-A740-280K	FR-A840-280K	Same

Use screws with the proper lengths for installation as required.

When the panel through attachment is used, the enclosure cut dimensions are compatible with those of the FR-A700 series.

[When used with the panel through attachment]

Existing inverter		Replacing inverter		Outline dimensions / enclosure cut dimension
Inverter model	Panel through attachment model	Inverter model	Panel through attachment model	
FR-A720-0.4K	—	FR-A820-0.4K	—	—
FR-A720-0.75K	—	FR-A820-0.75K	—	—
FR-A720-1.5K	FR-A7CN01	FR-A820-1.5K	FR-A8CN01	Same
	FR-A7CN101		FR-A8CN101	Same
FR-A720-2.2K	FR-A7CN01	FR-A820-2.2K	FR-A8CN01	Same
	FR-A7CN101		FR-A8CN101	Same
FR-A720-3.7K	FR-A7CN01	FR-A820-3.7K	FR-A8CN01	Same
	FR-A7CN101		FR-A8CN101	Same
FR-A720-5.5K	FR-A7CN02	FR-A820-5.5K	FR-A8CN02	Same
FR-A720-7.5K	FR-A7CN02	FR-A820-7.5K	FR-A8CN02	Same
FR-A720-11K	FR-A7CN03	FR-A820-11K	FR-A8CN03	Same
FR-A720-15K	FR-A7CN04	FR-A820-15K	FR-A8CN04	Same
FR-A720-18.5K	FR-A7CN04	FR-A820-18.5K	FR-A8CN04	Same
FR-A720-22K	FR-A7CN04	FR-A820-22K	FR-A8CN04	Same
FR-A720-30K	FR-A7CN05	FR-A820-30K	FR-A8CN05	Existing enclosure cut dimensions compatible*
	FR-A7CN103			Same enclosure cut dimensions
FR-A720-37K	FR-A7CN07	FR-A820-37K	FR-A8CN06	Same enclosure cut dimensions
FR-A720-45K	FR-A7CN07	FR-A820-45K	FR-A8CN06	Same enclosure cut dimensions
FR-A720-55K	FR-A7CN11	FR-A820-55K	FR-A8CN07	Same enclosure cut dimensions
	FR-A7CN104		FR-A8CN103	Same enclosure cut dimensions
FR-A720-75K	FR-A7CN10	FR-A820-75K	FR-A8CN08	Same enclosure cut dimensions
	FR-A7CN105		FR-A8CN104	Minor modification required
FR-A720-90K	FR-A7CN10	FR-A820-90K	FR-A8CN08	Same enclosure cut dimensions
	FR-A7CN105		FR-A8CN104	Minor modification required
FR-A740-0.4K	FR-A7CN01	FR-A840-0.4K	FR-A8CN01	Same
	FR-A7CN101		FR-A8CN101	Same
FR-A740-0.75K	FR-A7CN01	FR-A840-0.75K	FR-A8CN01	Same
	FR-A7CN101		FR-A8CN101	Same
FR-A740-1.5K	FR-A7CN01	FR-A840-1.5K	FR-A8CN01	Same
	FR-A7CN101		FR-A8CN101	Same
FR-A740-2.2K	FR-A7CN01	FR-A840-2.2K	FR-A8CN01	Same
	FR-A7CN101		FR-A8CN101	Same
FR-A740-3.7K	FR-A7CN01	FR-A840-3.7K	FR-A8CN01	Same
	FR-A7CN101		FR-A8CN101	Same
FR-A740-5.5K	FR-A7CN02	FR-A840-5.5K	FR-A8CN02	Same
FR-A740-7.5K	FR-A7CN02	FR-A840-7.5K	FR-A8CN02	Same
FR-A740-11K	FR-A7CN03	FR-A840-11K	FR-A8CN03	Same
	FR-A7CN102		FR-A8CN102	Same
FR-A740-15K	FR-A7CN03	FR-A840-15K	FR-A8CN03	Same
	FR-A7CN102		FR-A8CN102	Same
FR-A740-18.5K	FR-A7CN04	FR-A840-18.5K	FR-A8CN04	Same
FR-A740-22K	FR-A7CN04	FR-A840-22K	FR-A8CN04	Same

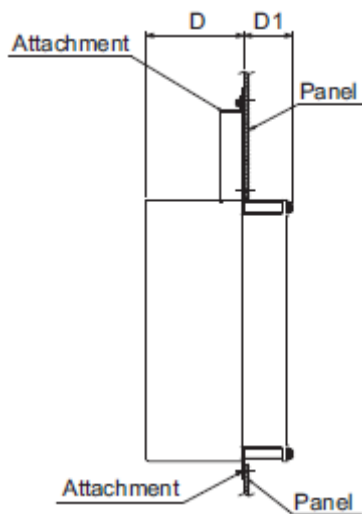
Existing inverter		Replacing inverter		Outline dimensions / enclosure cut dimension
Inverter model	Panel through attachment model	Inverter model	Panel through attachment model	
FR-A740-30K	FR-A7CN06	FR-A840-30K	FR-A8CN05	Same enclosure cut dimensions
FR-A740-37K	FR-A7CN07	FR-A840-37K	FR-A8CN06	Same enclosure cut dimensions
FR-A740-45K	FR-A7CN07	FR-A840-45K	FR-A8CN06	Same enclosure cut dimensions
FR-A740-55K	FR-A7CN07	FR-A840-55K	FR-A8CN06	Same enclosure cut dimensions
FR-A740-75K	FR-A7CN08	FR-A840-75K	FR-A8CN09	Same enclosure cut dimensions
	FR-A7CN106		FR-A8CN105	Minor modification required
FR-A740-90K	FR-A7CN09	FR-A840-90K	FR-A8CN09	Same enclosure cut dimensions
	FR-A7CN107		FR-A8CN105	Minor modification required
FR-A740-110K	FR-A7CN10	FR-A840-110K	FR-A8CN08	Same enclosure cut dimensions
	FR-A7CN105		FR-A8CN104	Minor modification required
FR-A740-132K	FR-A7CN10	FR-A840-132K	FR-A8CN08	Same enclosure cut dimensions
	FR-A7CN108		FR-A8CN106	Same
FR-A740-160K	Changing the positions of installation frames	FR-A840-160K	Changing the positions of installation frames	Same
	FR-A7CN109		FR-A8CN107	Same enclosure cut dimensions
FR-A740-185K	Changing the positions of installation frames	FR-A840-185K	Changing the positions of installation frames	Same
FR-A740-220K	Changing the positions of installation frames	FR-A840-220K	Changing the positions of installation frames	Same
	FR-A7CN110		FR-A8CN108	Same enclosure cut dimensions
FR-A740-250K	Changing the positions of installation frames	FR-A840-250K	Changing the positions of installation frames	Same
FR-A740-280K	Changing the positions of installation frames	FR-A840-280K	Changing the positions of installation frames	Same
	FR-A7CN111		FR-A8CN109	Same enclosure cut dimensions

* Although the enclosure cut dimensions of the FR-A7CN05 are available for the attachment (FR-A8CN05), refer to the FR-A8CN Instruction Manual to check the recommended cut dimensions of the FR-A8CN05.

[Depth]

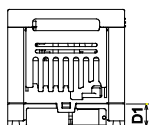
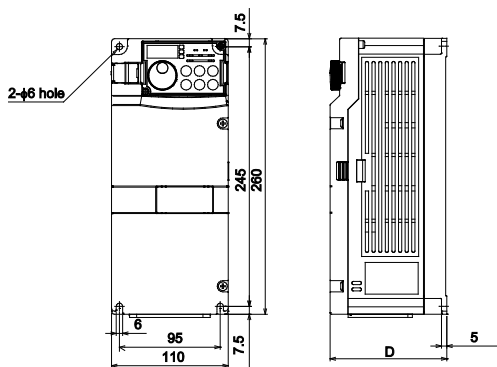
When the FR-A700 series is replaced with the FR-A800 series, the depths inside and outside the enclosure are different for some attachment models as shown in the shaded areas below.

Before replacement			After replacement		
Attachment model	D (mm)	D1 (mm)	Attachment model	D (mm)	D1 (mm)
FR-A7CN01	97	48.4	FR-A8CN01	97	48.4
FR-A7CN02	86	89.4	FR-A8CN02	86	89.4
FR-A7CN03	89	106.4	FR-A8CN03	89	106.4
FR-A7CN04	88.5	110.6	FR-A8CN04	96.7	102.4
FR-A7CN05, 06	123.5	71.5	FR-A8CN05	130.8	64.2
FR-A7CN07	96	154	FR-A8CN06	96	154
FR-A7CN11	97	153	FR-A8CN07	130	120
FR-A7CN10	176.5	183.5	FR-A8CN08	176.5	183.5
FR-A7CN08, 09	116.5	183.5	FR-A8CN09	152.3	147.7
FR-A7CN101	97	48.4	FR-A8CN101	97	48.4
FR-A7CN102	89	106.4	FR-A8CN102	88.5	106.9
FR-A7CN103	123.5	71.5	FR-A8CN05	130.8	64.2
FR-A7CN104	97	153	FR-A8CN103	130	120
FR-A7CN105	176.5	183.5	FR-A8CN104	176.5	183.5
FR-A7CN106	116.5	183.5	FR-A8CN105	152.3	147.7
FR-A7CN107	116.5	183.5	FR-A8CN105	152.3	147.7
FR-A7CN108	176.5	183.5	FR-A8CN106	176.5	183.5
FR-A7CN109	195	185	FR-A8CN107	195	185
FR-A7CN110	195	185	FR-A8CN108	195	185
FR-A7CN111	195	185	FR-A8CN109	198.2	181.8



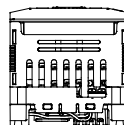
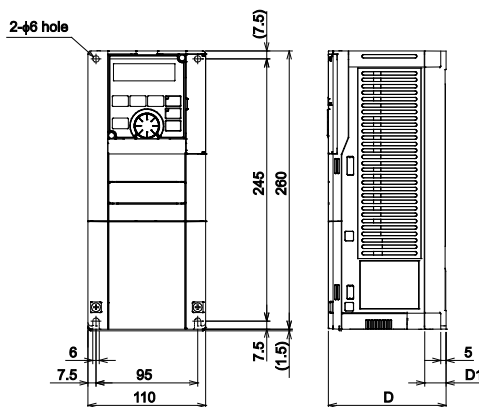
Outline dimension drawings (Unit: mm)

■ FR-A720-0.4K, 0.75K



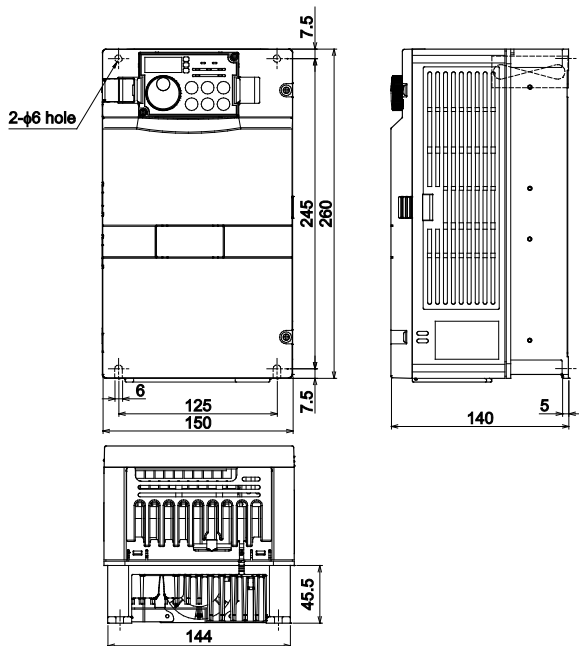
Inverter model	D	D1
FR-A720-0.4K	110	21
FR-A720-0.75K	125	36

■ FR-A820-0.4K, 0.75K

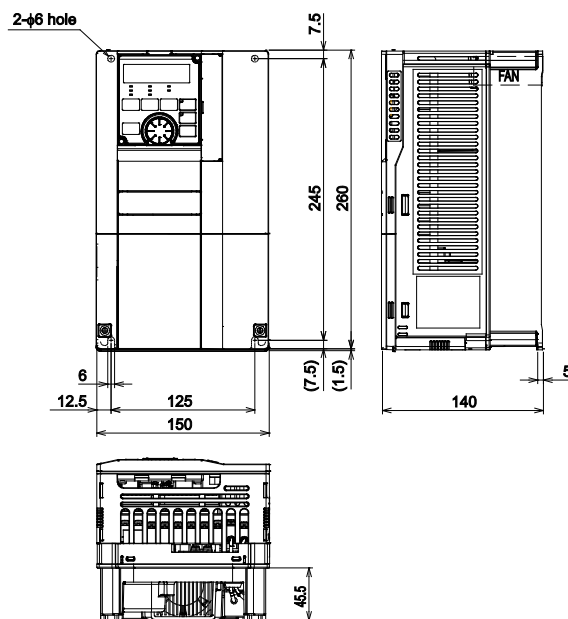


Inverter model	D	D1
FR-A820-0.4K	110	20
FR-A820-0.75K	125	35

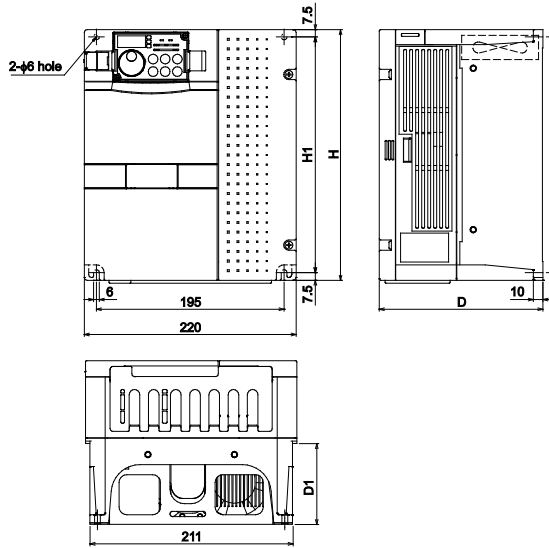
■ FR-A720-1.5K, 2.2K, 3.7K



■ FR-A820-1.5K, 2.2K, 3.7K

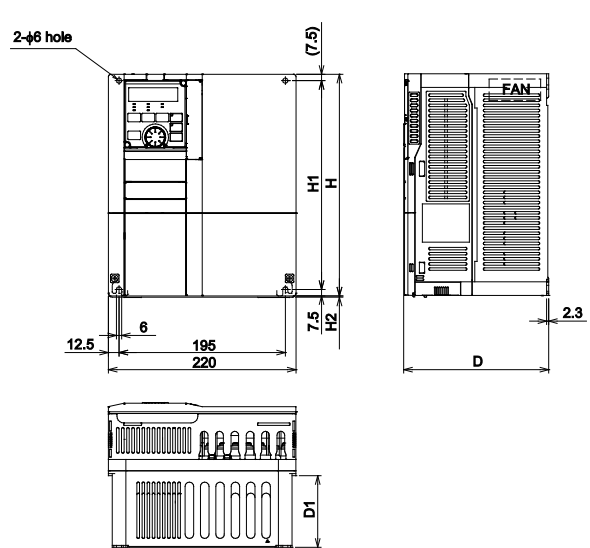


■ FR-A720-5.5K, 7.5K, 11K



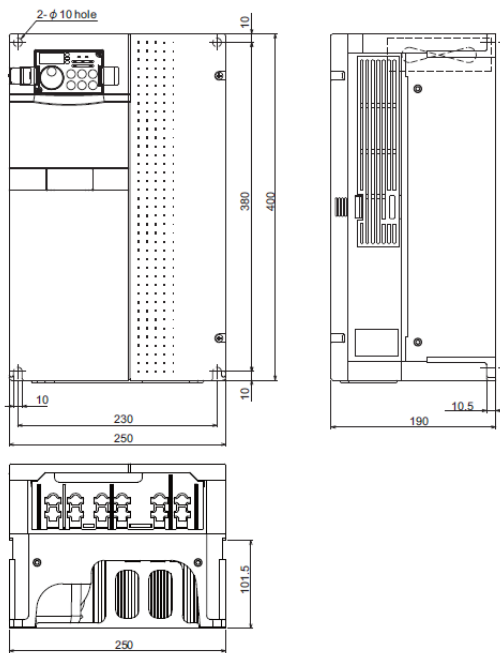
Inverter model	H	H1	D	D1
FR-A720-5.5K, 7.5K	260	245	170	84
FR-A720-11K	300	285	190	101.5

■ FR-A820-5.5K, 7.5K, 11K

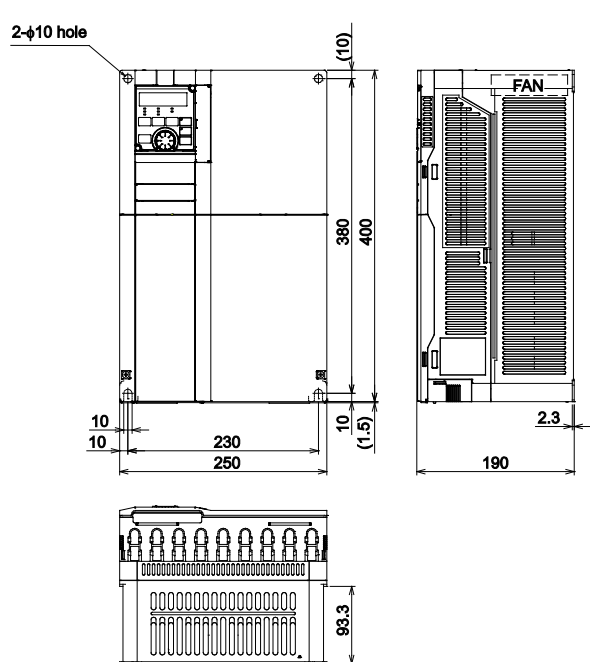


Inverter model	H	H1	H2	D	D1
FR-A820-5.5K, 7.5K	260	245	1.5	170	84
FR-A820-11K	300	285	3	190	101.5

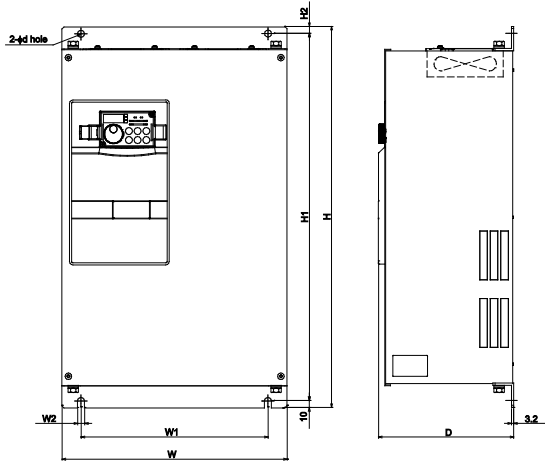
■ FR-A720-15K, 18.5K, 22K



■ FR-A820-15K, 18.5K, 22K



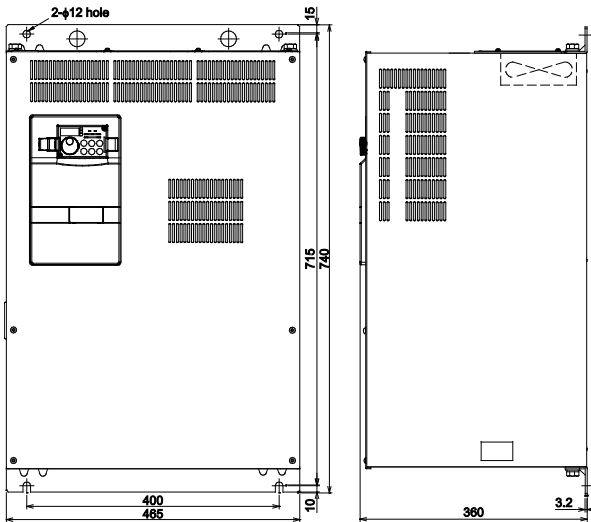
■ FR-A720-30K, 37K, 45K, 55K



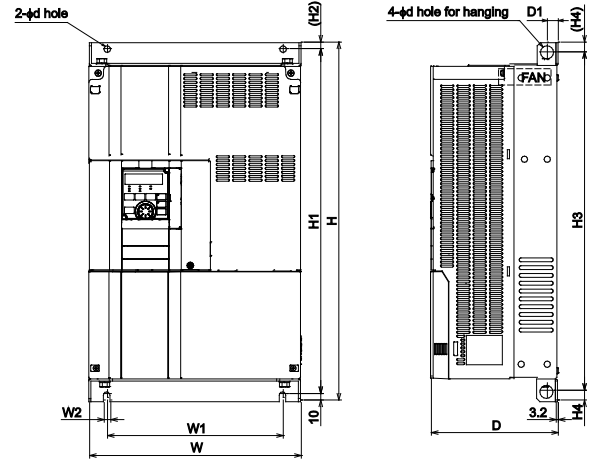
Inverter model	W	W1	W2	H	H1	H2
FR-A720-30K	325	270	10	550	530	10
FR-A720-37K, 45K	435	380	12	550	525	15
FR-A720-55K	465	410	12	700	675	15

Inverter model	d	D
FR-A720-30K	10	195
FR-A720-37K, 45K	12	250
FR-A720-55K	12	250

■ FR-A720-75K, 90K



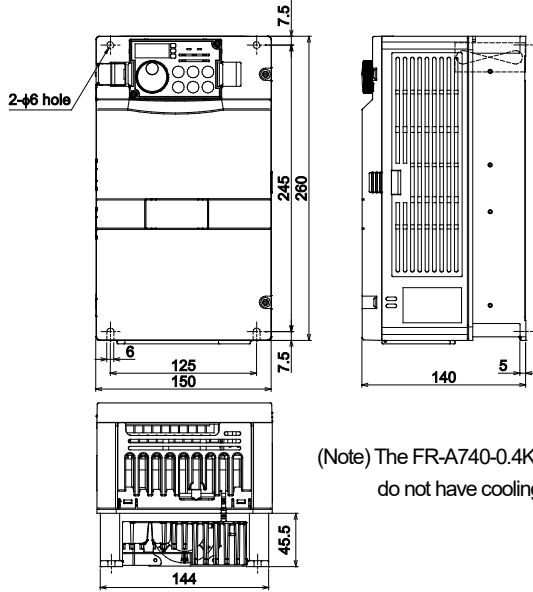
■ FR-A820-30K, 37K, 45K, 55K, 75K, 90K



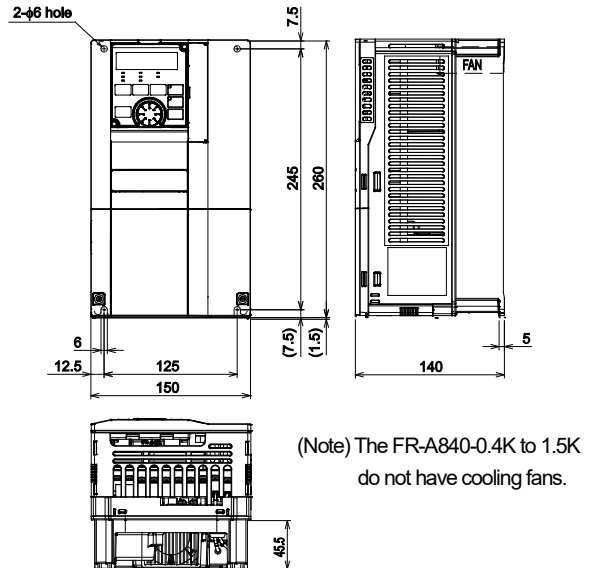
Inverter model	W	W1	W2	H	H1	H2
FR-A820-30K	325	270	10	550	530	10
FR-A820-37K, 45K	435	380	12	550	525	15
FR-A820-55K	465	410	12	700	675	15
FR-A820-75K, 90K	465	400	12	740	715	15

Inverter model	H3	H4	d	d1	D	D1
FR-A820-30K	520	15	10	20	195	17
FR-A820-37K, 45K	514	18	12	25	250	24
FR-A820-55K	664	18	12	25	250	22
FR-A820-75K, 90K	704	18	12	24	360	22

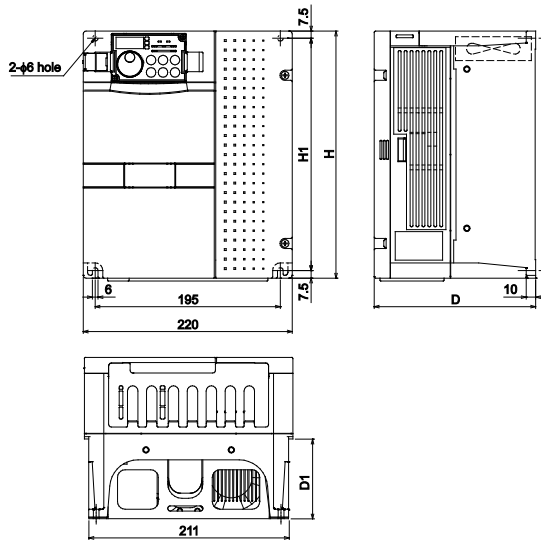
■ FR-A740-0.4K, 0.75K, 1.5K, 2.2K, 3.7K



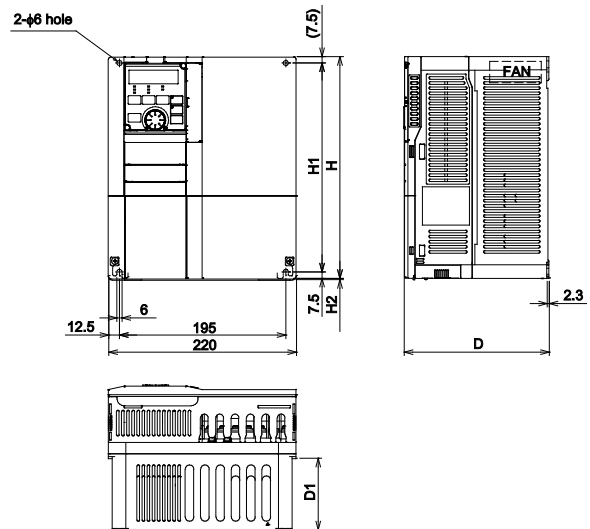
■ FR-A840-0.4K, 0.75K, 1.5K, 2.2K, 3.7K



■ FR-A740-5.5K, 7.5K, 11K, 15K



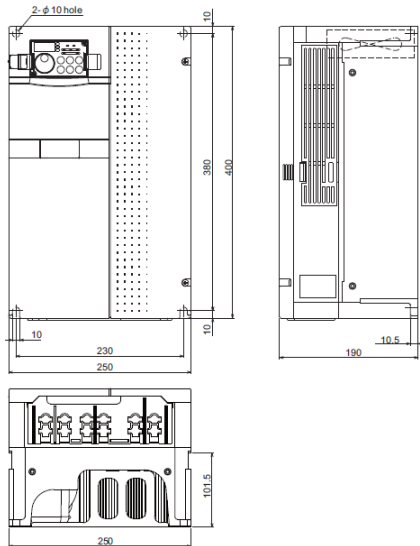
■ FR-A840-5.5K, 7.5K, 11K, 15K



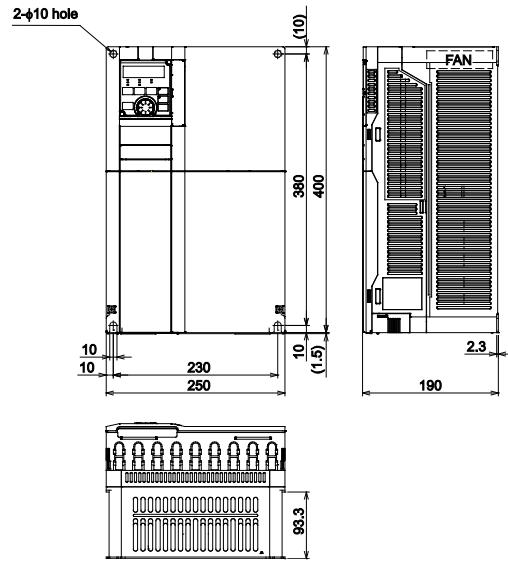
Inverter model	H	H1	D	D1
FR-A740-5.5K, 7.5K	260	245	170	84
FR-A740-11K, 15K	300	285	190	101.5

Inverter model	H	H1	H2	D	D1
FR-A840-5.5K, 7.5K	260	245	1.5	170	84
FR-A840-11K, 15K	300	285	3	190	101.5

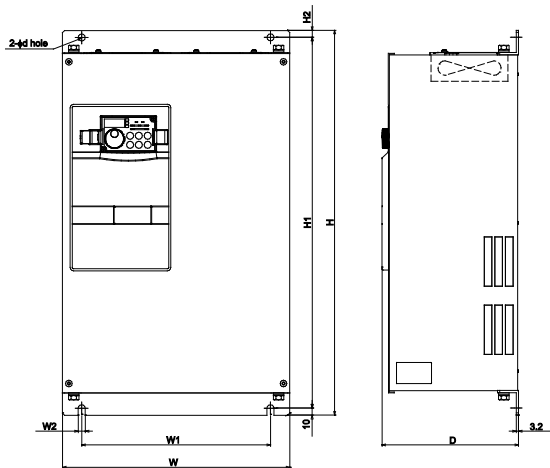
■ FR-A740-18.5K, 22K



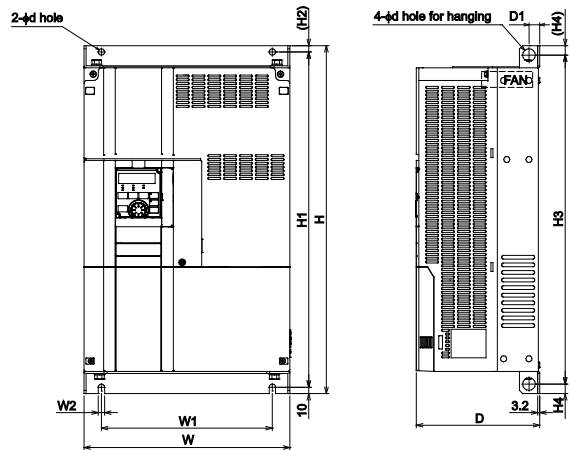
■ FR-A840-18.5K, 22K



■ FR-A740-30K, 37K, 45K, 55K



■ FR-A840-30K, 37K, 45K, 55K, 75K, 90K



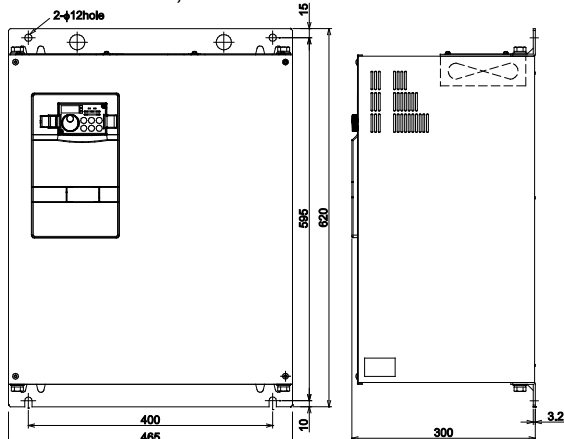
Inverter model	W	W1	W2	H	H1	H2
FR-A740-30K	325	270	10	550	530	10
FR-A740-37K, 45K, 55K	435	380	12	550	525	15

Inverter model	W	W1	W2	H	H1	H2
FR-A840-30K	325	270	10	550	530	10
FR-A840-37K, 45K, 55K	435	380	12	550	525	15
FR-A840-75K, 90K	465	400	12	620	595	15

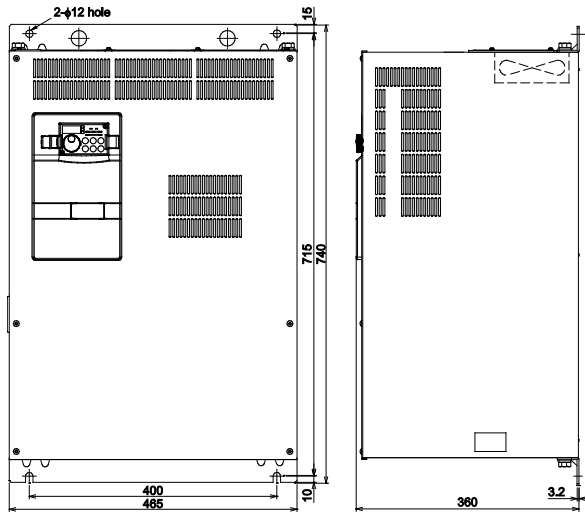
Inverter model	d	D
FR-A740-30K	10	195
FR-A740-37K, 45K, 55K	12	250

Inverter model	H3	H4	d	d1	D	D1
FR-A840-30K	520	15	10	20	195	17
FR-A840-37K, 45K, 55K	514	18	12	25	250	24
FR-A840-75K, 90K	584	18	12	24	300	22

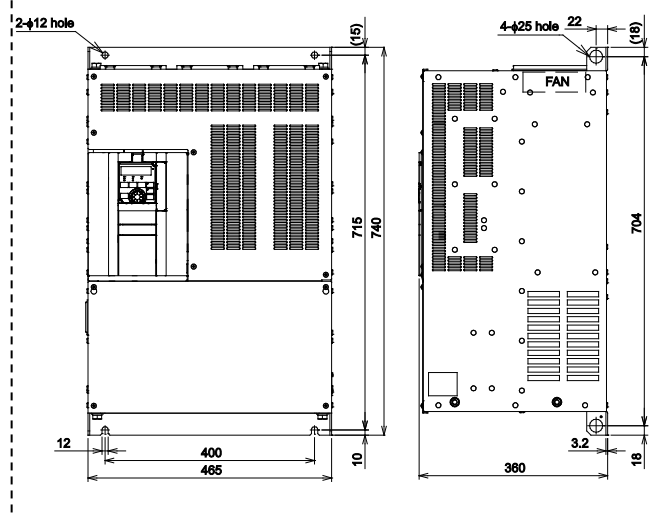
■ FR-A740-75K, 90K



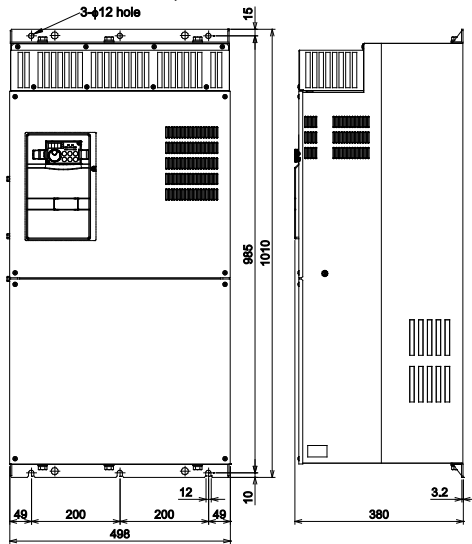
■ FR-A740-110K, 132K



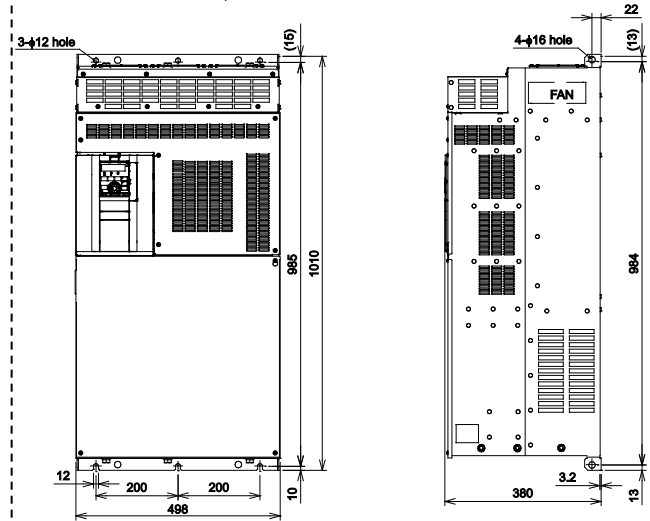
■ FR-A840-110K, 132K



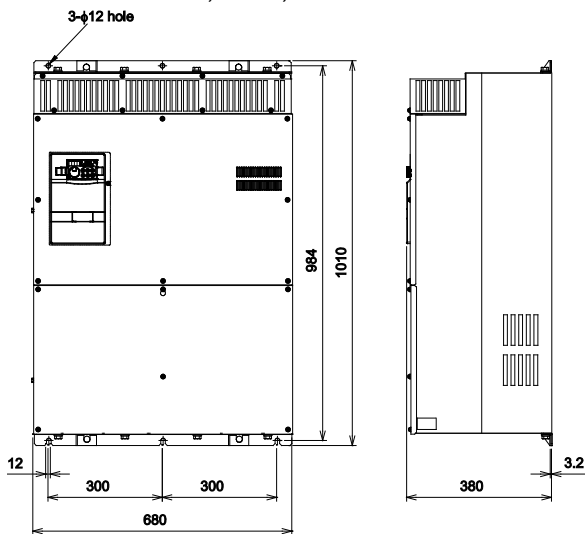
■ FR-A740-160K, 185K



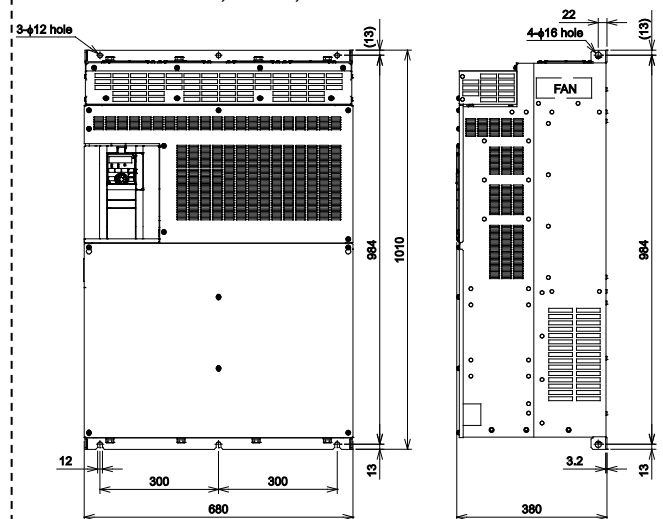
■ FR-A840-160K, 185K



■ FR-A740-220K, 250K, 280K



■ FR-A840-220K, 250K, 280K



3. Wiring

The terminal names are basically the same. Connect the terminals according to their names.

Type		A700 terminal name	A800 compatible terminal name
Main circuit		R/L1, S/L2, T/L3	R/L1, S/L2, T/L3
		U, V, W	U, V, W
		R1/L11, S1/L21	R1/L11, S1/L21
		P/+, PR	P/+, PR P3, PR*1
		P/+, N/-	P/+, N/- P3, N/*2
		P/+, P1	P/+, P1
		PR, PX ⓪	PR, PX ⓪
Control circuit input signal	Contact	STF	STF
		STR	STR
		STOP	STP (STOP)
		RH	RH
		RM	RM
		RL	RL
		JOG	JOG
		RT	RT
		AU*3	AU
		CS	CS
		MRS	MRS
		RES	RES
		SD	SD
PC	PC		
Analog	Frequency setting	10E	10E
		10	10
		2	2
		4	4
		1	1
Control circuit output signal	Relay	A1, B1, C1	A1, B1, C1
		A2, B2, C2	A2, B2, C2
	Open collector	RUN	RUN
		SU	SU
		OL	OL
		IPF	IPF
		FU	FU
	Pulse	SE	SE
		FM	FM
Analog	AM	AM	
Communication	RS-485	PU connector	PU connector
Signal for the brake unit		CN8 (equipped in 75K or higher)	None

*1) For the FR-A820-15K to 22K and the FR-A840-18.5K to 55K, connect a brake resistor between terminals P3 and PR.

*2) For the FR-A820-15K to 22K and the FR-A840-18.5K to 55K, connect a brake unit between terminals P3 and N/-.

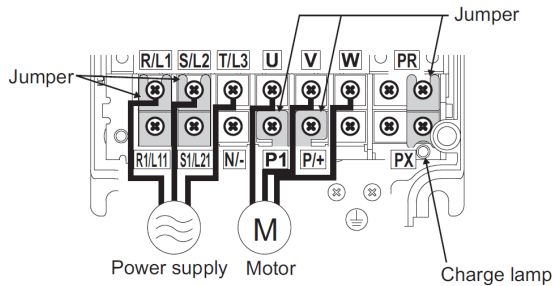
*3) When a PTC thermistor is connected between terminals AU and SD with the AU/PTC switch set to PTC for the FR-A700, connect the thermistor between terminals 10 and 2 for the FR-A800.

Main circuit terminal layout

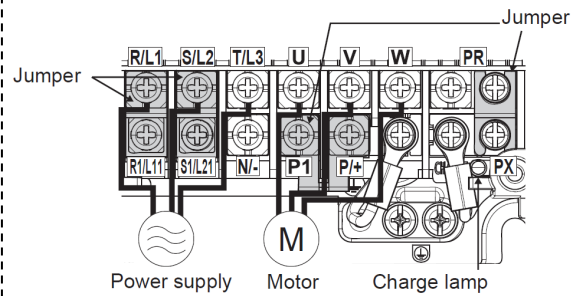
The following shows the main circuit terminal layouts of the FR-A700 series and the FR-A800 series. The main circuit terminal layout and the position of the earth (ground) terminal may differ depending on the capacity. Check the terminal names and positions before performing wiring. When the cable used for the FR-A700 series is too short for the FR-A800 series, prepare the longer one. The terminal screw size may differ depending on the capacity. Check the terminal screw size before performing wiring.

[200 V class]

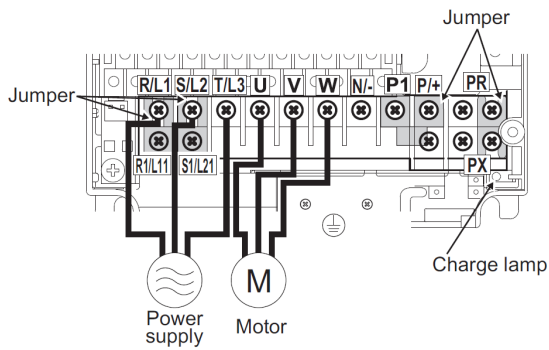
■ FR-A720-0.4K, 0.75K



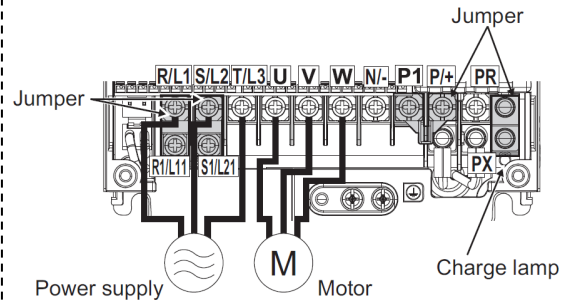
■ FR-A820-0.4K, 0.75K



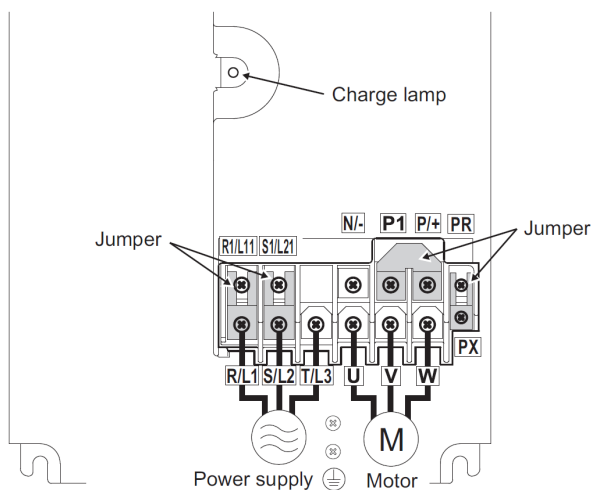
■ FR-A720-1.5K, 2.2K, 3.7K



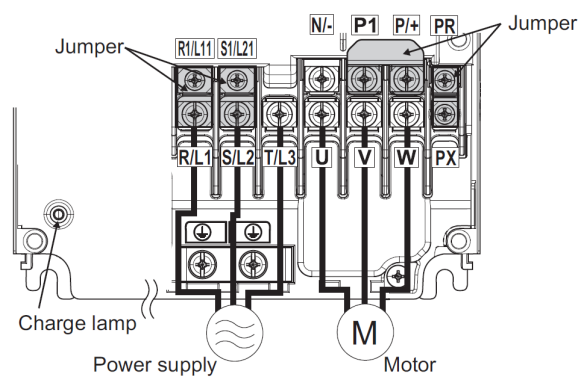
■ FR-A820-1.5K, 2.2K, 3.7K



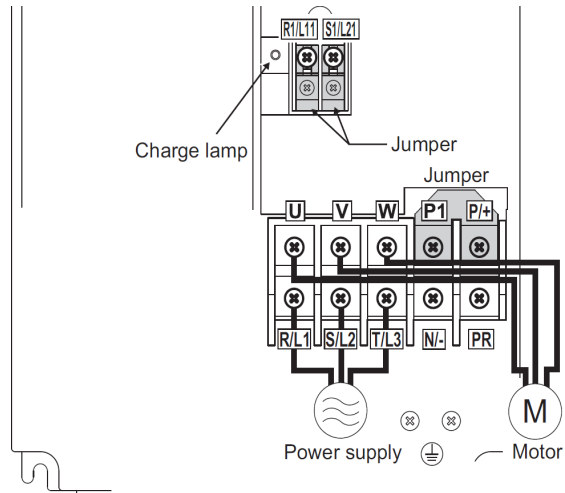
■ FR-A720-5.5K, 7.5K



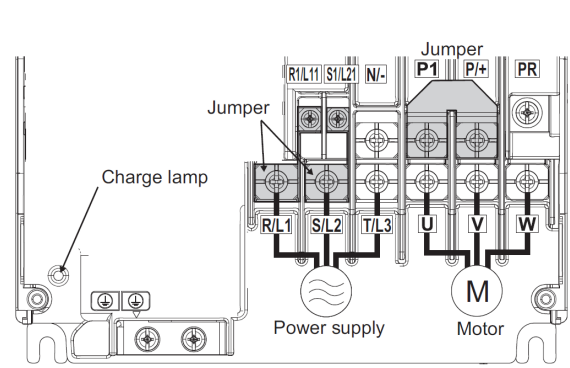
■ FR-A820-5.5K, 7.5K



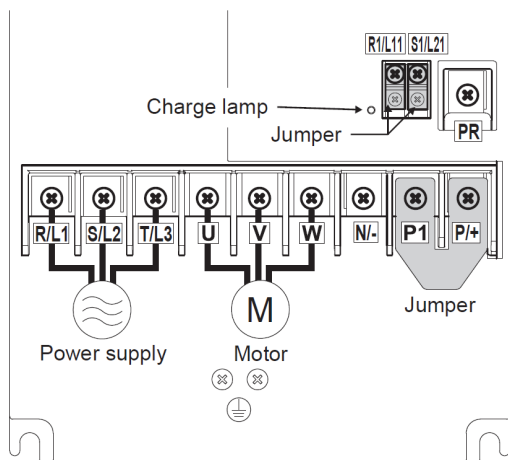
■ FR-A720-11K



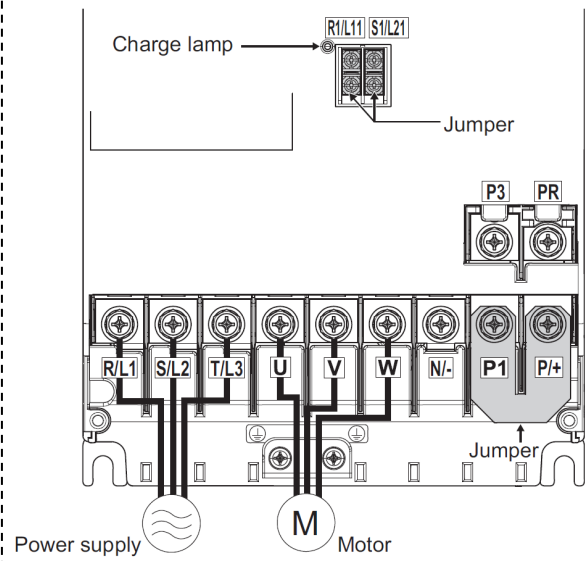
■ FR-A820-11K



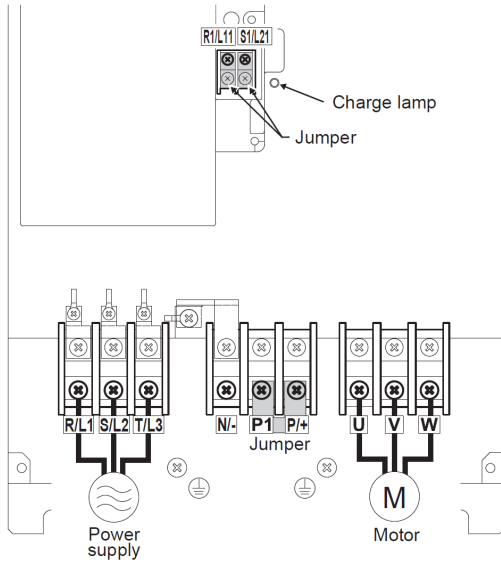
■ FR-A720-15K, 18.5K, 22K



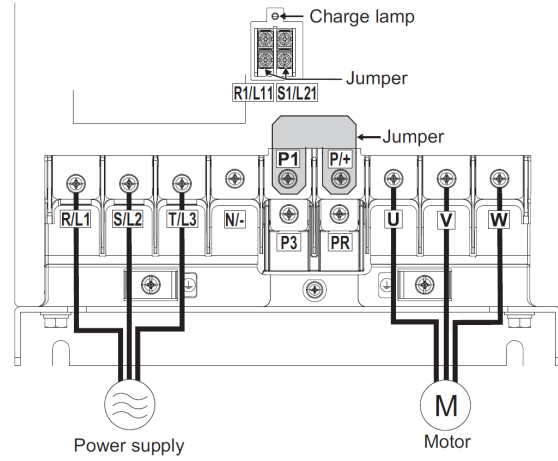
■ FR-A820-15K, 18.5K, 22K



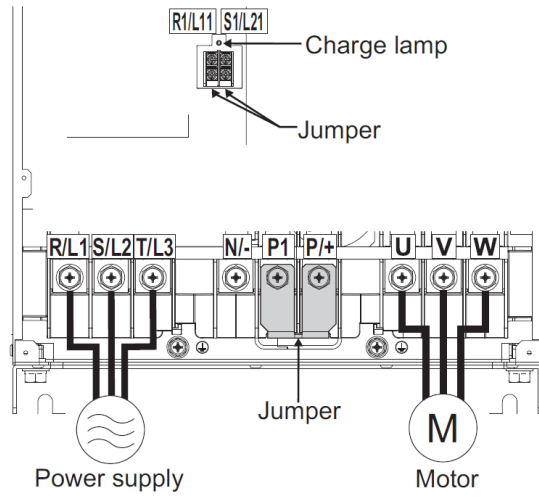
■ FR-A720-30K, 37K, 45K



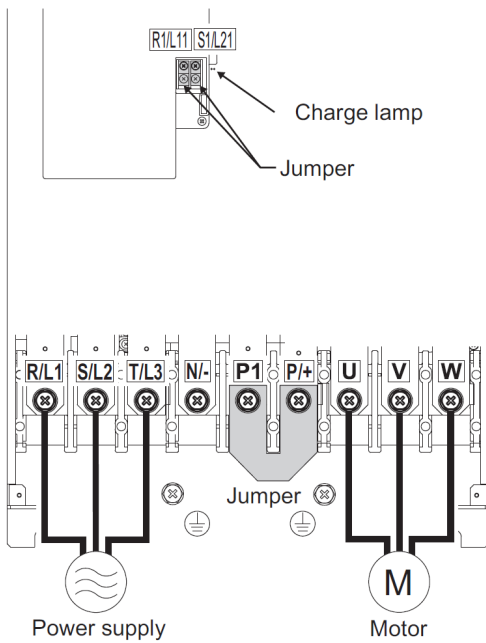
■ FR-A820-30K



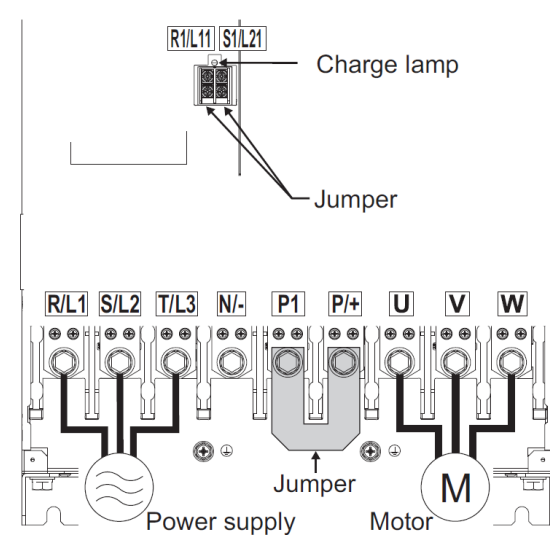
■ FR-A820-37K, 45K



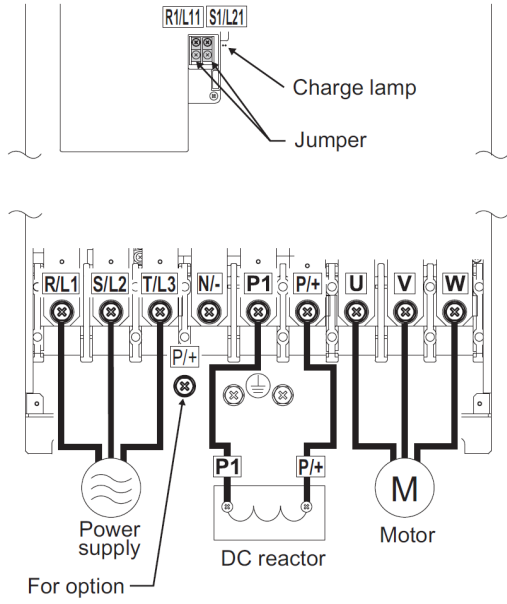
■ FR-A720-55K



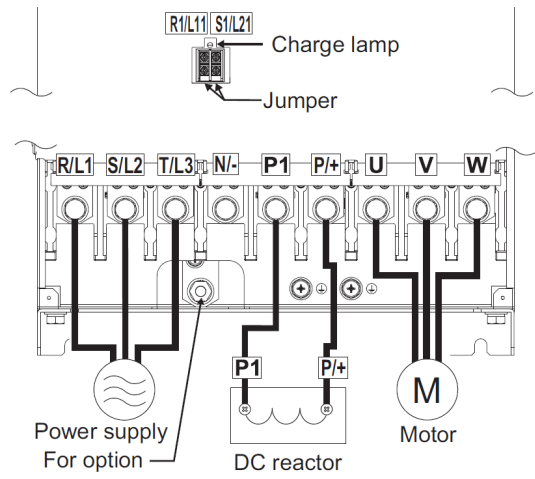
■ FR-A820-55K



■ FR-A720-75K, 90K

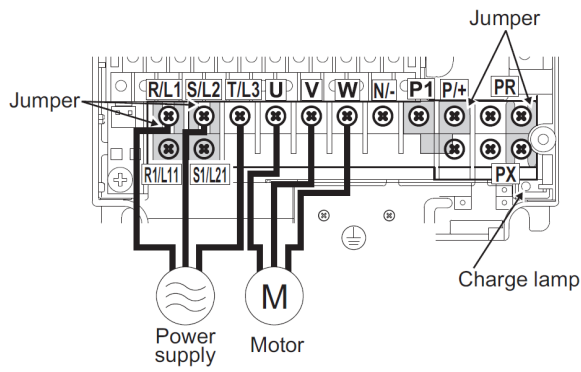


■ FR-A820-75K, 90K

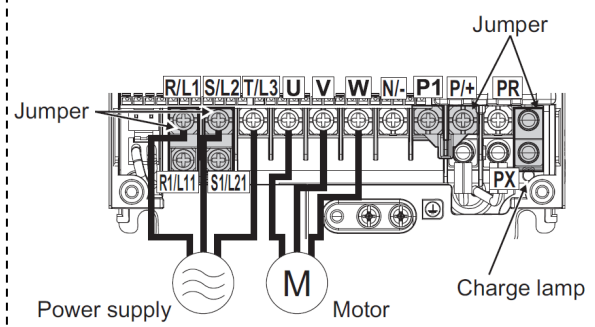


[400 V class]

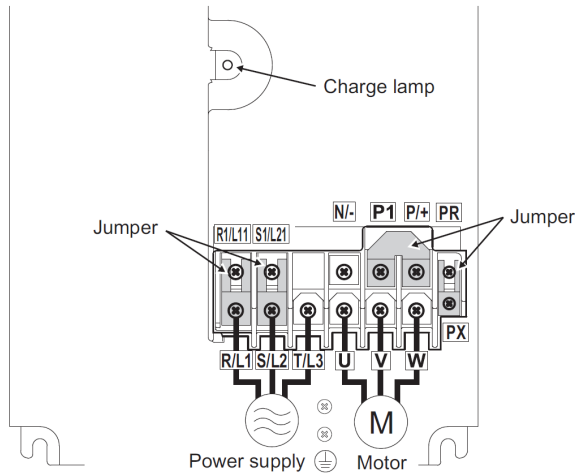
■ FR-A740-0.4K, 0.75K, 1.5K, 2.2K, 3.7K



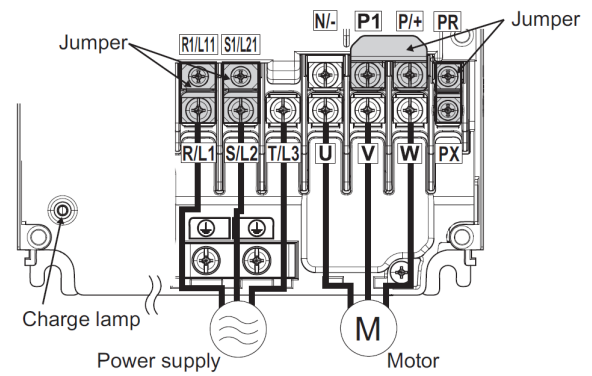
■ FR-A840-0.4K, 0.75K, 1.5K, 2.2K, 3.7K



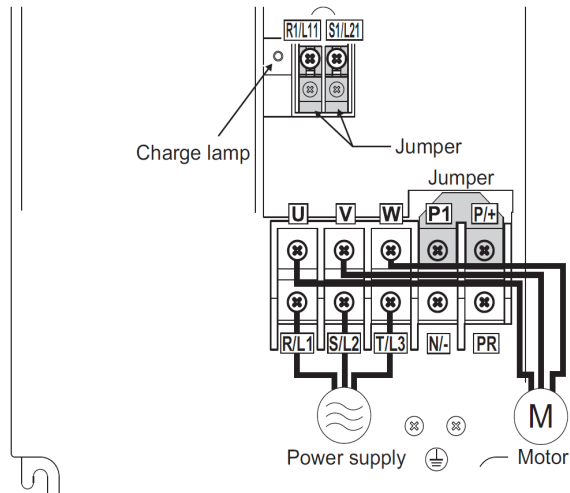
■ FR-A740-5.5K, 7.5K



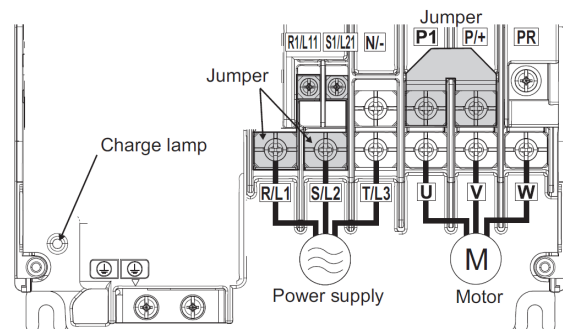
■ FR-A840-5.5K, 7.5K



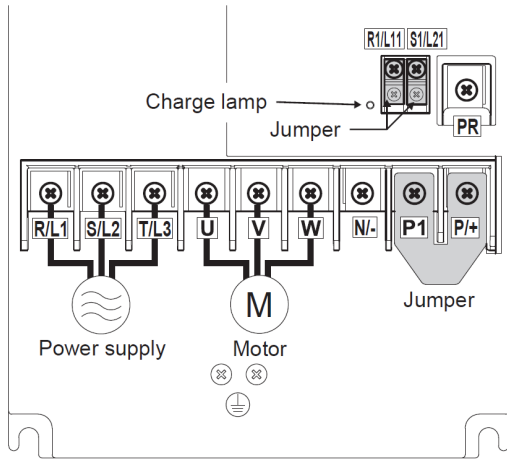
■ FR-A740-11K, 15K



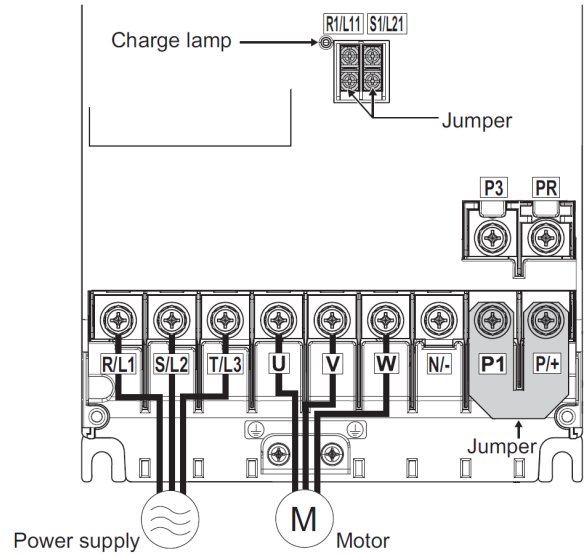
■ FR-A840-11K, 15K



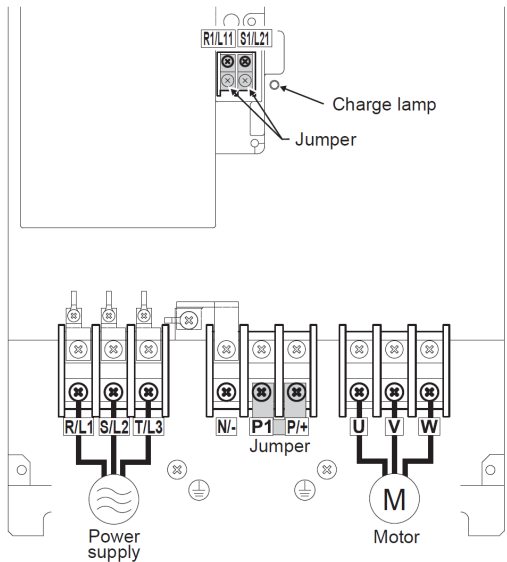
■ FR-A740-18.5K, 22K



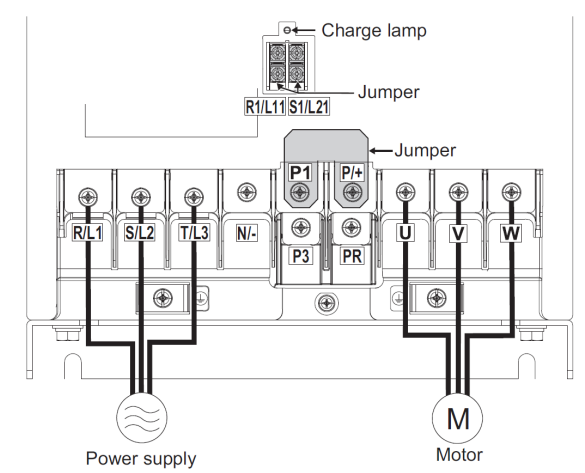
■ FR-A840-18.5K, 22K



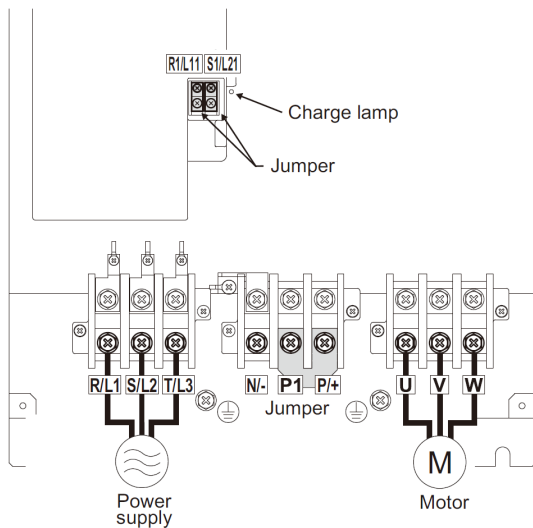
■ FR-A740-30K, 37K, 45K



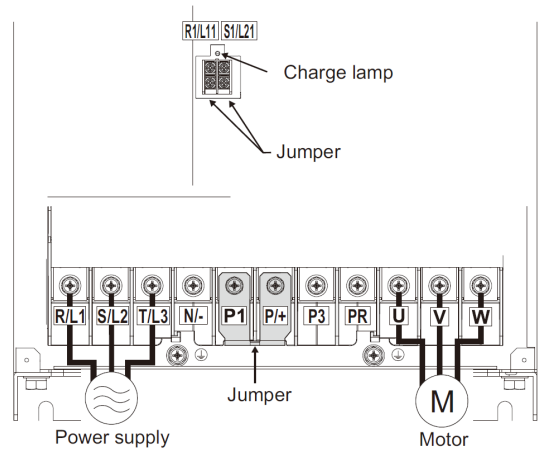
■ FR-A840-30K



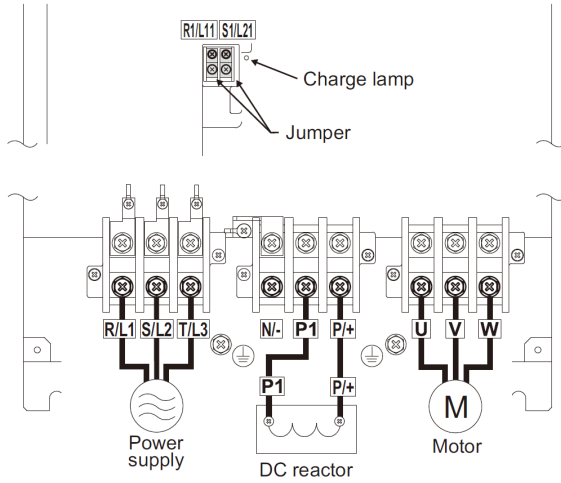
■ FR-A740-55K



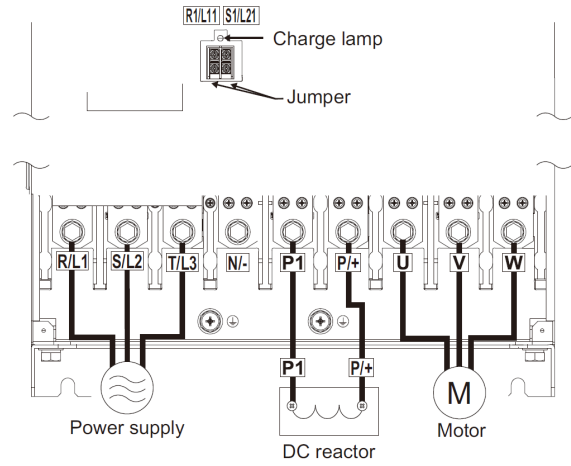
■ FR-A840-37K, 45K, 55K



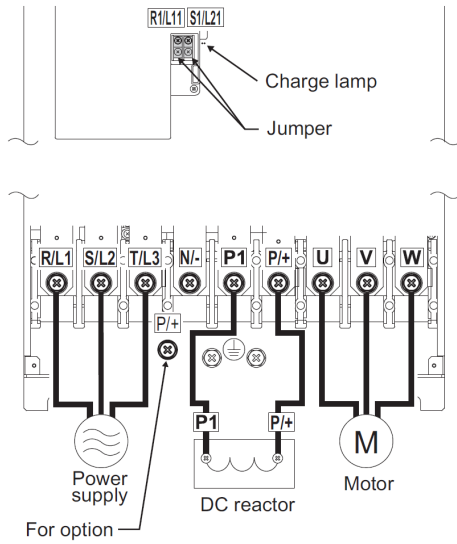
■ FR-A740-75K, 90K



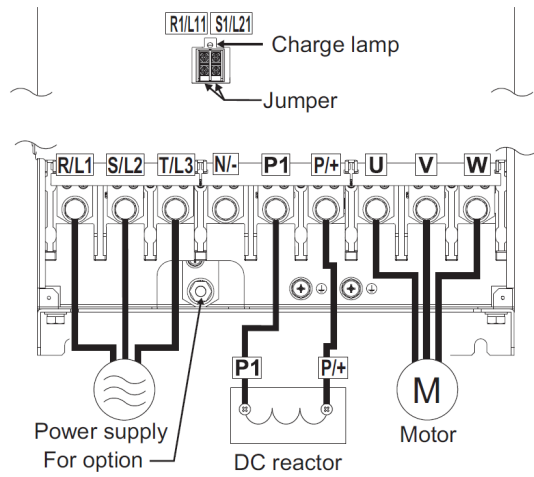
■ FR-A840-75K, 90K



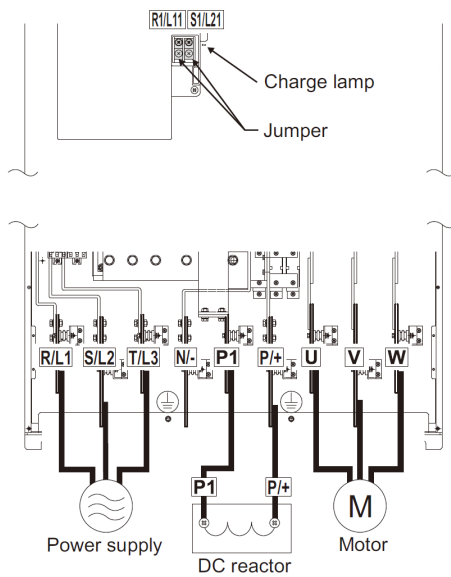
■ FR-A740-110K, 132K, 160K, 185K



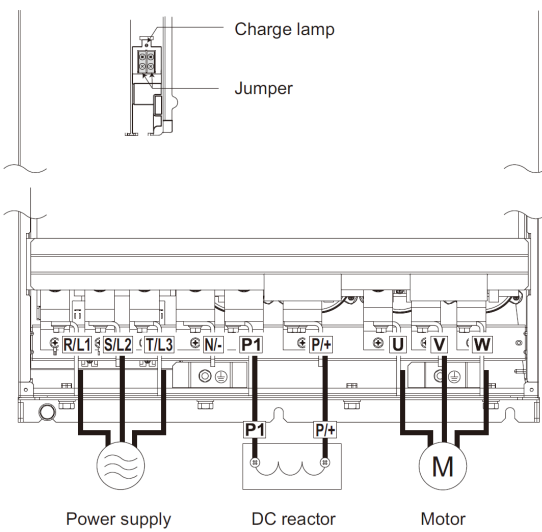
■ FR-A840-110K, 132K, 160K, 185K



■ FR-A740-220K, 250K, 280K



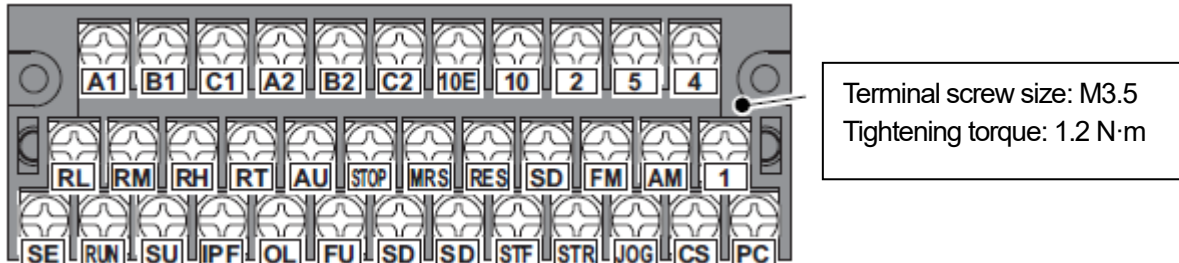
■ FR-A840-220K, 250K, 280K



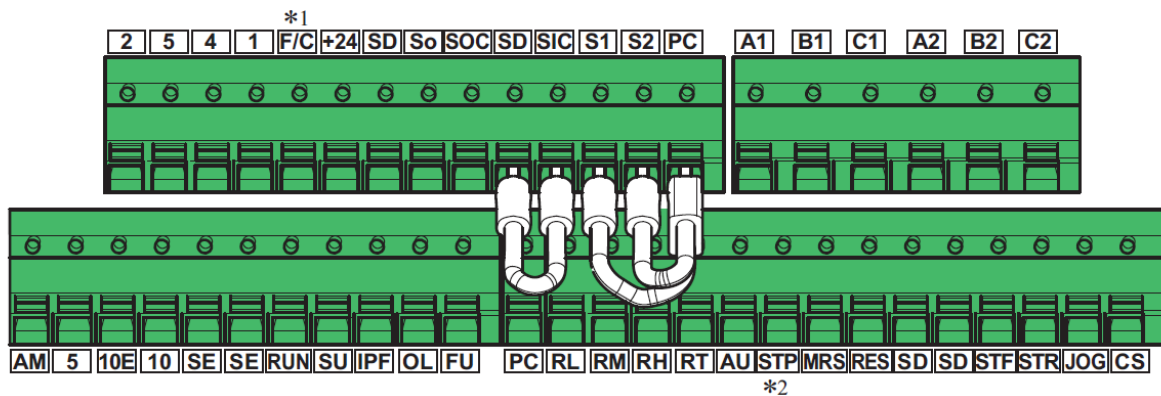
Control circuit terminal layout

The following shows the control circuit terminal layouts of the FR-A700 series and the FR-A800 series. The control circuit terminal layout differs between the FR-A700 and the FR-A800 series. Check the terminal names and positions before performing wiring.

■ Control circuit terminal layout of the FR-A700 series



■ Control circuit terminal layout of the FR-A800 series



*1) This terminal operates as terminal FM for the FM type inverter, and as terminal CA for the CA type inverter.

*2) This terminal represents the terminal STOP.

The control circuit terminal block intercompatibility attachment (FR-A8TAT) can be used for installing control circuit terminal blocks of the FR-A700 series. However, some restrictions apply for the installation. Refer to the FR-A8TAT Instruction Manual.

◆Wiring method

- Power supply connection

For the control circuit wiring, strip off the sheath of a cable, and use it with a blade terminal. For a single wire, strip off the sheath of the wire and apply directly.

Insert the blade terminal or the single wire into a socket of the terminal.

(1)Strip off the sheath for the below length. If the length of the sheath peeled is too long, a short circuit may occur with neighboring wires. If the length is too short, wires might come off.

Wire the stripped cable after twisting it to prevent it from becoming loose. In addition, do not solder it.

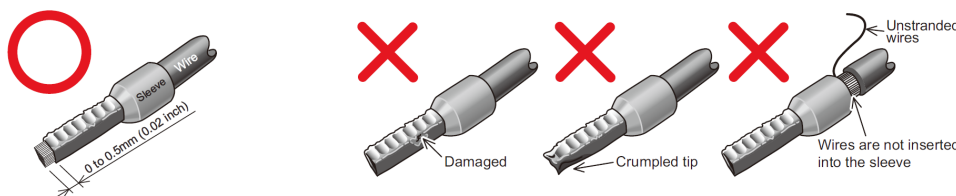
Cable stripping size



(2)Crimp the blade terminal.

Insert wires to a blade terminal, and check that the wires come out for about 0 to 0.5 mm from a sleeve.

Check the condition of the blade terminal after crimping. Do not use a blade terminal of which the crimping is inappropriate, or the face is damaged.



- Blade terminals commercially available (as of February 2012)

Phoenix Contact Co., Ltd.

Cable gauge (mm ²)	Blade terminal model			Crimping tool name
	With insulation sleeve	Without insulation sleeve	For UL wire*1	
0.3	AI 0,5-10WH	—	—	CRIMPFOX 6
0.5	AI 0,5-10WH	—	AI 0,5-10WH-GB	
0.75	AI 0,75-10GY	A 0,75-10	AI 0,75-10GY-GB	
1	AI 1-10RD	A 1-10	AI 1-10RD/1000GB	
1.25, 1.5	AI 1,5-10BK	A 1,5-10	AI 1,5-10BK/1000GB*2	
0.75 (for two wires)	AI-TWIN 2 × 0,75-10GY	—	—	

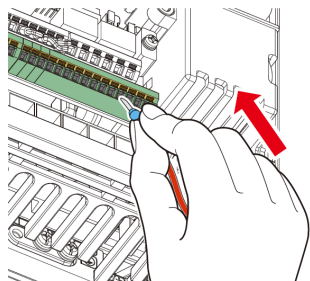
*1 A blade terminal with an insulation sleeve compatible with the MTW wire which has a thick wire insulation.

*2 Applicable for the terminal A1, B1, C1, A2, B2, C2.

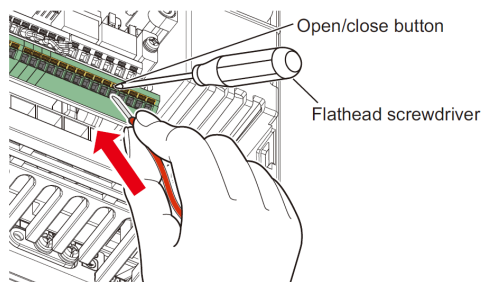
NICHIFU Co., Ltd.

Cable gauge (mm ²)	Blade terminal product number	Insulation product number	Crimping tool product number
0.3 to 0.75	BT 0.75-11	VC 0.75	NH 69

(3)Insert the wires into a socket.



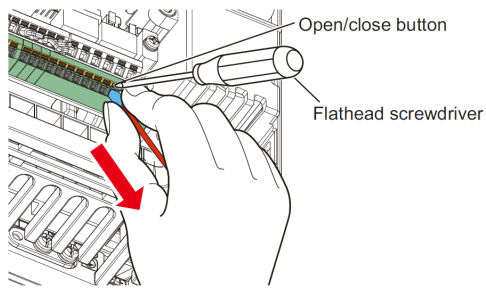
When using a single wire or stranded wires without a blade terminal, push the open/close button all the way down with a flathead screwdriver, and insert the wire.



NOTE

- When using stranded wires without a blade terminal, twist enough to avoid short circuit with a nearby terminals or wires.
- Place the flathead screwdriver vertical to the open/close button. In case the blade tip slips, it may cause an inverter damage or injury.

- Wire removal
Pull the wire while pushing the open/close button all the way down firmly with a flathead screwdriver.



NOTE

- Pulling out the wire forcefully without pushing the open/close button all the way down may damage the terminal block.
- Use a small flathead screwdriver (tip thickness: 0.4 mm/tip width: 2.5 mm).

If a flathead screwdriver with a narrow tip is used, terminal block may be damaged.

Commercially available products (as of February 2012)

Name	Model	Manufacturer
Driver	SZF 0- 0,4 × 2,5	Phoenix Contact Co., Ltd.

- Place the flathead screwdriver vertical to the open/close button. In case the blade tip slips, it may cause an inverter damage or injury.

4. PARAMETER

4. 1. Parameter List

Although most parameter numbers are the same, some setting values differ. Refer to the following table to set the parameters.

List of FR-A800 series parameters compatible with the FR-A700 series

The following table shows the parameter settings required when replacing an FR-A700 series inverter by an FR-A800 series inverter.

When an FR-A700 series parameter is set to a value other than the initial value, set the corresponding FR-A800 series parameter according to the following table.

When an FR-A700 series parameter is set to an initial value, it is usually not necessary to change the corresponding FR-A800 series parameter setting.

The parameters with Δ are used for adjustment. Set them as required.

The parameter replacement following the table below does not guarantee the inverter characteristics or performance.

The parameter number of the parameters differs from that of the FR-A700 series inverter.

Setting \odot : Set the FR-A700 parameter as it is.

Δ : Change the FR-A700 parameter and set.

\times : Adjust or set the FR-A800 parameter.

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
0	Torque boost	0% to 30%	0.4K to 0.75K: 6% 1.5K to 3.7K: 4% 5.5K and 7.5K: 3% 11K to 55K: 2% 75K or higher: 1%	0	Torque boost	0% to 30%	0.4K to 0.75K: 6% 1.5K to 3.7K: 4% 5.5K and 7.5K: 3% 11K to 55K: 2% 75K or higher: 1%	Δ	Basically, the FR-A700 parameter can be used as it is. Set the parameter according to the device as required.
1	Maximum frequency	0 to 120 Hz	55K or lower: 120 Hz 75K or higher: 60 Hz	1	Maximum frequency	0 to 120 Hz	55K or lower: 120 Hz 75K or higher: 60 Hz	\odot	
2	Minimum frequency	0 to 120 Hz	0 Hz	2	Minimum frequency	0 to 120 Hz	0 Hz	\odot	
3	Base frequency	0 to 400 Hz	60 Hz	3	Base frequency	0 to 590 Hz	60 Hz	\odot	
4	Multi-speed setting (high speed)	0 to 400 Hz	60 Hz	4	Multi-speed setting (high speed)	0 to 590 Hz	60 Hz	\odot	
5	Multi-speed setting (middle speed)	0 to 400 Hz	30 Hz	5	Multi-speed setting (middle speed)	0 to 590 Hz	30 Hz	\odot	
6	Multi-speed setting (low speed)	0 to 400 Hz	10 Hz	6	Multi-speed setting (low speed)	0 to 590 Hz	10 Hz	\odot	
7	Acceleration time	0 to 3600 s / 0 to 360 s	7.5K or lower: 5 s 11K or higher: 15 s	7	Acceleration time	0 to 3600 s	7.5K or lower: 5 s 11K or higher: 15 s	\odot	Changing Pr.21 after setting this parameter will change the set value.
8	Deceleration time	0 to 3600 s / 0 to 360 s	7.5K or lower: 10 s 11K or higher: 15 s	8	Deceleration time	0 to 3600 s	7.5K or lower: 5 s 11K or higher: 15 s	\odot	Changing Pr.21 after setting this parameter will change the set value.
9	Electronic thermal O/L relay	55K or lower: 0 to 500 A 75K or higher: 0 to 3600 A	Rated output current	9	Electronic thermal O/L relay	55K or lower: 0 to 500 A 75K or higher: 0 to 3600 A	Rated output current	\odot	Set the rated motor current.
10	DC injection brake operation frequency	0 to 120 Hz, 9999	3 Hz	10	DC injection brake operation frequency	0 to 120 Hz, 9999	3 Hz	\odot	
11	DC injection brake operation time	0 to 10 s, 8888	0.5 s	11	DC injection brake operation time	0 to 10 s, 8888	0.5 s	\odot	
12	DC injection brake operation voltage	0% to 30%	7.5K or lower: 4% 11K to 55K: 2% 75K or higher: 1%	12	DC injection brake operation voltage	0% to 30%	7.5K or lower: 4% 11K to 55K: 2% 75K or higher: 1%	Δ	Basically, the FR-A700 parameter can be used as it is. Set the parameter according to the device as required.
13	Starting frequency	0 to 60 Hz	0.5 Hz	13	Starting frequency	0 to 60 Hz	0.5 Hz	\odot	
14	Load pattern selection	0 to 5	0	14	Load pattern selection	0 to 5, 12 to 15	0	\odot	
15	Jog frequency	0 to 400 Hz	5 Hz	15	Jog frequency	0 to 590 Hz	5 Hz	\odot	
16	Jog acceleration/deceleration time	0 to 3600 s / 0 to 360 s	0.5 s	16	Jog acceleration/deceleration time	0 to 3600 s	0.5 s	\odot	Changing Pr.21 after setting this parameter will change the set value.
17	MRS input selection	0, 2, 4	0	17	MRS input selection	0, 2, 4	0	\odot	
18	High speed maximum frequency	120 to 400 Hz	55K or lower: 120 Hz 75K or higher: 60 Hz	18	High speed maximum frequency	0 to 590 Hz	55K or lower: 120 Hz 75K or higher: 60 Hz	\odot	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
19	Base frequency voltage	0 to 1000 V, 8888, 9999	9999	19	Base frequency voltage	0 to 1000 V, 8888, 9999	9999	⊙	
20	Acceleration/deceleration reference frequency	1 to 400 Hz	60 Hz	20	Acceleration/deceleration reference frequency	1 to 590 Hz	60 Hz	⊙	
21	Acceleration/deceleration time increments	0, 1	0	21	Acceleration/deceleration time increments	0, 1	0	⊙	
22	Stall prevention operation level	0% to 400%	150%	22	Stall prevention operation level	0% to 400%	150%	⊙	
23	Stall prevention operation level compensation factor at double speed	0% to 200%, 9999	9999	23	Stall prevention operation level compensation factor at double speed	0% to 200%, 9999	9999	⊙	
24	Multi-speed setting (speed 4)	0 to 400 Hz, 9999	9999	24	Multi-speed setting (speed 4)	0 to 590 Hz, 9999	9999	⊙	
25	Multi-speed setting (speed 5)	0 to 400 Hz, 9999	9999	25	Multi-speed setting (speed 5)	0 to 590 Hz, 9999	9999	⊙	
26	Multi-speed setting (speed 6)	0 to 400 Hz, 9999	9999	26	Multi-speed setting (speed 6)	0 to 590 Hz, 9999	9999	⊙	
27	Multi-speed setting (speed 7)	0 to 400 Hz, 9999	9999	27	Multi-speed setting (speed 7)	0 to 590 Hz, 9999	9999	⊙	
28	Multi-speed input compensation selection	0, 1	0	28	Multi-speed input compensation selection	0, 1	0	⊙	
29	Acceleration/deceleration pattern selection	0 to 5	0	29	Acceleration/deceleration pattern selection	0 to 6	0	⊙	
30	Regenerative function selection	0, 1, 2, 10, 11, 20, 21	0	30	Regenerative function selection	0 to 2, 10, 11, 20, 21, 100 to 102, 110, 111, 120, 121	0	⊙	
31	Frequency jump 1A	0 to 400 Hz, 9999	9999	31	Frequency jump 1A	0 to 590 Hz, 9999	9999	⊙	
32	Frequency jump 1B	0 to 400 Hz, 9999	9999	32	Frequency jump 1B	0 to 590 Hz, 9999	9999	⊙	
33	Frequency jump 2A	0 to 400 Hz, 9999	9999	33	Frequency jump 2A	0 to 590 Hz, 9999	9999	⊙	
34	Frequency jump 2B	0 to 400 Hz, 9999	9999	34	Frequency jump 2B	0 to 590 Hz, 9999	9999	⊙	
35	Frequency jump 3A	0 to 400 Hz, 9999	9999	35	Frequency jump 3A	0 to 590 Hz, 9999	9999	⊙	
36	Frequency jump 3B	0 to 400 Hz, 9999	9999	36	Frequency jump 3B	0 to 590 Hz, 9999	9999	⊙	
37	Speed display	0, 1 to 9998	0	37	Speed display	0, 1 to 9998	0	⊙	When the machine speed display is selected in the parameter frequency setting, select the frequency display to change the setting. After the setting, select the machine speed display again.
41	Up-to-frequency sensitivity	0% to 100%	10%	41	Up-to-frequency sensitivity	0% to 100%	10%	⊙	
42	Output frequency detection	0 to 400 Hz	6 Hz	42	Output frequency detection	0 to 590 Hz	6 Hz	⊙	
43	Output frequency detection for reverse rotation	0 to 400 Hz, 9999	9999	43	Output frequency detection for reverse rotation	0 to 590 Hz, 9999	9999	⊙	
44	Second acceleration/deceleration time	0 to 3600 s / 0 to 360 s	5 s	44	Second acceleration/deceleration time	0 to 3600 s	5 s	⊙	Changing Pr.21 after setting this parameter will change the set value.
45	Second deceleration time	0 to 3600 s / 0 to 360 s, 9999	9999	45	Second deceleration time	0 to 3600 s, 9999	9999	⊙	Changing Pr.21 after setting this parameter will change the set value.
46	Second torque boost	0% to 30%, 9999	9999	46	Second torque boost	0% to 30%, 9999	9999	⊙	
47	Second V/F (base frequency)	0 to 400 Hz, 9999	9999	47	Second V/F (base frequency)	0 to 590 Hz, 9999	9999	⊙	
48	Second stall prevention operation current	0% to 220%	150%	48	Second stall prevention operation level	0% to 400%	150%	⊙	
49	Second stall prevention operation frequency	0 to 400 Hz, 9999	0 Hz	49	Second stall prevention operation frequency	0 to 590 Hz, 9999	0	⊙	
50	Second output frequency detection	0 to 400 Hz	30 Hz	50	Second output frequency detection	0 to 590 Hz	30 Hz	⊙	
51	Second electronic thermal O/L relay	55K or lower: 0 to 500 A 75K or higher: 0 to 3600 A	9999	51	Second electronic thermal O/L relay	55K or lower: 0 to 500 A 75K or higher: 0 to 3600 A	9999	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
52	DU/PU main display data selection	0, 5 to 14, 17 to 20, 22 to 25, 32 to 35, 39, 46, 50 to 57, 100	0	52	Operation panel main monitor selection	0, 5 to 14, 17 to 20, 22 to 35, 38, 40 to 45, 50 to 57, 61, 62, 64, 67, 87 to 98, 100	0	⊙	
54	FM terminal function selection	1 to 3, 5 to 14, 17, 18, 21, 24, 32 to 34, 46, 50, 52, 53	1	54	FM/CA terminal function selection	1 to 3, 5 to 14, 17, 18, 21, 24, 32 to 34, 50, 52, 53, 61, 62, 67, 70 87 to 90, 92, 93, 95, 97, 98	1	⊙	
55	Frequency monitoring reference	0 to 400 Hz	60 Hz	55	Frequency monitoring reference	0 to 590 Hz	60 Hz	⊙	
56	Current monitoring reference	55K or lower: 0 to 500 A 75K or higher: 0 to 3600 A	Rated output current	56	Current monitoring reference	55K or lower: 0 to 500 A 75K or higher: 0 to 3600 A	Rated output current	⊙	
57	Restart coasting time	55K or lower: 0, 0.1 to 5 s, 9999 75K or higher: 0.01 to 30 s, 9999	9999	57	Restart coasting time	0, 0.1 to 30 s, 9999	9999	⊙	If the CS signal is not assigned to any input terminal, the restart operation is enabled at all times by setting Pr.57 in the FR-A800.
58	Restart cushion time	0 to 60 s	1.0 s	58	Restart cushion time	0 to 60 s	1.0 s	⊙	
59	Remote function selection	0, 1, 2, 3	0	59	Remote function selection	0 to 3, 11 to 13	0	⊙	
60	Energy saving control selection	0, 4	0	60	Energy saving control selection	0, 4, 9	0	⊙	
61	Reference current	55K or lower: 0 to 500 A, 9999 75K or higher: 0 to 3600 A, 9999	9999	61	Reference current	55K or lower: 0 to 500 A, 9999 75K or higher: 0 to 3600 A, 9999	9999	⊙	
62	Reference value at acceleration	0% to 220%, 9999	9999	62	Reference value at acceleration	0% to 400%, 9999	9999	⊙	
63	Reference value at deceleration	0% to 220%, 9999	9999	63	Reference value at deceleration	0% to 400%, 9999	9999	⊙	
64	Starting frequency for elevator mode	0 to 10 Hz, 9999	9999	64	Starting frequency for elevator mode	0 to 10 Hz, 9999	9999	⊙	
65	Retry selection	0 to 5	0	65	Retry selection	0 to 5	0	⊙	
66	Stall prevention operation reduction starting frequency	0 to 400 Hz	60 Hz	66	Stall prevention operation reduction starting frequency	0 to 590 Hz	60 Hz	⊙	
67	Number of retries at fault occurrence	0 to 10, 101 to 110	0	67	Number of retries at fault occurrence	0 to 10, 101 to 110	0	⊙	
68	Retry waiting time	0 to 10 s	1 s	68	Retry waiting time	0.1 to 600 s	1 s	⊙	
69	Retry count display erase	0	0	69	Retry count display erase	0	0	⊙	
70	Special regenerative brake duty	55K or lower: 0% to 30% 75K or higher: 0% to 10%	0%	70	Special regenerative brake duty	0% to 100%	0%	⊙	
71	Applied motor	0 to 8, 13 to 18, 20, 23, 24, 30, 33, 34, 40, 43, 44, 50, 53, 54	0	71	Applied motor	0 to 6, 13 to 16, 20, 23, 24, 30, 33, 34, 40, 43, 44, 50, 53, 54, 70, 73, 74, 330, 333, 334, 8090, 8093, 8094, 9090, 9093, 9094	0	△	FR-A700 → FR-A800 The values in parentheses are for when Pr.96 of the FR-A700 is set to "3 or 103". 7 → 5 (3) 8 → 6 (3) 17 → 15 (13) 18 → 16 (13)
72	PWM frequency selection	55K or lower: 0 to 15 75K or higher: 0 to 6, 25	2	72	PWM frequency selection	55K or lower: 0 to 15 75K or higher: 0 to 6, 25	2	⊙	
73	Analog input selection	0 to 7, 10 to 17	1	73	Analog input selection	0 to 7, 10 to 17	1	⊙	
74	Input filter time constant	0 to 8	1	74	Input filter time constant	0 to 8	1	⊙	
75	Reset selection/disconnected PU detection/PU stop selection	0 to 3, 14 to 17	14	75	Reset selection/disconnected PU detection/PU stop selection	55K or lower: 0 to 3, 14 to 17 75K or higher: 0 to 3, 14 to 17, 100 to 103, 114 to 117	14	⊙	
76	Fault code output selection	0, 1, 2	0	76	Fault code output selection	0, 1, 2	0	⊙	
77	Parameter write selection	0, 1, 2	0	77	Parameter write selection	0, 1, 2	0	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
78	Reverse rotation prevention selection	0, 1, 2	0	78	Reverse rotation prevention selection	0, 1, 2	0	⊙	
79	Operation mode selection	0 to 4, 6 to 7	0	79	Operation mode selection	0 to 4, 6 to 7	0	⊙	
80	Motor capacity	55K or lower: 0.4 to 55 kW, 9999 75K or higher: 0 to 3600 kW, 9999	9999	80	Motor capacity	55K or lower: 0.4 to 55 kW, 9999 75K or higher: 0 to 3600 kW, 9999	9999	⊙	
81	Number of motor poles	2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 9999	9999	81	Number of motor poles	2, 4, 6, 8, 10, 12, 9999	9999	△	The setting values "2 to 10" can be set as is, but "12 to 20" must be set after subtracting 10. The setting values "112 and 122" must be replaced to "12", and "9999" can be set as is. Set "9999" when Pr.80 = "9999".
82	Motor excitation current	55K or lower: 0 to 500 A, 9999 75K or higher: 0 to 3600 A, 9999	9999	82	Motor excitation current	55K or lower: 0 to 500 A, 9999 75K or higher: 0 to 3600 A, 9999	9999	⊙	
83	Rated motor voltage	0 to 1000 V	Other than the below class: 200 V 400 V class: 400 V	83	Rated motor voltage	0 to 1000 V	Other than the below class: 200 V 400 V class: 400 V	⊙	
84	Rated motor frequency	10 to 120 Hz	60 Hz	84	Rated motor frequency	10 to 400 Hz, 9999	9999	⊙	
89	Speed control gain	0% to 200%, 9999	9999	89	Speed control gain	0% to 200%, 9999	9999	⊙	
90	Motor constant (R1)	55K or lower: 0 to 50 Ω, 9999 75K or higher: 0 to 400 mΩ, 9999	9999	90	Motor constant (R1)	55K or lower: 0 to 50 Ω, 9999 75K or higher: 0 to 400 mΩ, 9999	9999	⊙	
91	Motor constant (R2)	55K or lower: 0 to 50 Ω, 9999 75K or higher: 0 to 400 mΩ, 9999	9999	91	Motor constant (R2)	55K or lower: 0 to 50 Ω, 9999 75K or higher: 0 to 400 mΩ, 9999	9999	⊙	
92	Motor constant (L1)	55K or lower: 0 to 50 Ω (0 to 1000 mH), 9999 75K or higher: 0 to 3600 mΩ (0 to 400 mH), 9999	9999	92	Motor constant (L1)	55K or lower: 0 to 50 Ω (0 to 1000 mH), 9999 75K or higher: 0 to 3600 mΩ (0 to 400 mH), 9999	9999	△	When Pr.71 = "5, 6, 15, or 16" for the 75K or higher, set the value rounded off to two decimal places.
93	Motor constant (L2)	55K or lower: 0 to 50 Ω (0 to 1000 mH), 9999 75K or higher: 0 to 3600 mΩ (0 to 400 mH), 9999	9999	93	Motor constant (L2)	55K or lower: 0 to 50 Ω (0 to 1000 mH), 9999 75K or higher: 0 to 3600 mΩ (0 to 400 mH), 9999	9999	△	When Pr.71 = "5, 6, 15, or 16" for the 75K or higher, set the value rounded off to two decimal places.
94	Motor constant (X)	55K or lower: 0 to 500 Ω (0% to 100%), 9999 75K or higher: 0 to 100 Ω (0% to 100%), 9999	9999	94	Motor constant (X)	0% to 100%, 9999	9999	⊙	
95	Online auto tuning selection	0 to 2	0	95	Online auto tuning selection	0 to 2	0	⊙	
96	Auto tuning setting/status	0, 1, 101	0	96	Auto tuning setting/status	0, 1, 11, 101	0	△	If auto tuning has been performed, perform tuning again as required.
100	V/F1 (first frequency)	0 to 400 Hz, 9999	9999	100	V/F1 (first frequency)	0 to 590 Hz, 9999	9999	⊙	
101	V/F1 (first frequency voltage)	0 to 100 V	0 V	101	V/F1 (first frequency voltage)	0 to 1000 V	0 V	⊙	
102	V/F2 (second frequency)	0 to 400 Hz, 9999	9999	102	V/F2 (second frequency)	0 to 590 Hz, 9999	9999	⊙	
103	V/F2 (second frequency voltage)	0 to 100 V	0 V	103	V/F2 (second frequency voltage)	0 to 1000 V	0 V	⊙	
104	V/F3 (third frequency)	0 to 400 Hz, 9999	9999	104	V/F3 (third frequency)	0 to 590 Hz, 9999	9999	⊙	
105	V/F3 (third frequency voltage)	0 to 100 V	0 V	105	V/F3 (third frequency voltage)	0 to 1000 V	0 V	⊙	
106	V/F4 (fourth frequency)	0 to 400 Hz, 9999	9999	106	V/F4 (fourth frequency)	0 to 590 Hz, 9999	9999	⊙	
107	V/F4 (fourth frequency voltage)	0 to 100 V	0 V	107	V/F4 (fourth frequency voltage)	0 to 1000 V	0 V	⊙	
108	V/F5 (fifth frequency)	0 to 400 Hz, 9999	9999	108	V/F5 (fifth frequency)	0 to 590 Hz, 9999	9999	⊙	
109	V/F5 (fifth frequency voltage)	0 to 100 V	0 V	109	V/F5 (fifth frequency voltage)	0 to 1000 V	0 V	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
110	Third acceleration/deceleration time	0 to 3600 s / 0 to 360 s, 9999	9999	110	Third acceleration/deceleration time	0 to 3600 s, 9999	9999	⊙	Changing Pr.21 after setting this parameter will change the set value.
111	Third deceleration time	0 to 3600 s / 0 to 360 s, 9999	9999	111	Third deceleration time	0 to 3600 s, 9999	9999	⊙	Changing Pr.21 after setting this parameter will change the set value.
112	Third torque boost	0% to 30%, 9999	9999	112	Third torque boost	0% to 30%, 9999	9999	⊙	
113	Third V/F (base frequency)	0 to 400 Hz, 9999	9999	113	Third V/F (base frequency)	0 to 590 Hz, 9999	9999	⊙	
114	Third stall prevention operation current	0% to 220%	150%	114	Third stall prevention operation level	0% to 400%	150%	⊙	
115	Third stall prevention operation frequency	0 to 400 Hz	0	115	Third stall prevention operation frequency	0 to 590 Hz	0	⊙	
116	Third output frequency detection	0 to 400 Hz	60 Hz	116	Third output frequency detection	0 to 590 Hz	60 Hz	⊙	
117	PU communication station number	0 to 31	0	117	PU communication station number	0 to 31	0	⊙	
118	PU communication speed	48, 96, 192, 384	192	118	PU communication speed	48, 96, 192, 384, 576, 768, 1152	192	⊙	
119	PU communication stop bit length	0, 1, 10, 11	1	119	PU communication stop bit length / data length	0, 1, 10, 11	1	⊙	
120	PU communication parity check	0, 1, 2	2	120	PU communication parity check	0, 1, 2	2	⊙	
121	Number of PU communication retries	0 to 10, 9999	1	121	PU communication retry count	0 to 10, 9999	1	⊙	
122	PU communication check time interval	0, 0.1 to 999.8 s, 9999	9999	122	PU communication check time interval	0, 0.1 to 999.8 s, 9999	9999	⊙	
123	PU communication waiting time setting	0 to 150 ms, 9999	9999	123	PU communication waiting time setting	0 to 150 ms, 9999	9999	⊙	
124	PU communication CR/LF selection	0, 1, 2	1	124	PU communication CR/LF selection	0, 1, 2	1	⊙	
125	Terminal 2 frequency setting gain frequency	0 to 400 Hz	60 Hz	125	Terminal 2 frequency setting gain frequency	0 to 590 Hz	60 Hz	⊙	
126	Terminal 4 frequency setting gain frequency	0 to 400 Hz	60 Hz	126	Terminal 4 frequency setting gain frequency	0 to 590 Hz	60 Hz	⊙	
127	PID control automatic switchover frequency	0 to 400 Hz, 9999	9999	127	PID control automatic switchover frequency	0 to 590 Hz, 9999	9999	⊙	
128	PID action selection	10, 11, 20, 21, 50, 51, 60, 61	10	128	PID action selection	0, 10, 11, 20, 21, 40 to 43, 50, 51, 60, 61, 70, 71, 80, 81, 90, 91, 100, 101, 1000, 1001, 1010, 1011, 2000, 2001, 2010, 2011	0	△	When "14" (X14 signal) is not set in any parameter from Pr.178 to Pr.189, or when PID control is not used even if "14" (X14 signal) is set in a parameter from Pr.178 to Pr.189 in the FR-A700, set "0" in Pr.128 in the FR-A800. When the X14 signal is not assigned to any input terminal, just set Pr.128 to enable PID control in the FR-A800.
129	PID proportional band	0.1% to 1000%, 9999	100%	129	PID proportional band	0.1% to 1000%, 9999	100%	⊙	
130	PID integral time	0.1 to 3600 s, 9999	1 s	130	PID integral time	0.1 to 3600 s, 9999	1 s	⊙	
131	PID upper limit	0% to 100%, 9999	9999	131	PID upper limit	0% to 100%, 9999	9999	⊙	
132	PID lower limit	0% to 100%, 9999	9999	132	PID lower limit	0% to 100%, 9999	9999	⊙	
133	PID action set point	0% to 100%	9999	133	PID action set point	0% to 100%, 9999	9999	⊙	
134	PID differential time	0.01 to 10.00 s, 9999	9999	134	PID differential time	0.01 to 10.00 s, 9999	9999	⊙	
135	Electronic bypass sequence selection	0, 1	0	135	Electronic bypass sequence selection	0, 1	0	⊙	
136	MC switchover interlock time	0 to 100 s	1 s	136	MC switchover interlock time	0 to 100 s	1 s	⊙	
137	Start waiting time	0 to 100 s	0.5 s	137	Start waiting time	0 to 100 s	0.5 s	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
138	Bypass selection at a fault	0, 1	0	138	Bypass selection at a fault	0, 1	0	⊙	
139	Automatic switchover frequency from inverter to bypass operation	0 to 60 Hz, 9999	9999	139	Automatic switchover frequency from inverter to bypass operation	0 to 60 Hz, 9999	9999	⊙	
140	Backlash acceleration stopping frequency	0 to 400 Hz	1 Hz	140	Backlash acceleration stopping frequency	0 to 590 Hz	1 Hz	⊙	
141	Backlash acceleration stopping time	0 to 360 s	0.5 s	141	Backlash acceleration stopping time	0 to 360 s	0.5 s	⊙	
142	Backlash deceleration stopping frequency	0 to 400 Hz	1 Hz	142	Backlash deceleration stopping frequency	0 to 590 Hz	1 Hz	⊙	
143	Backlash deceleration stopping time	0 to 360 s	0.5 s	143	Backlash deceleration stopping time	0 to 360 s	0.5 s	⊙	
144	Speed setting switchover	0, 2, 4, 6, 8, 10, 102, 104, 106, 108, 110	4	144	Speed setting switchover	0, 2, 4, 6, 8, 10, 12, 102, 104, 106, 108, 110, 112	4	⊙	
145	PU display language selection	0 to 7	1	145	PU display language selection	0 to 7	1	⊙	
148	Stall prevention level at 0V input	0% to 220%	150%	148	Stall prevention level at 0 V input	0% to 400%	150%	⊙	
149	Stall prevention level at 10V input	0% to 220%	200%	149	Stall prevention level at 10 V input	0% to 400%	200%	⊙	
150	Output current detection level	0% to 220%	150%	150	Output current detection level	0% to 400%	150%	⊙	
151	Output current detection signal delay time	0 to 10 s	0 s	151	Output current detection signal delay time	0 to 10 s	0 s	⊙	
152	Zero current detection level	0% to 220%	5%	152	Zero current detection level	0% to 400%	5%	⊙	
153	Zero current detection time	0 to 1 s	0.5 s	153	Zero current detection time	0 to 10 s	0.5 s	⊙	
154	Voltage reduction selection during stall prevention operation	0, 1	1	154	Voltage reduction selection during stall prevention operation	0, 1, 10, 11	1	⊙	
155	RT signal function validity condition selection	0, 10	0	155	RT signal function validity condition selection	0, 10	0	⊙	
156	Stall prevention operation selection	0 to 31, 100	0	156	Stall prevention operation selection	0 to 31, 100, 101	0	⊙	
157	OL signal output timer	0 to 25 s, 9999	0 s	157	OL signal output timer	0 to 25 s, 9999	0 s	⊙	
158	AM terminal function selection	1 to 3, 5 to 14, 17, 18, 21, 24, 32 to 34, 46, 50, 52, 53	1	158	AM terminal function selection	1 to 3, 5 to 14, 17, 18, 21, 24, 32 to 34, 50, 52 to 54, 61, 62, 67, 70, 87 to 90, 91 to 98	1	⊙	
159	Automatic switchover frequency range from bypass to inverter operation	0 to 10 Hz, 9999	9999	159	Automatic switchover frequency range from bypass to inverter operation	0 to 10 Hz, 9999	9999	⊙	
160	User group read selection	0, 1, 10, 11	0	160	User group read selection	0, 1, 9999	0	⊙	
161	Frequency setting / key lock operation selection	0, 1, 10, 11	0	161	Frequency setting / key lock operation selection	0, 1, 10, 11	0	⊙	
162	Automatic restart after instantaneous power failure selection	0, 1, 2, 10, 11, 12	0	162	Automatic restart after instantaneous power failure selection	0 to 3, 10 to 13	0	⊙	
163	First cushion time for restart	0 to 20 s	0 s	163	First cushion time for restart	0 to 20 s	0 s	⊙	
164	First cushion voltage for restart	0% to 100%	0%	164	First cushion voltage for restart	0% to 100%	0%	⊙	
165	Stall prevention operation level for restart	0% to 220%	150%	165	Stall prevention operation level for restart	0% to 400%	150%	⊙	
166	Output current detection signal retention time	0 to 10 s, 9999	0.1 s	166	Output current detection signal retention time	0 to 10 s, 9999	0.1 s	⊙	
167	Output current detection operation selection	0, 1	0	167	Output current detection operation selection	0, 1, 10, 11	0	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
170	Watt-hour meter clear	0, 10, 9999	9999	170	Watt-hour meter clear	0, 10, 9999	9999	×	Setting not required
171	Operation hour meter clear	0, 9999	9999	171	Operation hour meter clear	0, 9999	9999	×	The setting is not required.
172	User group registered display/batch clear	9999, (0 to 16)	0	172	User group registered display/batch clear	9999, (0 to 16)	0	×	
173	User group registration	0 to 999	9999	173	User group registration	0 to 1999, 9999	9999	×	Set the parameter as required.
174	User group clear	0 to 999, 9999	9999	174	User group clear	0 to 1999, 9999	9999	×	
178	STF terminal function selection	0 to 20, 22 to 28, 42 to 44, 60, 62, 64 to 71, 74, 9999	60	178	STF terminal function selection	0 to 20, 22 to 28, 37, 42 to 47, 50, 51, 60, 62, 64 to 74, 76 to 80, 87, 92, 93, 9999	60	⊙	
179	STR terminal function selection	0 to 20, 22 to 28, 42 to 44, 61, 62, 64 to 71, 74, 9999	61	179	STR terminal function selection	0 to 20, 22 to 28, 37, 42 to 47, 50, 51, 61, 62, 64 to 74, 76 to 80, 87, 92, 93, 9999	61	⊙	
180	RL terminal function selection	0 to 20, 22 to 28, 42 to 44, 62, 64 to 71, 74, 9999	0	180	RL terminal function selection	0 to 20, 22 to 28, 37, 42 to 47, 50, 51, 62, 64 to 74, 76 to 80, 87, 92, 93, 9999	0	⊙	
181	RM terminal function selection		1	181	RM terminal function selection		1	⊙	
182	RH terminal function selection		2	182	RH terminal function selection		2	⊙	
183	RT terminal function selection		3	183	RT terminal function selection		3	⊙	
184	AU terminal function selection	0 to 20, 22 to 28, 42 to 44, 62 to 71, 74, 9999	4	184	AU terminal function selection		4	⊙	
185	JOG terminal function selection	0 to 20, 22 to 28, 42 to 44, 62, 64 to 71, 74, 76, 9999	5	185	JOG terminal function selection		5	⊙	
186	CS terminal function selection	0 to 20, 22 to 28, 42 to 44, 62, 64 to 71, 74, 9999	6	186	CS terminal function selection		6	⊙	
187	MRS terminal function selection		24	187	MRS terminal function selection		24	⊙	
188	STOP terminal function selection		25	188	STOP terminal function selection		25	⊙	
189	RES terminal function selection		62	189	RES terminal function selection		62	⊙	
190	RUN terminal function selection	0 to 8, 10 to 20, 25 to 28, 30 to 36, 39, 41 to 47, 55, 64, 70, 84, 85, 90 to 99, 100 to 108, 110 to 116, 120, 125 to 128, 130 to 136, 139, 141 to 147, 155, 164, 170, 184, 185, 190 to 199, 9999	0	190	RUN terminal function selection	0 to 8, 10 to 20, 22, 25 to 28, 30 to 36, 38 to 54, 56, 57, 60, 61, 63, 64, 68, 70, 79, 84, 85, 90 to 99, 100 to 108, 110 to 116, 120, 122, 125 to 128, 130 to 136, 138 to 154, 156, 157, 160, 161, 163, 164, 168, 170, 179, 184, 185, 190 to 199, 200 to 208, 300 to 308, 9999	0	⊙	
191	SU terminal function selection		1	191	SU terminal function selection		1	⊙	
192	IPF terminal function selection		2	192	IPF terminal function selection		2	⊙	
193	OL terminal function selection		3	193	OL terminal function selection		3	⊙	
194	FU terminal function selection		4	194	FU terminal function selection		4	⊙	
195	ABC1 terminal function selection	0 to 8, 10 to 20, 25 to 28, 30 to 36, 39, 41 to 47, 55, 64, 70, 84, 85, 90, 91, 94 to 99, 100 to 108, 110 to 116, 120, 125 to 128, 130 to 136, 139, 141 to 147, 155, 164, 170, 184, 185, 190, 191, 194 to 199, 9999	99	195	ABC1 terminal function selection	99	⊙		
196	ABC2 terminal function selection	9999	9999	196	ABC2 terminal function selection	9999	⊙		
232	Multi-speed setting (speed 8)	0 to 400 Hz, 9999	9999	232	Multi-speed setting (speed 8)	0 to 590 Hz, 9999	9999	⊙	
233	Multi-speed setting (speed 9)	0 to 400 Hz, 9999	9999	233	Multi-speed setting (speed 9)	0 to 590 Hz, 9999	9999	⊙	
234	Multi-speed setting (speed 10)	0 to 400 Hz, 9999	9999	234	Multi-speed setting (speed 10)	0 to 590 Hz, 9999	9999	⊙	
235	Multi-speed setting (speed 11)	0 to 400 Hz, 9999	9999	235	Multi-speed setting (speed 11)	0 to 590 Hz, 9999	9999	⊙	
236	Multi-speed setting (speed 12)	0 to 400 Hz, 9999	9999	236	Multi-speed setting (speed 12)	0 to 590 Hz, 9999	9999	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
237	Multi-speed setting (speed 13)	0 to 400 Hz, 9999	9999	237	Multi-speed setting (speed 13)	0 to 590 Hz, 9999	9999	⊙	
238	Multi-speed setting (speed 14)	0 to 400 Hz, 9999	9999	238	Multi-speed setting (speed 14)	0 to 590 Hz, 9999	9999	⊙	
239	Multi-speed setting (speed 15)	0 to 400 Hz, 9999	9999	239	Multi-speed setting (speed 15)	0 to 590 Hz, 9999	9999	⊙	
240	Soft-PWM operation selection	0, 1	1	240	Soft-PWM operation selection	0, 1	1	⊙	
241	Analog input display unit switchover	0, 1	0	241	Analog input display unit switchover	0, 1	0	⊙	
242	Terminal 1 added compensation amount (terminal 2)	0% to 100%	100%	242	Terminal 1 added compensation amount (terminal 2)	0% to 100%	100%	⊙	
243	Terminal 1 added compensation amount (terminal 4)	0% to 100%	75%	243	Terminal 1 added compensation amount (terminal 4)	0% to 100%	75%	⊙	
244	Cooling fan operation selection	0, 1	1	244	Cooling fan operation selection	0, 1, 101 to 105	1	⊙	
245	Rated slip	0% to 50%, 9999	9999	245	Rated slip	0% to 50%, 9999	9999	⊙	
246	Slip compensation time constant	0.01 to 10 s	0.5 s	246	Slip compensation time constant	0.01 to 10 s	0.5 s	⊙	
247	Constant-power range slip compensation selection	0, 9999	9999	247	Constant output range slip compensation selection	0, 9999	9999	⊙	
250	Stop selection	0 to 100 s, 1000 to 1100 s, 8888, 9999	9999	250	Stop selection	0 to 100 s, 1000 to 1100 s, 8888, 9999	9999	⊙	
251	Output phase failure protection selection	0, 1	1	251	Output phase loss protection selection	0, 1	1	⊙	
252	Override bias	0% to 200%	50%	252	Override bias	0% to 200%	50%	⊙	
253	Override gain	0% to 200%	150%	253	Override gain	0% to 200%	150%	⊙	
255	Life alarm status display	(0 to 15)	0	255	Life alarm status display	(0 to 15)	0	×	Setting not required
256	Inrush current limit circuit life display	(0% to 100%)	100%	256	Inrush current limit circuit life display	(0% to 100%)	100%	×	Setting not required
257	Control circuit capacitor life display	(0% to 100%)	100%	257	Control circuit capacitor life display	(0% to 100%)	100%	×	Setting not required
258	Main circuit capacitor life display	(0% to 100%)	100%	258	Main circuit capacitor life display	(0% to 100%)	100%	×	Setting not required
259	Main circuit capacitor life measuring	0, 1	0	259	Main circuit capacitor life measuring	0, 1	0	×	Setting not required
261	Power failure stop selection	0, 1, 2, 11, 12	0	261	Power failure stop selection	0, 1, 2, 11, 12, 21, 22	0	⊙	
262	Subtracted frequency at deceleration start	0 to 20 Hz	3 Hz	262	Subtracted frequency at deceleration start	0 to 20 Hz	3 Hz	⊙	
263	Subtraction starting frequency	0 to 120 Hz, 9999	60 Hz	263	Subtraction starting frequency	0 to 590 Hz, 9999	60 Hz	⊙	
264	Power-failure deceleration time 1	0 to 3600 / 0 to 360 s	5 s	264	Power-failure deceleration time 1	0 to 3600 s	5 s	⊙	Changing Pr.21 after setting this parameter will change the set value.
265	Power-failure deceleration time 2	0 to 3600, 9999 / 0 to 360 s, 9999	9999	265	Power-failure deceleration time 2	0 to 3600, 9999	9999	⊙	Changing Pr.21 after setting this parameter will change the set value.
266	Power failure deceleration time switchover frequency	0 to 400 Hz	60 Hz	266	Power failure deceleration time switchover frequency	0 to 590 Hz	60 Hz	⊙	
267	Terminal 4 input selection	0, 1, 2	0	267	Terminal 4 input selection	0, 1, 2	0	⊙	
268	Monitor decimal digits selection	0, 1, 9999	9999	268	Monitor decimal digits selection	0, 1, 9999	9999	⊙	
270	Stop-on contact/load torque high speed frequency control selection	0, 1, 2, 3, 11, 13	0	270	Stop-on contact/load torque high speed frequency control selection	0, 1, 2, 3, 11, 13	0	⊙	
271	High-speed setting maximum current	0% to 220%	50%	271	High-speed setting maximum current	0% to 400%	50%	⊙	
272	Middle-speed setting minimum current	0% to 220%	100%	272	Middle-speed setting minimum current	0% to 400%	100%	⊙	
273	Current averaging range	0 to 400 Hz, 9999	9999	273	Current averaging range	0 to 590 Hz, 9999	9999	⊙	
274	Current averaging filter time constant	1 to 4000	16	274	Current averaging filter time constant	1 to 4000	16	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
275	Stop-on contact excitation current low-speed multiplying factor	0% to 1000%, 9999	9999	275	Stop-on contact excitation current low-speed scaling factor	50% to 300%, 9999	9999	×	
276	PWM carrier frequency at stop-on contact	55K or lower: 0 to 9, 9999 / 75K or higher: 0 to 4, 9999	9999	276	PWM carrier frequency at stop-on contact	55K or lower: 0 to 9, 9999 / 75K or higher: 0 to 4, 9999	9999	⊙	
278	Brake opening frequency	0 to 30 Hz	3 Hz	278	Brake opening frequency	0 to 30 Hz	3 Hz	⊙	
279	Brake opening current	0% to 220%	130%	279	Brake opening current	0% to 400%	130%	⊙	
280	Brake opening current detection time	0 to 2 s	0.3 s	280	Brake opening current detection time	0 to 2 s	0.3 s	⊙	
281	Brake operation time at start	0 to 5 s	0.3 s	281	Brake operation time at start	0 to 5 s	0.3 s	⊙	
282	Brake operation frequency	0 to 30 Hz	6 Hz	282	Brake operation frequency	0 to 30 Hz	6 Hz	⊙	
283	Brake operation time at stop	0 to 5 s	0.3 s	283	Brake operation time at stop	0 to 5 s	0.3 s	⊙	
284	Deceleration detection function selection	0, 1	0	284	Deceleration detection function selection	0, 1	0	⊙	
285	Overspeed detection frequency (Excessive speed deviation detection frequency)	0 to 30 Hz, 9999	9999	285	Overspeed detection frequency (Speed deviation excess detection frequency)	0 to 30 Hz, 9999	9999	⊙	
286	Droop gain	0% to 100%	0%	286	Droop gain	0% to 100%	0%	⊙	
287	Droop filter time constant	0 to 1 s	0.3 s	287	Droop filter time constant	0 to 1 s	0.3 s	⊙	
288	Droop function activation selection	0, 1, 2, 10, 11	0	288	Droop function activation selection	0, 1, 2, 10, 11	0	⊙	
291	Pulse train I/O selection	0, 1, 10, 11, 20, 21, 100	0	291	Pulse train I/O selection	0, 1, 10, 11, 20, 21, 100	0	⊙	
292	Automatic acceleration/deceleration	0, 1, 3, 5 to 8, 11	0	292	Automatic acceleration/deceleration	0, 1, 3, 5 to 8, 11	0	△	Pr.639, Pr.640, and Pr.641 settings for the FR-A800 must be the initial values to perform the same operation as the one of the FR-A700 when Pr.292 = "7 or 8" (brake sequence mode).
293	Acceleration/deceleration separate selection	0 to 2	0	293	Acceleration/deceleration separate selection	0 to 2	0	⊙	
294	UV avoidance voltage gain	0% to 200%	100%	294	UV avoidance voltage gain	0% to 200%	100%	⊙	
296	Password lock level	0 to 6, 99, 100 to 106, 199, 9999	9999	296	Password lock level	0 to 6, 99, 100 to 106, 199, 9999	9999	⊙	
297	Password lock/unlock	(0 to 5), 1000 to 9998, 9999	9999	297	Password lock/unlock	(0 to 5), 1000 to 9998, 9999	9999	×	Set the parameter as required.
299	Rotation direction detection selection at restarting	0, 1, 9999	0	299	Rotation direction detection selection at restarting	0, 1, 9999	0	⊙	
331	RS-485 communication station number	0 to 31 (0 to 247)	0	331	RS-485 communication station number	0 to 31 (0 to 247)	0	⊙	
332	RS-485 communication speed	3, 6, 12, 24, 48, 96, 192, 384	96	332	RS-485 communication speed	3, 6, 12, 24, 48, 96, 192, 384, 576, 768, 1152	96	⊙	
333	RS-485 communication stop bit length	0, 1, 10, 11	1	333	RS-485 communication stop bit length / data length	0, 1, 10, 11	1	⊙	
334	RS-485 communication parity check selection	0, 1, 2	2	334	RS-485 communication parity check selection	0, 1, 2	2	⊙	
335	RS-485 communication retry count	0 to 10, 9999	1	335	RS-485 communication retry count	0 to 10, 9999	1	⊙	
336	RS-485 communication check time interval	0 to 999.8 s, 9999	0 s	336	RS-485 communication check time interval	0 to 999.8 s, 9999	0 s	⊙	
337	RS-485 communication waiting time setting	0 to 150 ms, 9999	9999	337	RS-485 communication waiting time setting	0 to 150 ms, 9999	9999	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
338	Communication operation command source	0, 1	0	338	Communication operation command source	0, 1	0	⊙	
339	Communication speed command source	0, 1, 2	0	339	Communication speed command source	0, 1, 2	0	⊙	
340	Communication startup mode selection	0, 1, 2, 10, 12	0	340	Communication startup mode selection	0, 1, 2, 10, 12	0	⊙	
341	RS-485 communication CR/LF selection	0, 1, 2	1	341	RS-485 communication CR/LF selection	0, 1, 2	1	⊙	
342	Communication EEPROM write selection	0, 1	0	342	Communication EEPROM write selection	0, 1	0	⊙	
343	Communication error count	—	0	343	Communication error count	—	0	×	Setting not required
350	Stop position command selection	0, 1, 9999	9999	350	Stop position command selection	0, 1, 9999	9999	⊙	
351	Orientation speed	0 to 30 Hz	2 Hz	351	Orientation speed	0 to 30 Hz	2 Hz	⊙	
352	Creep speed	0 to 10 Hz	0.5 Hz	352	Creep speed	0 to 10 Hz	0.5 Hz	⊙	
353	Creep switchover position	0 to 16383	511	353	Creep switchover position	0 to 16383	511	⊙	
354	Position loop switchover position	0 to 8191	96	354	Position loop switchover position	0 to 8191	96	⊙	
355	DC injection brake start position	0 to 255	5	355	DC injection brake start position	0 to 255	5	⊙	
356	Internal stop position command	0 to 16383	0	356	Internal stop position command	0 to 16383	0	⊙	
357	Orientation in-position zone	0 to 255	5	357	Orientation in-position zone	0 to 255	5	⊙	
358	Servo torque selection	0 to 13	1	358	Servo torque selection	0 to 13	1	⊙	
359	Encoder rotation direction	0, 1	1	359	Encoder rotation direction	0, 1, 100, 101	1	⊙	
360	16-bit data selection	0 to 127	0	360	16-bit data selection	0 to 127	0	⊙	
361	Position shift	0 to 16383	0	361	Position shift	0 to 16383	0	⊙	
362	Orientation position loop gain	0.1 to 100	1	362	Orientation position loop gain	0.1 to 100	1	⊙	
363	Completion signal output delay time	0 to 5 s	0.5 s	363	Completion signal output delay time	0 to 5 s	0.5 s	⊙	
364	Encoder stop check time	0 to 5 s	0.5 s	364	Encoder stop check time	0 to 5 s	0.5 s	⊙	
365	Orientation limit	0 to 60 s, 9999	9999	365	Orientation limit	0 to 60 s, 9999	9999	⊙	
366	Recheck time	0 to 5 s, 9999	9999	366	Recheck time	0 to 5 s, 9999	9999	⊙	
367	Speed feedback range	0 to 400 Hz, 9999	9999	367	Speed feedback range	0 to 590 Hz, 9999	9999	⊙	
368	Feedback gain	0 to 100	1	368	Feedback gain	0 to 100	1	⊙	
369	Number of encoder pulses	0 to 4096	1024	369	Number of encoder pulses	0 to 4096	1024	⊙	
374	Overspeed detection level	0 to 400 Hz	140 Hz	374	Overspeed detection level	0 to 590 Hz	9999	⊙	
376	Encoder signal loss detection enable/disable selection	0, 1	0	376	Encoder signal loss detection enable/disable selection	0, 1	0	⊙	
380	Acceleration S-pattern 1	0 to 50 Hz	0	380	Acceleration S-pattern 1	0 to 50 Hz	0	⊙	
381	Deceleration S-pattern 1	0 to 50 Hz	0	381	Deceleration S-pattern 1	0 to 50 Hz	0	⊙	
382	Acceleration S-pattern 2	0 to 50 Hz	0	382	Acceleration S-pattern 2	0 to 50 Hz	0	⊙	
383	Deceleration S-pattern 2	0 to 50 Hz	0	383	Deceleration S-pattern 2	0 to 50 Hz	0	⊙	
384	Input pulse division scaling factor	0 to 250	0	384	Input pulse division scaling factor	0 to 250	0	⊙	
385	Frequency for zero input pulse	0 to 400 Hz	0 Hz	385	Frequency for zero input pulse	0 to 590 Hz	0 Hz	⊙	
386	Frequency for maximum input pulse	0 to 400 Hz	60 Hz	386	Frequency for maximum input pulse	0 to 590 Hz	60 Hz	⊙	
393	Orientation selection	0, 1, 2	0	393	Orientation selection	0, 1, 2	0	⊙	
396	Orientation speed gain (P term)	0 to 1000	60	396	Orientation speed gain (P term)	0 to 1000	60	⊙	
397	Orientation speed integral time	0 to 20 s	0.333 s	397	Orientation speed integral time	0 to 20 s	0.333 s	⊙	
398	Orientation speed gain (D term)	0 to 100	1	398	Orientation speed gain (D term)	0 to 100	1	⊙	
399	Orientation deceleration ratio	0 to 1000	20	399	Orientation deceleration ratio	0 to 1000	20	⊙	
419	Position command source selection	0 to 2	0	419	Position command source selection	0 to 2	0	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
420	Command pulse scaling factor numerator	0 to 32767	1	420	Command pulse scaling factor numerator (electronic gear numerator)	1 to 32767	1	⊙	
421	Command pulse scaling factor denominator	0 to 32767	1	421	Command pulse multiplication denominator (electronic gear denominator)	1 to 32767	1	⊙	
422	Position loop gain	0 to 150 sec-1	25 sec-1	422	Position control gain	0 to 150 sec-1	25 sec-1	⊙	
423	Position feed forward gain	0% to 100%	0	423	Position feed forward gain	0% to 100%	0	⊙	
424	Position command acceleration/deceleration time constant	0 to 50 s	0 s	424	Position command acceleration/deceleration time constant	0 to 50 s	0 s	⊙	
425	Position feed forward command filter	0 to 5 s	0 s	425	Position feed forward command filter	0 to 5 s	0 s	⊙	
426	In-position width	0 to 32767 pulses	100 pulses	426	In-position width	0 to 32767 pulses	100 pulses	⊙	
427	Excessive level error	0 to 400k pulses, 9999	40k pulses	427	Excessive level error	0 to 400k pulses, 9999	40k pulses	⊙	
428	Command pulse selection	0 to 5	0	428	Command pulse selection	0 to 5	0	⊙	
429	Clear signal selection	0, 1	1	429	Clear signal selection	0, 1	1	⊙	
430	Pulse monitor selection	0 to 5, 9999	9999	430	Pulse monitor selection	0 to 5, 100 to 105, 1000 to 1005, 1100 to 1105, 8888, 9999	9999	⊙	
450	Second applied motor	0 to 8, 13 to 18, 20, 23, 24, 30, 33, 34, 40, 43, 44, 50, 53, 54, 9999	9999	450	Second applied motor	0, 1, 3 to 6, 13 to 16, 20, 23, 24, 30, 33, 34, 40, 43, 44, 50, 53, 54, 70, 73, 74, 330, 333, 334, 8090, 8093, 8094, 9090, 9093, 9094, 9999	9999	△	FR-A700 → FR-A800 The values in parentheses are for when Pr.96 of the FR-A700 is set to "3 or 103". 2 → 0 7 → 5 (3) 8 → 6 (3) 17 → 15 (13) 18 → 16 (13)
451	Second motor control method selection	10, 11, 12, 20, 9999	9999	451	Second motor control method selection	10 to 14, 20, 110 to 114, 9999	9999	⊙	
453	Second motor capacity	55K or lower: 0.4K to 55K, 9999 / 75K or higher: 0 to 3600 kW, 9999	9999	453	Second motor capacity	55K or lower: 0.4K to 55K, 9999 / 75K or higher: 0 to 3600 kW, 9999	9999	⊙	
454	Number of second motor poles	2, 4, 6, 8, 10, 9999	9999	454	Number of second motor poles	2, 4, 6, 8, 10, 12, 9999	9999	⊙	
455	Second motor excitation current	55K or lower: 0 to 500 A, 9999 75K or higher: 0 to 3600 A, 9999	9999	455	Second motor excitation current	55K or lower: 0 to 500 A, 9999 75K or higher: 0 to 3600 A, 9999	9999	⊙	
456	Rated second motor voltage	0 to 1000 V	400 V class: 400V Other than the above: 200 V	456	Rated second motor voltage	0 to 1000 V	400 V class: 400V Other than the above: 200 V	⊙	
457	Rated second motor frequency	10 to 120 Hz	60 Hz	457	Rated second motor frequency	10 to 400 Hz	9999	⊙	
458	Second motor constant (R1)	55K or lower: 0 to 50 Ω, 9999 75K or higher: 0 to 400 mΩ, 9999	9999	458	Second motor constant (R1)	55K or lower: 0 to 50 Ω, 9999 75K or higher: 0 to 400 mΩ, 9999	9999	⊙	
459	Second motor constant (R2)	55K or lower: 0 to 50 Ω, 9999 75K or higher: 0 to 400 mΩ, 9999	9999	459	Second motor constant (R2)	55K or lower: 0 to 50 Ω, 9999 75K or higher: 0 to 400 mΩ, 9999	9999	⊙	
460	Second motor constant (L1)	55K or lower: 0 to 50 Ω (0 to 1000 mH), 9999 75K or higher: 0 to 3600 mΩ (0 to 400 mH), 9999	9999	460	Second motor constant (L1) / d-axis inductance (Ld)	55K or lower: 0 to 50 Ω (0 to 1000 mH), 9999 75K or higher: 0 to 3600 mΩ (0 to 400 mH), 9999	9999	△	When Pr.71 = "5, 6, 15, or 16" for the 75K or higher, set the value rounded off to two decimal places.
461	Second motor constant (L2)	55K or lower: 0 to 50 Ω (0 to 1000 mH), 9999 75K or higher: 0 to 3600 mΩ (0 to 400 mH), 9999	9999	461	Second motor constant (L2) / q-axis inductance (Lq)	55K or lower: 0 to 50 Ω (0 to 1000 mH), 9999 75K or higher: 0 to 3600 mΩ (0 to 400 mH), 9999	9999	△	When Pr.71 = "5, 6, 15, or 16" for the 75K or higher, set the value rounded off to two decimal places.

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
462	Second motor constant (X)	55K or lower: 0 to 500 Ω (0% to 100%), 9999 75K or higher: 0 to 100 Ω (0% to 100%), 9999	9999	462	Second motor constant (X)	55K or lower: 0 to 500 Ω (0% to 100%), 9999 75K or higher: 0 to 100 Ω (0% to 100%), 9999	9999	⊙	
463	Second motor auto tuning setting/status	0, 1, 101	0	463	Second motor auto tuning setting/status	0, 1, 11, 101	0	△	Perform tuning again as required.
464	Digital position control sudden stop deceleration time	0 to 360.0 s	0 s	464	Digital position control sudden stop deceleration time	0 to 360.0 s	0 s	⊙	
465	First position feed amount lower 4 digits	0 to 9999	0	465	First target position lower 4 digits	0 to 9999	0	⊙	
466	First position feed amount upper 4 digits	0 to 9999	0	466	First target position upper 4 digits	0 to 9999	0	⊙	
467	Second position feed amount lower 4 digits	0 to 9999	0	467	Second target position lower 4 digits	0 to 9999	0	⊙	
468	Second position feed amount upper 4 digits	0 to 9999	0	468	Second target position upper 4 digits	0 to 9999	0	⊙	
469	Third position feed amount lower 4 digits	0 to 9999	0	469	Third target position lower 4 digits	0 to 9999	0	⊙	
470	Third position feed amount upper 4 digits	0 to 9999	0	470	Third target position upper 4 digits	0 to 9999	0	⊙	
471	Fourth position feed amount lower 4 digits	0 to 9999	0	471	Fourth target position lower 4 digits	0 to 9999	0	⊙	
472	Fourth position feed amount upper 4 digits	0 to 9999	0	472	Fourth target position upper 4 digits	0 to 9999	0	⊙	
473	Fifth position feed amount lower 4 digits	0 to 9999	0	473	Fifth target position lower 4 digits	0 to 9999	0	⊙	
474	Fifth position feed amount upper 4 digits	0 to 9999	0	474	Fifth target position upper 4 digits	0 to 9999	0	⊙	
475	Sixth position feed amount lower 4 digits	0 to 9999	0	475	Sixth target position lower 4 digits	0 to 9999	0	⊙	
476	Sixth position feed amount upper 4 digits	0 to 9999	0	476	Sixth target position upper 4 digits	0 to 9999	0	⊙	
477	Seventh position feed amount lower 4 digits	0 to 9999	0	477	Seventh target position lower 4 digits	0 to 9999	0	⊙	
478	Seventh position feed amount upper 4 digits	0 to 9999	0	478	Seventh target position upper 4 digits	0 to 9999	0	⊙	
479	Eighth position feed amount lower 4 digits	0 to 9999	0	479	Eighth target position lower 4 digits	0 to 9999	0	⊙	
480	Eighth position feed amount upper 4 digits	0 to 9999	0	480	Eighth target position upper 4 digits	0 to 9999	0	⊙	
481	Ninth position feed amount lower 4 digits	0 to 9999	0	481	Ninth target position lower 4 digits	0 to 9999	0	⊙	
482	Ninth position feed amount upper 4 digits	0 to 9999	0	482	Ninth target position upper 4 digits	0 to 9999	0	⊙	
483	Tenth position feed amount lower 4 digits	0 to 9999	0	483	Tenth target position lower 4 digits	0 to 9999	0	⊙	
484	Tenth position feed amount upper 4 digits	0 to 9999	0	484	Tenth target position upper 4 digits	0 to 9999	0	⊙	
485	Eleventh position feed amount lower 4 digits	0 to 9999	0	485	Eleventh target position lower 4 digits	0 to 9999	0	⊙	
486	Eleventh position feed amount upper 4 digits	0 to 9999	0	486	Eleventh target position upper 4 digits	0 to 9999	0	⊙	
487	Twelfth position feed amount lower 4 digits	0 to 9999	0	487	Twelfth target position lower 4 digits	0 to 9999	0	⊙	
488	Twelfth position feed amount upper 4 digits	0 to 9999	0	488	Twelfth target position upper 4 digits	0 to 9999	0	⊙	
489	Thirteenth position feed amount lower 4 digits	0 to 9999	0	489	Thirteenth target position lower 4 digits	0 to 9999	0	⊙	
490	Thirteenth position feed amount upper 4 digits	0 to 9999	0	490	Thirteenth target position upper 4 digits	0 to 9999	0	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
491	Fourteenth position feed amount lower 4 digits	0 to 9999	0	491	Fourteenth target position lower 4 digits	0 to 9999	0	⊙	
492	Fourteenth position feed amount upper 4 digits	0 to 9999	0	492	Fourteenth target position upper 4 digits	0 to 9999	0	⊙	
493	Fifteenth position feed amount lower 4 digits	0 to 9999	0	493	Fifteenth target position lower 4 digits	0 to 9999	0	⊙	
494	Fifteenth position feed amount upper 4 digits	0 to 9999	0	494	Fifteenth target position upper 4 digits	0 to 9999	0	⊙	
495	Remote output selection	0, 1, 10, 11	0	495	Remote output selection	0, 1, 10, 11	0	⊙	
496	Remote output data 1	0 to 4095	0	496	Remote output data 1	0 to 4095	0	⊙	
497	Remote output data 2	0 to 4095	0	497	Remote output data 2	0 to 4095	0	⊙	
503	Maintenance timer	0 (1 to 9998)	0	503	Maintenance timer 1	0 (1 to 9998)	0	×	Setting not required
504	Maintenance timer alarm output set time	0 to 9998, 9999	9999	504	Maintenance timer 1 warning output set time	0 to 9998, 9999	9999	⊙	
505	Speed setting reference	1 to 120 Hz	60 Hz	505	Speed setting reference	1 to 590 Hz	60 Hz	⊙	
516	S-pattern time at a start of acceleration	0.1 to 2.5 s	0.1 s	516	S-pattern time at a start of acceleration	0.1 to 2.5 s	0.1 s	⊙	
517	S-pattern time at a completion of acceleration	0.1 to 2.5 s	0.1 s	517	S-pattern time at a completion of acceleration	0.1 to 2.5 s	0.1 s	⊙	
518	S-pattern time at a start of deceleration	0.1 to 2.5 s	0.1 s	518	S-pattern time at a start of deceleration	0.1 to 2.5 s	0.1 s	⊙	
519	S-pattern time at a completion of deceleration	0.1 to 2.5 s	0.1 s	519	S-pattern time at a completion of deceleration	0.1 to 2.5 s	0.1 s	⊙	
539	MODBUS RTU communication check time interval	0 to 999.8 s, 9999	9999	539	MODBUS RTU communication check time interval	0 to 999.8 s, 9999	9999	⊙	
547	USB communication station number	0 to 31	0	547	USB communication station number	0 to 31	0	⊙	
548	USB communication check time interval	0 to 999.8 s, 9999	9999	548	USB communication check time interval	0 to 999.8 s, 9999	9999	⊙	
549	Protocol selection	0, 1	0	549	Protocol selection	0, 1	0	⊙	
550	NET mode operation command source selection	0, 1, 9999	9999	550	NET mode operation command source selection	0, 1, 9999	9999	⊙	
551	PU mode operation command source selection	1, 2, 3	2	551	PU mode operation command source selection	1, 2, 3	9999	⊙	
555	Current average time	0.1 to 1.0 s	1 s	555	Current average time	0.1 to 1.0 s	1 s	⊙	
556	Data output mask time	0.0 to 20.0 s	0 s	556	Data output mask time	0.0 to 20.0 s	0 s	⊙	
557	Current average value monitor signal output reference current	55K or lower: 0 to 500 A / 75K or higher: 0 to 3600 A	Inverter rated current	557	Current average value monitor signal output reference current	55K or lower: 0 to 500 A / 75K or higher: 0 to 3600 A	Inverter rated current	⊙	
563	Energization time carrying-over times	((0 to 65535))	0	563	Energization time carrying-over times	((0 to 65535))	0	×	Setting not required
564	Operating time carrying-over times	((0 to 65535))	0	564	Operating time carrying-over times	((0 to 65535))	0	×	Setting not required
569	Second motor speed control gain	0% to 200%, 9999	9999	569	Second motor speed control gain	0% to 200%, 9999	9999	⊙	
571	Holding time at a start	0.0 to 10.0 s, 9999	9999	571	Holding time at a start	0.0 to 10.0 s, 9999	9999	⊙	
574	Second motor online auto tuning	0, 1	0	574	Second motor online auto tuning	0, 1	0	⊙	
575	Output interruption detection time	0 to 3600 s, 9999	1 s	575	Output interruption detection time	0 to 3600 s, 9999	1 s	⊙	
576	Output interruption detection level	0 to 400 Hz	0 Hz	576	Output interruption detection level	0 to 590 Hz	0 Hz	⊙	
577	Output interruption cancel level	900% to 1100%	1000%	577	Output interruption cancel level	900% to 1100%	1000%	⊙	
611	Acceleration time at a restart	0 to 3600 s, 9999	55K or lower: 5 s / 75K or higher: 15 s	611	Acceleration time at a restart	0 to 3600 s, 9999	9999	⊙	
665	Regeneration avoidance frequency gain	0% to 200%	100%	665	Regeneration avoidance frequency gain	0% to 200%	100%	⊙	
684	Tuning data unit switchover	0, 1	0	684	Tuning data unit switchover	0, 1	0	⊙	
800	Control method selection	0 to 5, 9 to 12, 20	20	800	Control method selection	0 to 6, 9 to 14, 20, 100 to 106, 109 to 114	20	△	When Pr.862 of the FR-A700 is set to "1", set this parameter after adding 100 to the Pr.800 setting of the FR-A700. For other than the above, the A700 setting can be used as is.
—	—	—	—	801	Output limit level	0% to 400%, 9999	9999	×	The torque current can be limited when the torque is set during torque control.
802	Pre-excitation selection	0, 1	0	802	Pre-excitation selection	0, 1	0	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
803	Constant power range torque characteristic selection	0, 1	0	803	Constant output range torque characteristic selection	0, 1, 2, 10, 11	0	⊙	
804	Torque command source selection	0 to 6	0	804	Torque command source selection	0, 1, 3 to 6	0	×	For the torque command during torque control, the torque is limited by the method selected in Pr.810 of the FR-A800. This function cannot be available in the FR-A700. To disable this function in FR-A800, set Pr.801 = "400" and Pr.803 ≠ "2".
805	Torque command value (RAM)	600% to 1400%	1000%	805	Torque command value (RAM)	600% to 1400%	1000%	⊙	
806	Torque command value (RAM, EEPROM)	600% to 1400%	1000%	806	Torque command value (RAM, EEPROM)	600% to 1400%	1000%	⊙	
807	Speed limit selection	0, 1, 2	0	807	Speed limit selection	0, 1, 2	0	⊙	
808	Forward rotation speed limit	0 to 120 Hz	60 Hz	808	Forward rotation speed limit/speed limit	0 to 400 Hz	60 Hz	⊙	
809	Reverse rotation speed limit	0 to 120 Hz, 9999	9999	809	Reverse rotation speed limit/reverse-side speed limit	0 to 400 Hz, 9999	9999	⊙	
810	Torque limit input method selection	0, 1	0	810	Torque limit input method selection	0, 1	0	⊙	
811	Set resolution switchover	0, 1, 10, 11	0	811	Set resolution switchover	0, 1, 10, 11	0	⊙	
812	Torque limit level (regeneration)	0% to 400%, 9999	9999	812	Torque limit level (regeneration)	0% to 400%, 9999	9999	⊙	
813	Torque limit level (3rd quadrant)	0% to 400%, 9999	9999	813	Torque limit level (3rd quadrant)	0% to 400%, 9999	9999	⊙	
814	Torque limit level (4th quadrant)	0% to 400%, 9999	9999	814	Torque limit level (4th quadrant)	0% to 400%, 9999	9999	⊙	
815	Torque limit level 2	0% to 400%, 9999	9999	815	Torque limit level 2	0% to 400%, 9999	9999	⊙	
816	Torque limit level during acceleration	0% to 400%, 9999	9999	816	Torque limit level during acceleration	0% to 400%, 9999	9999	⊙	
817	Torque limit level during deceleration	0% to 400%, 9999	9999	817	Torque limit level during deceleration	0% to 400%, 9999	9999	⊙	
818	Easy gain tuning response level setting	1 to 15	2	818	Easy gain tuning response level setting	1 to 15	2	⊙	
819	Easy gain tuning selection	0 to 2	0	819	Easy gain tuning selection	0 to 2	0	⊙	
820	Speed control P gain 1	0% to 1000%	60%	820	Speed control P gain 1	0% to 1000%	60%	⊙	
821	Speed control integral time 1	0 to 20 s	0.333 s	821	Speed control integral time 1	0 to 20 s	0.333 s	⊙	
822	Speed setting filter 1	0 to 5 s, 9999	9999	822	Speed setting filter 1	0 to 5 s, 9999	9999	⊙	
823	Speed detection filter 1	0 to 0.1 s	0.001 s	823	Speed detection filter 1	0 to 0.1 s	0.001 s	⊙	
824	Torque control P gain 1	0% to 200%	100%	824	Torque control P gain 1 (current loop proportional gain)	0% to 500%	100%	⊙	
825	Torque control integral time 1	0 to 500 ms	5 ms	825	Torque control integral time 1 (current loop integral time)	0 to 500 ms	5 ms	⊙	
826	Torque setting filter 1	0 to 5 s, 9999	9999	826	Torque setting filter 1	0 to 5 s, 9999	9999	⊙	
827	Torque detection filter 1	0 to 0.1 s	0 s	827	Torque detection filter 1	0 to 0.1 s	0 s	⊙	
828	Model speed control gain	0% to 1000%	60%	828	Model speed control gain	0% to 1000%	60%	⊙	
830	Speed control P gain 2	0% to 1000%, 9999	9999	830	Speed control P gain 2	0% to 1000%, 9999	9999	⊙	
831	Speed control integral time 2	0 to 20 s, 9999	9999	831	Speed control integral time 2	0 to 20 s, 9999	9999	⊙	
832	Speed setting filter 2	0 to 5 s, 9999	9999	832	Speed setting filter 2	0 to 5 s, 9999	9999	⊙	
833	Speed detection filter 2	0 to 0.1 s, 9999	9999	833	Speed detection filter 2	0 to 0.1 s, 9999	9999	⊙	
834	Torque control P gain 2	0% to 200%, 9999	9999	834	Torque control P gain 2	0% to 500%, 9999	9999	⊙	
835	Torque control integral time 2	0 to 500 ms, 9999	9999	835	Torque control integral time 2	0 to 500 ms, 9999	9999	⊙	
836	Torque setting filter 2	0 to 5 s, 9999	9999	836	Torque setting filter 2	0 to 5 s, 9999	9999	⊙	
837	Torque detection filter 2	0 to 0.1 s, 9999	9999	837	Torque detection filter 2	0 to 0.1 s, 9999	9999	⊙	
840	Torque bias selection	0 to 3, 9999	9999	840	Torque bias selection	0 to 3, 24, 25, 9999	9999	⊙	
841	Torque bias 1	600% to 1400%, 9999	9999	841	Torque bias 1	600% to 1400%, 9999	9999	⊙	
842	Torque bias 2	600% to 1400%, 9999	9999	842	Torque bias 2	600% to 1400%, 9999	9999	⊙	
843	Torque bias 3	600% to 1400%, 9999	9999	843	Torque bias 3	600% to 1400%, 9999	9999	⊙	
844	Torque bias filter	0 to 5 s, 9999	9999	844	Torque bias filter	0 to 5 s, 9999	9999	⊙	
845	Torque bias operation time	0 to 5 s, 9999	9999	845	Torque bias operation time	0 to 5 s, 9999	9999	⊙	
846	Torque bias balance compensation	0 to 10 V, 9999	9999	846	Torque bias balance compensation	0 to 10 V, 9999	9999	⊙	
847	Fall-time torque bias terminal 1 bias	0% to 400%, 9999	9999	847	Fall-time torque bias terminal 1 bias	0% to 400%, 9999	9999	⊙	
848	Fall-time torque bias terminal 1 gain	0% to 400%, 9999	9999	848	Fall-time torque bias terminal 1 gain	0% to 400%, 9999	9999	⊙	
849	Analog input offset adjustment	0% to 200%	100%	849	Analog input offset adjustment	0% to 200%	100%	⊙	
850	Brake operation selection	0, 1, 2	0	850	Brake operation selection	0, 1, 2	0	⊙	
853	Speed deviation time	0 to 100 s	1 s	853	Speed deviation time	0 to 100 s	1 s	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
854	Excitation ratio	0% to 100%	100%	854	Excitation ratio	0% to 100%	100%	⊙	
858	Terminal 4 function assignment	0, 1, 4, 9999	0	858	Terminal 4 function assignment	0, 1, 4, 9999	0	⊙	
859	Torque current	55K or lower: 0.4K to 55K, 9999 / 75K or higher: 0 to 3600 kW, 9999	9999	859	Torque current/Rated PM motor current	55K or lower: 0 to 500 A, 9999 / 75K or higher: 0 to 3600 A, 9999	9999	⊙	
860	Second motor torque current	55K or lower: 0.4K to 55K, 9999 / 75K or higher: 0 to 3600 kW, 9999	9999	860	Second motor torque current/Rated PM motor current	55K or lower: 0 to 500 A, 9999 / 75K or higher: 0 to 3600 A, 9999	9999	⊙	
862	Notch filter time constant	0 to 60	0	1004	Notch filter depth	0, 8 to 1250 Hz	0 Hz	△	Refer to Section 4.2. "Notch Filter Setting".
863	Notch filter depth	0, 1, 2, 3	0						
864	Torque detection	0% to 400%	150%	864	Torque detection	0% to 400%	150%	⊙	
865	Low speed detection	0 to 400 Hz	1.5 Hz	865	Low speed detection	0 to 590 Hz	1.5 Hz	⊙	
866	Torque monitoring reference	0% to 400%	150%	866	Torque monitoring reference	0% to 400%	150%	⊙	
867	AM output filter	0 to 5 s	0.01 s	867	AM output filter	0 to 5 s	0.01 s	⊙	
868	Terminal 1 function assignment	0 to 6, 9999	0	868	Terminal 1 function assignment	0 to 6, 9999	0	⊙	
872	Input phase loss protection selection	0, 1	0	872	Input phase loss protection selection	0, 1	0	⊙	
873	Speed limit	0 to 120 Hz	20 Hz	873	Speed limit	0 to 400 Hz	20 Hz	⊙	
874	OLT level setting	0% to 200%	150%	874	OLT level setting	0% to 400%	150%	⊙	
875	Fault definition	0, 1	0	875	Fault definition	0, 1	0	⊙	
877	Speed feed forward control / model adaptive speed control selection	0, 1, 2	0	877	Speed feed forward control / model adaptive speed control selection	0, 1, 2	0	⊙	
878	Speed feed forward filter	0 to 1 s	0 s	878	Speed feed forward filter	0 to 1 s	0 s	⊙	
879	Speed feed forward torque limit	0% to 400%	150%	879	Speed feed forward torque limit	0% to 400%	150%	⊙	
880	Load inertia ratio	0 to 200-fold	7	880	Load inertia ratio	0 to 200-fold	7	⊙	
881	Speed feed forward gain	0% to 1000%	0%	881	Speed feed forward gain	0% to 1000%	0%	⊙	
882	Regeneration avoidance operation selection	0, 1, 2	0	882	Regeneration avoidance operation selection	0, 1, 2	0	⊙	
883	Regeneration avoidance operation level	300 to 800 V	380 VDC/ 760 VDC	883	Regeneration avoidance operation level	300 to 800 V	380 VDC / 760 VDC	⊙	
884	Regeneration avoidance at deceleration detection sensitivity	0 to 5	0	884	Regeneration avoidance at deceleration detection sensitivity	0 to 5	0	⊙	
885	Regeneration avoidance compensation frequency limit value	0 to 10 Hz, 9999	6 Hz	885	Regeneration avoidance compensation frequency limit value	0 to 590 Hz, 9999	6 Hz	⊙	
886	Regeneration avoidance voltage gain	0% to 200%	100%	886	Regeneration avoidance voltage gain	0% to 200%	100%	⊙	
888	Free parameter 1	0 to 9999	9999	888	Free parameter 1	0 to 9999	9999	⊙	
889	Free parameter 2	0 to 9999	9999	889	Free parameter 2	0 to 9999	9999	⊙	
891	Cumulative power monitor digit shifted times	0 to 4, 9999	9999	891	Cumulative power monitor digit shifted times	0 to 4, 9999	9999	⊙	
892	Load factor	30% to 150%	100%	892	Load factor	30% to 150%	100%	⊙	
893	Energy saving monitor reference (motor capacity)	55K or lower: 0.1 to 55 kW, 9999 / 75K or higher: 0 to 3600 kW, 9999	Inverter rated capacity	893	Energy saving monitor reference (motor capacity)	55K or lower: 0.1 to 55 kW, 9999 / 75K or higher: 0 to 3600 kW, 9999	Inverter rated capacity	⊙	
894	Control selection during commercial power-supply operation	0, 1, 2, 3	0	894	Control selection during commercial power-supply operation	0, 1, 2, 3	0	⊙	
895	Power saving rate reference value	0, 1, 9999	9999	895	Power saving rate reference value	0, 1, 9999	9999	⊙	
896	Power unit cost	0 to 500, 9999	9999	896	Power unit cost	0 to 500, 9999	9999	⊙	
897	Power saving monitor average time	0, 1 to 1000 h, 9999	9999	897	Power saving monitor average time	0, 1 to 1000 h, 9999	9999	⊙	
898	Power saving cumulative monitor clear	0, 1, 10, 9999	9999	898	Power saving cumulative monitor clear	0, 1, 10, 9999	9999	×	Setting not required
899	Operation time rate (estimated value)	0% to 100%, 9999	9999	899	Operation time rate (estimated value)	0% to 100%, 9999	9999	⊙	

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
C0 (900)	FM terminal calibration	—	—	C0 (900)	FM/CA terminal calibration	—	—	×	Calibrate the parameter as required.
C1 (901)	AM terminal calibration	—	—	C1 (901)	AM terminal calibration	—	—	×	Calibrate the parameter as required.
C2 (902)	Terminal 2 frequency setting bias frequency	0 to 400 Hz	0 Hz	C2 (902)	Terminal 2 frequency setting bias frequency	0 to 590 Hz	0 Hz	△	Set the parameter as required. For the details, refer to section "5.12.5 Frequency setting voltage (current) bias and gain" and "5.12.6 Bias and gain for torque (magnetic flux) and set voltage (current)" of the Instruction Manual (Detailed).
C3 (902)	Terminal 2 frequency setting bias	0% to 300%	0%	C3 (902)	Terminal 2 frequency setting bias	0% to 300%	0%	△	
125 (903)	Terminal 2 frequency setting gain frequency	0 to 400 Hz	60 Hz	125 (903)	Terminal 2 frequency setting gain frequency	0 to 590 Hz	60 Hz	△	
C4 (903)	Terminal 2 frequency setting gain	0% to 300%	100%	C4 (903)	Terminal 2 frequency setting gain	0% to 300%	100%	△	
C5 (904)	Terminal 4 frequency setting bias frequency	0 to 400 Hz	0 Hz	C5 (904)	Terminal 4 frequency setting bias frequency	0 to 590 Hz	0 Hz	△	
C6 (904)	Terminal 4 frequency setting bias	0% to 300%	20%	C6 (904)	Terminal 4 frequency setting bias	0% to 300%	20%	△	
126 (905)	Terminal 4 frequency setting gain frequency	0 to 400 Hz	60 Hz	126 (905)	Terminal 4 frequency setting gain frequency	0 to 590 Hz	60 Hz	△	
C7 (905)	Terminal 4 frequency setting gain	0% to 300%	100%	C7 (905)	Terminal 4 frequency setting gain	0% to 300%	100%	△	
C12 (917)	Terminal 1 bias frequency (speed)	0 to 400 Hz	0 Hz	C12 (917)	Terminal 1 bias frequency (speed)	0 to 590 Hz	0 Hz	△	
C13 (917)	Terminal 1 bias (speed)	0% to 300%	0%	C13 (917)	Terminal 1 bias (speed)	0% to 300%	0%	△	
C14 (918)	Terminal 1 gain frequency (speed)	0 to 400 Hz	60 Hz	C14 (918)	Terminal 1 gain frequency (speed)	0 to 590 Hz	60 Hz	△	
C15 (918)	Terminal 1 gain (speed)	0% to 300%	100%	C15 (918)	Terminal 1 gain (speed)	0% to 300%	100%	△	
C16 (919)	Terminal 1 bias command (torque/magnetic flux)	0% to 400%	0%	C16 (919)	Terminal 1 bias command (torque/magnetic flux)	0% to 400%	0%	△	
C17 (919)	Terminal 1 bias (torque/magnetic flux)	0% to 300%	0%	C17 (919)	Terminal 1 bias (torque/magnetic flux)	0% to 300%	0%	△	
C18 (920)	Terminal 1 gain command (torque/magnetic flux)	0% to 400%	150%	C18 (920)	Terminal 1 gain command (torque/magnetic flux)	0% to 400%	150%	△	
C19 (920)	Terminal 1 gain (torque/magnetic flux)	0% to 300%	100%	C19 (920)	Terminal 1 gain (torque/magnetic flux)	0% to 300%	100%	△	
C38 (932)	Terminal 4 bias command (torque/magnetic flux)	0% to 400%	0%	C38 (932)	Terminal 4 bias command (torque/magnetic flux)	0% to 400%	0%	△	
C39 (932)	Terminal 4 bias (torque/magnetic flux)	0% to 300%	20%	C39 (932)	Terminal 4 bias (torque/magnetic flux)	0% to 300%	20%	△	
C40 (933)	Terminal 4 gain command (torque/magnetic flux)	0% to 400%	150%	C40 (933)	Terminal 4 gain command (torque/magnetic flux)	0% to 400%	150%	△	
C41 (933)	Terminal 4 gain (torque/magnetic flux)	0% to 300%	100%	C41 (933)	Terminal 4 gain (torque/magnetic flux)	0% to 300%	100%	△	
989	Parameter copy alarm release	55K or lower: 10 / 75K or higher: 100	55K or lower: 10 / 75K or higher: 100	989	Parameter copy alarm release	55K or lower: 10 / 75K or higher: 100	55K or lower: 10 / 75K or higher: 100	△	
990	PU buzzer control	0, 1	1	990	PU buzzer control	0, 1	1	⊙	
991	PU contrast adjustment	0 to 63	58	991	PU contrast adjustment	0 to 63	58	⊙	

4. 2. Notch Filter Setting

When Pr.862 (Notch filter time constant) is set in the FR-A700, set Pr.1003 (Notch filter frequency) in the FR-A800 referring to the following table.

FR-A700 Pr.862 setting (Notch filter time constant)	FR-A800 Pr.1003 setting (Notch filter frequency)	Remarks
0	0	
1	1000	The fast-response operation must be set. (Set Pr.800 by adding 100 to the setting value of the A700.)
2	500	
3	333	
4	250	
5	200	
6	167	
7	143	
8	125	
9	111	
10	100	
11	91	
12	83	
13	77	
14	71	
15	67	
16	63	
17	59	
18	56	
19	53	
20	50	
21	48	
22	46	
23	44	
24	42	
25	40	
26	39	
27	37	
28	36	
29	35	
30	33	
31	32	
32	31	
33	30	
34	29	
35	29	
36	28	
37	27	
38	26	
39	26	
40	25	
41	24	
42	24	
43	23	
44	23	
45	22	

FR-A700 Pr.862 setting (Notch filter time constant)	FR-A800 Pr.1003 setting (Notch filter frequency)	Remarks
46	22	
47	21	
48	21	
49	20	
50	20	
51	20	
52	19	
53	19	
54	19	
55	18	
56	18	
57	18	
58	17	
59	17	
60	17	

4. 3. PTC Thermistor Input

When a PTC thermistor is connected between terminals AU and SD with the AU/PTC switch set to PTC for the FR-A700, connect the thermistor between terminals 10 and 2 for the FR-A800.

For the FR-A800, set Pr.561 (PTC thermistor protection level) and Pr.1016 (PTC thermistor protection detection time).

4. 4. Compatibility of the Terminal Response Speed

The I/O terminals of the FR-A800 respond more quickly than those of the FR-A700. Operation timing of the device may differ depending on the usage.

In this case, set Pr.289 (Inverter output terminal filter) and Pr.699 (Input terminal filter) to adjust the terminal response time.

Set "5 to 8 ms" in Pr.289 and Pr.699 and adjust according to the system.

5. Option

5.1. Option

The following table shows which FR-A700 series options are compatible with the FR-A800 series inverters and their corresponding A800 series options.

Name		Option model	
		FR-A700	FR-A800
Plug-in type	16-bit digital input	FR-A7AX	FR-A8AX
	Digital output, additional analog output	FR-A7AY	FR-A8AY
	Relay output	FR-A7AR	FR-A8AR
	Orientation / encoder / pulse train input	FR-A7AP	FR-A8AP
	Orientation / encoder / vector / position / pulse dividing	FR-A7AL	FR-A8AL
	PROFIBUS-DP	FR-A7NP	FR-A8NP
	Device Net	FR-A7ND	FR-A8ND
	CC-Link	FR-A7NC	FR-A8NC
Stand-alone type	Parameter unit	FR-PU07	Some restrictions apply for parameter copy and operable parameters, etc.
	Parameter unit connection cable	FR-CB201, 203, 205	Compatible
	Intercompatibility attachment	FR-AAT, FR-A5AT	Compatible
	Heatsink protrusion attachment	FR-A7CN	FR-A8CN Enclosure cut dimensions are compatible except for some capacities. The depths inside and outside the enclosure differ. For details, refer to the Instruction Manual of the FR-A8CN1[] or the FR-A8CN[].
	Surge voltage suppression filter	FR-ASF-H	Compatible
	Power factor improving DC reactor	FR-BEL-(H)	Compatible
	Power factor improving AC reactor	FR-BAL-(H), MT-BAL-(H)	If replacing the reactor, use FR-HAL-(H)* and FR-HEL-(H).
	Radio noise filter	FR-BIF-(H)	Compatible
	Line noise filter	FR-BSF01, FR-BLF	Compatible
	BU type brake unit	BU1500 to 15K, H7.5K to 30K	Compatible
	Brake unit	FR-BU-(H), FR-BU2	Compatible The MT-BU5 is not compatible.
	Resistor unit	FR-BR-(H), MT-BR5-(H)	Compatible
	FR-RC type power regeneration converter	FR-RC-(H), MT-RC-(H)	Compatible
	FR-CV power regeneration common converter	FR-CV-(H)7.5K(-AT) to 55K	Compatible
	Stand-alone reactor dedicated for the FR-CV	FR-CVL-(H)7.5K to 55K	Compatible
	FR-HC high power factor converter	FR-HC-(H), MT-HC-(H), FR-HC2-(H)	Compatible
Sine wave filter	Reactor	MT-BSL-(H)	Compatible
	Capacitor	MT-BSC-(H)	Compatible
Manual Controller/Speed Controller	Manual controller	FR-AX	Compatible
	DC tach. follower	FR-AL	Compatible
	Three speed selector	FR-AT	Compatible
	Motorized speed setter	FR-FK	Compatible
	Ratio setter	FR-FH	Compatible
	Speed detector	FR-FP	Compatible
	Master controller	FR-FG	Compatible
	Soft starter	FR-FC	Compatible
	Deviation detector	FR-FD	Compatible
	Preamplifier	FR-FA	Compatible
Others	Pilot generator	QVAH-10	Compatible
	Deviation sensor	YVGC-500W-NS	Compatible
	Frequency setting potentiometer	WA2W 1 kΩ	Compatible
	Analog frequency meter	YM206NRI 1 mA	Compatible
	Calibration resistor	RV24YN 10 kΩ	Compatible

(*) When FR-RC-(H) or MT-RC-(H) is used, use FR-BAL-(H) or MT-BAL-(H).

5. 2. Replacement When the FR-A7NC Is Used

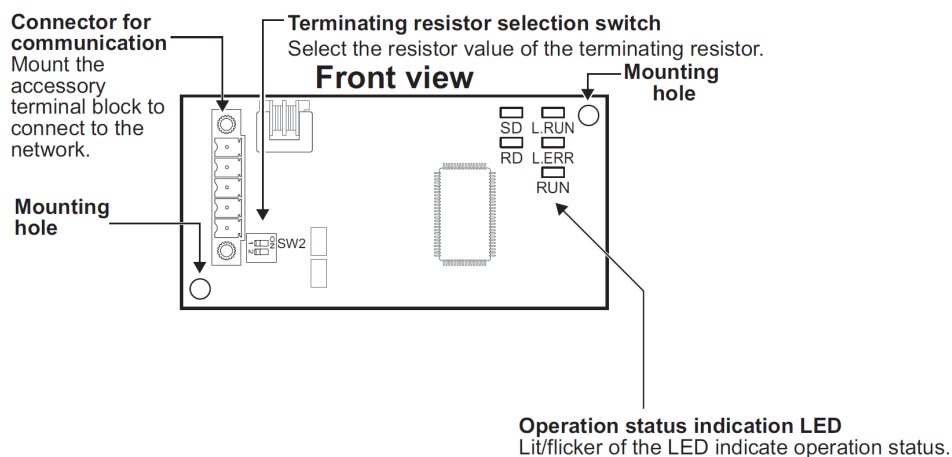
The FR-A7NC (CC-Link communication option) used with the FR-A700 series cannot be used with the FR-A800 series. For the CC-Link communication with the FR-A800 series, use the FR-A8NC.

(1) Shape and installation method

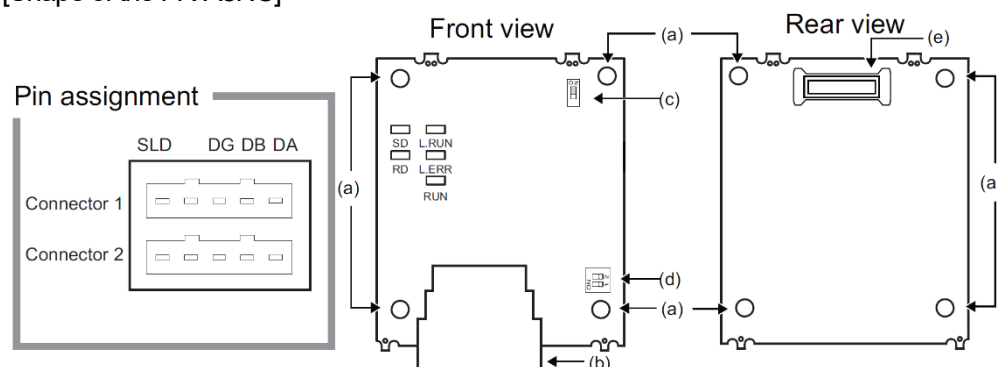
The following table shows the differences in the shape and installation method.

Item	FR-A7NC	FR-A8NC	Remarks
Shape	Inverter plug-in option type, terminal block connection	Inverter plug-in option type, terminal block connection	Although the connection method is the same, the circuit board of the option has a different shape.
Connection terminal block	Dedicated terminal block (M2 small flathead screw)	A6CON-L5P Insertion wiring	The shape of the terminal block and wiring method differ. A terminal block is not enclosed.
Installation procedure	Connected to the option connector 3. *After wiring the terminal block, install the front cover.	Connected to the option connector 1. *After wiring the terminal block, install the front cover.	
Terminating resistor	Terminating resistor selection switch	Terminating resistor selection switch	
Connection cable	CC-Link dedicated cable	CC-Link dedicated cable	
Connector for communication	Located on the side.	Located at the bottom.	Wiring route differs. Attention must be paid to the connection cable length.

[Shape of the FR-A7NC]



[Shape of the FR-A8NC]

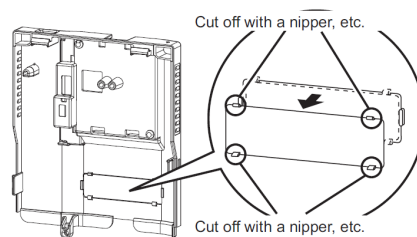


Symbol	Name	Description
a	Mounting hole	Fixes the option to the inverter with screws, or installs spacers.
b	CC-Link communication one-touch connector	CC-Link communication can be performed with the CC-Link communication connector.
c	Switch for manufacturer setting	Switch for manufacturer setting. Do not change the initial setting (OFF).
d	Terminating resistor selection switch	Select the resistor value of the terminating resistor.
e	Connector	Connected to the option connector of the inverter.

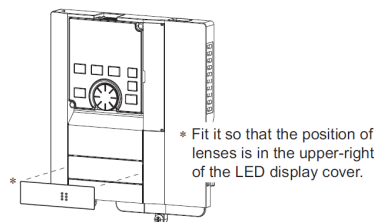
[Installation procedure of the FR-A8NC]

◆ **Installation of the communication option LED display cover**

- (1) Remove the inverter front cover. (Refer to Chapter 2 of the Instruction Manual (Detailed) of the inverter for details on how to remove the front cover.)
Mount the cover for displaying the operation status indication LED for the communication option on the inverter front cover.
- (2) Cut off hooks on the rear of the inverter front cover with nipper, etc. and open a window for fitting the LED display cover.



- (3) Fit the communication option LED display cover to the front of the inverter front cover and push it into until fixed with hooks.

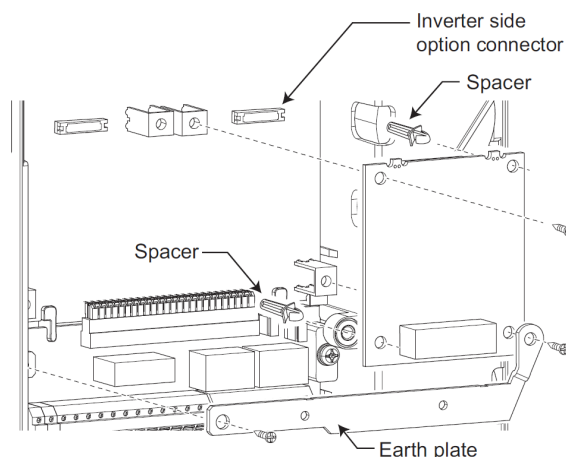


NOTE

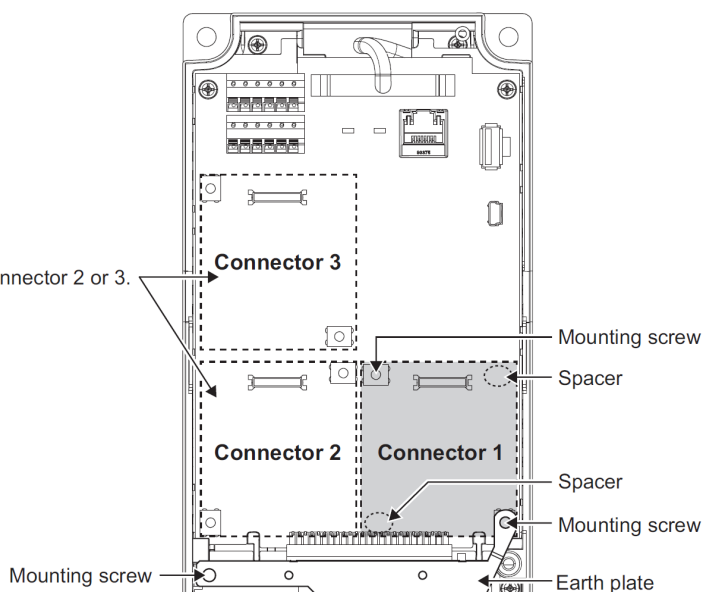
- The protective structure (JEM1030) changes to the open type (IP00).

◆ **Installing the option**

- (1) For the two mounting holes (as shown in the next page) that will not be tightened with mounting screws, insert spacers.
- (2) Fit the connector of the plug-in option to the guide of the connector on the inverter unit side, and insert the plug-in option as far as it goes. (Insert it to the inverter option connector 1.)
- (3) Fit the one location on the left of the earth plate (as shown in the next page) securely to the inverter unit by screwing in the supplied mounting screw. (tightening torque 0.33 N·m to 0.40 N·m)
- (4) Fit the one location on the left of the plug-in option securely to the inverter unit and the right of the plug-in option to the inverter unit together with the earth plate by screwing in the supplied mounting screws. (tightening torque 0.33 N·m to 0.40 N·m) If the screw holes do not line up, the connector may not be inserted deep enough. Check the connector.



Do not insert the plug-in option to the connector 2 or 3.



Insertion positions for screws and spacers

[Connection cable of the FR-A8NC]

In the CC-Link system, use CC-Link dedicated cables.

If the cable used is other than the CC-Link dedicated cable, the performance of the CC-Link system is not guaranteed.

For the specifications of the CC-Link dedicated cable, refer to the website of the CC-Link Partner Association.

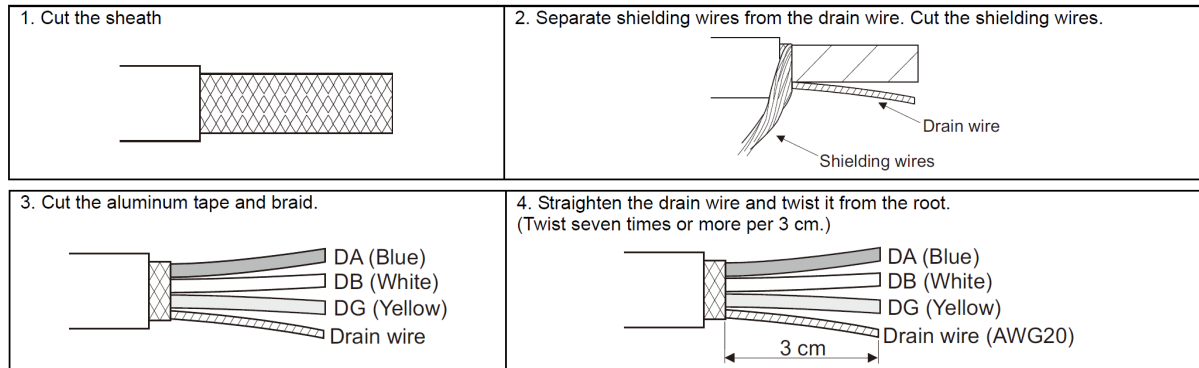
- Website of the CC-Link Partner Association <http://www.cc-link.org/>
- One-touch communication connector plug (as of July 2013)

Refer to the following table for the plug required to fabricate a cable on your own.

Model	Manufacturer
A6CON-L5P	Mitsubishi Electric Corporation
35505-6000-B0M GF	Sumitomo 3M Limited

(1) Cable-end treatment

Apply the following treatment to the CC-Link dedicated cable that is inserted to a one-touch communication connector plug.

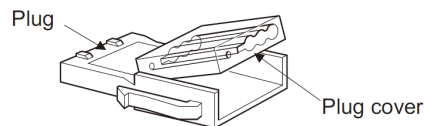


NOTE

- Where possible, round the cable tip that is cut off with a tool such as nippers. If the cable is not rounded, it may get caught in the middle of a plug, without fully entering into the plug.
- If required, apply an insulation treatment to the shielding wire area where it is not covered by the one-touch communication connector plug.

(2) Plug cover check

Check that a plug cover is snapped into a plug

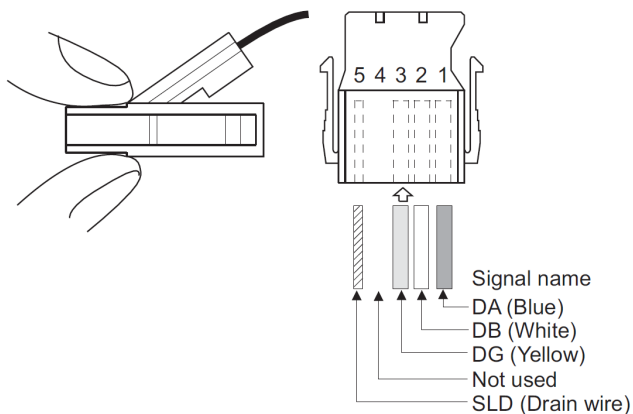


NOTE

- Do not push the plug cover onto the plug before inserting a cable. Once crimped, the plug cover cannot be reused.

(3) Cable insertion

Lift up the tail of the plug cover, and fully insert a cable. Insert different signal wires to the one-touch communication connector plug as shown in the right figure.



NOTE

- Insert the cable fully. Failure to do so may cause a crimping failure.
- A cable sometimes comes out of the head of the cover. In that case, pull the cable a little so that the cable stays under the plug cover.

(4) Crimping the plug cover

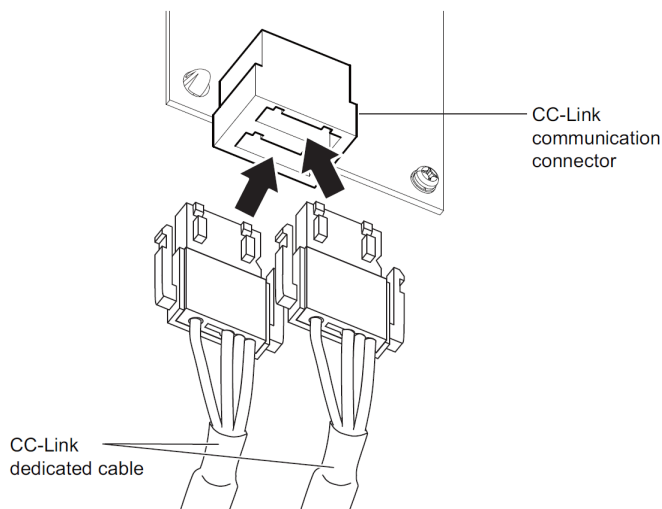
Push the plug cover onto the plug with a tool such as pliers. After crimping, check that the plug cover is securely snapped into the plug as shown in the right figure.



NOTE

- Misaligned latches between the plug cover and the plug may keep the cover lifted. The plug cover is not sufficiently crimped in this condition. Push the plug cover until it snaps into the plug.

Connect the CC-Link dedicated cable to the CC-Link communication connector.



NOTE





- When wiring cables to the inverter's RS-485 terminals while a plug-in option is mounted, take caution not to let the cables touch the circuit board of the option or of the inverter. Otherwise, electromagnetic noises may cause malfunctions.

[Setting of the terminating resistor selection switch of the FR-A8NC]

For the inverter (FR-A8NC) of the end station, configure the terminating resistor selection switch setting in advance.

The following table shows the specifications of the terminating resistor selection switch.

Configure the same setting as the terminating resistor selection switch of the FR-A7NC.

Setting	1	2	Description
	OFF	OFF	Without terminating resistor (initial setting)
	ON	OFF	Do not use.
	OFF	ON	130 Ω (resistance value with the CC-Link Ver. 1.00 dedicated high performance cable)
	ON	ON	110 Ω

The parameter numbers are the same. Refer to the following table to set the parameters.

List of FR-A8NC parameters compatible with the FR-A7NC

The following table shows the parameter settings of the FR-A800 series inverter required when replacing an FR-A7NC by an FR-A8NC.

When an FR-A700 series parameter is set to a value other than the initial value, set the corresponding FR-A800 parameter according to the following table.

When an FR-A700 series parameter is set to an initial value, it is usually not necessary to change the corresponding FR-A800 parameter setting.

Setting ◎: Set the FR-A700 parameter as it is.

△: Change the FR-A700 parameter and set.

×: Adjust or set the FR-A800 parameter.

FR-A700 parameter list				FR-A800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
313	DO0 output selection	0 to 8, 10 to 20, 25 to 28, 30 to 36, 39, 41 to 47, 64, 70, 84 to 99, 100 to 108, 110 to 116, 120, 125 to 128, 130 to 136, 139, 141 to 147, 164, 170, 184 to 199, 9999	9999	313	DO0 output selection	0 to 8, 10 to 20, 22, 25 to 28, 30 to 36, 38, 39, 41 to 54, 56, 57, 61, 63, 64, 68, 70, 84 to 99, 100 to 108, 110 to 116, 120, 122, 125 to 128, 130 to 136, 138, 139, 141 to 154, 156, 157, 161, 163, 164, 168, 170, 184 to 199, 200 to 205, 300 to 305, 9999	9999	◎	
314	DO1 output selection		9999	314	DO1 output selection		9999	◎	
315	DO2 output selection		9999	315	DO2 output selection		9999	◎	
338	Communication operation command source	0, 1	0	338	Communication operation command source	0, 1	0	◎	
339	Communication speed command source	0, 1, 2	0	339	Communication speed command source	0, 1, 2	0	◎	
340	Communication startup mode selection	0, 1, 2, 10, 12	0	340	Communication startup mode selection	0, 1, 2, 10, 12	0	◎	
342	Communication EEPROM write selection	0, 1	0	342	Communication EEPROM write selection	0, 1	0	◎	
349	Communication reset selection	0, 1	0	349	Communication reset selection	0, 1	0	◎	
500	Communication error execution waiting time	0 to 999.8 s	0 s	500	Communication error execution waiting time	0 to 999.8 s	0 s	◎	
501	Communication error occurrence count display	0	0	501	Communication error occurrence count display	0	0	◎	
502	Stop mode selection at communication error	0 to 3	0	502	Stop mode selection at communication error	0 to 3	0	◎	
541	Frequency command sign selection (CC-Link)	0, 1	0	541	Frequency command sign selection (CC-Link)	0, 1	0	◎	
542	Communication station number (CC-Link)	1 to 64	1	542	Communication station number (CC-Link)	1 to 64	1	◎	
543	Baud rate selection (CC-Link)	0 to 4	0	543	Baud rate selection (CC-Link)	0 to 4	0	◎	
544	CC-Link extended setting	0, 1, 12, 14, 18	0	544	CC-Link extended setting	0, 1, 12, 14, 18, 100, 112, 114, 118	0	◎	
550	NET mode operation command source selection	0, 1, 9999	9999	550	NET mode operation command source selection	0, 1, 9999	9999	◎	
804	Torque command source selection	0, 1, 3 to 6	0	804	Torque command source selection	0, 1, 3 to 6	0	◎	