11. Table of parameters and data

11.1 Frequency setting parameter

Title	Function	Unit	Minimum setting unit Panel/Comm unication	Adjustment range	Default setting	User setting	Reference
$F C$	Operation frequency of operation panel	Hz	0.1/0.01	LL-UL	0.0		3.2.2

11.2 Basic parameters

- Five navigation functions

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Commun ication	Adjustment range	Default setting	User setting	Reference
AUH	-	History function	-	-	Displays parameters in groups of five in the reverse order to that in which their settings were changed. * (Possible to edit)	-		6.1.1
AUA	0090	Application easy setting *10	-	-	0: - 1: Initial easy setting 2: Conveyor 3: Material handling 4: Hoisting 5: Fan 6: Pump 7: Compressor	0		6.1.2
AUF	0093	Guidance function	-	-	0: - 1: - 2: Preset speed guidance 3: - 4: Motor 1 & 2 switching operation guidance 5: Motor constant setting guidance 6: -	0		6.1.3
AUL	0094	Overload characteristic selection	-	-	0: - 1: Constant torque characteristic (150%-60s) 2: Variable torque characteristic (120%-60s)	0		5.6 6.18
$AU1$	0000	Automatic acceleration/ deceleration	-	-	0: Disabled (manual setting) 1: Automatic 2: Automatic (only at acceleration)	0		5.2 6.1.4
$AU2$	0001	Torque boost setting macro function	-	-	0: - 1: Automatic torque boost + auto-tuning 2: Vector control + auto-tuning 3: Energy saving + auto-tuning	0		6.1.5

*10: Refer to section 11.8 about parameters that are set by this parameter.

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- Basic parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
$C\Pi Od$	0003	Command mode selection	-	-	0: Terminal block 1: Panel keypad (including extension panel) 2: RS485 communication 3: CANopen communication 4: Communication option	1		3.2 6.2.1 7.3
$F\Pi Od$	0004	Frequency setting mode selection 1	-	-	0: Setting dial 1(save even if power is off) 1: Terminal VIA 2: Terminal VIB 3: Setting dial 2(press in center to save) 4: RS485 communication 5: UP/DOWN from external logic input 6: CANopen communication 7: Communication option 8: Terminal VIC 9, 10: - 11: Pulse train input 12, 13: - 14: $5 r O$	0		3.2 6.2.1 6.10.1 5.8 7.3
$F\Pi 5L$	0005	Meter selection	-	-	0: Output frequency 1: Output current 2: Frequency command value 3: Input voltage (DC detection) 4: Output voltage (command value) 5: Input power 6: Output power 7: Torque 8: - 9: Motor cumulative load factor 10: Inverter cumulative load factor 11: PBR (Braking resistor) cumulative load factor 12: Stator frequency 13: VIA input value 14: VIB input value 15: Fixed output 1 (output current 100% equivalent) 16: Fixed output 2 (output current 50% equivalent) 17: Fixed output 3 (Other than the output current) 18: RS485 communication data 19: For adjustments ($F\Pi$ set value is displayed.) 20: VIC input value 21: Pulse train input value 22: - 23: PID feedback value 24: Integral input power 25: Integral output power	0		5.1
$F\Pi$	0006	Meter adjustment gain	-	-	-	-		
$F r$	0008	Forward/reverse run selection (Panel keypad)	-	-	0: Forward run 1: Reverse run 2: Forward run (F/R switching on extension panel) 3: Reverse run (F/R switching on extension panel)	0		6.2.2

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Commun ication	Adjustment range	Default setting	User setting	Reference
ACC	0009	Acceleration time 1	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		5.2
dEC	0010	Deceleration time 1	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		
FH	0011	Maximum frequency	Hz	0.1/0.01	30.0-500.0	80.0		5.3
UL	0012	Upper limit frequency	Hz	0.1/0.01	0.5-*FH*	*1		5.4
LL	0013	Lower limit frequency	Hz	0.1/0.01	0.0-*UL*	0.0		
uL	0014	Base frequency 1	Hz	0.1/0.01	20.0-500.0	*1		5.5
uLu	0409	Base frequency voltage 1	V	1/0.1	50-330 (240V class) 50-660 (500V class)	*1		5.5 6.19.6
Pt	0015	V/F control mode selection	-	-	0: V/F constant 1: Variable torque 2: Automatic torque boost control 3: Vector control 4: Energy-saving 5: Dynamic energy-saving (For fan and pump) 6: PM motor control 7: V/F 5-point setting 8: -	*1		6.3
ub	0016	Torque boost value 1	%	0.1/0.1	0.0-30.0	*2		6.4
tHr	0600	Motor electronic-thermal protection level 1	% (A)	1/1	10-100	100		5.6 6.29.1
OLM	0017	Electronic-thermal protection characteristic selection	-	-	(see sub-table below)	0		5.6
5r0	0030	Preset-speed frequency 0	Hz	0.1/0.01	*LL-UL*	0.0		5.7
5r1	0018	Preset-speed frequency 1	Hz	0.1/0.01	*LL-UL*	0.0		
5r2	0019	Preset-speed frequency 2	Hz	0.1/0.01	*LL-UL*	0.0		
5r3	0020	Preset-speed frequency 3	Hz	0.1/0.01	*LL-UL*	0.0		
5r4	0021	Preset-speed frequency 4	Hz	0.1/0.01	*LL-UL*	0.0		
5r5	0022	Preset-speed frequency 5	Hz	0.1/0.01	*LL-UL*	0.0		
5r6	0023	Preset-speed frequency 6	Hz	0.1/0.01	*LL-UL*	0.0		
5r7	0024	Preset-speed frequency 7	Hz	0.1/0.01	*LL-UL*	0.0		
FPid	0025	Process input value of PID control	Hz	0.1/0.01	*F368 - F367*	0.0		6.24

Sub-table for *OLM* (0017):

Setting		Overload protection	OL stall
0	Standard motor	valid	invalid
1		valid	valid
2		invalid	invalid
3		invalid	valid
4	VF motor	valid	invalid
5		valid	valid
6		invalid	invalid
7		invalid	valid

*1: Default setting values vary depending on the setup menu setting. Refer to section 11.5.

*2: Default setting values vary depending on the capacity. Refer to section 11.4.

*8: These parameters can be changed to 0.01s unit by setting *F519= 1*.

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
ᴛ ɥP	0007	Default setting	-	-	0: - 1: 50Hz default setting 2: 60Hz default setting 3: Default setting 1 (Initialization) 4: Trip record clear 5: Cumulative operation time clear 6: Initialization of type information 7: Save user setting parameters 8. Load user setting parameters 9. Cumulative fan operation time record clears 10, 11: - 12: Number of starting clear 13: Default setting 2 (Complete initialization)	0		4.3.2
�5ᴇᴛ	0099	Checking the region setting * 5	-	-	0: Start setup menu 1: Japan (read only) 2: North America (read only) 3: Asia (read only) 4: Europe (read only)	*1		4.4
P�5ᴇL	0050	EASY key mode selection	-	-	0: Standard setting mode at power on 1: Easy setting mode at power on 2: Easy setting mode only	0		4.5
F ₁ - -	-	Extended parameter starting at 100	-	-	-	-	-	4.2.2
F ₂ - -	-	Extended parameter starting at 200	-	-	-	-	-	
F ₃ - -	-	Extended parameter starting at 300	-	-	-	-	-	
F ᵘ - -	-	Extended parameter starting at 400	-	-	-	-	-	
F ₅ - -	-	Extended parameter starting at 500	-	-	-	-	-	
F ₆ - -	-	Extended parameter starting at 600	-	-	-	-	-	
F ₇ - -	-	Extended parameter starting at 700	-	-	-	-	-	
F ₈ - -	-	Extended parameter starting at 800	-	-	-	-	-	
F ₉ - -	-	Extended parameter starting at 900	-	-	-	-	-	
ᴀ - - -	-	Extended parameter starting at A	-	-	-	-	-	
ᴄ - - -	-	Extended parameter starting at C	-	-	-	-	-	
ᴳ ʳ ᵁ	-	Automatic edit function	-	-	-	-	-	4.3.1

*1: Default setting values vary depending on the setup menu setting. Refer to section 11.5.

*5: Set "0" to activate the setup menu. Refer to section 11.5 about setting contents selected in setup menu.

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11.3   Extended parameters

- Input/output parameters 1

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F 100	0100	Low-speed signal output frequency	Hz	0.1/0.01	0.0-FH	0.0		6.5.1
F 101	0101	Speed reach setting frequency	Hz	0.1/0.01	0.0-FH	0.0		6.5.3
F 102	0102	Speed reach detection band	Hz	0.1/0.01	0.0-FH	2.5		6.5.2 6.5.3
F 104	0104	Always active function selection 1	-	-	0-153 *6	0 (No function)		6.7.1
F 105	0105	Priority selection (Both F and R are ON)	-	-	0: Reverse 1: Deceleration Stop	1		6.6.1
F 107	0107	Analog input terminal selection (VIB)	-	-	0: 0-+10V 1: -10-+10V	0		6.6.2 6.10.2 7.3
F 108	0108	Always active function selection 2	-	-	0-153 *6	0 (No function)		6.7.1
F 109	0109	Analog/logic input selection (VIA/VIB)	-	-	0: VIA - analog input VIB - analog input 1: VIA - analog input VIB - contact input 2: - 3: VIA - contact input (Sink) VIB - contact input 4: VIA - contact input (Source) VIB - contact input	0		6.6.3 6.7.2 6.10.2 7.2.1 7.3
F 110	0110	Always active function selection 3	-	-	0-153 *6	6 (ST)		6.7.1
F 111	0111	Input terminal selection 1A (F)	-	-	0-203 *6	2 (F)		6.7.2 7.2.1
F 112	0112	Input terminal selection 2A (R)	-	-		4 (R)		
F 113	0113	Input terminal selection 3A (RES)	-	-		8 (RES)		
F 114	0114	Input terminal selection 4A (S1)	-	-		10 (SS1)		
F 115	0115	Input terminal selection 5 (S2)	-	-		12 (SS2)		
F 116	0116	Input terminal selection 6 (S3)	-	-		14 (SS3)		
F 117	0117	Input terminal selection 7 (VIB)	-	-		16 (SS4)		
F 118	0118	Input terminal selection 8 (VIA)	-	-	8-55 *6	24 (AD2)		

*6: Refer to section 11.6 for details about input terminal function.

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F130	0130	Output terminal selection 1A (RY-RC)	-	-	0-255 *7	4 (LOW)		6.7.3 7.2.2
F131	0131	Output terminal selection 2A (OUT)	-	-		6 (RCH)		
F132	0132	Output terminal selection 3 (FL)	-	-		10 (FL)		
F137	0137	Output terminal selection 1B (RY-RC)	-	-		255 (always ON)		
F138	0138	Output terminal selection 2B (OUT)	-	-		255 (always ON)		
F139	0139	Output terminal logic selection (RY-RC, OUT)	-	-	0: F130 and F137 F131 and F138 1: F130 or F137 F131 and F138 2: F130 and F137 F131 or F138 3: F130 or F137 F131 or F138	0		
F144	0144	Input terminal response time	ms	1/1	1-1000	1		6.7.2 7.2.1
F146	0146	Logic input / pulse train input selection (S2)	-	-	0: Logic input 1: Pulse train input	0		6.7.2 6.10.5 7.2.1
F147	0147	Logic input / PTC input selection (S3)	-	-	0: Logic input 1: PTC input	0		2.3.2 6.7.2 6.29.16 7.2.1
F151	0151	Input terminal selection 1B (F)	-	-	0-203 *6	0		6.7.2 7.2.1
F152	0152	Input terminal selection 2B (R)	-	-		0		
F153	0153	Input terminal selection 3B (RES)	-	-		0		
F154	0154	Input terminal selection 4B (S1)	-	-		0		
F155	0155	Input terminal selection 1C (F)	-	-		0		
F156	0156	Input terminal selection 2C (R)	-	-		0		
F167	0167	Frequency command agreement detection range	Hz	0.1/0.01	0.0-FH	2.5		6.24

*6: Refer to section 11.6 for details about input terminal function.

*7: Refer to section 11.7 for details about output terminal function.

- Basic parameter 2

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Commun ication	Adjustment range	Default setting	User setting	Reference
F 170	0170	Base frequency 2	Hz	0.1/0.01	20.0-500.0	*1		6.8.1
F 171	0171	Base frequency voltage 2	V	1/0.1	50-330 (240V class) 50-660 (500V class)	*1		
F 172	0172	Torque boost value 2	%	0.1/0.1	0.0-30.0	*2		
F 173	0173	Motor electronic-thermal protection level 2	% (A)	1/1	10-100	100		5.6 6.8.1 6.29.1
F 185	0185	Stall prevention level 2	% (A)	1/1	10-199, 200 (disabled)	150		6.8.1 6.29.2
F 190	0190	V/f 5-point setting VF1 frequency	Hz	0.1/0.01	0.0-F H	0.0		6.3 6.9
F 191	0191	V/f 5-point setting VF1 voltage	%	0.1/0.01	0.0-125.0	0.0		
F 192	0192	V/f 5-point setting VF2 frequency	Hz	0.1/0.01	0.0-F H	0.0		
F 193	0193	V/f 5-point setting VF2 voltage	%	0.1/0.01	0.0-125.0	0.0		
F 194	0194	V/f 5-point setting VF3 frequency	Hz	0.1/0.01	0.0-F H	0.0		
F 195	0195	V/f 5-point setting VF3 voltage	%	0.1/0.01	0.0-125.0	0.0		
F 196	0196	V/f 5-point setting VF4 frequency	Hz	0.1/0.01	0.0-F H	0.0		
F 197	0197	V/f 5-point setting VF4 voltage	%	0.1/0.01	0.0-125.0	0.0		
F 198	0198	V/f 5-point setting VF5 frequency	Hz	0.1/0.01	0.0-F H	0.0		
F 199	0199	V/f 5-point setting VF5 voltage	%	0.1/0.01	0.0-125.0	0.0		

- Frequency parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Commun ication	Adjustment range	Default setting	User setting	Reference
F 200	0200	Frequency priority selection	-	-	0: F П O d (Switchable to F 2 O 7 by terminal input) 1: F П O d (Switchable to F 2 O 7 at 1.0Hz or less of designated frequency)	0		5.8 6.10.1
F 201	0201	VIA input point 1 setting	%	1/1	0-100	0		6.10.2 7.3
F 202	0202	VIA input point 1 frequency	Hz	0.1/0.01	0.0-500.0	0.0		
F 203	0203	VIA input point 2 setting	%	1/1	0-100	100		
F 204	0204	VIA input point 2 frequency	Hz	0.1/0.01	0.0-500.0	*1		
F 205	0205	VIA input point 1 rate	%	1/0.01	0-250	0		6.31
F 206	0206	VIA input point 2 rate	%	1/0.01	0-250	100		
F 207	0207	Frequency setting mode selection 2	-	-	0-14 (Same as F П O d)	1		5.8 6.10.1

*1: Default setting values vary depending on the setup menu setting. Refer to section 11.5.

*2: Default setting values vary depending on the capacity. Refer to section 11.4.

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F209	0209	Analog input filter	ms	1/1	2-1000	64		6.10.2 7.3
F210	0210	VIB input point 1 setting	%	1/1	-100-+100	0		
F211	0211	VIB input point 1 frequency	Hz	0.1/0.01	0.0-500.0	0.0		
F212	0212	VIB input point 2 setting	%	1/1	-100-+100	100		
F213	0213	VIB input point 2 frequency	Hz	0.1/0.01	0.0-500.0	*1		
F214	0214	VIB input point 1 rate	%	1/0.01	-250-+250	0		6.31 6.32
F215	0215	VIB input point 2 rate	%	1/0.01	-250-+250	100		
F216	0216	VIC input point 1 setting	%	1/1	0-100	20		6.10.2 7.3
F217	0217	VIC input point 1 frequency	Hz	0.1/0.01	0.0-500.0	0.0		
F218	0218	VIC input point 2 setting	%	1/1	0-100	100		
F219	0219	VIC input point 2 frequency	Hz	0.1/0.01	0.0-500.0	*1		
F220	0220	VIC input point 1 rate	%	1/0.01	0-250	0		6.31
F221	0221	VIC input point 2 rate	%	1/0.01	0-250	100		
F239	0239	Factory specific coefficient 2A	-	-	-	-		* 3
F240	0240	Starting frequency	Hz	0.1/0.01	0.1-10.0	0.5		6.11.1
F241	0241	Operation starting frequency	Hz	0.1/0.01	0.0-FH	0.0		6.11.2
F242	0242	Operation starting frequency hysteresis	Hz	0.1/0.01	0.0-FH	0.0		
F243	0243	Stop frequency setting	Hz	0.1/0.01	0.0: Same as $F240$ 0.1-30.0	0.0		6.11.1
F249	0249	PWM carrier frequency during DC braking	kHz	0.1/0.1	2.0-16.0	4.0		6.12.1
F250	0250	DC braking starting frequency	Hz	0.1/0.01	0.0-FH	0.0		
F251	0251	DC braking current	%(A)	1/1	0-100	50		
F252	0252	DC braking time	s	0.1/0.1	0.0-25.5	1.0		
F254	0254	Motor shaft fixing control	-	-	0: Disabled 1: Enabled (after DC braking)	0		6.12.2
F256	0256	Time limit for lower-limit frequency operation	s	0.1/0.1	0: Disabled 0.1-600.0	0.0		6.13
F257	0257	Factory specific coefficient 2B	-	-	-	-		* 3
F258	0258	Factory specific coefficient 2C	-	-	-	-		* 3
F259	0259	Lower limit frequency reach time limit at start-up	s	0.1/0.1	0.0: Disabled 0.1-600.0	0.0		6.13

*1: Default setting values vary depending on the setup menu setting. Refer to section 11.5.

*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F 2 6 0	0260	Jog run frequency	Hz	0.1/0.01	F 2 4 0 −20.0	5.0		6.14
F 2 6 1	0261	Jog run stopping pattern	-	-	0: Deceleration stop 1: Coast stop 2: DC braking stop	0		
F 2 6 2	0262	Panel jog run operation mode	-	-	0: Invalid 1: Valid	0		
F 2 6 4	0264	External logic input - UP response time	s	0.1/0.1	0.0-10.0	0.1		6.10.4
F 2 6 5	0265	External logic input - UP frequency steps	Hz	0.1/0.01	0.0-F H	0.1		
F 2 6 6	0266	External logic input - DOWN response time	s	0.1/0.1	0.0-10.0	0.1		
F 2 6 7	0267	External logic input - DOWN frequency steps	Hz	0.1/0.01	0.0-F H	0.1		
F 2 6 8	0268	Initial value of UP/DOWN frequency	Hz	0.1/0.01	L L - U L	0.0		
F 2 6 9	0269	Change of the initial value of UP/DOWN frequency	-	-	0: Not changed 1: Setting of F 2 6 8 changed when power is turned off	1		
F 2 7 0	0270	Jump frequency 1	Hz	0.1/0.01	0.0-F H	0.0		6.15
F 2 7 1	0271	Jumping width 1	Hz	0.1/0.01	0.0-30.0	0.0		
F 2 7 2	0272	Jump frequency 2	Hz	0.1/0.01	0.0-F H	0.0		
F 2 7 3	0273	Jumping width 2	Hz	0.1/0.01	0.0-30.0	0.0		
F 2 7 4	0274	Jump frequency 3	Hz	0.1/0.01	0.0-F H	0.0		
F 2 7 5	0275	Jumping width 3	Hz	0.1/0.01	0.0-30.0	0.0		
F 2 8 7	0287	Preset-speed frequency 8	Hz	0.1/0.01	L L-U L	0.0		5.7
F 2 8 8	0288	Preset-speed frequency 9	Hz	0.1/0.01	L L-U L	0.0		
F 2 8 9	0289	Preset-speed frequency 10	Hz	0.1/0.01	L L-U L	0.0		
F 2 9 0	0290	Preset-speed frequency 11	Hz	0.1/0.01	L L-U L	0.0		
F 2 9 1	0291	Preset-speed frequency 12	Hz	0.1/0.01	L L-U L	0.0		
F 2 9 2	0292	Preset-speed frequency 13	Hz	0.1/0.01	L L-U L	0.0		
F 2 9 3	0293	Preset-speed frequency 14	Hz	0.1/0.01	L L-U L	0.0		
F 2 9 4	0294	Preset-speed frequency 15	Hz	0.1/0.01	L L-U L	0.0		5.7 6.30
F 2 9 5	0295	Bumpless operation selection	-	-	0: Disabled 1: Enabled	0		6.16
F 2 9 7	0297	Low voltage operation upper limit frequency	Hz	0.1/0.01	0.0: Disabled 0.1-30.0	0.0		6.17
F 2 9 8	0298	Low voltage operation DC voltage	Vdc	1/0.1	240V class: 72(96)-168 *11 500V class: 72(120)-336 *11	120		

*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

*11: 240V class : 4.0kW or less : 72 to 168V, 5.5kW or more : 96 to 168V.

500V class : 4.0kW or less : 72 to 336V, 5.5kW or more : 120 to 336V.

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• Operation mode parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F300	0300	PWM carrier frequency	kHz	0.1/0.1	2.0 -16.0	12.0		6.18
F301	0301	Auto-restart control selection	-	-	0: Disabled 1: At auto-restart after momentary stop 2: At ST terminal off and on 3: 1+2 4: At start-up	0		5.9
F302	0302	Regenerative power ride-through control (Deceleration stop)	-	-	0: Disabled 1: Regenerative power ride-through control 2: Deceleration stop during power failure 3: Synchronized acceleration / deceleration (signal) 4: Synchronized acceleration / deceleration (signal + power failure)	0		6.19.2
F303	0303	Retry selection (number of times)	Times	1/1	0: Disabled 1-10	0		6.19.3
F304	0304	Dynamic braking selection	-	-	0: Disabled 1: Enabled, Resistor overload protection enabled 2: Enabled 3: Enabled, Resistor overload protection enabled (At ST terminal on) 4: Enabled (At ST terminal on)	0		6.19.4
F305	0305	Overvoltage limit operation (Deceleration stop mode selection)	-	-	0: Enabled 1: Disabled 2: Enabled (Quick deceleration control) 3: Enabled (Dynamic quick deceleration control)	2		6.19.5
F307	0307	Supply voltage correction (output voltage limitation)	-	-	0: Supply voltage uncorrected, output voltage limited 1: Supply voltage corrected, output voltage limited 2: Supply voltage uncorrected, output voltage unlimited 3: Supply voltage corrected, output voltage unlimited	*1		6.19.6
F308	0308	Dynamic braking resistance	Ω	0.1/0.1	1.0-1000	*2		6.19.4
F309	0309	Dynamic braking resistor capacity	kW	0.01/0.01	0.01-30.00	*2		6.19.4
F310	0310	Factory specific coefficient 3A	-	-	-	-		* 3
F311	0311	Reverse-run prohibition	-	-	0: Forward/reverse run permitted 1: Reverse run prohibited 2: Forward run prohibited	0		6.19.7
F312	0312	Random mode	-	-	0: Disabled 1: Random mode 1 2: Random mode 2 3: Random mode 3	0		6.18
F314	0314	Factory specific coefficient 3B	-	-	-	-		* 3

*1: Default setting values vary depending on the setup menu setting. Refer to section 11.5.

*2: Default setting values vary depending on the capacity. Refer to section 11.4.

*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F316	0316	PWM carrier frequency control mode selection	-	-	0: Carrier frequency without reduction 1: Carrier frequency with automatic reduction 2: Carrier frequency without reduction Support for 500V models 3: Carrier frequency with automatic reduction Support for 500V models	1		6.18
F317	0317	Synchronized deceleration time (time elapsed between start of deceleration to stop)	s	0.1/0.01	0.0-3600 (360.0)	2.0		6.19.2
F318	0318	Synchronized acceleration time (time elapsed between start of acceleration to achievement of specified speed)	s	0.1/0.01	0.0-3600 (360.0)	2.0		
F319	0319	Regenerative over-excitation upper limit	%	1/1	100-160	*1		6.19.5
F320	0320	Droop gain	%	0.1/0.1	0.0-100.0	0.0		6.20
F323	0323	Droop insensitive torque band	%	1/1	0-100	10		
F324	0324	Droop output filter	-	0.1/0.1	0.1-200.0	100.0		
F325	0325	Brake releasing waiting time	s	0.01/0.01	0.00-2.50	0.00		6.22.1
F326	0326	Brake releasing small current detection level	%	1/1	0-100	0		
F327	0327	Factory specific coefficient 3C	-	-	-	-		* 3
F328	0328	Light-load high-speed operation selection	-	-	0:Disabled 1:High-speed operation speed set automatically (Power running at F command: Increase) 2:High-speed operation speed set automatically (Power running at R command: Increase) 3:High-speed operation speed set with F330 (Power running at F command: Increase) 4:High-speed operation speed set with F330 (Power running at R command: Increase)	0		6.21
F329	0329	Light-load high-speed learning function	-	-	0:No learning 1:Forward run learning 2:Reverse run learning	0		
F330	0330	Automatic light-load high-speed operation frequency	Hz	0.1/0.01	30.0-UL	*1		
F331	0331	Light-load high-speed operation switching lower limit frequency	Hz	0.1/0.01	5.0-UL	40.0		
F332	0332	Light-load high-speed operation load waiting time	s	0.1/0.1	0.0-10.0	0.5		

*1: Default setting values vary depending on the setup menu setting. Refer to section 11.5.

*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F333	0333	Light-load high-speed operation load detection time	s	0.1/0.1	0.0-10.0	1.0		6.21
F334	0334	Light-load high-speed operation heavy load detection time	s	0.1/0.1	0.0-10.0	0.5		
F335	0335	Switching load torque during power running	%	1/0.01	-250- +250	50		
F336	0336	Heavy-load torque during power running	%	1/0.01	-250- +250	100		
F337	0337	Heavy-load torque during constant power running	%	1/0.01	-250- +250	50		
F338	0338	Switching load torque during regenerative braking	%	1/0.01	-250- +250	50		
F339	0339	Factory specific coefficient 3D	-	-	-	-		* 3
F340	0340	Creeping time 1	s	0.01/0.01	0.00-10.00	0.00		6.22.1
F341	0341	Braking mode selection	-	-	0: Disabled 1: Forward winding up 2: Reverse winding up 3: Horizontal operation	0		
F342	0342	Load portion torque input selection	-	-	0: Disabled 1: Terminal VIA 2: Terminal VIB 3: Terminal VIC 4: F343	4		
F343	0343	Hoisting torque bias input (valid only when F342=4)	%	1/0.01	-250- +250	100		
F344	0344	Lowering torque bias multiplier	%	1/0.01	0-100	100		
F345	0345	Brake release time	s	0.01/0.01	0.00-10.00	0.05		
F346	0346	Creeping frequency	Hz	0.1/0.01	F240 -20.0	3.0		
F347	0347	Creeping time 2	s	0.01/0.01	0.00-10.00	0.10		
F348	0348	Braking time learning function	-	1/1	0:Disabled 1: Learning (0 after adjustment)	0		
F349	0349	Acceleration/deceleration suspend function	-	1/1	0:Disabled 1:Parameter setting 2:Terminal input	0		6.23
F350	0350	Acceleration suspend frequency	Hz	0.1/0.01	0.0-FH	0.0		
F351	0351	Acceleration suspend time	s	0.1/0.1	0.0-10.0	0.0		
F352	0352	Deceleration suspend frequency	Hz	0.1/0.01	0.0-FH	0.0		
F353	0353	Deceleration suspend time	s	0.1/0.1	0.0-10.0	0.0		
F359	0359	PID control waiting time	s	1/1	0-2400	0		6.24
F360	0360	PID control	-	-	0: Disabled 1: Process type PID control 2: Speed type PID control	0		

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F361	0361	Delay filter	s	0.1/0.1	0.0-25.0	0.1		6.24
F362	0362	Proportional gain	-	0.01/0.01	0.01-100.0	0.30		
F363	0363	Integral gain	s^{-1}	0.01/0.01	0.01-100.0	0.20		
F366	0366	Differential gain	s	0.01/0.01	0.00-2.55	0.00		
F367	0367	Process upper limit	Hz	0.1/0.01	0.0-FH	*1		
F368	0368	Process lower limit	Hz	0.1/0.01	0.0-F367	0.0		
F369	0369	PID control feedback signal selection	-	-	0: Disabled 1: Terminal VIA 2: Terminal VIB 3: Terminal VIC 4 to 6: -	0		
F372	0372	Process increasing rate (speed type PID control)	s	0.1/0.1	0.1-600.0	10.0		
F373	0373	Process decreasing rate (speed type PID control)	s	0.1/0.1	0.1-600.0	10.0		
F375	0375	Factory specific coefficient 3E	-	-	-	-		* 3
F376	0376	Factory specific coefficient 3F	-	-	-	-		
F378	0378	Number of pulse train input	pps	1/1	10-500	25		6.10.5
F380	0380	PID forward/reverse characteristics selection	-	-	0: Forward 1: Reverse	0		6.24
F382	0382	Hit and stop control	-	-	0: Disabled 1: Enabled 2: -	0		6.22.2
F383	0383	Hit and stop control frequency	Hz	0.1/0.01	0.1-30.0	5.0		
F384	0384	Factory specific coefficient 3G	-	-	-	-		* 3
F385	0385	Factory specific coefficient 3H	-	-	-	-		
F386	0386	Factory specific coefficient 3I	-	-	-	-		
F389	0389	PID control reference signal selection	-	-	0: FMOd/F207 selected 1: Terminal VIA 2: Terminal VIB 3: FPId 4: RS485 communication 5: UP/DOWN from external logic input 6: CANopen communication 7: Communication option 8: Terminal VIC 9, 10: - 11: Pulse train input	0		6.24
F390	0390	Factory specific coefficient 3J	-	-	-	-		* 3
F391	0391	Hysteresis for lower-limit frequency operation	Hz	0.1/0.01	0.0-UL	0.2		6.13
F394	0394	Factory specific coefficient 3K	-	-	-	-		* 3

*1: Default setting values vary depending on the setup menu setting. Refer to section 11.5.

*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

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- Torque boost parameters 1

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F400	0400	Auto-tuning	-	-	0: Auto-tuning disabled	0		6.25
					1: Initialization of F402 (after execution : 0)			
					2: Auto-tuning executed (after execution: 0)			
					3: -			
					4: Motor constant auto calculation (after execution: 0)			
					5: 4+2 (after execution: 0)			
F401	0401	Slip frequency gain	%	1/1	0-250	70		
F402	0402	Automatic torque boost value	%	0.1/0.1	0.1-30.0	* 2		
F405	0405	Motor rated capacity	kW	0.01/0.01	0.01-22.00	* 2		
F412	0412	Motor specific coefficient 1	-	-	-	-		* 4
F415	0415	Motor rated current	A	0.1/0.1	0.1-100.0	* 2		6.25
F416	0416	Motor no-load current	%	1/1	10-90	* 2		
F417	0417	Motor rated speed	min-1	1/1	100-64000	*1		
F441	0441	Power running torque limit 1 level	%	1/0.01	0-249%, 250:Disabled	250		6.26.1
F443	0443	Regenerative braking torque limit 1 level	%	1/0.01	0-249%, 250:Disabled	250		
F444	0444	Power running torque limit 2 level	%	1/0.01	0-249%, 250:Disabled	250		
F445	0445	Regenerative braking torque limit 2 level	%	1/0.01	0-249%, 250:Disabled	250		
F451	0451	Acceleration/deceleration operation after torque limit	-	1/1	0: In sync with acceleration / deceleration 1: In sync with min. time	0		6.26.2
F452	0452	Power running stall continuous trip detection time	s	0.01/0.01	0.00-10.00	0.00		6.26.3
F454	0454	Constant output zone torque limit selection	-	-	0:Constant output limit 1:Constant torque limit	0		6.26.1
F458	0458	Motor specific coefficient 2	-	-	-	-		* 4
F459	0459	Load inertia moment ratio	Times	0.1/0.1	0.1-100.0	1.0		6.25
F460	0460	Motor specific coefficient 3	-	-	-	-		* 4
F461	0461	Motor specific coefficient 4	-	-	-	-		
F462	0462	Speed reference filter coefficient	-	-	0-100	35		6.25
F467	0467	Motor specific coefficient 5	-	-	-	-		* 4

*1: Default setting values vary depending on the setup menu setting. Refer to section 11.5.

*2: Default setting values vary depending on the capacity. Refer to section 11.4.

*4: Motor specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

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- Input/output parameters 2

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F470	0470	VIA input bias	-	1/1	0-255	128		6.10.3
F471	0471	VIA input gain	-	1/1	0-255	128		
F472	0472	VIB input bias	-	1/1	0-255	128		
F473	0473	VIB input gain	-	1/1	0-255	128		
F474	0474	VIC input bias	-	1/1	0-255	128		
F475	0475	VIC input gain	-	1/1	0-255	128		

- Torque boost parameters 2

Title	Communications No.	Function	Unit	Minimum setting unit Panel/Communications	Adjustment range	Default setting	User setting	Reference
F480	0480	Motor specific coefficient 6	-	-	-	-		* 4
F485	0485	Motor specific coefficient 7	-	-	-	-		
F490	0490	Motor specific coefficient 8	-	-	-	-		
F495	0495	Motor specific coefficient 9	-	-	-	-		
F499	0499	Motor specific coefficient 10	-	-	-	-		

*4: Motor specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

- Acceleration/deceleration time parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F500	0500	Acceleration time 2	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		6.27.2
F501	0501	Deceleration time 2	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		
F502	0502	Acceleration/deceleration 1 pattern	-	-	0: Linear 1: S-pattern 1 2: S-pattern 2	0		6.27.1
F503	0503	Acceleration/deceleration 2 pattern	-	-		0		6.27.2
F504	0504	Acceleration/deceleration selection (1, 2 , 3) (Panel keypad)	-	-	1: Acceleration/deceleration 1 2: Acceleration/deceleration 2 3: Acceleration/deceleration 3	1		
F505	0505	Acceleration/deceleration 1 and 2 switching frequency	Hz	0.1/0.01	0.0 (disabled) 0.1-UL	0.0		
F506	0506	S-pattern lower-limit adjustment amount	%	1/1	0-50	10		6.27.1
F507	0507	S-pattern upper-limit adjustment amount	%	1/1	0-50	10		
F510	0510	Acceleration time 3	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		6.27.2

*8: These parameters can be changed to 0.01s unit by setting F519= 1.

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F511	0511	Deceleration time 3	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		6.27.2
F512	0512	Acceleration/deceleration 3 pattern	-	-	0: Linear 1: S-pattern 1 2: S-pattern 2	0		
F513	0513	Acceleration/deceleration 2 and 3 switching frequency	Hz	0.1/0.01	0.0 (disabled) 0.1-UL	0.0		
F515	0515	Deceleration time at emergency stop	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		6.29.4
F519	0519	Setting of acceleration/deceleration time unit	-	-	0: - 1: 0.01s unit (after execution: 0) 2: 0.1s unit (after execution: 0)	0		5.2 6.27.2
F590	0590	Shock monitoring	-	-	0: Disabled 1: Current detection 2: Torque detection	0		6.28
F591	0591	Shock monitoring trip/alarm selection	-	-	0: Alarm only 1: Tripping	0		
F592	0592	Shock monitoring detection direction selection	-	-	0: Over-current / torque detection 1: Low-current / torque detection	0		
F593	0593	Shock monitoring detection level	%	1/1	0-250	150		
F595	0595	Shock monitoring detection time	s	0.1/0.1	0.0-10.0	0.5		
F596	0596	Shock monitoring detection hysteresis	%	1/1	0-100	10		
F597	0597	Shock monitoring detection start waiting time	s	0.1/0.1	0.0-300.0	0.0		
F598	0598	Shock monitoring detection action selection	-	-	0: During operation 1: During operation (except acceleration / deceleration)	0		

*8: These parameters can be changed to 0.01s unit by setting F519= 1.

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- **Protection parameters**

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F601	0601	Stall prevention level 1	% (A)	1/1	10-199, 200 (disabled)	150		6.29.2
F602	0602	Inverter trip retention selection	-	-	0: Cleared with power off 1: Retained with power off	0		6.29.3
F603	0603	Emergency stop selection	-	-	0: Coast stop 1: Deceleration stop 2: Emergency DC braking 3: Deceleration stop (F515) 4: Quick deceleration stop 5: Dynamic quick deceleration stop	0		6.29.4
F604	0604	DC braking time during emergency stop	s	0.1/0.1	0.0-20.0	1.0		
F605	0605	Output phase failure detection selection	-	-	0: Disabled 1: At start-up (only one time after power on) 2: At start-up (each time) 3: During operation 4: At start-up + during operation 5: Detection of cutoff on output side	0		6.29.5
F607	0607	Motor 150% overload detection time	s	1/1	10-2400	300		5.6 6.29.1
F608	0608	Input phase failure detection selection	-	-	0: Disabled 1: Enabled	1		6.29.6
F609	0609	Small current detection hysteresis	%	1/1	1-20	10		6.29.7
F610	0610	Small current trip/alarm selection	-	-	0: Alarm only 1: Tripping	0		
F611	0611	Small current detection current	% (A)	1/1	0-150	0		
F612	0612	Small current detection time	s	1/1	0-255	0		
F613	0613	Detection of output short-circuit at start-up	-	-	0: Each time (standard pulse) 1: Only one time after power on (standard pulse) 2: Each time (short pulse) 3: Only one time after power on (short pulse)	0		6.29.8
F614	0614	Ground fault detection selection	-	-	0: Disabled 1: Enabled	1		6.299
F615	0615	Over-torque trip/alarm selection	-	-	0: Alarm only 1: Tripping	0		6.29.10
F616	0616	Over-torque detection level	%	1/0.01	0 (disabled) 1-250	150		
F618	0618	Over-torque detection time	s	0.1/0.1	0.0-10.0	0.5		
F619	0619	Over-torque detection hysteresis	%	1/1	0-100	10		
F620	0620	Cooling fan ON/OFF control	-	-	0: ON/OFF control 1: Always ON	0		6.29.11
F621	0621	Cumulative operation time alarm setting	100 hours	0.1/0.1 (=10 hours)	0.0-999.0	876.0		6.29.12
F625	0625	Factory specific coefficient 6A	-	-	-	-		*3
F626	0626	Over-voltage stall protection level	%	1/1	100-150	*2		6.19.4 6.19.5

*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Commun ication	Adjustment range	Default setting	User setting	Reference
F627	0627	Undervoltage trip/alarm selection	-	-	0: Alarm only(detection level 60% or less) 1: Tripping (detection level 60% or less) 2: Alarm only(detection level 50% or less, inputAC reactor required) 3: -	0		6.29.13
F629	0629	Factory specific coefficient 6B	-	-	-	-		* 3
F631	0631	Inverter overload detection method	-	-	0: 150%-60s (120%-60s) 1: Temperature estimation	0		5.6
F632	0632	Electronic-thermal memory	-	-	0: Disabled (tHr, F173) 1: Enabled (tHr, F173) 2: Disabled (tHr) 3: Enabled (tHr)	0		5.6 6.29.1
F633	0633	Analog input break detection level (VIC)	%	1/1	0: Disabled, 1-100	0		6.29.14
F634	0634	Annual average ambient temperature (parts replacement alarms)	-	-	1: -10 to +10°C 2: 11-20°C 3: 21-30°C 4: 31-40°C 5: 41-50°C 6: 51-60°C	3		6.29.15
F643	0643	Factory specific coefficient 6C	-	-	-	-		* 3
F644	0644	Operation selection of analog input break detection (VIC)	-	-	0: Tripping 1: Alarm only (Coast stop) 2: Alarm only (F649 frequency) 3: Alarm only (Maintain running) 4: Alarm only (Deceleration stop)	0		6.29.14
F645	0645	PTC thermal selection	-	-	1: Tripping 2: Alarm only	1		6.29.16
F646	0646	PTC detection resistor value	Ω	1/1	100-9999	3000		
F648	0648	Number of starting alarm	10000 times	0.1/0.1	0.0-999.0	999.0		6.29.17
F649	0649	Fallback frequency	Hz	0.1/0.01	LL-UL	0.0		6.29.14
F650	0650	Forced fire-speed control selection	-	-	0: Disabled 1: Enabled	0		6.30
F656	0656	Factory specific coefficient 6D	-	-	-	-		* 3
F657	0657	Overload alarm level	%	1/1	10-100	50		5.6
F660	0660	Override addition input selection	-	-	0: Disabled 1: Terminal VIA 2: Terminal VIB 3: Terminal VIC 4: FC	0		6.31
F661	0661	Override multiplication input selection	-	-	0: Disabled 1: Terminal VIA 2: Terminal VIB 3: Terminal VIC 4: F729	0		
F663	0663	Analog input terminal function selection (VIB)	-	-	0: Frequency command 1: Acceleration/deceleration time 2: Upper limit frequency 3, 4: - 5: Torque boost value 6: Stall prevention level 7: Motor electronic-thermal protection level 8 to 10: - 11: Base frequency	0		6.32

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*2: Default setting values vary depending on the capacity. Refer to section 11.4.

*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

- Output parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F667	0667	Integral input power pulse output unit	-	-	0: 0.1kWh 1: 1kWh 2: 10kWh 3: 100kWh	1		6.33.1
F668	0668	Integral input power pulse output width	s	0.1/0.1	0.1-1.0	0.1		
F669	0669	Logic output/pulse train output selection (OUT)	-	-	0: Logic output 1: Pulse train output	0		6.33.2

F676	0676	Pulse train output function selection (OUT)	-	-	0: Output frequency
					1: Output current
					2: Frequency command value
					3: Input voltage (DC detection)
					4: Output voltage (command value)
					5: Input power
					6: Output power
					7: Torque
					8: -
					9: Motor cumulative load factor
					10: Inverter cumulative load factor
					11: PBR (Braking resistor) cumulative load factor
					12: Stator frequency
					13: VIA input value
					14: VIB input value
					15: Fixed output 1
					   (output current 100% equivalent)
					16: Fixed output 2
					   (output current 50% equivalent)
					17: Fixed output 3
					   (Other than the output current)
					18: Communication data
					19: -
					20: VIC input value
					21, 22: -
					23: PID feedback value
						0		

F677	0677	Maximum numbers of pulse train output	kpps	0.01/0.01	0.50-2.00	0.80		
F678	0678	Pulse train output filter	ms	1/1	2-1000	64		
F679	0679	Pulse train input filter	ms	1/1	2-1000	2		6.10.5
F681	0681	Analog output signal selection	-	-	0: Meter option (0 to 1 mA) 1: Current (0 to 20 mA) output 2: Voltage (0 to 10 V) output	0		5.1 6.33.3
F684	0684	Analog output filter	ms	1/1	2-1000	2		
F691	0691	Inclination characteristic of analog output	-	-	0: Negative inclination (downward slope) 1: Positive inclination (upward slope)	1		
F692	0692	Analog output bias	%	0.1/0.1	-1.0-+100.0	0.0		
F693	0693	Factory specific coefficient 6E	-	-	-	-		* 3

*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

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● Operation panel parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F700	0700	Parameter protection selection	-	-	0: Permitted 1: Writing prohibited (Panel and extension panel) 2: Writing prohibited (1 + RS485 communication) 3: Reading prohibited (Panel and extension panel) 4: Reading prohibited (3 + RS485 communication)	0		6.34.1
F701	0701	Current/voltage unit selection	-	-	0: % 1: A (ampere)/V (volt)	0		5.10.1
F702	0702	Frequency free unit display magnification	Times	0.01/0.01	0.00: Disabled (display of frequency) 0.01-200.0	0.00		5.10.2
F703	0703	Frequency free unit coverage selection	-	1/1	0: All frequencies display 1: PID frequencies display	0		
F705	0705	Inclination characteristic of free unit display	-	1/1	0: Negative inclination (downward slope) 1: Positive inclination (upward slope)	1		
F706	0706	Free unit display bias	Hz	0.1/0.01	0.00-F H	0.00		
F707	0707	Free step 1 (1-step rotation of setting dial)	Hz	0.01/0.01	0.00: Automatic 0.01-F H	0.00		6.34.4
F708	0708	Free step 2 (panel display)	-	-	0: Automatic 1-255	0		
F709	0709	Standard monitor hold function	-	-	0: Real time 1: Peak hold 2: Minimum hold	0		6.34.7

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F710	0710	Initial panel display selection	-	-	0: Output frequency (Hz/free unit) 1: Output current (%/A) 2: Frequency command value (Hz/free unit) 3: Input voltage (DC detection) (%/V) 4: Output voltage (command value) (%/V) 5: Input power (kW) 6: Output power (kW) 7: Torque (%) 8: - 9: Motor cumulative load factor 10: Inverter cumulative load factor 11: PBR (Braking resistor) cumulative load factor 12: Stator frequency (Hz/free unit) 13: VIA input value (%) 14: VIB input value (%) 15 to 17: - 18: Arbitrary code from communication 19: - 20: VIC input value (%) 21: Pulse train input value (pps) 22: - 23: PID feedback value (Hz/free unit) 24: Integral input power (kWh) 25: Integral output power (kWh) 26: Motor load factor (%) 27: Inverter load factor (%) 28: Inverter rated current (A) 29: FM output value (%) 30: Pulse train output value (pps) 31: Cumulative power on time (100 hours) 32: Cumulative fan operation time (100 hours) 33: Cumulative operation time (100 hours) 34: Number of starting (10000 times) 35: Forward number of starting (10000 times) 36: Reverse number of starting (10000 times) 37: Number of trip (times) 38, 39: - 40: Inverter rated current (Carrier frequency corrected) 41 to 51: - 52: Frequency command value / output frequency (Hz/free unit)	0		6.34.5 8.2.1 8.3.2

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
$F711$	0711	Status monitor 1	-	-	0: Output frequency (Hz/free unit) 1: Output current (%/A) 2: Frequency command value (Hz/free unit) 3: Input voltage (DC detection) (%/V) 4: Output voltage (command value) (%/V)	2		6.34.6 8.2.1 8.3.2
$F712$	0712	Status monitor 2	-	-	5: Input power (kW) 6: Output power (kW) 7: Torque (%) 8: - 9: Motor cumulative load factor	1		
$F713$	0713	Status monitor 3	-	-	10: Inverter cumulative load factor 11: PBR (Braking resistor) cumulative load factor 12: Stator frequency (Hz/free unit) 13: VIA input value (%) 14: VIB input value (%)	3		
$F714$	0714	Status monitor 4	-	-	15 to 17: - 18: Arbitrary code from communication 19: - 20: VIC input value (%) 21: Pulse train input value (pps) 22: -	4		
$F715$	0715	Status monitor 5	-	-	23: PID feedback value (Hz/free unit) 24: Integral input power (kWh) 25: Integral output power (kWh) 26: Motor load factor (%) 27: Inverter load factor (%) 28: Inverter rated current (A)	5		
$F716$	0716	Status monitor 6	-	-	29: FM output value (%) 30: Pulse train output value (pps) 31: Cumulative power on time (100 hours) 32: Cumulative fan operation time (100 hours)	6		
$F717$	0717	Status monitor 7	-	-	33: Cumulative operation time (100 hours) 34: Number of starting (10000 times) 35: Forward number of starting (10000 times)	27		
$F718$	0718	Status monitor 8	-	-	36: Reverse number of starting (10000 times) 37: Number of trip (times) 38, 39: - 40: Inverter rated current (Carrier frequency corrected) 41 to 51: - 52: Frequency command value / output frequency (Hz/free unit)	0		
$F719$	0719	Selection of operation command clear	-	-	0: Clear at coast stop and retained at OFF. 1: Retained at coast stop and OFF. 2: Clear at coast stop and OFF. 3: 2+ clear when $Cñod$ is changed	1		6.34.8
$F720$	0720	Initial extension panel display selection	-	-	0-52 (Same as $F710$)	0		6. 34.5
$F721$	0721	Panel stop pattern	-	-	0: Deceleration stop 1: Coast stop	0		6. 34.9
$F724$	0724	Operation frequency setting target by setting dial	-	-	0: Panel frequency (FC) 1: Panel frequency (FC) + Preset speed frequency	0		5.7

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F729	0729	Operation panel override multiplication gain	%	1/1	-100-+100	0		6.31
F730	0730	Panel frequency setting prohibition (FC)	-	-	0: Permitted 1: Prohibited	0		6.34.1
F731	0731	Disconnection detection of extension panel	-	-	0: Permitted 1: Prohibited	0		
F732	0732	Local/remote key prohibition of extension panel	-	-	0: Permitted 1: Prohibited	1		6.16 6.34.1
F733	0733	Panel operation prohibition (RUN key)	-	-	0: Permitted 1: Prohibited	0		6.34.1
F734	0734	Panel emergency stop operation prohibition	-	-	0: Permitted 1: Prohibited	0		
F735	0735	Panel reset operation prohibition	-	-	0: Permitted 1: Prohibited	0		
F736	0736	CПOd/FПOd change prohibition during operation	-	-	0: Permitted 1: Prohibited	1		
F737	0737	All key operation prohibition	-	-	0: Permitted 1: Prohibited	0		
F738	0738	Password setting (F700)	-	-	0: Password unset 1-9998 9999: Password set	0		
F739	0739	Password verification	-	-	0: Password unset 1-9998 9999: Password set	0		
F740	0740	Trace selection	-	-	0: Disabled 1: At tripping 2: At triggering 3: 1+2	1		6.35
F741	0741	Trace cycle	-	-	0: 4ms 1: 20ms 2: 100ms 3: 1s 4: 10s	2		
F742	0742	Trace data 1	-	-	0-42	0		
F743	0743	Trace data 2	-	-		1		
F744	0744	Trace data 3	-	-		2		
F745	0745	Trace data 4	-	-		3		
F746	0746	Status monitor filter	ms	1/1	8-1000	200		6.34.7
F748	0748	Integrating wattmeter retention selection	-	-	0: Disabled 1: Enabled	0		6.36
F749	0749	Integrating wattmeter display unit selection	-	-	0:1=1kWh 1:1=10kWh 2:1=100kWh 3:1=1000kWh 4:1=10000kWh	*2		

*2: Default setting values vary depending on the capacity. Refer to section 11.4.

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Commun ication	Adjustment range	Default setting	User setting	Reference
F750	0750	EASY key function selection	-	-	0: Easy / standard setting mode switching function 1: Shortcut key 2: Local / remote key 3: Monitor peak / minimum hold trigger 4: - 5: -	0		4.5 6.16 6.37
F751	0751	Easy setting mode parameter 1	-	-		3 (CMod)		4.5 6.37
F752	0752	Easy setting mode parameter 2	-	-		4 (FMod)		
F753	0753	Easy setting mode parameter 3	-	-		9 (ACC)		
F754	0754	Easy setting mode parameter 4	-	-		10 (dEC)		
F755	0755	Easy setting mode parameter 5	-	-		12 (UL)		
F756	0756	Easy setting mode parameter 6	-	-		13 (LL)		
F757	0757	Easy setting mode parameter 7	-	-		600 (tHr)		
F758	0758	Easy setting mode parameter 8	-	-		6 (FM)		
F759	0759	Easy setting mode parameter 9	-	-		999		
F760	0760	Easy setting mode parameter 10	-	-		999		
F761	0761	Easy setting mode parameter 11	-	-		999		
F762	0762	Easy setting mode parameter 12	-	-		999		
F763	0763	Easy setting mode parameter 13	-	-		999		
F764	0764	Easy setting mode parameter 14	-	-	0-2999 (Set by communication number)	999		
F765	0765	Easy setting mode parameter 15	-	-		999		
F766	0766	Easy setting mode parameter 16	-	-		999		
F767	0767	Easy setting mode parameter 17	-	-		999		
F768	0768	Easy setting mode parameter 18	-	-		999		
F769	0769	Easy setting mode parameter 19	-	-		999		
F770	0770	Easy setting mode parameter 20	-	-		999		
F771	0771	Easy setting mode parameter 21	-	-		999		
F772	0772	Easy setting mode parameter 22	-	-		999		
F773	0773	Easy setting mode parameter 23	-	-		999		
F774	0774	Easy setting mode parameter 24	-	-		999		
F775	0775	Easy setting mode parameter 25	-	-		999		
F776	0776	Easy setting mode parameter 26	-	-		999		
F777	0777	Easy setting mode parameter 27	-	-		999		

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F778	0778	Easy setting mode parameter 28	-	-	0-2999 (Set by communication number)	999		4.5 6.37
F779	0779	Easy setting mode parameter 29	-	-		999		
F780	0780	Easy setting mode parameter 30	-	-		999		
F781	0781	Easy setting mode parameter 31	-	-		701 (F701)		
F782	0782	Easy setting mode parameter 32	-	-		50 (PSEL)		
F790	0790	Panel display selection at power on	-	-	0: HELLO 1: F791 to F794 2, 3: -	0		6.34.10
F791	0791	1st and 2nd characters of F790	hex	-	0-FFFF	2d2d		
F792	0792	3rd and 4th characters of F790	hex	-	0-FFFF	2d2d		
F793	0793	5th and 6th characters of F790	hex	-	0-FFFF	2d2d		
F794	0794	7th and 8th characters of F790	hex	-	0-FFFF	2d2d		
F799	0799	Factory specific coefficient 7A	-	-	-	-		*3

*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

- ## Communication parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F800	0800	Baud rate	-	-	3: 9600bps 4: 19200bps 5: 38400bps	4		6.38.1
F801	0801	Parity	-	-	0: No parity 1: Even parity 2: Odd parity	1		
F802	0802	Inverter number	-	1/1	0-247	0		
F803	0803	Communication time-out time	s	0.1/0.1	0.0: Disabled, 0.1-100.0	0.0		
F804	0804	Communication time-out action	-	-	0: Alarm only 1: Trip (Coast stop) 2: Trip (Deceleration stop)	0		
F805	0805	Communication waiting time	s	0.01/0.01	0.00-2.00	0.00		
F806	0806	Setting of master and slave for communication between inverters	-	-	0: Slave (0 Hz command issued in case the master inverter fails) 1: Slave (Operation continued in case the master inverter fails) 2: Slave (Emergency stop tripping in case the master inverter fails) 3: Master (transmission of frequency commands) 4: Master (transmission of output frequency signals)	0		
F808	0808	Communication time-out detection condition	-	-	0: Valid at any time 1: Communication selection of FMOd or CMOd 2: 1 + during operation	1		

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F810	0810	Communication command point selection	-	1/1	0: Disabled 1: Enabled	0		6.10.2 6.38.1
F811	0811	Communication command point 1 setting	%	1/1	0-100	0		
F812	0812	Communication command point 1 frequency	Hz	0.1/0.01	0.0-FH	0.0		
F813	0813	Communication command point 2 setting	%	1/1	0-100	100		
F814	0814	Communication command point 2 frequency	Hz	0.1/0.01	0.0-FH	*1		
F829	0829	Selection of communication protocol	-	-	0: Toshiba inverter protocol 1: Modbus RTU protocol	0		6.38.1
F856	0856	Number of motor poles for communication	-	-	1: 2 poles 2: 4 poles 3: 6 poles 4: 8 poles 5: 10 poles 6: 12 poles 7: 14 poles 8: 16 poles	2		
F870	0870	Block write data 1	-	-	0: No selection 1: Communication command 1 2: Communication command 2 3: Frequency command value 4: Output data on the terminal block 5: FM analog output 6: Motor speed command	0		
F871	0871	Block write data 2	-	-		0		
F875	0875	Block read data 1	-	-	0: No selection 1: Status information 1 2: Output frequency 3: Output current 4: Output voltage 5: Alarm information 6: PID feedback value 7: Input terminal monitor 8: Output terminal monitor 9: Terminal VIA monitor 10: Terminal VIB monitor 11: Terminal VIC monitor 12: Input voltage (DC detection) 13: Motor speed 14: Torque	0		
F876	0876	Block read data 2	-	-		0		
F877	0877	Block read data 3	-	-		0		
F878	0878	Block read data 4	-	-		0		
F879	0879	Block read data 5	-	-		0		
F880	0880	Free notes	-	1/1	0-65530 (65535)	0		6.38.3
F898	0898	Factory specific coefficient 8A	-	-	-	-		*3
F899	0899	Communication function reset	-	-	0: - 1: Reset (after execution: 0)	0		6.38.1

*1: Default setting values vary depending on the setup menu setting. Refer to section 11.5.

*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

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- **PM motor parameters**

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F900	0900	Factory specific coefficient 9A	-	-	-	-		*3
F901	0901	Factory specific coefficient 9B	-	-	-	-		
F902	0902	Factory specific coefficient 9C	-	-	-	-		
F909	0909	Factory specific coefficient 9D	-	-	-	-		
F910	0910	Step-out detection current level	%	1/1	1-150	100		6.39
F911	0911	Step-out detection time	s	0.01/0.01	0.00: No detection 0.01-2.55	0.00		
F912	0912	q-axis inductance	mH	0.01/0.01	0.01-650.0	10.00		6.25.2 6.39
F913	0913	d-axis inductance	mH	0.01/0.01	0.01-650.0	10.00		
F914	0914	Factory specific coefficient 9E	-	-	-	-		* 3
F915	0915	Factory specific coefficient 9L	-	-	-	-		
F916	0916	Factory specific coefficient 9F	-	-	-	-		
F917	0917	Factory specific coefficient 9G	-	-	-	-		
F918	0918	Factory specific coefficient 9H	-	-	-	-		
F919	0919	Factory specific coefficient 9I	-	-	-	-		
F920	0920	Factory specific coefficient 9J	-	-	-	-		
F930	0930	Factory specific coefficient 9K	-	-	-	-		

*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

- **Traverse parameters**

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F980	0980	Traverse selection	-	1/1	0: Disabled 1: Enabled	0		6.40
F981	0981	Traverse acceleration time	s	0.1/0.1	0.1-120.0	25.0		
F982	0982	Traverse deceleration time	s	0.1/0.1	0.1-120.0	25.0		
F983	0983	Traverse step	%	0.1/0.1	0.0-25.0	10.0		
F984	0984	Traverse jump step	%	0.1/0.1	0.0-50.0	10.0		

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- Factory specific parameters

Title	Function	Reference
`A900-A977`	Factory specific coefficient	*3

*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

- Communication option parameters

Title	Function	Reference
`C000-C119,C900-C909`	Communication option common parameters	E6581913
`C120-C149`	CC-Link option parameters	E6581830
`C150-C199`	ProfiBus DP option parameters	E6581738
`C200-C249`	DeviceNet option parameters	E6581737
`C400-C449,C850-C899`	EtherCAT option parameters	E6581818
`C500-C549`	EtherNet common parameters	E6581741
`C550-C599`	EtherNet/IP option parameters	
`C600-C649`	Modbus TCP option parameters	
`C700-C799,C800-C830`	CANopen communication parameters	E6581911

Note) Refer to each Instruction Manual for option about detailed specifications.

11.4   Default settings by inverter rating

Inverter type	Torque boost value F^{ub}_{172} (%)	Dynamic braking resistance $F308$ (Ω)	Dynamic braking resistor capacity $F309$ (kW)	Automatic torque boost value $F402$ (%)	Motor rated capacity $F405$ (kW)	Motor rated current $F415$ (A)	Motor no-load current $F416$ (%)	Over-voltage stall protection level $F626$ (%)	Integrating wattmeter display unit selection $F749$
VFS15-2004PM-W	6.0	200.0	0.12	6.2	0.40	2.0	65	136	0
VFS15-2007PM-W	6.0	200.0	0.12	5.8	0.75	3.4	60	136	0
VFS15-2015PM-W	6.0	75.0	0.12	4.3	1.50	6.2	55	136	0
VFS15-2022PM-W	5.0	75.0	0.12	4.1	2.20	8.9	52	136	0
VFS15-2037PM-W	5.0	40.0	0.12	3.4	4.00	14.8	48	136	1
VFS15-2055PM-W	4.0	15.0	0.44	3.0	5.50	21.0	46	136	1
VFS15-2075PM-W	3.0	15.0	0.44	2.5	7.50	28.2	43	136	1
VFS15-2110PM-W	2.0	7.5	0.88	2.3	11.00	40.6	41	136	1
VFS15-2150PM-W	2.0	7.5	0.88	2.0	15.00	54.6	38	136	1
VFS15S-2002PL-W	6.0	200.0	0.12	8.3	0.20	1.2	70	136	0
VFS15S-2004PL-W	6.0	200.0	0.12	6.2	0.40	2.0	65	136	0
VFS15S-2007PL-W	6.0	200.0	0.12	5.8	0.75	3.4	60	136	0
VFS15S-2015PL-W	6.0	75.0	0.12	4.3	1.50	6.2	55	136	0
VFS15S-2022PL-W	5.0	75.0	0.12	4.1	2.20	8.9	52	136	0
VFS15-4004PL-W	6.0	200.0	0.12	6.2	0.40	1.0	65	141	0
VFS15-4007PL-W	6.0	200.0	0.12	5.8	0.75	1.7	60	141	0
VFS15-4015PL-W	6.0	200.0	0.12	4.3	1.50	3.1	55	141	0
VFS15-4022PL-W	5.0	200.0	0.12	4.1	2.20	4.5	52	141	0
VFS15-4037PL-W	5.0	160.0	0.12	3.4	4.00	7.4	48	141	1
VFS15-4055PL-W	4.0	60.0	0.44	2.6	5.50	10.5	46	141	1
VFS15-4075PL-W	3.0	60.0	0.44	2.3	7.50	14.1	43	141	1
VFS15-4110PL-W	2.0	30.0	0.88	2.2	11.00	20.3	41	141	1
VFS15-4150PL-W	2.0	30.0	0.88	1.9	15.00	27.3	38	141	1

*1: When region setting is JP, `F405` is set to 3.7(kW).

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