Replacement Materials for FREQROL-D700 Series to FREQROL-D800 Series To FREQROL-D800 Series Dimensions, wiring, parameters, and options related to the replacement are described on the following pages. For further details, please refer to the instruction manual.	
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1. Dimensions

When replacing the FREQROL-D700 series with the FREQROL-D800 (ND rating) series, there are some models where the mounting dimensions differ depending on the capacity.

For detailed dimensions, please refer to the outline dimension drawings on the following pages.

Power supply	Existing Inverter	Replacement Inverter ***	Mounting Dimensions
3-phase 200V	FR-D720-0.1K	FR-D820-0.1K-008	Same
	FR-D720-0.2K	FR-D820-0.2K-014	Same
	FR-D720-0.4K	FR-D820-0.4K-025	Same
	FR-D720-0.75K	FR-D820-0.75K-042	Same
	FR-D720-1.5K	FR-D820-1.5K-070 ***	Same
	FR-D720-2.2K	FR-D820-2.2K-100 ***	Same
	FR-D720-3.7K	FR-D820-3.7K-165 ***	Different Dimensions Compatible Attachment Planned
	FR-D720-5.5K	FR-D820-5.5K-238 *	Same
	FR-D720-7.5K	FR-D820-7.5K-318 *	Same
3-phase 400V	FR-D740-0.4K	FR-D840-0.4K-012 ***	Different Dimensions Compatible Attachment Planned
	FR-D740-0.75K	FR-D840-0.75K-022 ***	Different Dimensions Compatible Attachment Planned
	FR-D740-1.5K	FR-D840-1.5K-037 ***	Different Dimensions Compatible Attachment Planned
	FR-D740-2.2K	FR-D840-2.2K-050	Same
	FR-D740-3.7K	FR-D840-3.7K-081	Same
	FR-D740-5.5K	FR-D840-5.5K-120 *	Same
	FR-D740-7.5K	FR-D840-7.5K-163 *	Same
Single-phase	FR-D720S-0.1K	FR-D820S-0.1K-008	Same
200V	FR-D720S-0.2K	FR-D820S-0.2K-014	Same
	FR-D720S-0.4K	FR-D820S-0.4K-025	Same
	FR-D720S-0.75K	FR-D820S-0.75K-042	Same
	FR-D720S-1.5K	FR-D820S-1.5K-070	Same
	FR-D720S-2.2K	FR-D820S-2.2K-100	Different Dimensions Compatible Attachment Planned
Single-phase	FR-D710W-0.1K	FR-D810W-0.1K-008	Same
100V	FR-D710W-0.2K	FR-D810W-0.2K-014	Same
	FR-D710W-0.4K	FR-D810W-0.4K-025	Same
	FR-D710W-0.75K	FR-D810W-0.75K-042	Same

^{*}By attaching the cooling fan cover fixing screws, a protrusion of 2.2 mm (screw head height) will be added to the **H dimension**.

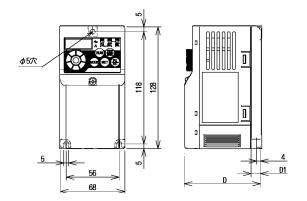
Note that differences such as the removal of the FM terminal exist. Please check the catalog or other materials for further information.

^{**}The D dimension changes from 135.5 mm to 167.5 mm.

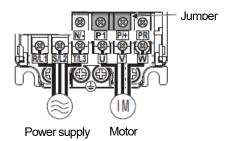
^{***}The positions of the main circuit terminals and control circuit terminals have also been modified. As a result, wiring length adjustments may be necessary during replacement. Please refer to the instruction manual for details.

Outline Dimension Drawing (Unit: mm)

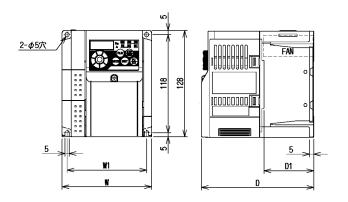
■FR-D720-0.1K to 0.75K



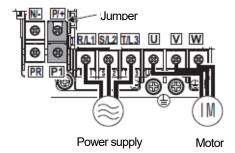
Inverter model	D	D1
FR-D720-0.1K/0.2K	80.5	10
FR-D720-0.4K	112.5	42
FR-D720-0.75K	132.5	62



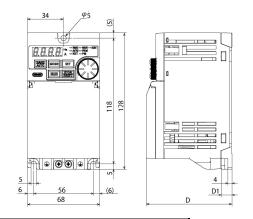
■FR-D720-1.5K to 3.7K



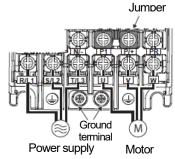
Inverter model	W	W1	D	D1
FR-D720-1.5K、2.2K	108	96	135.5	60
FR-D720-3.7K	170	158	142.5	66.5



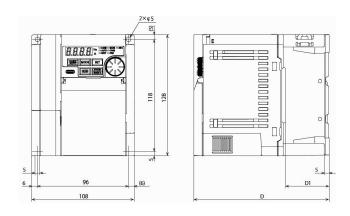
■FR-D820-0.1K to 0.75K



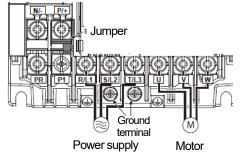
Inverter model	D	D1
FR-D820-0.1K/0.2K	80.5	10
FR-D820-0.4K	102.5	32
FR-D820-0.75K	132.5	42



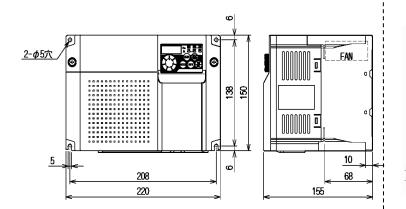
■FR-D820-1.5K to 3.7K

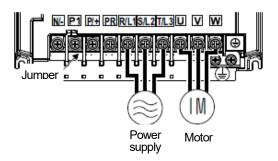


Inverter model	D	D1
FR-D820-1.5K/2.2K	132.5	36
FR-D820-3.7K	142.5	46

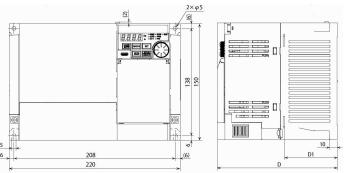


■FR-D720-5.5K、7.5K

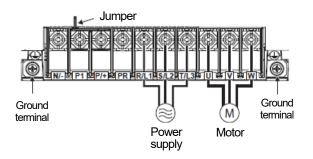




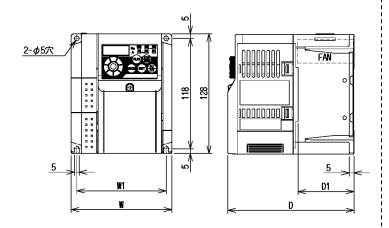
■FR-D820-5.5K、7.5K



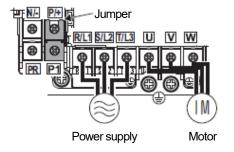
Inverter model	D	D1
FR-D820-5.5K/7.5K	155	68



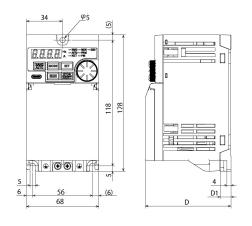
■FR-D740-0.4K to 3.7K



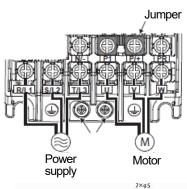
Inverter model	W	W1	D	D1
FR-D740-0.4K/0.75K	108	96	129.5	54
FR-D740-1.5K	108	96	135.5	60
FR-D740-2.2K	108	96	155.5	60
FR-D740-3.7K	108	96	165.5	60

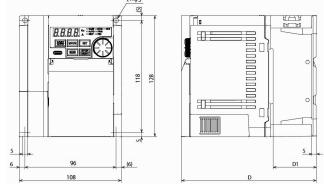


■FR-D840-0.4K to 3.7K

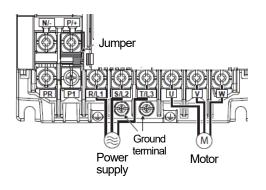


Inverter model	D	D1
FR-D840-0.4K/0.75K	129.5	42
FR-D840-1.5K	167.5	62

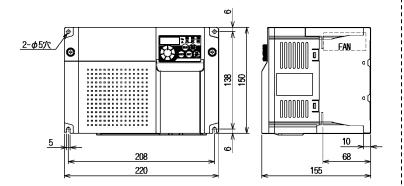


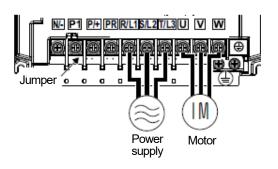


Inverter model	D	D1
FR-D840-2.2K/3.7K	155.5	36

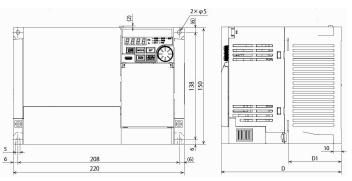


■FR-D740-5.5K、7.5K

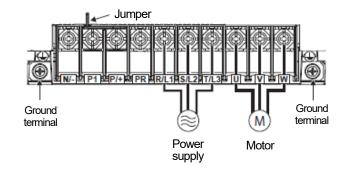




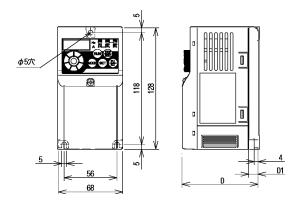
■FR-D840-5.5K、7.5K



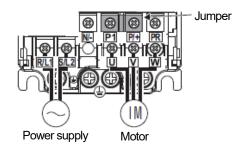
Inverter model	D	D1
FR-D840-5.5K/7.5K	155	68



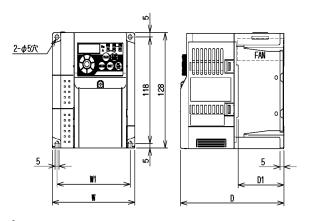
■FR-D720S-0.1K to 0.75K



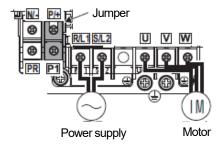
Inverter model	D	D1
FR-D720S-0.1K/0.2K	80.5	10
FR-D720S-0.4K	142.5	42
FR-D720S-0.75K	162.5	62



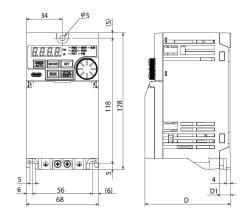
■FR-D720S-1.5K



Inverter model	W	W1	D	D1
FR-D720S-1.5K	108	96	155.5	60



■FR-D820S-0.1K to 0.75K



Inverter model	D	D1
FR-D820S-0.1K/0.2K	80.5	10
FR-D820S-0.4K	132.5	32
FR-D820S-0.75K	142.5	42

Jumper

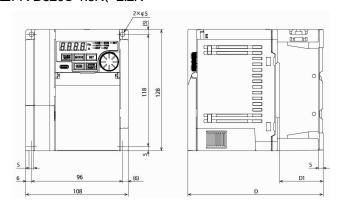
Jumper

Ground

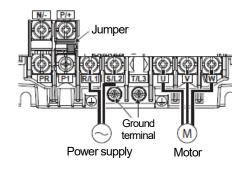
Power supply

Motor

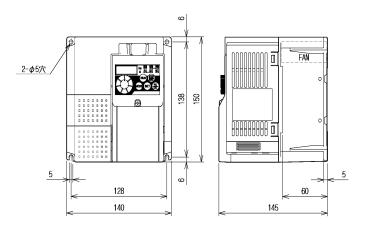
■FR-D820S-1.5K、2.2K

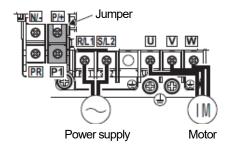


Inverter model	D	D1
FR-D820S-1.5K,2.2K	145	36

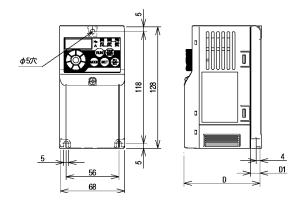


■FR-D720S-2.2K

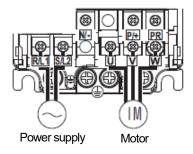




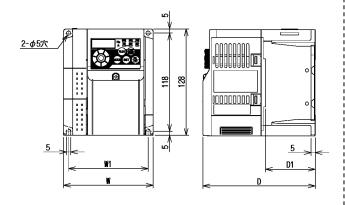
■FR-D710W-0.1K~0.4K



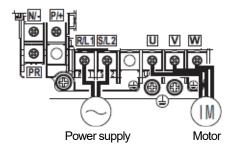
インバータ形式	D	D1
FR-D710W-0.1K	80.5	10
FR-D710W-0.2K	110.5	10
FR-D710W-0.4K	142.5	42



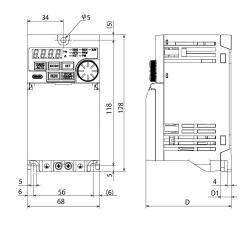
■FR-D710W-0.75K



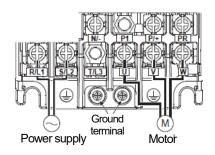
インバータ形式	W	W1	D	D1
FR-D710W-0.75K	108	96	149.5	54



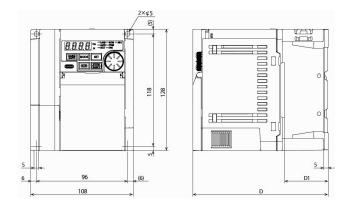
■FR-D810W-0.1K~0.4K



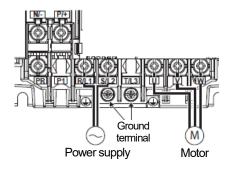
インバータ形式	D	D1
FR-D810W-0.1K	80.5	10
FR-D810W-0.2K	110.5	10
FR-D810W-0.4K	132. 5	32



■FR-D810W-0.75K



インバータ形式	D	D1
FR-D810W-0, 75K	145	36



2. Wiring

The terminal names are generally the same, so please connect them according to their names. For terminal sizes, refer to pages 11 and 12.

Туре		Terminal Names for FR-D700	Terminal Names for FR-D800	Remarks
		R/L1, S/L2, T/L3	R/L1, S/L2, T/L3	The single-phase specification does not include the T/L3 terminal.
		U, V, W	U, V, W	
Main Cir	cuit	P/+, PR	P/+, PR	
		P/+, N/-	P/+, N/-	
		P/+, P1	P/+, P1	
		⊕	(4)	
		STF	STF	
		STR	STR	
		RH	RH	
Control Circuit		RM	RM	
Input Signal	Contact	RL	RL	
		SD	SD	Terminal 5 and terminal SE are insulated from each other.
		PC	PC	They are used in the D800 safety configuration.*1
		10	10	*2
	Fraguenay	2	2	
Analog Frequency Setting		5	5	Terminal SD and terminal SE are insulated from each other.
		4	4	
	Contact	A, B, C	A, B, C	
	0	RUN	RUN	
Control Circuit Output Signal	Open collector	SE	SE	Terminal 5 and terminal SD are insulated from each other.
	Pulse	FM	_	D700:1440 pulses/s full scale
	Analog	_	AM	D800: 0 to 10 V / 12 bits
	Safety	S1	S1	D700 : Sink logic, Common SC
	Input	S2	S2	D800 : Source logic, Common PC
Safety Stop	C-f-+ .	SO	SO	D700: SAFE
	Safety Monitor Output	sc	soc	D800 : SAFE2
Communication	RS-485	PU connector	PU connector	There is also a terminal block for RS-485 communication.

^{*1} When using terminal PC as an external transistor common, please refer to the D800 instruction manual.

^{*2} The PTC thermistor is input to terminals 10 and 2.

BCN-C21002-229*

[Terminal size]

Terminal Size

(Icililliai s	SIZE)								
Voltage	Voltage		FREQROL-D700			FREQROL-D800			
class	Capacity	R, S,T*1	U, V, W	P, N, P1, PR		R, S, T*1	U, V, W	P, N, P1, PR	=
3-phase	0.1K to 0.75K	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5
200V	1.5K to 3.7K	M4	M4	M4	M4	M4	M4	M4	M3.5
	5.5K, 7.5K	M5	M5	M5	M5	M5	M5	M5	M5
2	0.4K to 1.5K	M4	M4	M4	M4	M3.5	M3.5	M3.5	M3.5
3-phase 400V	2.2K to 3.7K	M4	M4	M4	M4	M4	M4	M4	M3.5
4000	5.5K, 7.5K	M4	M4	M4	M4	M4	M4	M4	M4
Single-phase	0.1K to 0.75K	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5
200V	1.5K, 2.2K	M4	M4	M4	M4	M4	M4	M4	M3.5
Single-phase	0.1K to 0.4K	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5
100V	0.75K	M4	M4	M4	M4	M4	M4	M4	M3.5

st 1 The single-phase power input model does not have a T terminal.

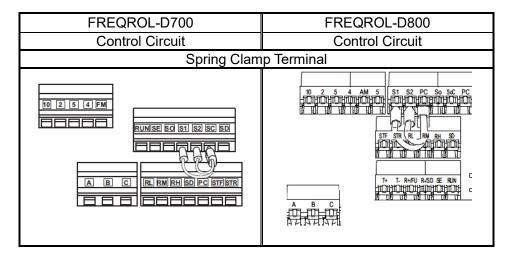


Table: Applicable Wire Sizes for FREQROL-D700 and D800 Control Terminal Blocks (Bare Wire)

Wire Stripping Length	Applicable Bare Wire Size Single Wire (mm²)
Ensure that the wires are neatly organized and properly routed to avoid scattering. 10mm Additionally, do not apply solder to the wire ends.	0.3 to 0.75

Table: Applicable Wire Sizes for Control Terminal Blocks (When Using Ferrules)

Table: 7 (philable 1711 billion for Contact Terminal Blocks (1711ch Conty For Conty)						
Ferrule Model (Manufactured	Applicable Bare Wire Size (mm²)					
With Insulated Sleeve	Without Insulated Sleeve	Applicable bare wire Size (IIIII-)				
AI 0,34-10TQ	-	0.3 to 0.5				
AI 0.5-10WH	-	0.3 to 0.5				
AI 0.75-10GY	AI 0.75-10	0.75				
AI 1-10RD	A 1-10	1				
AI 1.5-10BK	AI 1.5-10	1.25, 1.5				
AI-TWIN 2×0.75-10GY	-	0.75(For Two Wires)				

Ferrule Model (Manufactur	Applicable Para Wire Size (mm²)		
Ferrule Part Number Cap Part Number		Applicable Bare Wire Size (mm²)	
BT 0.75-11	VC 0.75	0.3 to 0.75	

3. Parameters (We are planning to provide inverter setup software that can automatically migrate parameter settings from the conventional D700 series to the D800 series.)

The parameter numbers are mostly the same, but there are some differences in certain functions. Please refer to the table below for the settings.

Parameter Correspondence Table for FREQROL-D700 Series and FREQROL-D800 (ND Rating) Series

The following outlines the parameter settings when replacing the FREQROL-D700 series with the FREQROL-D800 series.

Please note that the parameter migration shown in the table below does not guarantee the operating characteristics or performance of the inverter.

The parameter number of the parameters different from that of the FREQROL-D700 series inverter.

 \triangle : Change the FREQROL-D700 parameter and set

× : Adjust and set the FREQROL-D800 inverter parameter

	FREQROL-D700 parameter list			FREQROL-D800 compatible parameter			Parameter setting		
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
0	Torque boost	0% to 30%	6% / 4% / 3% / 2%	0	Torque boost	0% to 30%	6% / 4% / 3%	\triangle	Please adjust as needed.
1	Maximum frequency	0 to 120 Hz	120 Hz	1	Maximum frequency	0 to 120 Hz	120 Hz	0	
2	Minimum frequency	0 to 120 Hz	0 Hz	2	Minimum frequency	0 to 120 Hz	0 Hz	0	
3	Base frequency	0 to 400 Hz	60 Hz	3	Base frequency	0 to 400 Hz	60 Hz	0	For V/F control, set Pr.80 = 9999 to Pr.800 = 40. The default value is Group 1 (D800).
4	Multi-speed setting (high speed)	0 to 400 Hz	60 Hz	4	Multi-speed setting (high speed)	0 to 400 Hz	60 Hz	0	The default value is Group 1 (D800).
5	Multi-speed setting (middle speed)	0 to 400 Hz	30 Hz	5	Multi-speed setting (middle speed)	0 to 400 Hz	30 Hz	0	
6	Multi-speed setting (low speed)	0 to 400 Hz	10 Hz	6	Multi-speed setting (low speed)	0 to 400 Hz	10 Hz	0	
7	Acceleration time	0 to 3600 s /	5 s / 10 s /	7	Acceleration time	0 to 3600 s /	5 s / 10 s	0	
,	Acceleration time	0 to 360 s	15 s	,	Acceleration time	0 to 360 s	35/105		
8	Deceleration time	0 to 3600 s / 0 to 360 s	5 s / 10 s / 15 s	8	Deceleration time	0 to 3600 s / 0 to 360 s	5 s / 10 s	0	
9	Electronic thermal O/L relay	0 to 500 A	Rated output current	9	Electronic thermal O/L relay	0 to 500 A	Rated output current	0	Set the motor rated 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	0	
11	DC injection brake operation time	0 to 10 s	0.5 s	11	DC injection brake operation time	0 to 10 s	0.5 s	0	
12	DC injection brake operation voltage	0 to 30%	6% / 4% / 2%	12	DC injection brake operation voltage	0% to 30%	6% / 4%	0	
13	Starting frequency	0 to 60 Hz	0.5 Hz	13	Starting frequency	0 to 60 Hz	0.5 Hz	0	
14	Load pattern selection	0 to 3	0	14	Load pattern selection	0 to 3	0	0	
15	Jog frequency	0 to 400 Hz	5 Hz	15	Jog frequency	0 to 400 Hz	5 Hz	0	
16	Jog acceleration/deceleration time	0 to 3600 s	0.5 s	16	Jog acceleration/deceleration time	0 to 3600 s	0.5 s	0	
17	MRS input selection	0, 2, 4	0	17	MRS/X10 Terminal Input Selection	0 to 5	0	\triangle	The input specification of the X10 signal can also be modified.
18	High speed maximum frequency	120 to 400 Hz	120 Hz	18	High speed maximum frequency	0 to 590Hz	120Hz	0	
19	Base frequency voltage	0 to 1000 V, 8888, 9999	9999	19	Base frequency voltage	0 to 1000 V, 8888, 9999	9999	0	For V/F control, set Pr.80 = 9999 to Pr.800 = 40. The default value is Group 1 (D800).
20	Acceleration/deceleration reference frequency	1 to 400 Hz	60 Hz	20	Acceleration/deceleration reference frequency	1 to 590Hz	60Hz	0	The default value is Group 1 (D800).
22	Stall prevention operation level	0% to 200%	150%	22	Stall Prevention Operation Level (Torque Limit Level)	0 to 400%	150%	0	Set Pr.570 = 2 for ND rating.
23	Stall prevention operation level compensation factor at double speed	0% to 200%, 9999	9999	23	Correction Factor for Stall Prevention Operation Level at Double Speed	0 to 200%,9999	9999		In the FR-D800, when set to "9999," the stall prevention function is disabled during double-speed operation.

starting frequency

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starting frequency

Γ		FREQROL-D700 parar	meter list			FREQROL-D800 compa	atible parameter			Parameter setting
	Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks
Ī	132	PID lower limit	0% to 100%, 9999	9999	132	PID lower limit	0% to 100%, 9999	9999	0	
	133	PID action set point	0% to 100%, 9999	9999	133	PID action set point	0% to 100%, 9999	9999	0	9999 corresponds to Terminal 2 → Pr.128 setting. Dancer is fixed at 50% → It corresponds to the terminal selected in Pr.609.
	134	PID differential time	0.01 to 10.00 s, 9999	9999	134	PID differential time	0.01 to 10.00 s, 9999	9999	0	
	145	PU display language selection	0 to 7	0	145	PU display language selection	0 to 7	-	×	Compatible with FR-PU07; not compatible with FR-PU04.
	146	Built-in potentiometer switching	0, 1	1					×	The FR-PA02 operation panel for the FR-E500 cannot be used.
	150	Output current detection level	0% to 200%	150%	150	Output current detection level	0 to 400%	150%	0	Pr.570=2 to ND rating
	151	Output current detection signal delay time	0 to 10 s	0s	151	Output current detection signal delay time	0 to 10s	0s	0	
	152	Zero current detection level	0% to 200%	5.0%	152	Zero current detection level	0 to 400%	5.0%	0	
	153	Zero current detection time	0 to 1 s	0.5s	153	Zero current detection time	0 to 10s	0.5s	0	
	156	Stall prevention operation selection	0 to 31,100,101	0	156	Stall prevention operation selection	0 to 31,100,101	0	0	
	157	OL signal output timer	0 to 25 s, 9999	0s	157	OL signal output timer	0 to 25s,9999	0s	0	
	158	User group read selection	0, 1, 9999		158	User group read selection	1 to 3,5 to 14,17,18,21, 24,32,33,37,50,52, 53,61,62,67,97,98	1	×	It is the AM terminal.
	160	Extended function display selection	0, 9999	9999	160	Extended function display selection	0,1,9999	0	0	The factory default value is 0.
	161	Frequency setting / key lock operation selection	0, 1, 10, 11	0	161	Frequency setting / key lock operation selection	0,1,10,11	0	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	Δ	The factory default value for D800 is 0.
16/	165	Stall prevention operation level for restart	0 to 200%	150%	165	Stall prevention operation level for restart	0 to 400%	150%	0	Set Pr.570 = 2 to ND rating.
/21	166	Output current detection signal hold time	0 to 10s,9999	0.1s	166	Output current detection signal hold time	0 to 10s,9999	0.1s	0	
	167	Output current detection operation selection	0,1	0	167	Output current detection operation selection	0,1,10,11	0	0	
	170	Watt-hour meter clear	0, 10, 9999	9999	170	Watt-hour meter clear	0, 10, 9999	9999	0	
L	171	Operation hour meter clear	0, 9999	9999	171	Operation hour meter clear	0, 9999	9999	0	
	178	STF terminal function selection	0 to 5,7,8,10,12, 14,16,18,24,25,60 ,62,65 to 67,9999	60	178	STF terminal function selection	0to 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, 14,16,18,24,25,61 ,62,65 to 67,9999	61	179	STR terminal function selection	0to 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	RL terminal function selection	0 to 5,7,8,10,12,	0	180	RL terminal function selection	0 to 5,7,8,10,12,14,	0	0	
	181	RM terminal function selection	14,16,18,24,25,62	1	181	RM terminal function selection	16,18,24,25,27,30,37, 46,47,62,64 to	1	0	
	182	RH terminal function selection	,65 to 67,9999	2	182	RH terminal function selection	67,72,84,9999	2	0	
BCN-C21002-2	190	MRS terminal function selection	0,1,3,4,7,8, 11 to 16,25,26, 46,47,64,70,80,81,90,91,93,95,96,9 8,99,100,101,103, 104,107,108,111 to 116,125,126, 146,147,164,170, 180,181,190,191, 193,195,196,198, 199,9999	0	190	MRS 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	0	©	
229*					191	FU terminal function selection	193,195,196,198,199, 206,207,211 to 213, 306,307,311 to 313,9999	4	Δ	

Proceedings Process Some programs Indication to the Control Indication Indica		FREQROL-D700 parameter list FREQROL-D800 compatible parameter Parameter setting								
10.1 3.4.7 k	Pr.	<u> </u>		Initial value	Pr.		· · ·	Initial value	Setting	S .
233 Multi-speed setting (speed 19) 0 to 400 Hz,9999 9999 9999 23 Multi-speed setting (speed 1) 0 to 400 Hz,9999 9999 23 Multi-speed setting (speed 1) 0 to 400 Hz,9999 9999 23 Multi-speed setting (speed 1) 0 to 400 Hz,9999 9999 23 Multi-speed setting (speed 1) 0 to 400 Hz,9999 9999 23 Multi-speed setting (speed 1) 0 to 400 Hz,9999 9999 23 Multi-speed setting (speed 1) 0 to 400 Hz,9999 9999 23 Multi-speed setting (speed 1) 0 to 400 Hz,9999 9999 23 Multi-speed setting (speed 1) 0 to 400 Hz,9999 9999 23 Multi-speed setting (speed 1) 0 to 400 Hz,9999 9999 23 Multi-speed setting (speed 1) 0 to 500 Hz,9999 9999 30 Multi-speed setting (speed 1) 0 to 400 Hz,9999 9999 23 Multi-speed setting (speed 1) 0 to 500 Hz,9999 9999 30 Multi-speed setting (speed 1) 0 to 500 Hz,9999 30 Multi-speed setting (speed	192		0,1,3,4,7,8, 11 to 16,25,26, 46,47,64,70,80,81, ,90,91,95,96,98,9 9,100,101,103, 104,107,108,111 to 16,125,126, 146,147,164,170, 180,181,190,191, 195,196,198,199, 9999 (ABC terminal) 93,193	99		A, B, C 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, 191,195,196,198,199, 206207,211 to 213, 306,307,311 to 313,			
233 Multi-speed selling (speed 19) 0 to 500 Hz,9999 9999 3 3 Multi-speed selling (speed 19) 0 to 500 Hz,9999 9999 3 3 Multi-speed selling (speed 11) 0 to 400 Hz,9999 9999 23 Multi-speed selling (speed 11) 0 to 500 Hz,9999 9999 3 3 3 3 3 3 3										The SO terminal function is fixed to SAFE2.
234 Multi-speed setting (speed 11) 0 to 400 Hz.9999 9999 234 Multi-speed setting (speed 11) 0 to 590 Hz.9999 9999 6		,	· ·			1 0 1 7	,			
235 Multi-speed setting (speed 12) 0 to 400 Hz.9999 9999 235 Multi-speed setting (speed 12) 0 to 500 Hz.9999 9999 326 Multi-speed setting (speed 12) 0 to 500 Hz.9999 9999 327 Multi-speed setting (speed 13) 0 to 400 Hz.9999 9999 237 Multi-speed setting (speed 13) 0 to 500 Hz.9999 9999 328 Multi-speed setting (speed 14) 0 to 500 Hz.9999 9999 328 Multi-speed setting (speed 15) 0 to 400 Hz.9999 9999 239 Multi-speed setting (speed 15) 0 to 500 Hz.9999 9999 328 Multi-speed setting (speed 15) 0 to 500 Hz.9999 9999 329 Multi-speed setting (speed 15) 0 to 500 Hz.9999 9999 329 Multi-speed setting (speed 15) 0 to 500 Hz.9999 9999 329 Multi-speed setting (speed 15) 0 to 500 Hz.9999 9999 329 Multi-speed setting (speed 15) 0 to 500 Hz.9999 9999 329 329 Multi-speed setting (speed 15) 0 to 500 Hz.9999 9999 329 329 Multi-speed setting (speed 15) 0 to 500 Hz.9999 9999 329 329 Multi-speed setting (speed 15) 0 to 500 Hz.9999 9999 329 329 Multi-speed setting (speed 15) 0 to 500 Hz.9999 9999 329 329 Multi-speed setting (speed 15) 0 to 500 Hz.9999 9999 329		1 0(1)	, ,							
Multi-speed setting (speed 12) 0 to 590 Hz.5999 599 527 Multi-speed setting (speed 13) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 13) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 13) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 14) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 527 Multi-speed setting (speed 15) 0 to 590 Hz.5999 0 to 590 Hz.5			, ,			, ,	,			
238 Multi-speed setting (speed 13) 0 to 400 Hz,9999 9999 238 Multi-speed setting (speed 14) 0 to 590 Hz,9999 9999 ©		1 0(1 /	, ,			,	, ,			
238 Multi-speed setting (speed 14) 0 to 400 Hz.9999 9999 239 Multi-speed setting (speed 15) 0 to 500 Hz.9999 9999 ©		1 0(1 /				, , ,	, ,			
239 Multi-speed setting (speed 15) 0 to 400 Hz.9999 9999 298 Multi-speed setting (speed 15) 0 to 590 Hz.9999 9999 © Please modify Pr.260 as needed.			, ,			, , ,	, ,			
240 Soft-PWM operation selection 0,1 1 240 Soft-PWM operation selection 0,1 1 0 0 0						, , ,	, ,			
241 Analog input display unit switchover 0.1 0 241 Analog input display unit switchover 0.1 0 ○		,		9999		, , ,	· ·	9999		DI III D 000
244 Cooling fan operation selection 0.1		·		1		·		1		Please modify Pr.260 as needed.
245 Rated slip		3	·			<u> </u>	· · · · · · · · · · · · · · · · · · ·	0		
248 Sip compensation time constant 0.01 to 10s 0.5s 248 Sip compensation time constant 0.01 to 10s 0.5s 0.0 constant-power range slip compensation selection 0.9999 9999 247 249			· · ·	<u>'</u>		·	, ,	1		
Constant-power range slip						•	,			This is effective during V/F control.
249 Earth (ground) fault detection at start 0,1 0 249 Earth (ground) fault detection at start 0,1 0 3 The default factory setting is Group 1 (D800).	246	·	0.01 to 10s	0.58	246	·	0.01 to 10s	0.58	0	
Stop selection	247		0,9999	9999	247		0,9999	9999	0	compensation is always enabled.
250 Stop selection 1000 to 1100s, 8888,9999 9999 250 Stop selection 1000 to 1100s, 8888,9999 0	249	Earth (ground) fault detection at start		0	249	Earth (ground) fault detection at start		0	0	The default factory setting is Group 1 (D800).
251 Output phase loss protection selection 0,1 1 251 selection 0,1 1 251 selection 0,1 1 0 0 0 0 0 0 0 0	250	Stop selection	1000 to 1100s,	9999	250	•	1000 to 1100s,	9999	0	
256 Inrush current limit circuit life display 0 to 100% 100 256 Inrush current limit circuit life display 0 to 100% 100 ©		' ' '		'		selection	ŕ	1		
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 0 259 Main circuit capacitor life measuring 0,1 0 □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □										
260 PWM frequency automatic switchover 0,1 0 260 PWM frequency automatic 0,10 10 △ The default factory setting enables the PWM carrier frequency automatic switchover 0,1 2 0 261 Power failure stop selection 0,1,2 0 ∞										
260 Power frailure stop selection 0,1 0 260 switchover 0,10 10 △ frequency automatic reduction function.	259	iviain circuit capacitor life measuring	0,1	U	259	·	U,1	U	0	The default feetony actting anables the DMM service
267 Terminal 4 input selection 0,1,2 0 267 Terminal 4 input selection 0,1,2 0 △ Voltage and current can be selected using Switch 2.	260	PWM frequency automatic switchover	0,1	0	260		0,10	10	Δ	
268 Monitor decimal digits selection 0,1,9999 9999 268 Monitor decimal digits selection 0,1,9999 9999 © 295 Frequency change increment amount 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 106,99,101 to 106,999 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 Communication operation command source 0,1,9999 0 299 Communication operation command source 0,1,9999 0 ©		·				·				
Password lock level 1 to 6, 101 to 106,9999 100 to 9998 100 to 5,9999 100 to 32767,9999 100 to		·				·				Voltage and current can be selected using Switch 2.
295 setting 10.00 0 295 amount setting 10.00 0 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	268			9999	268	ÿ		9999	0	
296 Password lock level 101 to 106,9999 9999 296 Password lock level 106,199, 9999 9	295		10.00	0	295		10.00	0	0	
297 Password lock/unlock (0 to 5,9999) 9999 297 Password lock/unlock 9999 9999 ©	296	Password lock level	101 to 106,9999	9999	296	Password lock level	106,199, 9999	9999	0	
Communication operation command source 0,1,9999 0 299 Communication operation command source 0,1,9999 0 © 338 Communication speed command source 0.1 0 338 Communication speed command 0.1 0 ©			(0 to 5,9999)				9999			
source 0,1,9999 0 299 source 0,1,9999 0 0 338 Communication speed command out to 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	298		0 to 32767,9999	9999	298		0 to 32767,9999	9999	0	
1 550 Communication speed command source U. U. 550	299	•	0,1,9999	0	299	source	0,1,9999	0	0	
	338	Communication speed command source	0,1	0	338	•	0,1	0	0	

	FREQROL-D700 param	neter list		FREQROL-D800 compatible parameter					Parameter setting		
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks		
339	Communication speed command source	0,1,2	0	339	Communication speed command source	0,1,2	0	©	Nomano		
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	©			
495	Remote output selection	0,1,10,11	0	495	Remote output selection	0,1,10,11	0	©			
	·		-		·				SO has been removed in the FR-D800.		
496	Remote output data 1 Stop mode selection at communication	0 to 4095 0,1,2	0	496 502	Remote output data 1 Stop mode selection at communication	0 to 4095 0,1,2,6	0	×	Additionally, FU is added to b4		
502	error	0,1,2	U	302	error	0,1,2,0	O	0			
503	Maintenance timer	0(1 to 9998)	0	503	Maintenance timer	0(1 to 9998)	0	0			
504	Maintenance timer alarm output set time	0 to 9998,(9999)	9999	504	Maintenance timer alarm output set time	0 to 9998,(9999)	9999	0			
				505	Speed setting reference	1 to 590Hz	60Hz	\triangle	The default value is Group 1 (D800)		
549	Protocol selection	0,1	0	549	Protocol selection	0,1	0	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 the FR-D800 is set to 9999: The priority of PU command authority will be USB connector > PU connector > operation panel.		
555	Current average time	0.1 to 1.0s	1s	555	Current average time	0.1 to 1.0s	1s	0			
556	Data output mask time	0.0 to 20.0s	0s	556	Data output mask time	0.0 to 20.0s	0s	0			
557	Current average value monitor signal output reference current	0 to 500A	Inverter rated current	557	Current average value monitor signal output reference current	0 to 500A	Inverter rated current	0			
561	PTC thermistor protection level	0.5 to 30k,9999	9999	561	PTC thermistor protection level	0.5 to 30k,9999	9999	0			
563	Energization time carrying-over times	(0 to 65535)	0	563	Energization time carrying-over times	(0 to 65535)	0	0			
564	Operating time carrying-over times	(0 to 65535)	0	564	Operating time carrying-over times	(0 to 65535)	0	0			
	operating time carrying ever times	(0 to 0000)	, and the second	570	Multiple rating setting [3-phase]	0,2	2	Δ	Set to the ND rating for Setting 2. Single-phase 200V supports ND rating only.		
571	Holding time at a start	0.0 to 10.0s, 9999	9999	571	Holding time at a start	0.0 to 10.0s,9999	9999	©	Chigle phase 2007 supporte NE rating only.		
575	Output interruption detection time	0 to 3600s,9999	1s	575	Output interruption detection time	0 to 3600s,9999	1s	0			
576	Output interruption detection level	0 to 400 Hz	0 Hz	576	Output interruption detection level	0 to 590 Hz	0 Hz	0			
577	Output interruption cancel level	900 to 1100%	1000%	577	Output interruption cancel level	900 to 1100%	1000%	0			
				609	PID set point/deviation input selection	2,3	2	\triangle			
				610	PID measured value input selection	2,3	3	\triangle			
611	Acceleration time at a restart	0 to 3600s,9999	9999	611	Acceleration time at a restart	0 to 3600s,9999	9999	0			
653	Speed smoothing control	0 to 200%	0	653	Speed smoothing control	0 to 200%	0	\triangle	Adjustment of Pr.654 is possible.		
				654	Speed smoothing cutoff frequency	0 to 120 Hz	20 Hz	Δ			
665	Regeneration avoidance frequency gain	0 to 200%	100	665	Regeneration avoidance frequency gain	0 to 200%	100	0			
				800	Control method selection	10,19,20,40	40	Δ	Set V/F control to 40. If Pr.80 is set, use Advanced Flux Vector Control (20) and adjust Pr.89 as necessary to address motor speed variations caused by load fluctuations.		
872	Input phase loss protection selection	0,1	0	872	Input phase loss protection selection [3-phase]	0,1	1	©	This setting is only available for three-phase power input models. The default value enables input phase-loss protection.		
882	Regeneration avoidance operation selection	0,1,2	0	882	Regeneration avoidance operation selection	0,1,2	0	0			
883	Regeneration avoidance operation level	300 to 800V	DC400/780V	883	Regeneration avoidance operation level	300 to 800V	DC400/780V	0			
885	Regeneration avoidance compensation frequency limit value	0 to 10 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%	0			
888	Free parameter 1	0 to 9999	9999	888	Free parameter 1	0 to 9999	9999	0			
889	Free parameter 2	0 to 9999	9999	889	Free parameter 2	0 to 9999	9999	0			
	Cumulative power monitor digit shifted				Cumulative power monitor digit shifted						
891	times	0 to 4, 9999	9999	891	times	0 to 4, 9999	9999	0			

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	FREQROL-D700 param	eter list			FREQROL-D800 compati	Parameter setting				
Pr.	Name	Setting range	Initial value	Pr.	Name	Setting range	Initial value	Setting	Remarks	
C0 (900)	FM terminal calibration	1	ı					×	There is no FM terminal.	
				C1 (901)	Am terminal calibration	_	_	Δ	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	0	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%	0	Calibrate the parameter as required.	
125 (903)	Terminal 2 frequency setting gain frequency	0 to 400 Hz	60Hz	125 (903)	Terminal 2 frequency setting gain frequency	0 to 590 Hz	60 Hz	0	Calibrate the parameter as required.	
C4 (903)	Terminal 2 frequency setting gain	0 to 300%	100%	C4 (903)	Terminal 2 frequency setting gain	0 to 300%	100%	0	Calibrate the parameter as required.	
C5 (904)	Terminal 4 frequency setting bias frequency	0 to 400 Hz	0Hz	C5 (904)	Terminal 4 frequency setting bias frequency	0 to 590 Hz	0 Hz	0	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%	0	Calibrate the parameter as required.	
126 (905)	Terminal 4 frequency setting gain frequency	0 to 400 Hz	60Hz	126 (905)	Terminal 4 frequency setting gain frequency	0 to 590 Hz	60 Hz	0	Calibrate the parameter as required.	
C7 (905)	Terminal 4 frequency setting gain	0 to 300%	100%	C7 (905)	Terminal 4 frequency setting gain	0 to 300%	100%	0	Calibrate the parameter as required.	
C22 (922)	Frequency setting voltage bias frequency (built-in potentiometer)	0 to 400 Hz	0Hz							
C23 (922)	Frequency setting voltage bias (built-in potentiometer)	0 to 300%	0%					×	Operation panel for the FR-E500 (FR-PA02) cannot	
C24 (923)	Frequency setting voltage gain frequency (built-in potentiometer)	0 to 400 Hz	60 Hz					*	be used	
C25 (923)	Frequency setting voltage gain (built-in potentiometer)	0 to 300%	100%							
990	PU buzzer control	0,1	1	990	PU buzzer control	0,1	1	0	For the LCD energtion namel and narameter weit	
991	PU contrast adjustment	0 to 63	58	991	PU contrast adjustment	0 to 63	58	0	For the LCD operation panel and parameter unit	

4. Option

If options were used with the FREQROL-D700 series, replacing it with the FREQROL-D800 series will result in the following changes.

	lollowing changes.		Option model				
	Item	FREQROL-D700	FREQROL-D800				
	Parameter Unit	FR-PU07	Compatible				
	Enclosure surface operation panel	FR-PA07	Compatible				
	Parameter unit connection cable	FR-CB20□	Compatible				
	DIN rail attachment	FR-UDA01-03	FR-UDA01-02 For details, please refer to the instruction manual.				
	Panel through attachment	FR-E7CN□	To be supported for certain capacities.				
	Brake resistor	MRS , MYS	Compatible				
	B 1 "	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				
Stand-	Radio noise filter	FR-BIF-(H)	Compatible				
alone	Line noise filter	FR-BSF01, FR-BLF	Compatible				
	Filterpack	FR-BFP2	Can be reused. However, existing products may not be mountable on the rear depending on the installation dimensions. For details, refer to the instruction manual. If necessary, use a model compatible with the D800				
	EMC Directive compliant noise filter	SF, FR-E5NF, FR-S5NFSA	FN3288				
	EMC filter installation attachment	FR-A5AT03, FR-AAT02, FR-E5T	Please refer to the catalog for details.				
	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 converter, use FR-XCL.				
	FR-HC high power factor converter	FR-HC2	Compatible				
	Surge voltage suppression filter	FR-ASF, BMF	Compatible				
	Manual controller	FR-AX	Compatible If replacing the option, prepare the same model. *1				
	DC tach. follower	FR-AL	Compatible If replacing the option, prepare the same model. *1				
	Three speed selector	FR-AT	Compatible If replacing the option, prepare the same model.				
.	Remote speed setter	FR-FK	Compatible If replacing the option, prepare the same model.				
Manual controller	Ratio setter	FR-FH	Compatible If replacing the option, prepare the same model.				
/ speed controller	Speed detector	FR-FP	Compatible If replacing the option, prepare the same model.				
	Master controller	FR-FG	Compatible If replacing the option, prepare the same model.				
	Soft starter	FR-FC	Compatible If replacing the option, prepare the same model.				
	Deviation detector	FR-FD	Compatible If replacing the option, prepare the same model.				
	Preamplifier	FR-FA	Compatible If replacing the option, prepare the same model.				

Home		Option model					
	ltem	FREQROL-D700	FREQROL-D800				
	Pilot generator	QVAH-10	Compatible				
	Deviation sensor	YVGC-500W-NS	Compatible				
Others	Frequency setting potentiometer	WA2W 1kΩ	Compatible				
	Analog frequency meter	YM206NRI 1mA	Compatible *1				
	Calibration resistor	RV24YN 10kΩ	Compatible				
	Inverter setup software	FR-SW3-SETUP-WJ	Not compatible. Use SW1DND-FRC2.				

^{*1} Please refer to Technical News MF-S-200 for details.

REVISIONS

Revision date	Version	Revision
Jan 2025	*	First edition