Replacement of the FR-F700(P) series with FR-F800 Series (355K to 560K)

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

BCN-C21002-172G

1. REPLACING INVERTER

The FR-F800 series inverter 355K to 560K is a separated converter type, which consists of an inverter unit (FR-F842) and a converter unit (FR-CC2).

The FR-F800 series has two specifications types: FM type and CA type.
When replacing the FR-F700(P) series of the Japanese specifications, select the FM type (FR-F842-[][][]K-1).
When the FR-F700(P) series is replaced with the FR-F800 series, the FR-F800 series does not support some FR-F700(P) series functions. For the unsupported functions, refer to section 4.2.
For achieving compliance with the shipping classification of Class NK or others, use an FR-A800 inverter.

2. SIZE

When the FR-F700(P) series is replaced with the FR-F800 series, the FR-F800 series 355K or higher has different installation size from that of the corresponding FR-F700(P) series.
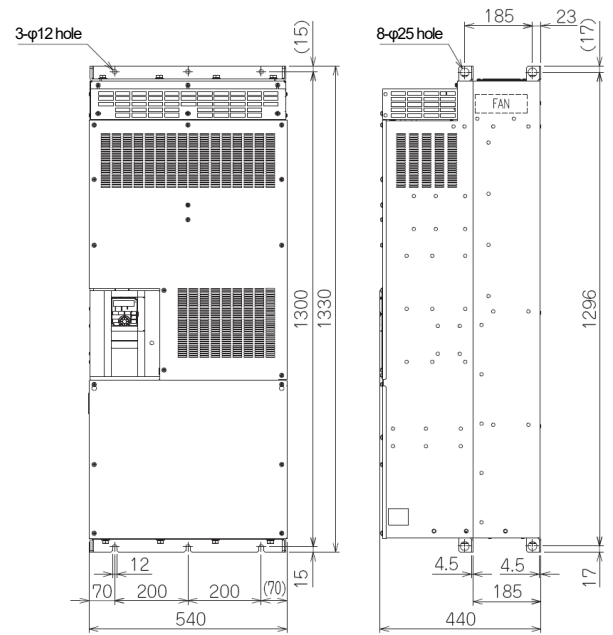For more information about the product size, refer to the outline dimension drawings on the following pages.

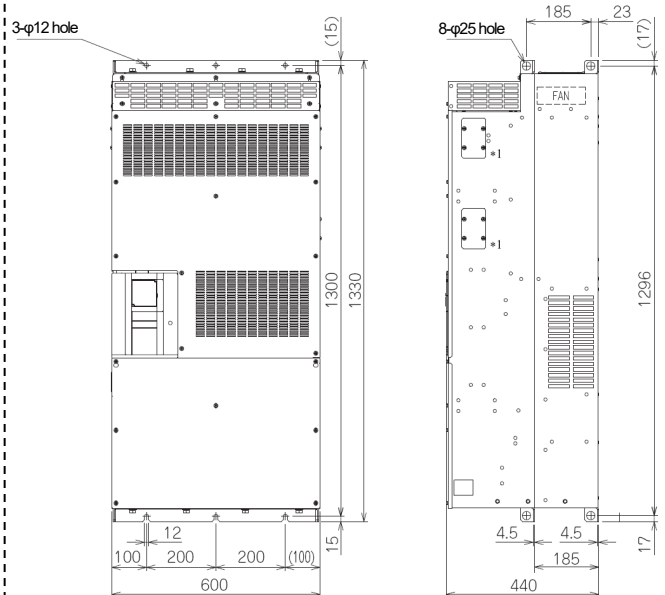| Existing inverter	Replacing inverter	Installation size
FR-F740(P)-355K	FR-F842-355K + FR-CC2-H355K	Different
FR-F740(P)-400K	FR-F842-400K + FR-CC2-H400K	
FR-F740(P)-450K	FR-F842-450K + FR-CC2-H450K	
FR-F740(P)-500K	FR-F842-500K + FR-CC2-H500K	
FR-F740(P)-560K	FR-F842-560K + FR-CC2-H560K	

Outline dimension drawings (Unit: mm)
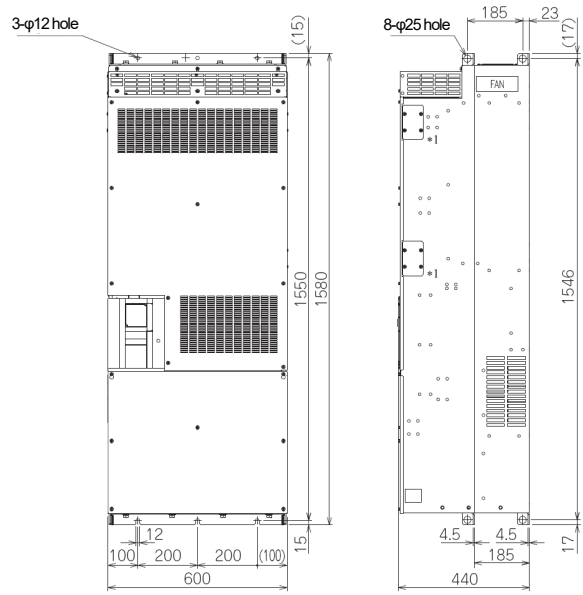
■FR-F740(P)-355K, 400K
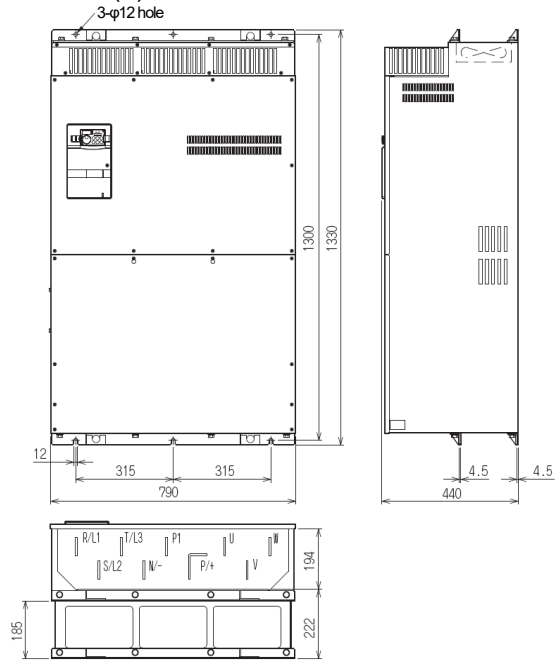
■FR-F842-355K, 400K (Inverter unit)

■FR-CC2-H355K (Converter unit)

■FR-CC2-H400K (Converter unit)

3-φ12 hole

(15)

8-φ25 hole

185   23

(17)

FAN

1550
1580

1546

12

100   200   200   (100)

15

4.5   4.5

185

17

600

440

■FR-F740(P)-450K, 500K, 560K

4-φ12 hole

1550
1580

12
300 300 300
995
950

440
4.5 4.5

R/L1 S/L2 T/L3 N/- P1 P/+ U V W

189
227
185
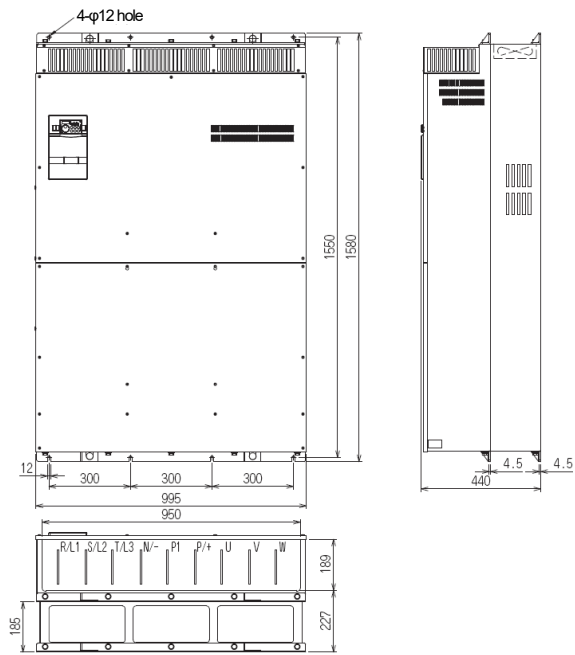
■FR-F842-450K, 500K, 560K (Inverter unit)

3-φ12 hole

(15)

8-φ25 hole

185 23
(17)

FAN

1550
1580

1546

12
100 240 240 (100)
15
680

4.5 4.5
185
440
17
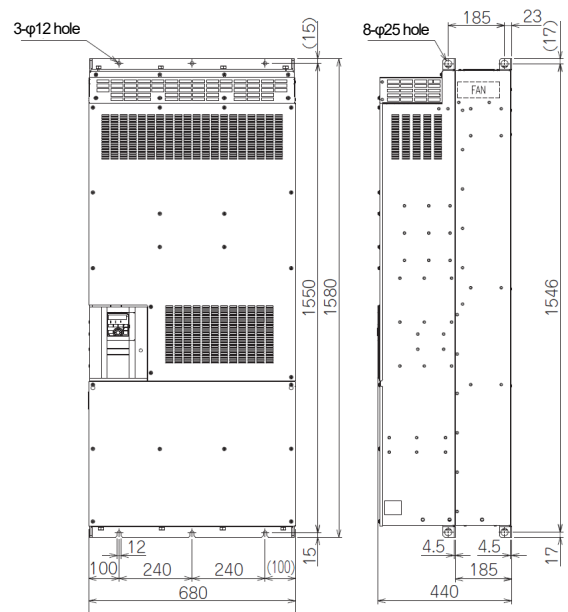
■FR-CC2-H450K, H500K, H560K (Converter unit)

3-φ12 hole

(15)

8-φ25 hole

185 23
(17)

FAN

1550
1580

*1

*1

1546

12
100 200 200 (100)
15
600

4.5 4.5
185
440
17
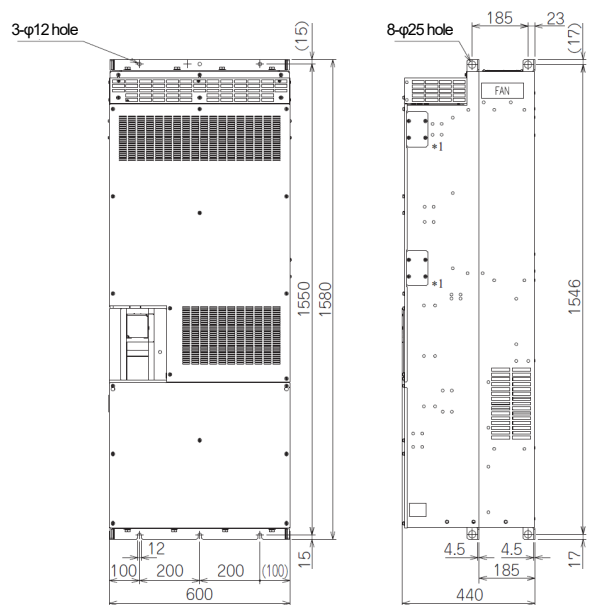
3. CONNECTION

The wiring of the new inverters can follow the one of the existing inverters as the terminal names between them are almost the same.

Type		F700(P) terminal name	F842 compatible terminal name	CC2 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	R1/L11, S1/L21
		P/+, PR	—	—
		P/+, N/-	P/+, N/-	P/+, N/-
		P/+, P1	—	P1 [*1]
		PR, PX	—	—
		⏚	⏚	⏚
Control circuit input signal	Contact	STF	STF	—
		STR	STR	—
		STOP	STP (STOP)	—
		RH	RH	—
		RM	RM	—
		RL	RL	—
		JOG	JOG	—
		RT	RT	—
		AU [*2]	AU	—
		CS	CS	—
		MRS	MRS (X10)	—
		RES	RES	RES
		SD	SD	SD
		PC	PC	PC
Analog	Frequency setting	10E	10E	—
		10	10	—
		2	2	—
		4	4	—
		1	1	—
		5	5	—
Control circuit output signal	Relay	A1, B1, C1	A1, B1, C1	A1, B1, C1
		A2, B2, C2	A2, B2, C2	—
	Open collector	RUN	RUN	—
		SU	SU	—
		OL	OL	—
		IPF	IPF	IPF
		FU	FU	—
		SE	SE	SE
	Pulse	FM	FM	—
	Analog	AM	AM	—
Communication	RS-485	PU connector	PU connector	PU connector
Signal for the brake unit		CN8 (equipped in 75K or higher)	—	—

*1 Connection is not available.

*2 When a PTC thermistor is connected between terminals AU and SD with the AU/PTC switch set to PTC for the FR-F700(P), connect the thermistor between terminals 10 and 2 for the FR-F842.

Main circuit terminal layout

The following shows the main circuit terminal layouts of the FR-F700(P) series and FR-F800 series.
Check the terminal names and positions before performing wiring.
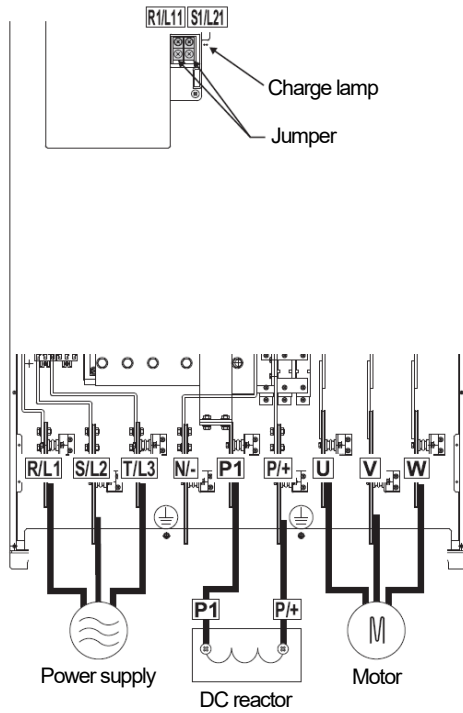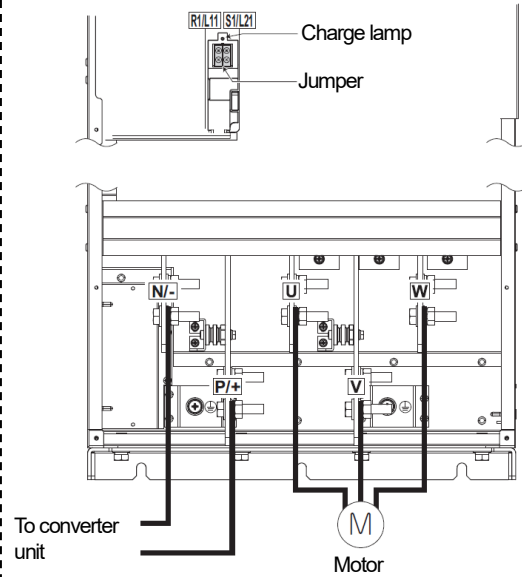When the cable used for the FR-F700(P) series is too short for the FR-F800 series, prepare the longer one.
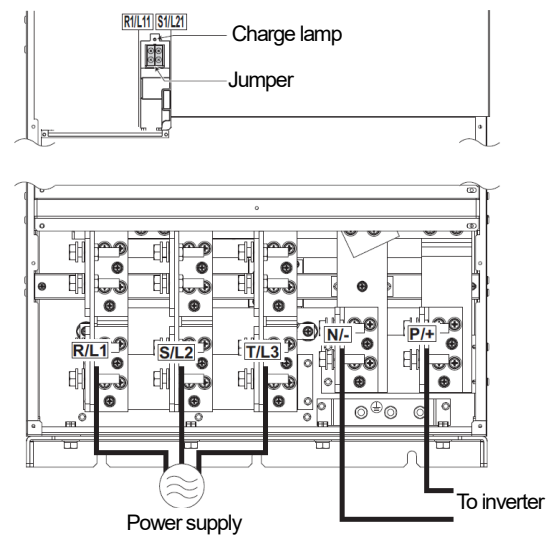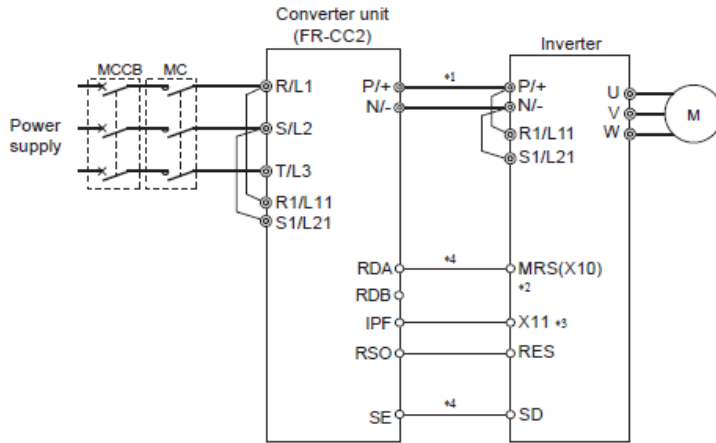
[400 V class]

■FR-F740(P)-355K to 560K

■FR-F842-355K to 560K (Inverter unit)

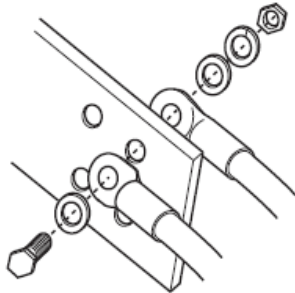

■FR-CC2-H355K to H560K (Converter unit)

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*1 Do not install an MCCB across the terminals P/+ and N/- (across terminals P and P/+ or across N and N/-). Connecting the opposite polarity of terminals N/- and P/+ will damage the inverter.

*2 For the terminal used for the X10 signal input, set "10" in any of Pr.178 to Pr.189 (input terminal function selection) to assign the function. (The X10 signal is assigned to the terminal MRS in the initial setting.)
For the X10 signal, NC contact input specification is selected in the initial setting. Set Pr.599 = "0" to change the input specification to NO contact.

*3 For the terminal used for the X11 signal input, set "11" in any of Pr.178 to Pr.189 (input terminal function selection) to assign the function. For RS-485 or any other communication where the start command is only transmitted once, use the X11 signal to save the operation mode at the time of an instantaneous power failure.

*4 Always connect the terminal RDA of the converter unit and the terminal MRS (X10) of the inverter, and the terminal SE of the converter unit and the terminal SD (sink logic) of the inverter. Not connecting these terminals may damage the converter unit.

NOTE
• Make sure the power cables are connected to the R/L1, S/L2, and T/L3 of the converter unit. (Phase need not be matched.) Never connect the power cable to the U, V, and W of the inverter. Doing so will damage the inverter.
• Connect the motor to the U, V, and W of the inverter. (The phases must be matched.)
• When wiring the main circuit conductor, tighten a nut from the right side of the conductor.
When wiring two wires, place wires on both sides of the conductor. (Refer to the diagram below.)
For wiring, use bolts (nuts) provided with the inverter.

• When wiring the main circuit conductor (R/L1, S/L2, T/L3) of the converter unit (FR-CC2), use the bolts (nuts) for main circuit wiring, which are provided on the front side of the conductor.

FR-CC2-H355K
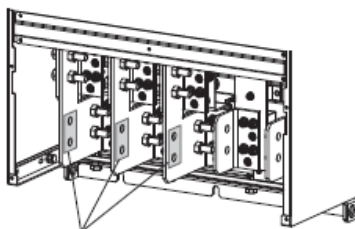
Connect the cables here.

FR-CC2-H400K to H630K
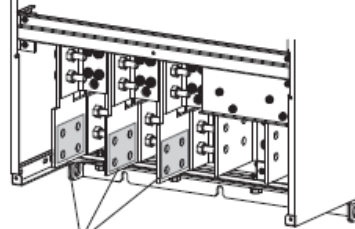
Connect the cables here.

Control circuit terminal layout

The following shows the control circuit terminal layouts of the FR-F700(P) series and the FR-F800 series.
The control circuit terminal layout differs between the FR-F700(P) and the FR-F800 series. Check the
terminal names and positions before performing wiring.

■ Control circuit terminal layout of the FR-F700(P) series

| A1 | B1 | C1 | A2 | B2 | C2 | 10E | 10 | 2 | 5 | 4 |

| RL | RM | RH | RT | AU | STOP | MRS | RES | SD | FM | AM | 1 |

| SE | RUN | SU | IPF | OL | FU | SD | SD | STF | STR | JOG | CS | PC |

Terminal screw size: M3.5
Tightening torque: 1.2 N·m
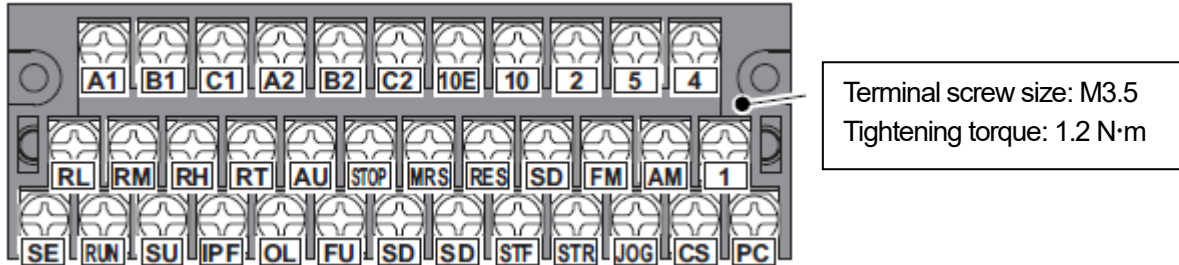
■ Control circuit terminal layout of the FR-F800 series

· Recommended cable gauge: 0.3 to 0.75 mm^2

| 2 | 5 | 4 | 1 | F/C*1 | +24 | SD | So | SOC | SD | SIC | S1 | S2 | PC | A1 | B1 | C1 | A2 | B2 | C2 |

| AM | 5 | 10E | 10 | SE | SE | RUN | SU | IPF | OL | FU | PC | RL | RM | RH | RT | AU | STP | MRS | RES | SD | SD | STF | STR | JOG | CS |
| *3 | | | | | | | | | | | | | | | | | (X10)*2 | | | | | | | | *3 |
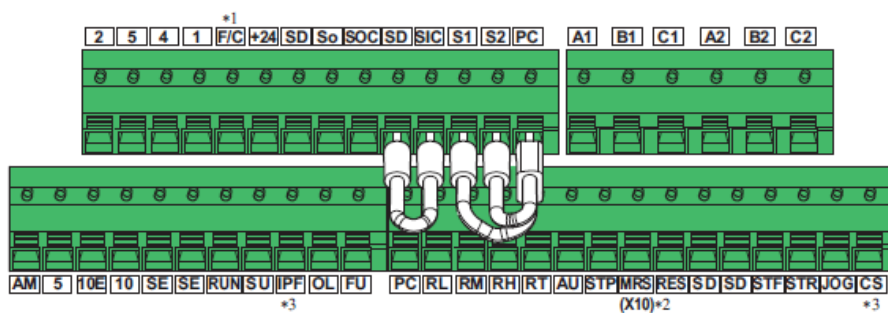
*1 This terminal operates as the terminal FM for the FM type, and as the terminal CA for the CA type.
*2 The X10 signal is assigned in the initial setting.
*3 No signal is assigned in the initial setting.

The control circuit terminal block intercompatibility attachment (FR-A8TAT) can be used for installing control circuit
terminal blocks of the FR-F700(P) series. However, some restrictions apply for the installation. Refer to the
FR-F800 catalog for the descriptions on the FR-A8TAT.

◆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

10 mm

(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.

0 to 0.5mm (0.02 inch)   Damaged   Crumpled tip   Unstranded wires   Wires are not inserted into the sleeve
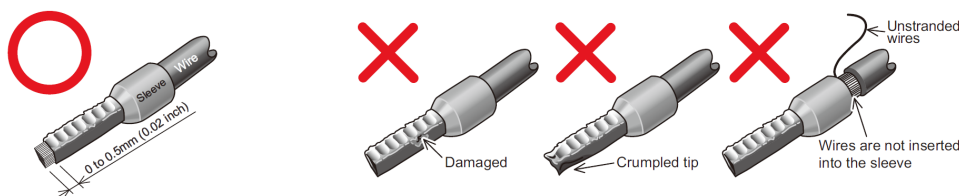
- Blade terminals commercially available (as of February 2012)

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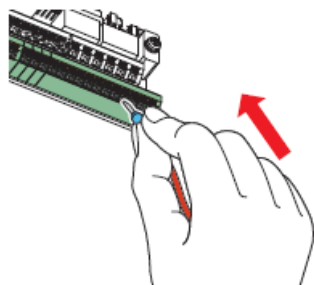
When using a single wire or stranded wires without a blade terminal, push the open/close button all the way down with a flathead screwdriver, and insert the wire.

Open/close button

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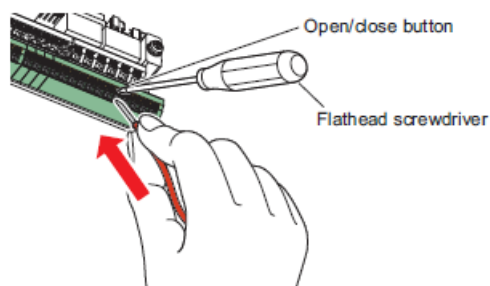
> **NOTE**
> - When using stranded wires without a blade terminal, twist enough to avoid short circuit with a nearby terminals or wires.
> - Place the flathead screwdriver vertical to the open/close button. In case the blade tip slips, it may cause an inverter damage or injury.

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

Open/close button

Flathead screwdriver
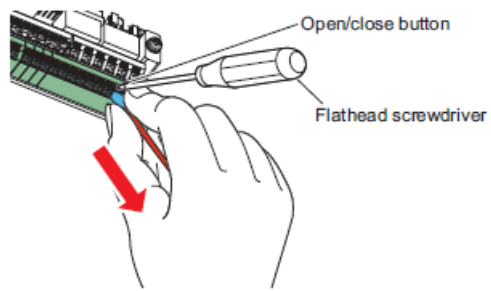
NOTE

- 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.

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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.

<u>List of FR-F800 series parameters compatible with the FR-F700(P) series</u>

The following table shows the parameter settings required when replacing an FR-F700(P) series inverter by an FR-F800 series inverter.

When an FR-F700(P) series parameter is set to <u>a value other than the initial value</u>, set the corresponding FR-F800 parameter according to the following table.

When an FR-F700(P) series parameter is set to an initial value, it is usually not necessary to change the corresponding FR-F800 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 ▭ parameters are the functions that were added to the FR-F700P series inverter.

Setting ⊙: Set the FR-F700(P) parameter as it is.
Δ: Change the FR-F700(P) parameter and set.
×: Adjust or set the FR-F800 parameter.

FR-F700(P) parameter list				FR-F800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
0	Torque boost	0 to 30%	1%	0	Torque boost	0 to 30%	1%	Δ	
1	Maximum frequency	0 to 120 Hz	60 Hz	1	Maximum frequency	0 to 120 Hz	60 Hz	⊙	
2	Minimum frequency	0 to 120 Hz	0 Hz	2	Minimum frequency	0 to 120 Hz	0 Hz	⊙	
3	Base frequency	0 to 400 Hz	60 Hz	3	Base frequency	0 to 590 Hz	60 Hz	⊙	
4	Multi-speed setting (high speed)	0 to 400 Hz	60 Hz	4	Multi-speed setting (high speed)	0 to 590 Hz	60 Hz	⊙	
5	Multi-speed setting (middle speed)	0 to 400 Hz	30 Hz	5	Multi-speed setting (middle speed)	0 to 590 Hz	30 Hz	⊙	
6	Multi-speed setting (low speed)	0 to 400 Hz	10 Hz	6	Multi-speed setting (low speed)	0 to 590 Hz	10 Hz	⊙	
7	Acceleration time	0 to 3600 s / 0 to 360 s	15 s	7	Acceleration time	0 to 3600 s	15 s	⊙	Changing Pr.21 after setting this parameter will change the set value.
8	Deceleration time	0 to 3600 s / 0 to 360 s	30 s	8	Deceleration time	0 to 3600 s	30 s	⊙	Changing Pr.21 after setting this parameter will change the set value.
9	Electronic thermal O/L relay	0 to 3600 A	Rated output current	9	Electronic thermal O/L relay	0 to 3600 A	Rated output current	⊙	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	⊙	
11	DC injection brake operation time	0 to 10 s	0.5 s	11	DC injection brake operation time	0 to 10 s, 8888	0.5 s	⊙	
12	DC injection brake operation voltage	0 to 30%	1%	12	DC injection brake operation voltage	0 to 30%	1%	Δ	
13	Starting frequency	0 to 60 Hz	0.5 Hz	13	Starting frequency	0 to 60 Hz	0.5 Hz	⊙	
14	Load pattern selection	0, 1	1	14	Load pattern selection	0, 1	1	⊙	
15	Jog frequency	0 to 400 Hz	5 Hz	15	Jog frequency	0 to 590 Hz	5 Hz	⊙	
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	⊙	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	⊙	
18	High speed maximum frequency	120 to 400 Hz	60 Hz	18	High speed maximum frequency	0 to 590 Hz	60 Hz	⊙	
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 150%, 9999	120%	22	Stall prevention operation level	0 to 400%	120%	Δ	When the FR-F700(P) setting is "9999", set Pr.868 = "4" and use the initial setting of Pr.22 for the FR-F800.
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	⊙	

Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
	FR-F700(P) parameter list				FR-F800 compatible parameter			Parameter setting	
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, 1, 2, 3, 6	0	29	Acceleration/deceleration pattern selection	0 to 3, 6	0	⊙	
30	Regenerative function selection	0, 1, 2, 10, 11, 20, 21	0	30	Regenerative function selection	2, 10, 11, 102, 110, 111	10	⊙	
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 150%	120%	48	Second stall prevention operation level	0 to 400%	120%	⊙	
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 Hz	⊙	
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	0 to 3600 A	9999	51	Second electronic thermal O/L relay	0 to 3600 A	9999	⊙	
52	DU/PU main display data selection	0, 5, 6, 8 to 14, 17, 20, 23 to 25, 50 to 57, 100	0	52	Operation panel main monitor selection	0, 5 to 14, 17, 18, 20, 23 to 25, 34, 38, 40 to 45, 50 to 57, 61, 62, 64, 67, 68, 81 to 96, 98, 100	0	⊙	
54	FM terminal function selection	1 to 3, 5, 6, 8 to 14, 17, 21, 24, 50, 52, 53	1	54	FM/CA terminal function selection	1 to 3, 5 to 14, 17, 18, 21, 24, 34, 50, 52, 53, 61, 62, 67, 70, 85, 87 to 90, 92, 93, 95, 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	0 to 3600 A	Rated output current	56	Current monitoring reference	0 to 3600 A	Rated output current	⊙	
57	Restart coasting time	0.01 to 30 s, 9999	9999	57	Restart coasting time	0, 0.1 to 30 s, 9999	9999	⊙	When Pr.57 of the FR-F800 is not set to "9999", set Pr.57 of the FR-CC2 to "0". 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-F800.
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, 11, 12, 13	0	59	Remote function selection	0 to 3, 11 to 13	0	⊙	
60	Energy saving control selection	0, 4, 9	0	60	Energy saving control selection	0, 4, 9	0	⊙	
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	⊙	

FR-F700(P) parameter list				FR-F800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
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	Δ	FR-F700(P) → FR-F800 0 → 0.1 s
69	Retry count display erase	0	0	69	Retry count display erase	0	0	×	
70	Special regenerative brake duty	0 to 10%	0%	70	—	—	—	—	Parameter for manufacturer setting. Do not set.
71	Applied motor	0, 1, 2, 20, 120, 210, 2010, 2110	0	71	Applied motor	0 to 6, 13 to 16, 20, 23, 24, 40, 43, 44, 50, 53, 54, 70, 73, 74, 210, 213, 214, 8090, 8093, 8094, 9090, 9093, 9094	0	Δ	Set as follows: "120" for the F700(P) → "8090" for the F800
72	PWM frequency selection	0 to 6, 25	2	72	PWM frequency selection	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	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	⊙	
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	0 to 3600 kW, 9999	9999	80	Motor capacity	0 to 3600 kW, 9999	9999	⊙	
				81	Number of motor poles	2, 4, 6, 8, 10, 12, 9999	9999	×	Set this parameter according to the motor. When Pr.80 ≠ "9999" and Pr.71 ≠ "120, 210, 2010, or 2110" for the FR-F700(P), set Pr.81 = "4" and Pr.89 = "0" for the FR-F800.
				89	Speed control gain	0 to 200%, 9999	9999	×	
90	Motor constant (R1)	0 to 400 mΩ, 9999	9999	90	Motor constant (R1)	0 to 400 mΩ, 9999	9999	⊙	
					Online auto tuning selection	0 to 2	0	⊙	
					Auto tuning setting/status	0, 1, 11, 101	0	Δ	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 1000 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 1000 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 1000 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 1000 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 1000 V	0 V	109	V/F5 (fifth frequency voltage)	0 to 1000 V	0 V	⊙	

	FR-F700(P) parameter list				FR-F800 compatible parameter			Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
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, 110, 111, 120, 121	10	128	PID action selection	0, 10, 11, 20, 21, 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-F700(P), set "0" in Pr.128 in the FR-F800. When the X14 signal is not assigned to any input terminal, just set Pr.128 to enable PID control in the FR-F800.
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	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	◉	
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	0	145	PU display language selection	0 to 7	1	◉	
147	Acceleration/deceleration time switchover frequency	0 to 400 Hz, 9999	9999	147	Acceleration/deceleration time switchover frequency	0 to 400 Hz, 9999	9999	◉	
148	Stall prevention level at 0V input	0 to 150%	120%	148	Stall prevention level at 0 V input	0 to 400%	120%	◉	
149	Stall prevention level at 10V input	0 to 150%	120%	149	Stall prevention level at 10 V input	0 to 400%	150%	◉	
150	Output current detection level	0 to 150%	120%	150	Output current detection level	0 to 400%	120%	◉	
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 150%	5%	152	Zero current detection level	0 to 400%	5%	◉	
153	Zero current detection time	0 to 10 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, 10, 11	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	◉	

FR-F700(P) parameter list				FR-F800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
156	Stall prevention operation selection	0 to 31, 100, 101	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, 6, 8 to 14, 17, 21, 24, 50, 52, 53	1	158	AM terminal function selection	1 to 3, 5 to 14, 17, 18, 21, 24 34, 50, 52 to 54, 61, 62, 67, 70, 86 to 96, 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, 9999	9999	160	User group read selection	0, 1, 9999	9999	◉	
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, 10, 11	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 150%	120%	165	Stall prevention operation level for restart	0 to 400%	120%	◉	
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, 10, 11	0	167	Output current detection operation selection	0, 1, 10, 11	0	◉	
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	×	Setting 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	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 8, 10 to 12, 14, 16, 24, 25, 60, 62, 64 to 67, 70 to 72, 9999	60	178	STF terminal function selection	0 to 8, 10 to 14, 16, 18, 24, 25, 28, 37 to 40, 46 to 48, 50, 51, 60, 62, 64 to 67, 70 to 73, 77 to 81, 84, 94 to 98, 9999	60	◉	The setting values "70 and 71" cannot be selected. The three terminals, X10, X11, and RES are required for the connection with the FR-CC2. In the initial setting, the X10 signal is assigned to terminal MRS, and the RES signal to terminal RES. When these terminals of the FR-F700(P) are used, use other terminals of the FR-F800.
179	STR terminal function selection	0 to 8, 10 to 12, 14, 16, 24, 25, 61, 62, 64 to 67, 70 to 72, 9999	61	179	STR terminal function selection	0 to 8, 10 to 14, 16, 18, 24, 25, 28, 37 to 40, 46 to 48, 50, 51, 60, 62, 64 to 67, 70 to 73, 77 to 81, 84, 94 to 98, 9999	61	◉	
180	RL terminal function selection	0 to 8, 10 to 12, 14, 16, 24, 25, 62, 64 to 67, 70 to 72, 9999	0	180	RL terminal function selection	0 to 8, 10 to 14, 16, 18, 24, 25, 28, 37 to 40, 46 to 48, 50, 51, 62, 64 to 67, 70 to 73, 77 to 81, 84, 94 to 98, 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 8, 10 to 12, 14, 16, 24, 25, 62 to 67, 70 to 72, 9999	4	184	AU terminal function selection		4	◉	
185	JOG terminal function selection	0 to 8, 10 to 12, 14, 16, 24, 25, 62, 64 to 67, 70 to 72, 9999	5	185	JOG terminal function selection		5	◉	
186	CS terminal function selection		6	186	CS terminal function selection		9999	Δ	
187	MRS terminal function selection		24	187	MRS terminal function selection		10	Δ	
188	STOP terminal function selection		25	188	STOP terminal function selection		25	◉	
189	RES terminal function selection		62	189	RES terminal function selection		62	◉	

FR-F700(P) parameter list				FR-F800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
190	RUN terminal function selection	0 to 5, 7, 8, 10 to 19, 25, 26, 45 to 48, 57, 64, 67, 70, 79, 85, 90, 91, 92, 93, 94 to 96, 98, 99, 100 to 105, 107, 108, 110 to 116, 125, 126, 145 to 148, 157, 164, 167, 170, 179, 185, 190, 191, 192, 193, 194 to 196, 198, 199, 9999	0	190	RUN terminal function selection	0 to 5, 7, 8, 10 to 19, 25, 26, 35, 39, 40, 45 to 54, 57, 64 to 68, 70 to 79, 82, 85, 90 to 96, 98 to 105, 107, 108, 110 to 116, 125, 126, 135, 139, 140, 145 to 154, 157, 164 to 168, 170 to 179, 182, 185, 190 to 196, 198 to 208, 211 to 213, 215, 300 to 308, 311 to 313, 315, 9999	0	⊙	For driving IPM, set the FB and FB2 signals instead of the FU and FU2 signals.
191	SU terminal function selection		1	191	SU terminal function selection		1	⊙	
192	IPF terminal function selection		2	192	IPF terminal function selection		9999	Δ	
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 5, 7, 8, 10 to 19, 25, 26, 45 to 48, 57, 64, 67, 70, 79, 85, 90, 91, 92, 93, 94 to 96, 98, 99, 100 to 105, 107, 108, 110 to 116, 125, 126, 145 to 148, 157, 164, 167, 170, 179, 185, 190, 191, 192, 193, 194 to 196, 198, 199, 9999	99	195	ABC1 terminal function selection	0 to 5, 7, 8, 10 to 19, 25, 26, 35, 39, 40, 45 to 54, 57, 64 to 68, 70 to 79, 82, 85, 90, 91, 94 to 96, 98 to 105, 107, 108, 110 to 116, 125, 126, 135, 139, 140, 145 to 154, 157, 164 to 168, 170 to 179, 182, 185, 190, 191, 194 to 196, 198 to 208, 211 to 213, 215, 300 to 308, 311 to 313, 315, 9999	99	⊙	
196	ABC2 terminal function selection		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	⊙	
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-output 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 loss 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 31)	0	×	Also displayed in Pr.255 in the FR-CC2.
256	Inrush current limit circuit life display	(0 to 100%)	100%	—	—	—	—	×	Displayed in Pr.256 in the FR-CC2.
257	Control circuit capacitor life display	(0 to 100%)	100%	257	Control circuit capacitor life display	(0 to 100%)	100%	×	Also displayed in Pr.257 in the FR-CC2.
258	Main circuit capacitor life display	(0 to 100%)	100%	—	—	—	—	×	Disabled.
259	Main circuit capacitor life measuring	0, 1	0	—	—	—	—	×	
260	PWM frequency automatic switchover	0, 1	1	260	PWM frequency automatic switchover	0, 1	1	⊙	

FR-F700(P) parameter list				FR-F800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
261	Power failure stop selection	0, 1, 2, 21, 22	0	261	Power failure stop selection	0, 1, 2, 11, 12, 21, 22	0	Δ	Setting Pr.261 is required also in the FR-CC2 manufactured in August 2014 or later. Changing Pr.21 after setting Pr.264 and Pr.265 will change the set values.
262	Subtracted frequency at deceleration start	0 to 20 Hz	3 Hz	262	Subtracted frequency at deceleration start	0 to 20 Hz	3 Hz	Δ	
263	Subtraction starting frequency	0 to 400 Hz, 9999	60 Hz	263	Subtraction starting frequency	0 to 590 Hz, 9999	60 Hz	Δ	
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	Δ	
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	Δ	
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	Δ	
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	⊙	
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 restart	0, 1, 9999	9999	299	Rotation direction detection selection at restart	0, 1, 9999	9999	⊙	
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, 0.1 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	⊙	
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
374	Overspeed detection level	0 to 400 Hz, 9999	9999	374	Overspeed detection level	0 to 590 Hz	9999	⊙	
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	⊙	
502	Stop mode selection at communication error	0 to 3	0	502	Stop mode selection at communication error	0 to 3	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	⊙	
522	Output stop frequency	0 to 400 Hz, 9999	9999	522	Output stop frequency	0 to 590 Hz, 9999	9999	⊙	
539	Modbus-RTU communication check time interval	0, 0.1 to 999.8 s, 9999	9999	539	Modbus-RTU communication check time interval	0 to 999.8 s, 9999	9999	⊙	

FR-F700(P) parameter list				FR-F800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
549	Protocol selection	0, 1	0	549	Protocol selection	0, 1, 2	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	2	551	PU mode operation command source selection	1, 2, 3, 9999	9999	⊙	
552	Frequency jump range	0 to 30 Hz, 9999	9999	552	Frequency jump range	0 to 30 Hz, 9999	9999	⊙	
553	PID deviation limit	0 to 100.0%, 9999	9999	553	PID deviation limit	0 to 100.0%, 9999	9999	⊙	
554	PID signal operation selection	0 to 3, 10 to 13	0	554	PID signal operation selection	0 to 3, 10 to 13	0	⊙	
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	0 to 3600 A	Inverter rated current	557	Current average value monitor signal output reference current	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
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	⊙	
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	15 s	611	Acceleration time at a restart	0 to 3600 s, 9999	9999	⊙	
653	Speed smoothing control	0 to 200%	0%	653	Speed smoothing control	0 to 200%	0%	⊙	
654	Speed smoothing cutoff frequency	0 to 120 Hz	20 Hz	654	Speed smoothing cutoff frequency	0 to 120 Hz	20 Hz	⊙	
665	Regeneration avoidance frequency gain	0 to 200%	100%	665	Regeneration avoidance frequency gain	0 to 200%	100%	⊙	
779	Operation frequency during communication error	0 to 400 Hz, 9999	9999	779	Operation frequency during communication error	0 to 590 Hz, 9999	9999	⊙	
791	Acceleration time in low-speed range	0 to 3600 / 360 s, 9999	9999	791	Acceleration time in low-speed range	0 to 3600 / 360 s, 9999	9999	⊙	Changing Pr.21 after setting this parameter will change the set value.
792	Deceleration time in low-speed range	0 to 3600 / 360 s, 9999	9999	792	Deceleration time in low-speed range	0 to 3600 / 360 s, 9999	9999	⊙	Changing Pr.21 after setting this parameter will change the set value.
799	Pulse increment setting for output power	0.1 kWh, 1 kWh, 10 kWh, 100 kWh, 1000 kWh	1 kWh	799	Pulse increment setting for output power	0.1 kWh, 1 kWh, 10 kWh, 100 kWh, 1000 kWh	1 kWh	⊙	
800	Control method selection	9, 20	20	800	Control method selection	9, 20	20	⊙	
820	Speed control P gain 1	0 to 1000%	25%	820	Speed control P gain 1	0 to 1000%	25%	⊙	
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	⊙	
867	AM output filter	0 to 5 s	0.01 s	867	AM output filter	0 to 5 s	0.01 s	⊙	
870	Speed detection hysteresis	0 to 5 Hz	0 Hz	870	Speed detection hysteresis	0 to 5 Hz	0 Hz	⊙	
872	Input phase loss protection selection	0, 1	0	—	—	—	—	×	Set Pr.872 of the FR-CC2 to match the setting of the FR-F700(P).
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	⊙	

FR-F700(P) parameter list				FR-F800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
885	Regeneration avoidance compensation frequency limit value	0 to 30 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)	0 to 3600 kW	Inverter rated capacity	893	Energy saving monitor reference (motor capacity)	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	⊙	
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	Δ	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%	Δ	
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	Δ	
C4 (903)	Terminal 2 frequency setting gain	0 to 300%	100%	C4 (903)	Terminal 2 frequency setting gain	0 to 300%	100%	Δ	
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	Δ	
C6 (904)	Terminal 4 frequency setting bias	0 to 300%	20%	C6 (904)	Terminal 4 frequency setting bias	0 to 300%	20%	Δ	
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	Δ	
C7 (905)	Terminal 4 frequency setting gain	0 to 300%	100%	C7 (905)	Terminal 4 frequency setting gain	0 to 300%	100%	Δ	
C42 (934)	PID display bias coefficient	0 to 500%, 9999	9999	C42 (934)	PID display bias coefficient	0 to 500%, 9999	9999	Δ	Set the parameter as required. For the details, refer to "◆ Calibration of PID display bias and gain" in section "5.11.7 Changing the display increment of the numerical values used in PID control" of the Instruction Manual (Detailed).
C43 (934)	PID display bias analog value	0 to 300%	20%	C43 (934)	PID display bias analog value	0 to 300%	20%	Δ	
C44 (935)	PID display gain coefficient	0 to 500.0, 9999	9999	C44 (935)	PID display gain coefficient	0 to 500.0, 9999	9999	Δ	
C45 (935)	PID display gain analog value	0 to 300%	100%	C45 (935)	PID display gain analog value	0 to 300%	100%	Δ	
989	Parameter copy alarm release	100	100	989	Parameter copy alarm release	100	100	Δ	
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	⊙	

FR-F700(P) parameter list				FR-F800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
997	Fault initiation	16 to 18, 32 to 34, 48, 49, 64, 80 to 82, 96, 97, 112, 128, 129, 144, 145, 160, 161, 176 to 179, 192 to 194, 196 to 199, 208, 230, 241, 245 to 247, 253, 9999	9999	997	Fault initiation	0 to 255, 9999	9999	×	Setting not required
998	IPM parameter initialization	0, 1, 12, 22, 32, 101, 112, 122, 132	0	998	PM parameter initialization	0, 12, 112, 8009, 8109, 9009, 9109	0	×	Setting not required
999	Automatic parameter setting	10, 11, 20, 21, 30, 31, 9999	9999	999	Automatic parameter setting	1, 2, 10, 11, 12, 13, 20, 21, 9999	9999	×	Setting not required

4. 2. Restrictions for the FR-F800 Series

The following describes the restrictions on the replacement of the FR-F700(P) series with the FR-F800 series.

(1) Unsupported functions

No.	Item	Remarks
1	Power failure stop function	This function is available for the FR-CC2 manufactured in August 2014 or later.
2	Special regenerative brake duty	
3	Main circuit capacitor life display and life check	
4	Electronic bypass sequence	When an error occurs in the FR-CC2, the commercial power supply operation is not activated. For the FR-CC2 manufactured in August 2014 or later, use the X95 and X96 signals.
5	DC feeding mode	The FR-F842 does not support DC feeding mode 2.
6	Warnings and protective functions	The FR-F842 does not support the brake transistor alarm detection (E.BE).

(2) Functions unsupported by the FR-F842 but supported by the FR-CC2
    For the setting method, refer to the remarks in the parameter list.

No.	Item	Remarks
1	Inrush current limit circuit life check	This function can be set with the FR-CC2.
2	Warnings and protective functions	With this function, the FR-CC2 can detect the instantaneous power failure (E.IPF), undervoltage (E.UVT), input phase loss (E.ILF), and inrush current limit circuit fault (E.IOH).

(3) Other restrictions

No.	Item	Remarks
1	USB (applicable to the FR-CC2 only)	The FR-CC2 does not support the USB connector.
2	Startup time	If the power to the main circuit of the FR-CC2 is turned ON with the control circuit power already ON, the FR-CC2 performs a reset. The inverter is reset and the startup delays.
3	Operation panel (applicable to the FR-CC2 only)	Install the operation panel of the FR-A842 to set the FR-CC2.

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-F700(P), connect the thermistor between terminals 10 and 2 for the FR-F842.
For the FR-F842, set Pr.561 (PTC thermistor protection level) and Pr.1016 (PTC thermistor protection detection time).

4. 4. Compatibility of the Terminal Response Speed

The response of the input/output terminals of the FR-F800 is improved compared to the FR-F700(P).
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-F700(P) series options are compatible with the FR-F800 series inverters and their corresponding FR-F800 series options.

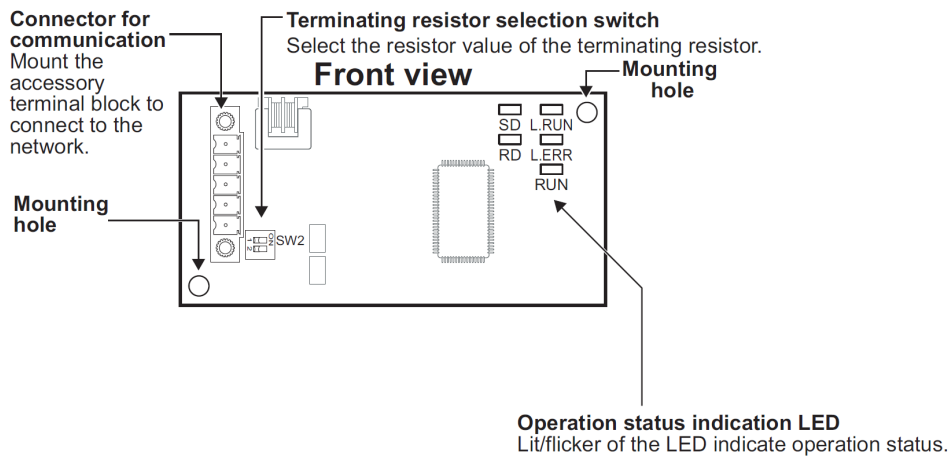| Name		Option model	
		FR-F700(P)	FR-F800
Plug-in type	16-bit digital input	FR-A7AX	FR-A8AX
	Digital output, additional analog output	FR-A7AY	FR-A8AY
	Relay output	FR-A7AR	FR-A8AR
	Profibus-DP	FR-A7NP	FR-A8NP
	Device Net	FR-A7ND	FR-A8ND
	CC-Link	FR-A7NC	FR-A8NC
	CC-Link IE Field	FR-A7NCE	FR-A8NCE
Stand-alone type	Parameter unit	FR-PU07	Some function restricted (parameter copy, operable parameters, etc.) The battery mode of the FR-PU07BB is not available for the FR-CC2.
	Parameter unit connection cable	FR-CB201,203,205	Compatible
	Power factor improving AC reactor	MT-BAL-H	Compatible. If replacing the reactor, use FR-HAL-H.
	Radio noise filter	FR-BIF-H	Compatible
	Line noise filter	FR-BLF	Compatible
	Brake unit	FR-BU-H, FR-BU2-H	Compatible. The MT-BU5 is not compatible.
	Resistor unit	MT-BR5-H	Compatible
	FR-HC type high power factor converter	FR-HC2-H	Compatible. In this case, FR-CC2 is not required.
Manual controller / speed controller	Manual controller	FR-AX	Compatible
	DC tach. follower	FR-AL	Compatible
	Three speed selector	FR-AT	Compatible
	Remote 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 1kΩ	Compatible
	Analog frequency meter	YM206NRI 1mA	Compatible
	Calibration resistor	RV24YN 10kΩ	Compatible

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

The FR-A7NC (CC-Link communication option) used with the FR-F700(P) series cannot be used with the FR-F800 series. For the CC-Link communication with the FR-F800 series, use the FR-A8NC.
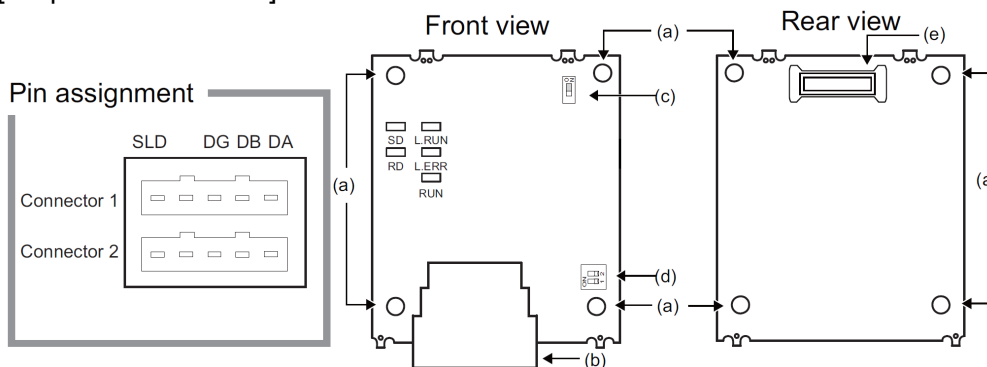
(1) Shape and installation method

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	

[Shape of the FR-A7NC]

Connector for communication
Mount the accessory terminal block to connect to the network.

Mounting hole

Terminating resistor selection switch
Select the resistor value of the terminating resistor.

Front view

Mounting hole

SD L.RUN
RD L.ERR
RUN

SW2

Operation status indication LED
Lit/flicker of the LED indicate operation status.

[Shape of the FR-A8NC]

Pin assignment

SLD DG DB DA

Connector 1
Connector 2

Front view

Rear view

SD L.RUN
RD L.ERR
RUN

| Symbol	Name	Description
a	Mounting hole	Used to fix the option to the inverter by inserting a mounting screw or a spacer.
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.

Cut off with a nipper, etc.

Cut off with a nipper, etc.
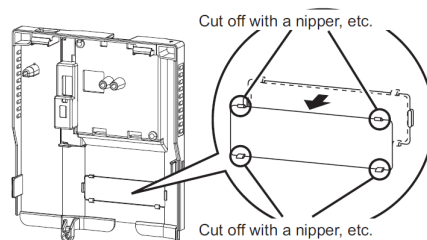
(3) Fit the communication option LED display cover to the front of the inverter front cover and push it into until fixed with hooks.

∗ Fit it so that the position of lenses is in the upper-right of the LED display cover.
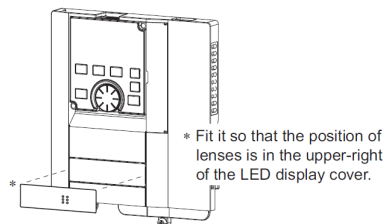
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NOTE
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• The protective structure (JEM1030) changes to the open type (IP00).

◆ 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.

Inverter side option connector

Spacer

Spacer

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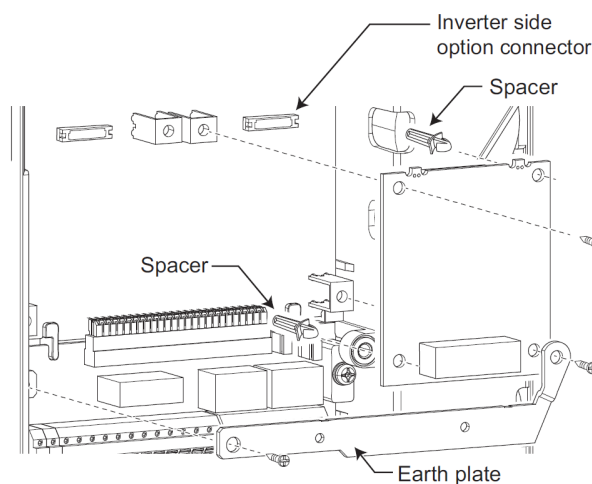
Do not insert the plug-in option to the connector 2 or 3.

Connector 3

Mounting screw

Spacer

Connector 2   Connector 1

Spacer

Mounting screw

Mounting screw

Earth plate
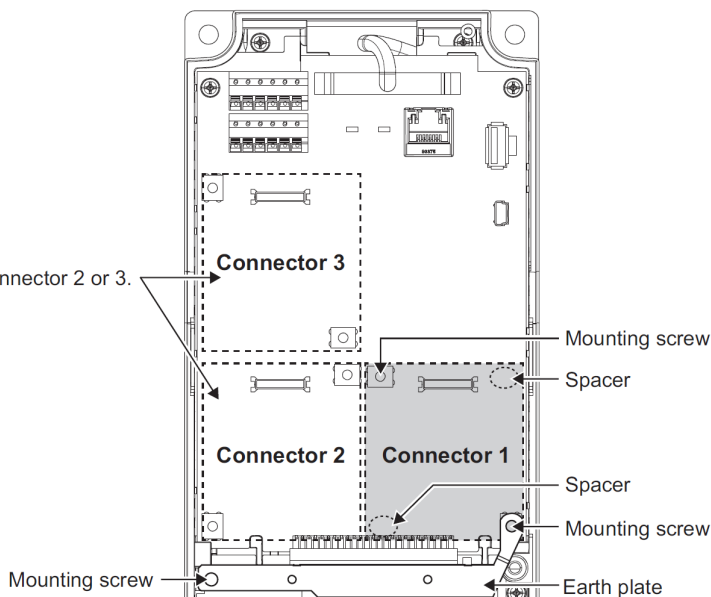
Insertion positions for screws and spacers

[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.
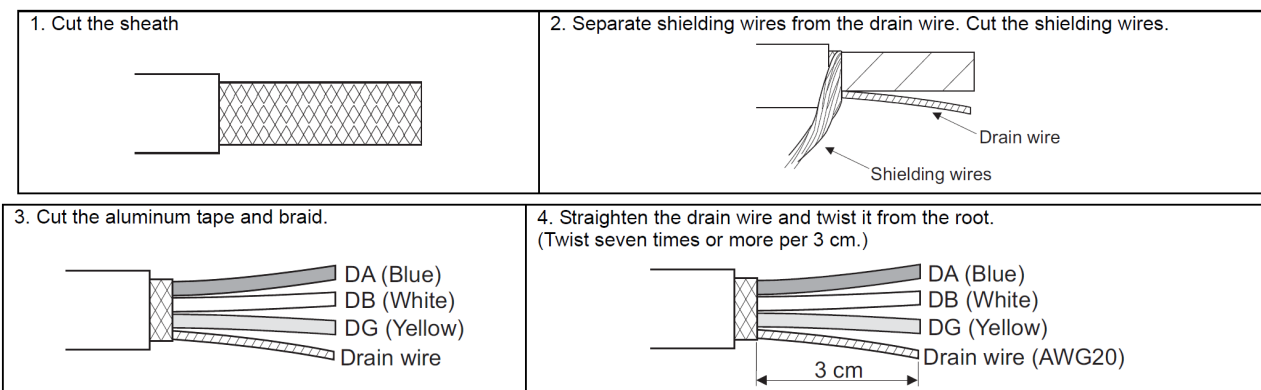• Website of the CC-Link Partner Association http://www.cc-link.org/
• One-touch communication connector plug (as of July 2013)
  Refer to the following table for the plug required to fabricate a cable on your own.

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.

1. Cut the sheath

2. Separate shielding wires from the drain wire. Cut the shielding wires.
Drain wire
Shielding wires

3. Cut the aluminum tape and braid.
DA (Blue)
DB (White)
DG (Yellow)
Drain wire

4. Straighten the drain wire and twist it from the root.
(Twist seven times or more per 3 cm.)
DA (Blue)
DB (White)
DG (Yellow)
Drain wire (AWG20)
3 cm

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
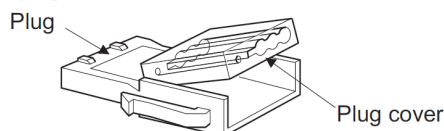
Plug
Plug cover

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.

Signal name
DA (Blue)
DB (White)
DG (Yellow)
Not used
SLD (Drain wire)
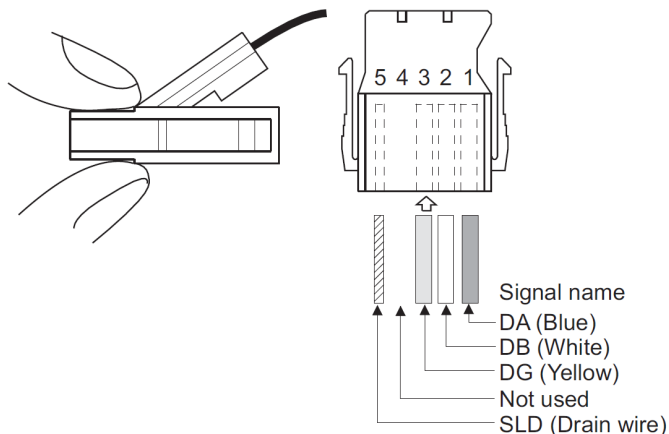
NOTE
- Insert the cable fully. Failure to do so may cause a crimping failure.
- A cable sometimes comes out of the head of the cover. In that case, pull the cable a little so that the cable stays under the plug cover.

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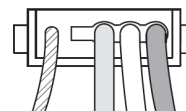
NOTE
- Misaligned latches between the plug cover and the plug may keep the cover lifted. The plug cover is not sufficiently crimped in this condition. Push the plug cover until it snaps into the plug.

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

CC-Link
communication
connector

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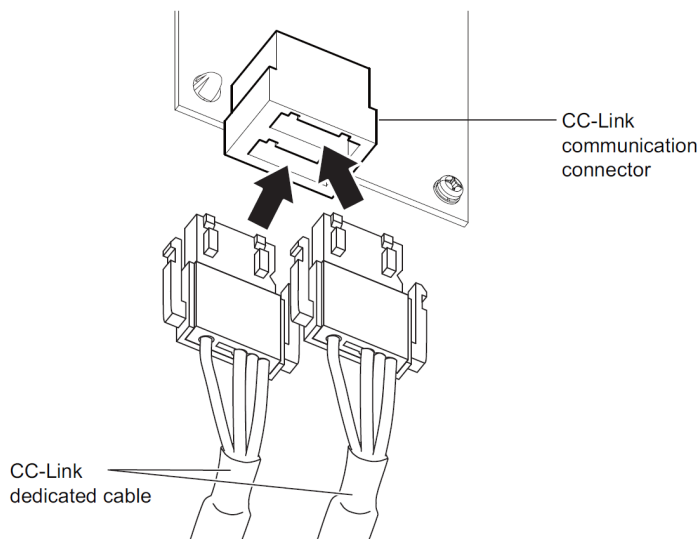
NOTE
- When wiring cables to the inverter's RS-485 terminals while a plug-in option is mounted, take caution not to let the cables touch the circuit board of the option or of the inverter. Otherwise, electromagnetic noises may cause malfunctions.

[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-F800 series inverter required when replacing an FR-A7NC by an FR-A8NC.
When an FR-F700(P) series parameter is set to a value other than the initial value, set the corresponding FR-F800 parameter according to the following table.
When an FR-F700(P) series parameter is set to an initial value, it is usually not necessary to change the corresponding FR-F800 parameter setting.

Setting ⊙: Set the FR-F700(P) parameter as it is.
Δ: Change the FR-F700(P) parameter and set.
×: Adjust or set the FR-F800 parameter.

FR-F700(P) parameter list				FR-F800 compatible parameter				Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
313	DO0 output selection	0 to 5, 7, 8, 10 to 19, 25, 26, 45 to 48, 57, 64, 67, 70, 79, 85 to 96, 89, 99, 100 to 105, 107, 108, 110 to 119, 125, 126, 145 to 148, 157, 164, 167, 170, 179, 185 to 196, 198, 199, 9999	9999	313	DO0 output selection	0 to 5, 7, 8, 10 to 19, 25, 26, 35, 39, 40, 45 to 54, 57, 64 to 68, 70 to 79, 82, 85 to 96, 98 to 105, 107, 108, 110 to 116, 125, 126, 135, 139, 140, 145 to 154, 157, 164 to 168, 170 to 179, 182, 185 to 196, 198 to 208, 211 to 213, 215, 300 to 308, 311 to 313, 315, 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	⊙	