

Information for Replacement of **FR-F700PJ Series with FR-D800 Series**

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

For details, refer to the Instruction Manual.

1. Size

When the FR-F700PJ series is replaced with the FR-D800 series, some FR-D800 series models have different installation size from that of the corresponding FR-F700PJ series models.

For more information about the product size, refer to the outline dimension drawings on the following pages.

Power supply voltage	Existing inverter	Replacing inverter *5 *6	Installation size
Three-phase 200 V	FR-F720PJ-0.4K	FR-D820-0.4K-025 *3	Same
	FR-F720PJ-0.75K	FR-D820-0.75K-042	Same
	FR-F720PJ-1.5K	FR-D820-1.5K-070 *3	Same
	FR-F720PJ-2.2K	FR-D820-2.2K-100 *3	Same
	FR-F720PJ-3.7K	FR-D820-3.7K-165 *3	Use the intercompatibility attachment.*4
	FR-F720PJ-5.5K	FR-D820-5.5K-238 *1	Same
	FR-F720PJ-7.5K	FR-D820-7.5K-318 *1	Same
	FR-F720PJ-11K	FR-D820-11K-450 *2	Same
	FR-F720PJ-15K	FR-D820-15K-580 *2	Same
Three-phase 400 V	FR-F740PJ-0.4K	FR-D840-0.4K-012 *3	Use the intercompatibility attachment.*4
	FR-F740PJ-0.75K	FR-D840-0.75K-022 *3	Use the intercompatibility attachment.*4
	FR-F740PJ-1.5K	FR-D840-1.5K-037 *3	Use the intercompatibility attachment.*4
	FR-F740PJ-2.2K	FR-D840-2.2K-050	Same
	FR-F740PJ-3.7K	FR-D840-3.7K-081 *3	Same
	FR-F740PJ-5.5K	FR-D840-5.5K-120 *1	Same
	FR-F740PJ-7.5K	FR-D840-7.5K-163 *1	Same
	FR-F740PJ-11K	FR-D840-11K-230 *2 *3	Use the intercompatibility attachment.*4
	FR-F740PJ-15K	FR-D840-15K-295 *2 *3	Use the intercompatibility attachment.*4

*1 There is a 2 mm protrusion of the head at the cooling fan cover fixing screw.

*2 There is a 3 mm protrusion of the head at the cooling fan cover fixing screw.

*3 The layouts of the main circuit terminals and control circuit terminals are different. The wiring length may need to be adjusted after replacement.

For details, refer to the Instruction Manual.

*4 The intercompatibility attachment enables the FR-D800 to be installed using the mounting holes for the FR-F700PJ.

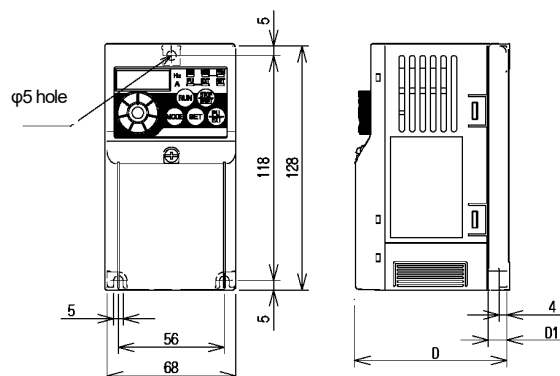
Existing inverter	Replacing inverter	Intercompatibility attachment
FR-F720PJ-3.7K	FR-D820-3.7K-165	FR-E8AT03
FR-F740PJ-0.4K	FR-D840-0.4K-012	FR-D8AT01
FR-F740PJ-0.75K	FR-D840-0.75K-022	
FR-F740PJ-1.5K	FR-D840-1.5K-037	
FR-F740PJ-11K	FR-D840-11K-230	FR-D8AT02
FR-F740PJ-15K	FR-D840-15K-295	

*5 For light-load applications such as fans and pumps, using an inverter with a capacity smaller than a motor by one rank with the SLD rating can reduce the size, weight, and cost of the system. However, check that the following specifications are satisfied: overload current rating is 110% 60 s, 120% 3 s, and the surrounding air temperature is 40°C or less.

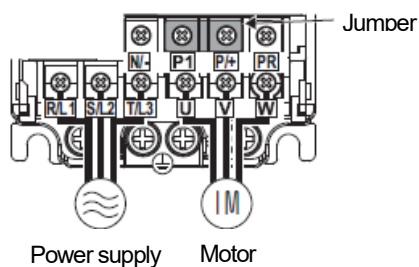
*6 For the FR-D800, no models come with a Filterpack (FR-BFP2). Prepare a Filterpack as an option by the customer.

Outline dimension drawings (Unit: mm)

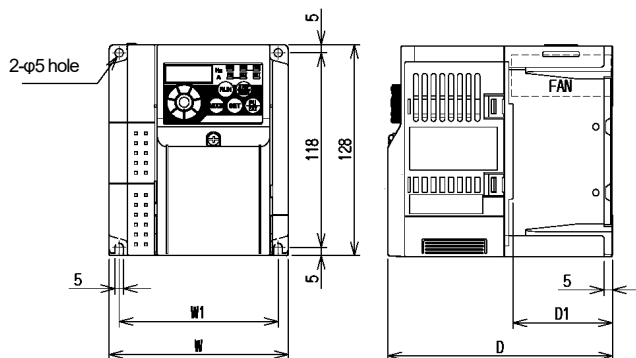
■ FR-F720PJ-0.4K, 0.75K



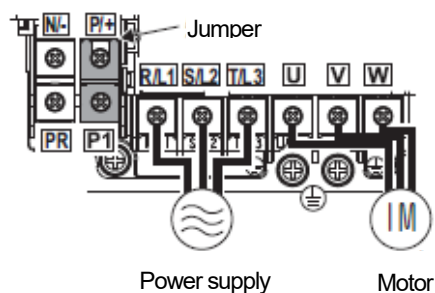
Inverter model	D	D1
FR-F720PJ-0.4K	112.5	42
FR-F720PJ-0.75K	132.5	62



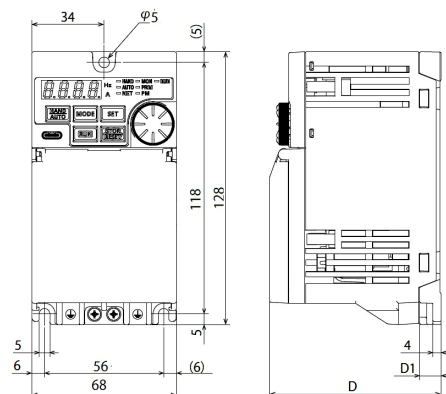
■ FR-F720PJ-1.5K to 3.7K



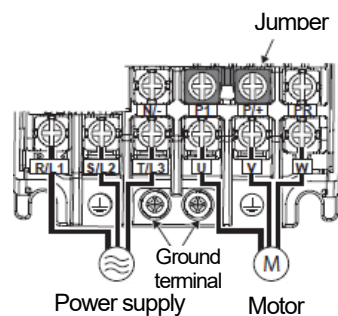
Inverter model	W	W1	D	D1
FR-F720PJ-1.5K/2.2K	108	96	135.5	60
FR-F720PJ-3.7K	170	158	142.5	66.5



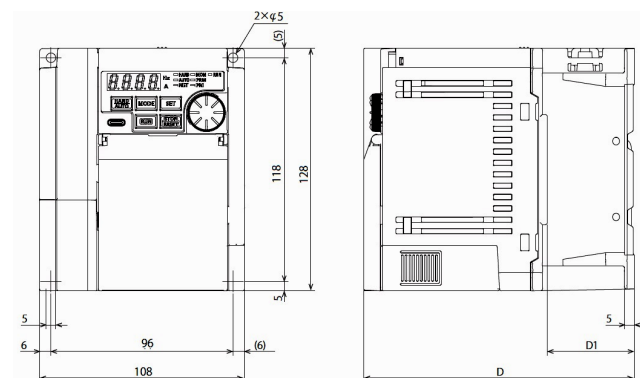
■ FR-D820-0.4K-025, 0.75K-042



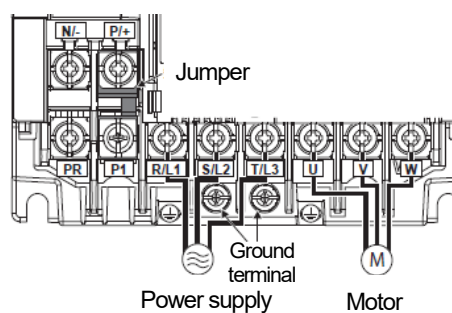
Inverter model	D	D1
FR-D820-0.4K-025	102.5	32
FR-D820-0.75K-042	132.5	42



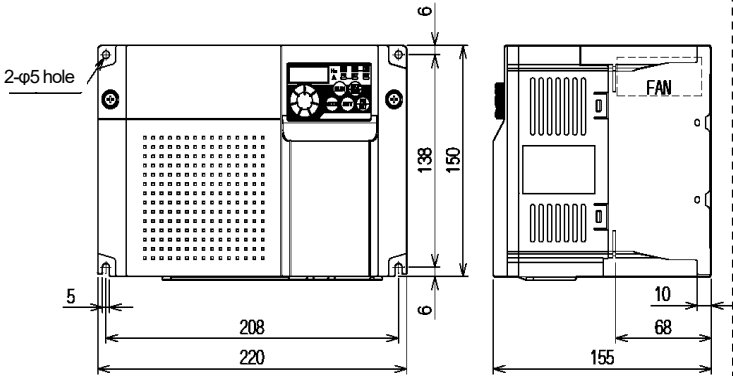
■ FR-D820-1.5K-070 to 3.7K-165



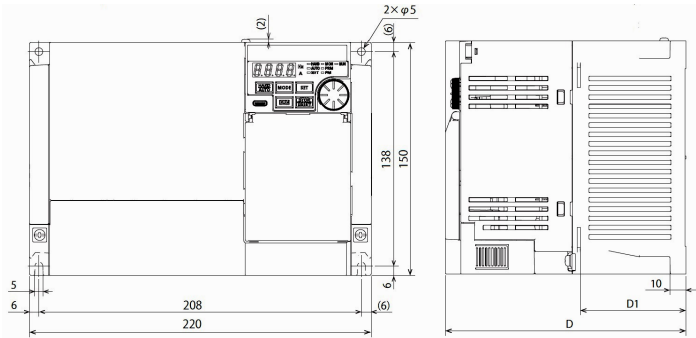
Inverter model	D	D1
FR-D820-1.5K-070/2.2K-100	132.5	36
FR-D820-3.7K-165	142.5	46



■ FR-F720PJ-5.5K, 7.5K

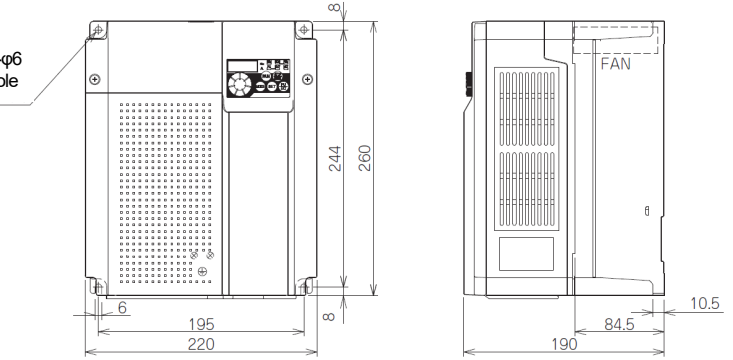


■ FR-D820-5.5K-238, 7.5K-318

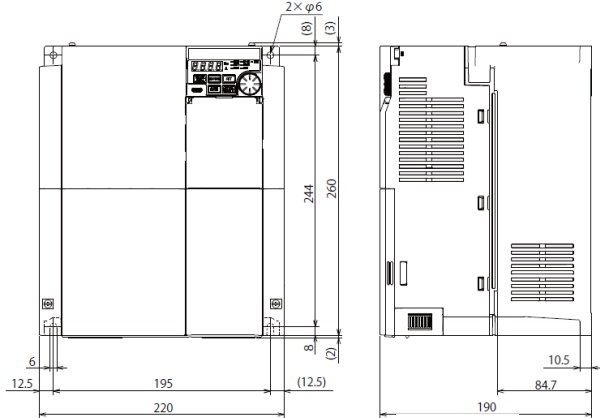


Inverter model	D	D1
FR-D820-5.5K-238/7.5K-318	155	68

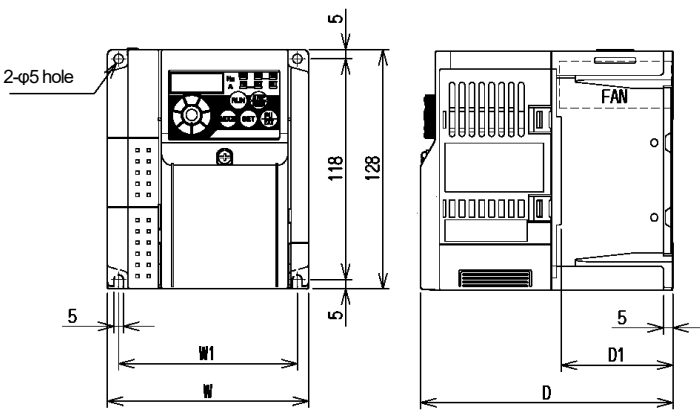
■ FR-F720PJ-11K, 15K



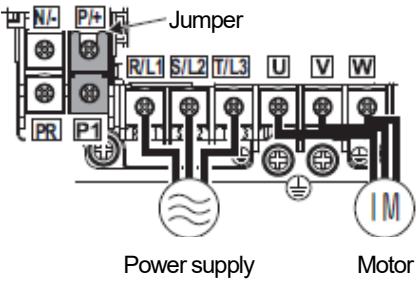
■ FR-D820-11K-450, 15K-580



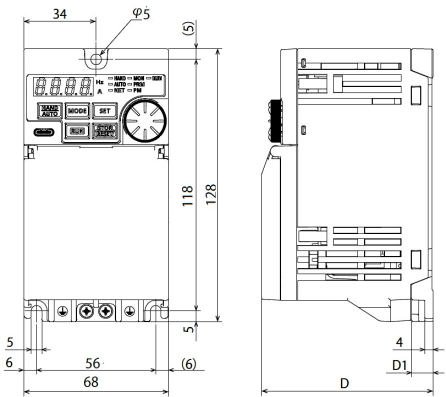
■ FR-F740PJ-0.4K to 3.7K



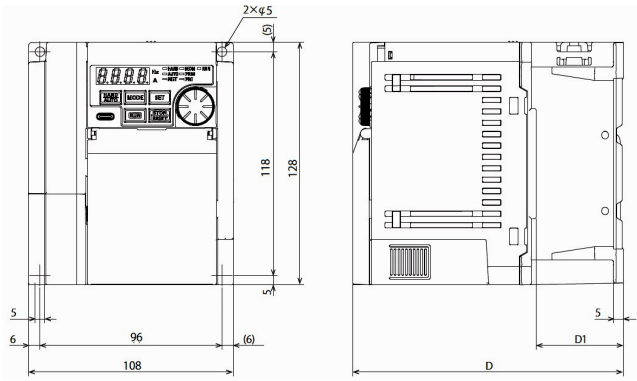
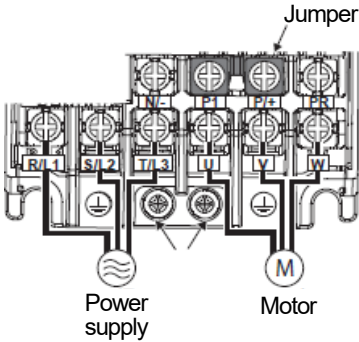
Inverter model	W	W1	D	D1
FR-F740PJ-0.4K/0.75K	108	96	129.5	54
FR-F740PJ-1.5K			135.5	60
FR-F740PJ-2.2K			155.5	
FR-F740PJ-3.7K			165.5	



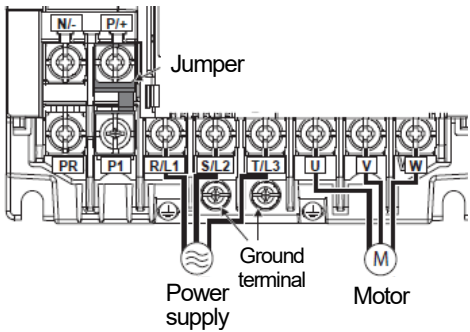
■ FR-D840-0.4K-012 to 3.7K-081



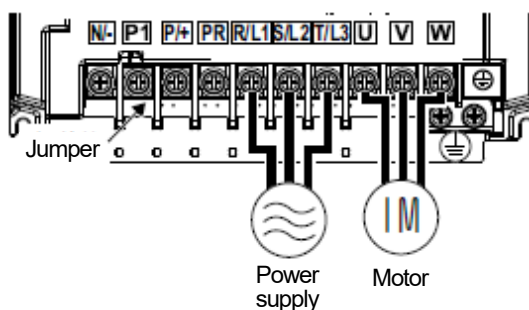
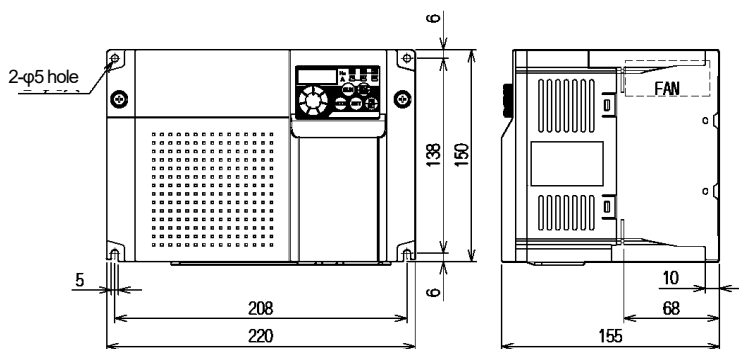
Inverter model	D	D1
FR-D840-0.4K-012/0.75K-022	129.5	42
FR-D840-1.5K-037	167.5	62



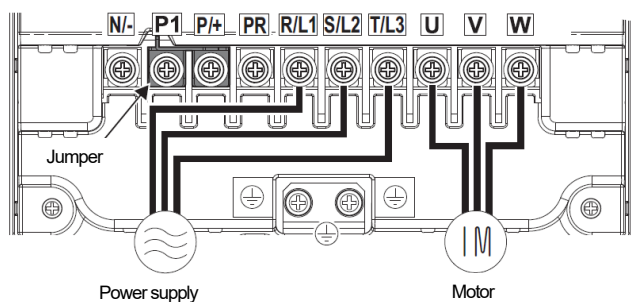
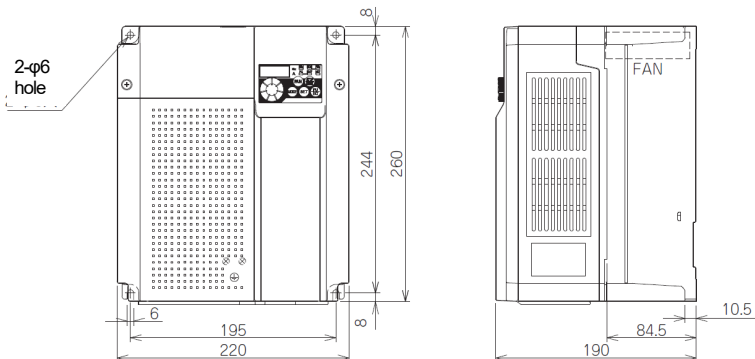
Inverter model	D	D1
FR-D840-2.2K-050/3.7K-081	155.5	36



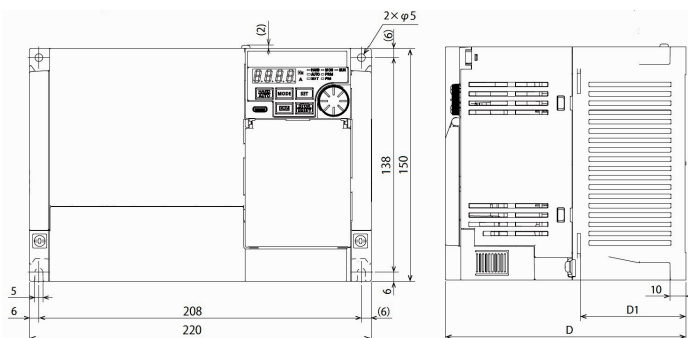
■ FR-F740PJ-5.5K, 7.5K



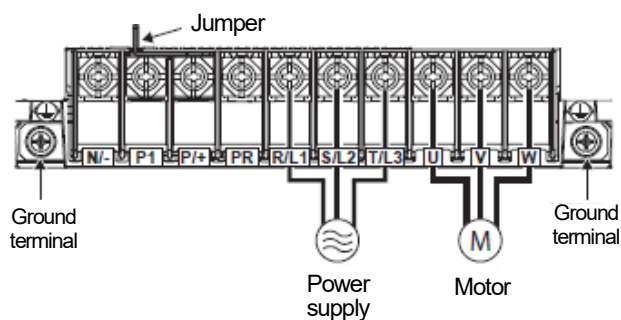
■ FR-F740PJ-11K, 15K



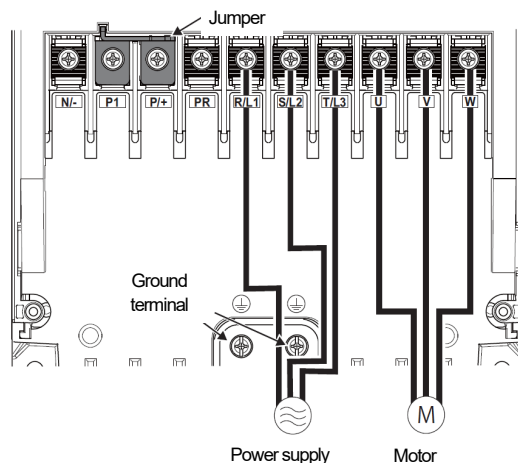
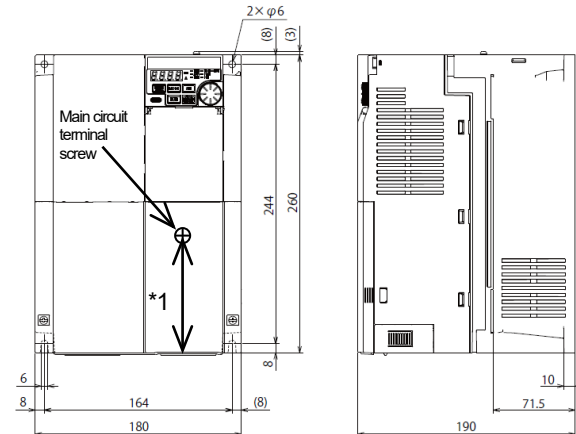
■ FR-D840-5.5K-120, 7.5K-163



Inverter model	D	D1
FR-D840-5.5K-120/7.5K-163	155	68



■ FR-D840-11K-230, 15K-295



*1 The dimension from the bottom to the main circuit terminal screw is approximately 79 mm for the FR-F740PJ-11K/15K and approximately 117 mm for the FR-D840-11K/15K. There is a dimensional difference of approximately 38 mm. Replace the cables as required.

2. Comparison of major specifications

Specification		FR-D800	FR-F700PJ
Lineup		Three-phase 200 V 0.1K to 15K Three-phase 400 V 0.4K to 15K	Three-phase 200 V 0.4K to 15K Three-phase 400 V 0.4K to 15K
Control method		V/F control Advanced magnetic flux vector control PM sensorless vector control	V/F control General-purpose magnetic flux vector control PM sensorless vector control
Starting torque		Advanced magnetic flux vector control: 150% at 0.5 Hz PM sensorless vector control: 50%	General-purpose magnetic flux vector control: 120% at 1 Hz with slip compensation enabled PM sensorless vector control: 50%
Output frequency range		0.2 to 590 Hz	0.2 to 400 Hz
Built-in brake transistor		Built-in for 0.4K to 15K	Built-in for 0.4K to 15K
Input signal	Contact input	5	5
	Pulse train input	100k pulses/s	Not available
Output signal	Open collector output	2	1
	Contact output	1	1
Fault output		1 changeover contact (240 VAC 2 A, 30 VDC 1 A), open collector output	1 changeover contact (230 VAC 0.3 A, 30 VDC 0.3 A), open collector output
Monitor function	Pulse train output	Not available	1440 pulses/s, 1 mA
	Analog output	0 to 10 VDC / 12 bits	Not available
Built-in communication function	RS-485 (Mitsubishi inverter protocol)	Available	Available
	RS-485 (MODBUS®RTU)	Available	Available
	Ethernet communication	Not available	Not available
	Safety communication	Not available	Not available
Functional safety	Function of ISO 61800-5-2	STO	Not available
	Safety level	SIL2, PLd, Cat.3	Not available
Surrounding air temperature		-20°C to +60°C * SLD rating: Derating is required for the temperature above 40°C. ND rating: Derating is required for the temperature above 50°C.	-10°C to +50°C
USB		Type-C	Not available
Plug-in option		Not supported	Not supported

3. Wiring

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

For the terminal screw size, refer to pages 9 and 10.

Type		FR-F700PJ terminal name	FR-D800 terminal name	Remarks
Main circuit		R/L1, S/L2, T/L3	R/L1, S/L2, T/L3	
		U, V, W	U, V, W	
		P/+, PR	P/+, PR	
		P/+, N/-	P/+, N/-	
		P/+, P1	P/+, P1	
				
Control circuit input signal	Contact	STF	STF	
		STR	STR	
		RH	RH	
		RM	RM	
		AU	RL	Assign the function to terminal RL.
		SD	SD	Isolated from terminals 5 and SE.
		PC	PC	*1
Analog	Frequency setting	10	10	*2
		2	2	
		5	5	Isolated from terminals SD and SE.
		4	4	
Control circuit output signal	Relay	A, B, C	A, B, C	
	Open collector	RUN	RUN	
		SE	SE	Isolated from terminals 5 and SD.
	Pulse	FM	—	F700PJ: 1440 pulses/s at full scale D800: 0 to 10 V / 12 bits
	Analog	—	AM	
Communication	RS-485	PU connector	PU connector	Terminal block for RS-485 communication is also available.

*1 When using terminal PC as the external transistor common terminal, refer to the FR-D800 Instruction Manual.

*2 Outputs from the PTC thermistor can be input to terminals 10 and 2.

Terminal Size

[Main circuit terminal]

Voltage class	Capacity	FR-F700PJ				FR-D800			
		R, S, T*1	U, V, W	P, N, P1, PR	⊕	R, S, T*1	U, V, W	P, N, P1, PR	⊕
Three- phase 200 V	0.4K, 0.75K	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5
	1.5K to 3.7K	M4	M4	M4	M4	M4	M4	M4	M3.5
	5.5K to 11K	M5	M5	M5	M5	M5	M5	M5	M5
	15K	M6	M6	M6	M5	M6	M6	M6	M5
Three- phase 400 V	0.4K to 1.5K	M4	M4	M4	M4	M3.5	M3.5	M3.5	M3.5
	2.2K, 3.7K	M4	M4	M4	M4	M4	M4	M4	M3.5
	5.5K to 11K	M4	M4	M4	M4	M4	M4	M4	M4
	15K	M5	M5	M5	M5	M5	M5	M5	M5

[Control circuit terminal]

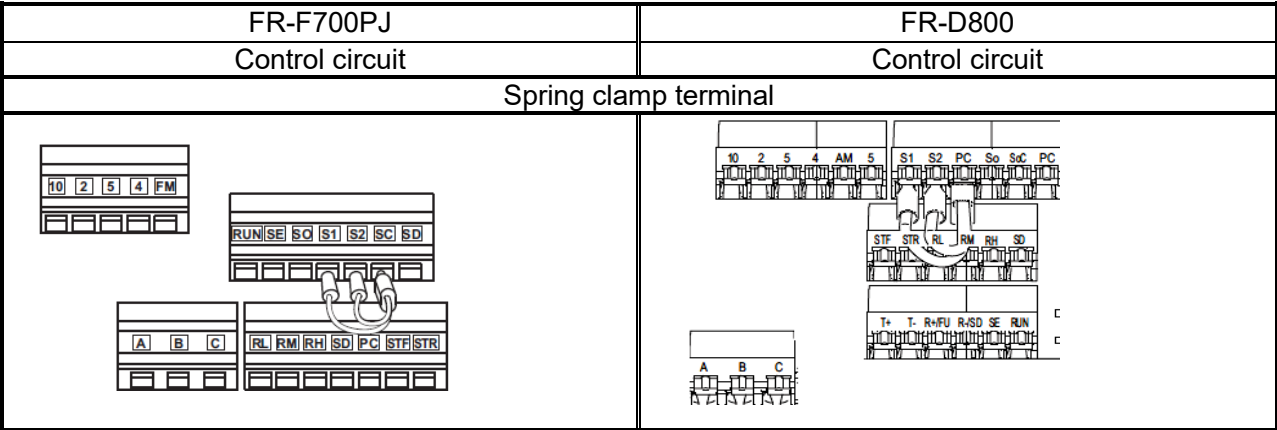


Table: Applicable wire gauge (stripped wire) for the FR-F700PJ/D800 control terminal block

Wire strip length	Applicable stripped wire gauge	
	Single wire (mm ²)	
10mm Twist the stripped end of wires to prevent them from fraying. Do not solder them.	0.3 to 0.75	

Table: Applicable wire gauge (crimped wire) for the control terminal block

Ferrule part No. (Phoenix Contact GmbH & Co. KG)		Applicable stripped wire gauge (mm ²)
With insulation sleeve	Without insulation sleeve	
AI 0,34-10TQ	-	0.3 to 0.5
AI 0,5-10WH	-	
AI 0,75-10GY	A 0,75-10	0.75
AI 1-10RD	A 1-10	1
AI 1,5-10BK	A 1,5-10	1.25, 1.5
AI-TWIN 2×0,75-10GY	-	0.75 (two-wire product)

Blade terminal part No. (NICHIFU Co., Ltd.)		Applicable stripped wire gauge (mm ²)
Blade terminal part No.	Insulation cap part No.	
BT 0.75-11	VC 0.75	0.3 to 0.75

4. Parameters

Refer to the following table to set the parameters.

List of FR-D800 series parameters compatible with the FR-F700PJ series

The following table shows the parameter settings required when replacing FR-F700PJ series inverters with FR-D800 series inverters.
The parameter migration based on the following table does not guarantee the operating characteristics or performance of the inverter.

⊙: The value set in the FR-F700PJ can be used.
△: The specifications are different. The setting value may need be changed from the FR-F700PJ.
×: Adjust and set the FR-D800 parameter.

FR-F700PJ parameter list				FR-D800 compatible parameter					Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value		Setting	Remarks
							Gr.1	Gr.2		
0	Torque boost	0% to 30%	6/4/3/2% (Depending on capacity)	0	Torque boost	0% to 30%	6/4/3/2% (Depending on capacity)		△	After replacement with the FR-D800, adjust the setting as required.
1	Maximum frequency	0 to 120 Hz	120 Hz	1	Maximum frequency	0 to 120 Hz	120 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	50 Hz	⊙	The initial value differs depending on the parameter initial value group (Gr.).
4	Multi-speed setting (high speed)	0 to 400 Hz	60 Hz	4	Multi-speed setting (high speed)	0 to 590 Hz	60 Hz	50 Hz	⊙	The initial value differs depending on the parameter initial value group (Gr.).
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	5 s / 15 s (Depending on capacity)	7	Acceleration time	0 to 3600 s	5 s / 10 s / 15 s (Depending on capacity)		⊙	The initial values for both series differ. For the FR-D820-5.5K-238, FR-D820-7.5K-318, FR-D840-5.5K-120, and FR-D840-7.5K-163, the initial value is 10 s.
8	Deceleration time	0 to 3600 s	10 s / 15 s (Depending on capacity)	8	Deceleration time	0 to 3600 s			⊙	
9	Electronic thermal O/L relay	0 to 500 A	Inverter rated current	9	Electronic thermal O/L relay	0 to 500 A	Inverter rated current		⊙	Set the rated motor current.
10	DC injection brake operation frequency	0 to 120 Hz	3 Hz	10	DC injection brake operation frequency	0 to 120 Hz	3 Hz		⊙	
11	DC injection brake operation time	0 to 10 s	0.5s	11	DC injection brake operation time	0 to 10 s	0.5s		⊙	
12	DC injection brake operation voltage	0% to 30%	4/2% (Depending on capacity)	12	DC injection brake operation voltage	0% to 30%	6/4/2% (Depending on capacity)		⊙	The initial values for both series differ. For the FR-D820-0.2K-014 or lower, FR-D820S-0.2K-014 or lower, and FR-D810W-0.2K-014 or lower, the initial value is 6%.
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 to 3	0		⊙	
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	0.5 s	16	Jog acceleration/deceleration time	0 to 3600 s	0.5 s		⊙	
17	MRS input selection	0, 2, 4	0	17	MRS/X10 terminal input selection	0 to 5	0		⊙	
18	High speed maximum frequency	120 to 400 Hz	120 Hz	18	High speed maximum frequency	0 to 590 Hz	120 Hz		⊙	
19	Base frequency voltage	0 to 1000 V, 8888, 9999	9999	19	Base frequency voltage	0 to 1000 V, 8888, 9999	9999	8888	⊙	The initial value differs depending on the parameter initial value group (Gr.).
20	Acceleration/deceleration reference frequency	1 to 400 Hz	60 Hz	20	Acceleration/deceleration reference frequency	1 to 590 Hz	60 Hz	50 Hz	⊙	The initial value differs depending on the parameter initial value group (Gr.).

FR-F700PJ parameter list				FR-D800 compatible parameter				Parameter setting		
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value		Setting	Remarks
							Gr.1	Gr.2		
22	Stall prevention operation level	0% to 150%	120%	22	Stall prevention operation level (torque limit level)	0% to 400%	150%		⊙	• Set Pr.570 = "0" to select the SLD rating as required. • The initial values for both series differ.
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		△	When "9999" is set, the stall prevention operation level is constant at the Pr.22 level up to 400 Hz for the FR-F700PJ and 590 Hz for the FR-D800.
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		⊙	
29	Acceleration/deceleration pattern selection	0 to 2	0	29	Acceleration/deceleration pattern selection	0 to 2	0		⊙	
30	Regenerative function selection	0 to 2	0	30	Regenerative function selection	0 to 2	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, 0.01 to 9998	0	37	Speed display	0.01 to 9998	1800		△	• For the FR-D800, use Pr.53 to switch the display units for frequency-related monitoring and parameter settings. Set the reference value for the machine speed conversion formula in Pr.505. • The initial values for both series differ. For the FR-D800, the initial value is "1800" for the machine speed at the value set in Pr.505.
40	RUN key rotation direction selection	0, 1	0	40	RUN key rotation direction selection	0, 1	0		⊙	
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	5 s / 15 s (Depending on capacity)	44	Second acceleration/deceleration time	0 to 3600 s	5 s / 10 s / 15 s (Depending on capacity)		⊙	The initial values for both series differ. For the FR-D820-5.5K-238, FR-D820-7.5K-318, FR-D840-5.5K-120, and FR-D840-7.5K-163, the initial value is 10 s.
45	Second deceleration time	0 to 3600 s, 9999	9999	45	Second deceleration time	0 to 3600 s, 9999	9999		⊙	
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%, 9999	9999	48	Second stall prevention operation current	0% to 400%, 9999	9999		⊙	
51	Second electronic thermal O/L relay	0 to 500 A, 9999	9999	51	Second electronic thermal O/L relay Rated second motor current	0 to 500 A, 9999	9999		⊙	
52	DU/PU main display data selection	0, 5, 8 to 12, 14, 20, 23 to 25, 50 to 55, 61, 62, 64, 100	0	52	Operation panel main monitor selection	0, 5 to 14, 17, 18, 20, 23 to 25, 32, 33, 37, 38, 44, 50 to 55, 61, 62, 64, 67, 68, 91, 97, 98, 100	0		⊙	
—	—	—	—	53	Frequency / rotation speed unit switchover	0, 1, 4	0		×	Switch the display units for frequency-related monitoring and parameter settings. 0: Frequency (Hz), 1: Rotation speed (r/min), 4: Machine speed
54	FM terminal function selection	1 to 3, 5, 8 to 12, 14, 21, 24, 50, 52, 53, 61, 62	1	—	—	—	—		×	Terminal FM is no longer provided.

FR-F700PJ parameter list				FR-D800 compatible parameter					Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value		Setting	Remarks
							Gr.1	Gr.2		
55	Frequency monitoring reference	0 to 400 Hz	60 Hz	55	Frequency monitoring reference	0 to 590 Hz	60 Hz	50 Hz	⊙	• For the FR-D800, set the full-scale value when the frequency monitor value is output via terminal AM. • The initial value differs depending on the parameter initial value group (Gr.).
56	Current monitoring reference	0 to 500 A	Inverter rated current	56	Current monitoring reference	0 to 500 A	Inverter rated current		⊙	For the FR-D800, set the full-scale value when the current monitor value is output via terminal AM.
57	Restart coasting time	0, 0.1 to 5 s, 9999	9999	57	Restart coasting time	0, 0.1 to 30 s, 9999	9999		⊙	
58	Restart cushion time	0 to 60 s	1 s	58	Restart cushion time	0 to 60 s	1 s		⊙	
59	Remote function selection	0 to 3	0	59	Remote function selection	0 to 4	0		⊙	
60	Energy saving control selection	0, 9	0	60	Energy saving control selection	0, 9	0		△	For the FR-D800, the Optimum excitation control can be enabled even under Advanced magnetic flux vector control.
65	Retry selection	0 to 5	0	65	Retry selection	0 to 5	0		△	For the FR-D800, E.BE does not trigger the retry operation.
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	50 Hz	⊙	The initial value differs depending on the parameter initial value group (Gr.).
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	0.1 to 600 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	0% to 30%	0%	70	Special regenerative brake duty	0% to 100%	0%		⊙	
71	Applied motor	0, 1, 3, 13, 23, 40, 43, 50, 53, 120, 210	0	71	Applied motor	0, 3, 5, 6, 10, 13, 15, 16, 20, 23, 40, 43, 50, 53, 70, 73, 1140, 8090, 8093, 9090, 9093	0		△	• When "1" is set for the FR-F700PJ, set "10" for the FR-D800. • When "120,210" is set for the FR-F700PJ, set "8090" for the FR-D800. • When Pr.71 = "3, 13, 23, 43, or 53" for the FR-D800, the internal data value will be displayed for Pr.82, Pr.859, Pr.90 to Pr.94, and Pr.706.
72	PWM frequency selection	0 to 15	1	72	PWM frequency selection	0 to 15	1		△	Change the Pr.260 setting as required. For PM sensorless vector control, configure the setting referring to the FR-D800 Instruction Manual (Function). The carrier frequency value is different from that of the FR-F700PJ.
73	Analog input selection	0, 1, 10, 11	1	73	Analog input selection	0, 1, 6, 10, 11, 16	1		⊙	For the FR-D800, use the voltage/current input switch (SW1) to select voltage input or current input.
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	14		⊙	
77	Parameter write selection	0 to 2	0	77	Parameter write selection	0 to 2	0		⊙	
78	Reverse rotation prevention selection	0 to 2	0	78	Reverse rotation prevention selection	0 to 2	0		⊙	
79	Operation mode selection	0 to 4, 6, 7	0	79	Operation mode selection	0 to 4, 6, 7	0		⊙	
80	Motor capacity	0.4 to 15 kW, 9999	9999	80	Motor capacity	0.1 to 18.5 kW, 9999	9999		△	To set V/F control, set Pr.800 = "40". To set other control mode, change the setting values in Pr.80 and Pr.81. When the operation is started under a control mode other than V/F control while "9999" is set in Pr.80 and Pr.81, SE alarm is displayed. Example: Pr.800 = "20", Pr.80 and Pr.81 = "9999"
—	—	—	—	81	Number of motor poles	2, 4, 6, 8, 10, 12, 9999	9999		×	
82	Motor excitation current	0 to 500 A, 9999	9999	82	Motor excitation current	0 to 500 A, 9999	9999		⊙	
83	Rated motor voltage	0 to 1000 V	200/400 V (Depending on voltage)	83	Rated motor voltage	0 to 1000 V	200/400 V (Depending on voltage)		⊙	
84	Rated motor frequency	10 to 120 Hz	60 Hz	84	Rated motor frequency	10 to 400 Hz, 9999	9999		△	• When "9999" is set, the Pr.3 setting is used as the rated motor frequency. • The initial values for both series differ. For the FR-D800, the initial value is "9999" (Pr.3 setting used as the rated motor frequency).
—	—	—	—	89	Speed control gain (Advanced magnetic flux vector control)	0% to 200%, 9999	9999		×	
90	Motor constant (R1)	0 to 50 Ω, 9999	9999	90	Motor constant (R1)	0 to 50 Ω, 9999	9999		⊙	

FR-F700PJ parameter list				FR-D800 compatible parameter					Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value		Setting	Remarks
							Gr.1	Gr.2		
96	Auto tuning setting/status	0, 11, 21	0	96	Auto tuning setting/status	0, 1, 11	0		△	• When "11" is set for the FR-F700PJ, set "1" for the FR-D800. • When "21" is set for the FR-F700PJ, set "11" for the FR-D800. • If auto tuning has been performed, perform tuning again as required. • For the MM-EF or EFS (IPM) motor, set "1" to perform offline auto tuning for a PM motor.
117	PU communication station number	0 to 31 (0 to 247)	0	117	RS-485 communication station number	0 to 31 (0 to 247)	0		⊙	
118	PU communication speed	48, 96, 192, 384	192	118	RS-485 communication speed	48, 96, 192, 384, 576, 768, 1152	192		⊙	
119	PU communication stop bit length	0, 1, 10, 11	1	119	RS-485 communication stop bit length	0, 1, 10, 11	1		⊙	
120	PU communication parity check	0 to 2	2	120	RS-485 communication parity check	0 to 2	2		⊙	
121	Number of PU communication retries	0 to 10, 9999	1	121	RS-485 communication retry count	0 to 10, 9999	1		⊙	
122	PU communication check time interval	0, 0.1 to 999.8 s, 9999	0	122	RS-485 communication check time interval	0, 0.1 to 999.8 s, 9999	0		⊙	
123	PU communication waiting time setting	0 to 150 ms, 9999	9999	123	RS-485 communication waiting time setting	0 to 150 ms, 9999	9999		⊙	
124	PU communication CR/LF selection	0 to 2	1	124	RS-485 communication CR/LF selection	0 to 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	50 Hz	⊙	The initial value differs depending on the parameter initial value group (Gr.).
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	50 Hz	⊙	The initial value differs depending on the parameter initial value group (Gr.).
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	0, 20, 21	0	128	PID action selection	0, 20, 21, 40 to 43, 1000, 1001, 1010, 1011, 2000, 2001, 2010, 2011	0		⊙	Set Pr.609 and Pr.610 as required.
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		⊙	When "9999" is set for the FR-D800, the set point is input by the terminal selected by Pr.609.
134	PID differential time	0.01 to 10 s, 9999	9999	134	PID differential time	0.01 to 10 s, 9999	9999		⊙	
144	Speed setting switchover	2, 4, 6, 8, 10, 102, 104, 106, 108, 110	4	—	—	—	—		×	Set the number of motor poles to be used for the conversion of the speed setting switchover in Pr.81.
145	PU display language selection	0 to 7	0	145	PU display language selection	0 to 7	-		⊙	FR-PU07 can be used. FR-PU04 cannot be used.
146	Built-in potentiometer switching	0, 1	1	—	—	—	—		×	Operation panel for the FR-E500 (FR-PA02) cannot be used.
150	Output current detection level	0% to 150%	120%	150	Output current detection level	0% to 400%	150%		⊙	• Set Pr.570 = "0" to select the SLD rating as required. • The initial values for both series differ.
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 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	1, 11	1	154	Voltage reduction selection during stall prevention operation	1, 11	1		⊙	
156	Stall prevention operation selection	0 to 31, 100, 101	0	156	Stall prevention operation selection	0 to 31, 100, 101	0		⊙	

FR-F700PJ parameter list				FR-D800 compatible parameter				Parameter setting		
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value		Setting	Remarks
							Gr.1	Gr.2		
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, 33, 37, 50, 52, 53, 61, 62, 67, 97, 98	1		×	Terminal AM is provided.
160	Extended function display selection	0, 9999	9999	160	User group read selection	0, 1, 9999	0		⊙	The initial values for both series differ. For the FR-D800, the initial value is "0" (simple mode parameters and extended parameters are displayed).
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	1	162	Automatic restart after instantaneous power failure selection	0, 1, 10, 11	0		⊙	The initial values for both series differ. For the FR-D800, the initial value is "0" (frequency search is only performed at the first start).
165	Stall prevention operation level for restart	0% to 150%	120%	165	Stall prevention operation level for restart	0% to 400%	150%		⊙	Set Pr.570 = "0" to select the SLD rating as required.
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		⊙	
170	Watt-hour meter clear	0, 10, 9999	9999	170	Watt-hour meter clear	0, 10, 9999	9999		⊙	
171	Operation hour meter clear	0, 9999	9999	171	Operation hour meter clear	0, 9999	9999		⊙	
178	STF terminal function selection	0 to 5, 7, 8, 10, 12, 14, 16, 24, 25, 60, 62, 64 to 67, 72, 9999	60	178	STF terminal function selection	0 to 5, 7, 8, 10, 12, 14, 16, 18, 24, 25, 27, 30, 37, 46, 47, 60 62, 64 to 67, 72, 84, 9999	60		⊙	
179	STR terminal function selection	0 to 5, 7, 8, 10, 12, 14, 16, 24, 25, 61, 62, 64 to 67, 72, 9999	61	179	STR terminal function selection	0 to 5, 7, 8, 10, 12, 14, 16, 18, 24, 25, 27, 30, 37, 46, 47, 61 62, 64 to 67, 72, 84, 9999	61		⊙	
180	AU terminal function selection	0 to 5, 7, 8, 10, 12, 14, 16, 24, 25, 62, 64 to 67, 72, 9999	4	—	—	0 to 5, 7, 8, 10, 12, 14, 16, 18, 24, 25, 27, 30, 37, 46, 47, 62, 64 to 67, 72, 84, 9999	—		×	FR-D800 does not have terminal AU. Assign the function to terminal RL.
—	—		180	RL terminal function selection	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		⊙	
190	RUN terminal function selection	0, 1, 3, 4, 7, 8, 11 to 16, 25, 26, 46 to 48, 57, 64, 70, 79, 90 to 93, 95, 96, 98 to 101, 103, 104, 107, 108, 111 to 116, 125, 126, 146 to 148, 157, 164, 170, 179, 190 to 193, 195, 196, 198, 199, 9999	0	190	RUN terminal function selection	0, 1, 3, 4, 7, 8, 11 to 16, 18, 19, 25, 26, 34, 40, 41, 46 to 48, 57, 64 to 66, 70, 79 to 81, 90 to 93, 95, 96, 98, 99, 100, 101, 103, 104, 107, 108, 111 to 116, 125, 126, 134, 140, 141, 146 to 148, 157, 164 to 166, 170, 179 to 181, 190 to 193, 195, 196, 198, 199, 206, 207, 211 to 213, 306, 307, 311 to 313, 9999	0		⊙	
—	—	—	—	191	FU terminal function selection		4		×	
192	A,B,C terminal function selection	0, 1, 3, 4, 7, 8, 11 to 16, 25, 26, 46 to 48, 57, 64, 70, 79, 90, 91, 95, 96, 98 to 101, 103, 104, 107, 108, 111 to 116, 125, 126, 146 to 148, 157, 164, 170, 179, 190, 191, 195, 196, 198, 199, 9999	99	192	ABC terminal function selection	0, 1, 3, 4, 7, 8, 11 to 16, 18, 19, 25, 26, 34, 40, 41, 46 to 48, 57, 64 to 66, 70, 79 to 81, 90, 91, 95, 96, 98, 99, 100, 101, 103, 104, 107, 108, 111 to 116, 125, 126, 134, 140, 141, 146 to 148, 157, 164 to 166, 170, 179 to 181, 190, 191, 195, 196, 198, 199, 206, 207, 211 to 213, 306, 307, 311 to 313, 9999	99		⊙	

FR-F700PJ parameter list				FR-D800 compatible parameter				Parameter setting		
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value		Setting	Remarks
							Gr.1	Gr.2		
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		⊙	Change the Pr.260 setting as required.
241	Analog input display unit switchover	0, 1	0	241	Analog input display unit switchover	0, 1	0		⊙	
244	Cooling fan operation selection	0, 1	1	244	Cooling fan operation selection	0, 1	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		⊙	
249	Earth (ground) fault detection at start	0, 1	0	249	Earth (ground) fault detection at start	0, 1	0	1	⊙	The initial value differs depending on the parameter initial value group (Gr.).
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		⊙	
255	Life alarm status display	(0 to 15)	0	255	Life alarm status display	(0 to 367)	0		⊙	
256	Inrush current limit circuit life display	(0% to 100%)	100%	256	Inrush current limit circuit life display	(0% to 100%)	100%		⊙	
257	Control circuit capacitor life display	(0% to 100%)	100%	257	Control circuit capacitor life display	(0% to 100%)	100%		⊙	
258	Main circuit capacitor life display	(0% to 100%)	100%	258	Main circuit capacitor life display	(0% to 100%)	100%		⊙	
259	Main circuit capacitor life measuring	0, 1, (2, 3, 8, 9)	0	259	Main circuit capacitor life measuring	0, 1, (2, 3, 8, 9)	0		⊙	
260	PWM frequency automatic switchover	0, 1	1	260	PWM frequency automatic switchover	0, 10	10		△	• When "1" is set for the FR-F700PJ, set "10" for the FR-D800. • The initial values for both series differ. For the FR-D800, the initial value is "10" (PWM carrier frequency automatic reduction function is enabled).
261	Power failure stop selection	0 to 2	0	261	Power failure stop selection	0 to 2	0		⊙	
267	Terminal 4 input selection	0 to 2	0	267	Terminal 4 input selection	0 to 2	0		△	For the FR-D800, use the voltage/current input switch (SW2) to select voltage input or current input.
268	Monitor decimal digits selection	0, 1, 9999	9999	268	Monitor decimal digits selection	0, 1, 9999	9999		⊙	
295	Magnitude of frequency change setting	0, 0.01, 0.10, 1.00, 10.00	0	295	Frequency change increment amount setting	0, 0.01, 0.10, 1.00, 10.00	0		⊙	
296	Password lock level	1 to 6, 101 to 106, 9999	9999	296	Password lock level	1 to 6, 99, 101 to 106, 199, 9999	9999		⊙	
297	Password lock/unlock	1000 to 9998 (0 to 5, 9999)	9999	297	Password lock/unlock	(0 to 5) 1000 to 9998, 9999	9999		⊙	
298	Frequency search gain	0 to 32767, 9999	9999	298	Frequency search gain	0 to 32767, 9999	9999		⊙	
299	Rotation direction detection selection at restarting	0, 1, 9999	0	299	Rotation direction detection selection at restarting	0, 1, 9999	0		⊙	
338	Communication operation command source	0, 1	0	338	Communication operation command source	0, 1	0		⊙	
339	Communication speed command source	0 to 2	0	339	Communication speed command source	0 to 2	0		⊙	
340	Communication startup mode selection	0, 1, 10	0	340	Communication startup mode selection	0, 1, 10	0		⊙	
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		⊙	

FR-F700PJ parameter list				FR-D800 compatible parameter				Parameter setting		
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value		Setting	Remarks
							Gr.1	Gr.2		
374	Overspeed detection level	0 to 400 Hz, 9999	9999	374	Overspeed detection level	0 to 400 Hz, 9999	9999		△	When "9999" is set for the FR-D800, E.OS occurs when the frequency exceeds the value calculated by adding 10 Hz to the maximum motor frequency (Pr.702). When Pr.702 (Maximum motor frequency) = "9999", the value set in Pr.84 (Rated motor frequency) is used as the maximum motor frequency.
450	Second applied motor	0, 1, 9999	9999	450	Second applied motor	0, 10, 9999	9999		△	When "1" is set for the FR-F700PJ, set "10" for the FR-D800.
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		⊙	FU is added for b4.
502	Stop mode selection at communication error	0 to 2, 3	0	502	Stop mode selection at communication error	0 to 2, 6	0		△	When "3" is set for the FR-F700PJ, set "6" for the FR-D800. Note that CF warning is output at error occurrence when "6" is set for the FR-D800.
503	Maintenance timer	0 (1 to 9998)	0	503	Maintenance timer	0 (1 to 9998)	0		⊙	
504	Maintenance timer alarm output set time	0 to 9998, 9999	9999	504	Maintenance timer 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	50 Hz	⊙	
549	Protocol selection	0, 1	0	549	Protocol selection	0, 1	0		⊙	
551	PU mode operation command source selection	2, 4, 9999	9999	551	PU mode operation command source selection	2 to 4, 9999	9999		⊙	When "9999" is set for the FR-D800, the priority of the PU command source is defined as follows: USB connector > PU connector > operation panel.
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%, 9999	9999	553	PID deviation limit	0% to 100%, 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 s	1 s	555	Current average time	0.1 to 1.0 s	1 s		⊙	
556	Data output mask time	0 to 20 s	0 s	556	Data output mask time	0 to 20 s	0 s		⊙	
557	Current average value monitor signal output reference current	0 to 500 A	Inverter rated current	557	Current average value monitor signal output reference current	0 to 500 A	Inverter rated current		⊙	
561	PTC thermistor protection level	0.5 to 30 kΩ, 9999	9999	561	PTC thermistor protection level	0.5 to 30 kΩ, 9999	9999		⊙	
563	Energization time carrying-over times	(0 to 65535)	0	563	Energization time carrying-over times	(0 to 65535)	0		⊙	
564	Operating time carrying-over times	(0 to 65535)	0	564	Operating time carrying-over times	(0 to 65535)	0		⊙	
—	—	—	—	570	Multiple rating setting [3-phase]	0, 2	2		×	For the FR-D800, set "0" to select the SLD rating as required.
571	Holding time at a start	0 to 10 s, 9999	9999	571	Holding time at a start	0 to 10 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%		⊙	
—	—	—	—	609	PID set point/deviation input selection	2, 3	2		×	2: The set point or deviation value is input through terminal 2. 3: The set point or deviation value is input through terminal 4.
—	—	—	—	610	PID measured value input selection	2, 3	3		×	2: The measured value is input through terminal 2. 3: The measured value is input through terminal 4.
611	Acceleration time at a restart	0 to 3600 s, 9999	9999	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%		⊙	For the FR-D800, Pr.654 can be used to set the minimum value for the torque variation cycle (frequency).
—	—	—	—	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		⊙	

FR-F700PJ parameter list				FR-D800 compatible parameter				Parameter setting		
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value		Setting	Remarks
							Gr.1	Gr.2		
791	Acceleration time in low-speed range	0 to 3600 s, 9999	9999	791	Acceleration time in low-speed range	0 to 3600 s, 9999	9999		⊙	
792	Deceleration time in low-speed range	0 to 3600 s, 9999	9999	792	Deceleration time in low-speed range	0 to 3600 s, 9999	9999		⊙	
799	Pulse increment setting for output power	0.1, 1, 10, 100, 1000	1 kWh	799	Pulse increment setting for output power	0.1, 1, 10, 100, 1000 kWh	1 kWh		⊙	
800	Control method selection	9, 30	30	800	Control method selection	10, 19, 20, 40	40		△	• The initial values for both series differ. For the FR-D800, the initial value is "40" (V/F control). • To select V/F control for the FR-D800, set "40". To select Advanced magnetic flux vector control, set "20" and set Pr.80 and Pr.81 according to the motor specifications. In addition, adjust Pr.89 as necessary to address motor speed variations caused by load fluctuations. When using the MM-EF or MM-EFS (IPM) motor, set "10" (PM sensorless vector control) or "19" (PM sensorless vector control test operation).
820	Speed control P gain 1	0% to 1000%	25%	820	Speed control P gain	0% to 1000%	25%		⊙	
821	Speed control integral time 1	0 to 20 s	0.333 s	821	Speed control integral time	0 to 20 s	0.333 s		⊙	
870	Speed detection hysteresis	0 to 5 Hz	0 Hz	870	Speed detection hysteresis	0 to 15 Hz	0 Hz		⊙	
872	Input phase loss protection selection	0, 1	0	872	Input phase loss protection selection [3-phase]	0, 1	1		⊙	The setting is available for the three-phase power input model only.
882	Regeneration avoidance operation selection	0 to 2	0	882	Regeneration avoidance operation selection	0 to 2	0		⊙	
883	Regeneration avoidance operation level	300 to 800 V	400/780 V (Depending on voltage)	883	Regeneration avoidance operation level	300 to 800 V	400/780 V (Depending on voltage)		⊙	
885	Regeneration avoidance compensation frequency limit value	0 to 30 Hz, 9999	6 Hz	885	Regeneration avoidance compensation frequency limit value	0 to 45 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)	0.4 to 15 kW	Inverter rated capacity	893	Energy saving monitor reference	0.1 to 18.5 kW	Applicable motor capacity		⊙	Set the motor capacity.
894	Control selection during commercial power-supply operation	0 to 3	0	894	Control selection during commercial power-supply operation	0 to 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 / CO2 emission coefficient	0 to 500, 9999	9999		⊙	For the FR-D800, CO2 emission coefficient is supported.
897	Power saving monitor average time	0.1 to 1000 h, 9999	9999	897	Energy saving monitor average time	0 to 1000 h, 9999	9999		⊙	
898	Power saving cumulative monitor clear	0, 1, 10.9999	9999	898	Energy saving cumulative monitor clear	0, 1, 10.9999	9999		⊙	
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	—	—	—	—	—	—		×	Terminal FM is no longer provided.
—	—	—	—	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		⊙	Calibrate the parameter as required.
C3 (902)	Terminal 2 frequency setting bias	0% to 300%	0%	C3 (902)	Terminal 2 frequency setting bias	0% to 300%	0%		⊙	Calibrate the parameter as required.

FR-F700PJ parameter list				FR-D800 compatible parameter					Parameter setting	
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value		Setting	Remarks
							Gr.1	Gr.2		
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	50 Hz	⊙	- Calibrate the parameter as required. - The initial value differs depending on the parameter initial value group (Gr.).
C4 (903)	Terminal 2 frequency setting gain	0% to 300%	100%	C4 (903)	Terminal 2 frequency setting gain	0% to 300%	100%		⊙	Calibrate the parameter as required.
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		⊙	Calibrate the parameter as required.
C6 (904)	Terminal 4 frequency setting bias	0% to 300%	20%	C6 (904)	Terminal 4 frequency setting bias	0% to 300%	20%		⊙	Calibrate the parameter as required.
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	50 Hz	⊙	- Calibrate the parameter as required. - The initial value differs depending on the parameter initial value group (Gr.).
C7 (905)	Terminal 4 frequency setting gain	0% to 300%	100%	C7 (905)	Terminal 4 frequency setting gain	0% to 300%	100%		⊙	Calibrate the parameter as required.
C22 (922)	Frequency setting voltage bias frequency (built-in potentiometer)	0 to 400 Hz	0 Hz	—	—	—	—		×	Operation panel for the FR-E500 (FR-PA02) cannot be used.
C23 (922)	Frequency setting voltage bias (built-in potentiometer)	0% to 300%	0%	—	—	—	—		×	
C24 (923)	Frequency setting voltage gain frequency (built-in potentiometer)	0 to 400 Hz	60 Hz	—	—	—	—		×	
C25 (923)	Frequency setting voltage gain (built-in potentiometer)	0% to 300%	100%	—	—	—	—		×	
C42 (934)	PID display bias coefficient	0 to 500, 9999	9999	C42 (934)	PID display bias coefficient	0 to 500, 9999	9999		⊙	
C43 (934)	PID display bias analog value	0% to 300%	20%	C43 (934)	PID display bias analog value	0% to 300%	20%		⊙	
C44 (935)	PID display gain coefficient	0 to 500, 9999	9999	C44 (935)	PID display gain coefficient	0 to 500, 9999	9999		⊙	
C45 (935)	PID display gain analog value	0% to 300%	100%	C45 (935)	PID display gain analog value	0% to 300%	100%		⊙	
990	PU buzzer control	0, 1	1	990	PU buzzer control	0, 1	1		⊙	Settings for the LCD operation panel or parameter unit.
991	PU contrast adjustment	0 to 63	58	991	PU contrast adjustment	0 to 63	58		⊙	
997	Fault initiation	16 to 18, 32 to 34, 48, 49, 64, 81, 82, 96, 97, 112, 28, 129, 144, 145, 176 to 178, 192, 196, 197, 199, 201, 208, 230, 245, 9999	9999	997	Fault initiation	0 to 255, 9999	9999		⊙	
998	IPM parameter initialization	0, 1, 12, 101, 112	0	998	PM parameter initialization	0, 3044, 3144, 8009, 8109, 9009, 9109	0		△	- When "1 or 12" is set for the FR-F700PJ, set "8009" for the FR-D800. - When "101 or 112" is set for the FR-F700PJ, set "8109" for the FR-D800. - When using the MM-EF or EFS (IPM) motor, refer to the setting procedure of speed control under PM sensorless vector control when using a PM motor (other than the EM-A) in the Instruction Manual.
999	Automatic parameter setting	10, 20, 21, 9999	9999	999	Automatic parameter setting	10, 12, 20, 21, 9999	9999		⊙	10 → 10 or 12

5. Options

The following table shows the comparison of options between the FR-F700PJ series inverters and the FR-D800 series inverters.

Name		Option	
		For FR-F700PJ	For FR-D800
Stand-alone type	Parameter unit	FR-PU07	Compatible.
	Enclosure surface operation panel	FR-PA07	Compatible.
	Parameter unit connection cable	FR-CB20J	Compatible.
	DIN rail attachment	FR-UDA01 to 03	For some capacity models, the compatible FR-UDA model differs as the outline dimensions of the inverters are different. For details, refer to the FR-D800 inverter catalog.
	Brake resistor	MRS□□, MYS□□	Compatible.
		FR-ABR	Compatible.
	Brake unit	FR-BU2	Compatible.
	Discharging resistor	FR-BR, GZG, GRZG	Compatible.
	Power factor improving AC reactor	FR-HAL	Compatible.
	Power factor improving DC reactor	FR-HEL	Compatible.
	Radio noise filter	FR-BIF-(H)	Compatible.
	Line noise filter	FR-BSF01, FR-BLF	Compatible.
	Filterpack	FR-BFP2	Compatibility differs depending on the manufacture year and month of the FR-BFP2 as follows. (For more information, refer to Sales and Service No. 801E.) - Products manufactured in October 2024 or earlier FR-BFP2-H0.4K to H1.5K: Not compatible. FR-BFP2-3.7K and FR-BFP2-H11K/H15K: Rear panel installation is not available. Other FR-BFP2 models: Compatible.* - Products manufactured in November 2024 or later Compatible.* * Regardless of the manufacture year and month, the FR-BFP2-11K, 15K, H11K, and H15K cannot be installed underneath the FR-F700PJ/D800.
	EMC Directive compliant noise filter	SF□, FR-E5NF	Use the FN3288 series as the EMC Directive compliant noise filter.
	EMC filter installation attachment	FR-A5AT03, FR-AAT02, FR-E5T	For details, refer to the related catalogs.
	FR-CV power regeneration common converter	FR-CV	Compatible. If replacing the converter, use FR-XC.
	Dedicated stand-alone reactor	FR-CVL	Compatible. If replacing the reactor, use FR-XCL.
	FR-HC high power factor converter	FR-HC2	Compatible.
	Surge voltage suppression filter	FR-ASF, BMF	Notes for the FR-BMF-H15K - Products manufactured in January 2026 or earlier Rear panel installation to the FR-D840-11K-230/15K-295 is not available. - Products manufactured in February 2026 or later Rear panel installation to the FR-D840-11K-230/15K-295 is available. For other FR-BMF models, rear panel installation may not be available depending on the combined inverter model.
Manual controller / speed controller	Manual controller	FR-AX	Not compatible.
	DC tach. follower	FR-AL	Not 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 1 kΩ	Compatible.
	Frequency meter	YM206NRI 1 mA	To use the option, refer to the Technical News (MF-S-200).
	Calibration resistor	RV24YN 10kΩ	Compatible.
	Inverter setup software	FR-SW3-SETUP-WE	Not compatible. Use SW1DND-FRC2.

Revisions

Revision date	Version	Revision
Jan. 2025	*	First edition
Feb. 2026	A	11K and 15K models added for the FR-D800 series • FR-D820-11K-450, FR-D820-15K-580 • FR-D840-11K-230, FR-D840-15K-295 Intercompatibility attachments added 5. Options FR-D800 support information updated for the FR-BFP2 and FR-BMF