

TOSVERT VF-AS1

Parameter List (V150)

VF-AS1 Parameter List (V150)

Setting date	
Customer	
End user	
Application	
Application No/Serial No	
Inverter's Type-Form	
Quantity	
Inverter's Serial No	
Motor's capacity	

If user's setting value is same as shipping value, entry column is blank.

-Connected option

Option's name(Type-Form)

-Terminal stand use state

	Terminal Name	Use state
Main terminal block	PA/+	
	PB	
	PC/-	
	P0	
	R/L1	
	S/L2	
	T/L3	
	U/T1	
	V/T2	
	W/T3	
	R0 *1	
	S0 *1	
	T0 *1	
	E/G	
Control terminal block	+SU	
	F	
	R	
	PWR	
	RES	
	S1	
	S2	
	S3	
	CC	
	PP	
	RR/S4	
	VI/II	
	RX	
	FM	
	AM	
	CCA	
	P24/PLC	
	OUT1	
	OUT2	
	NO	
	CC	
	FLA	
FLB		
FLC		
Switch	SW1 (Sink/Source switching)	INT/PLC , PLC , INT
	SW2 (FM output switching)	0-10V/0-20mA , 0-1mA
	SW3 (RR/S4 terminal switching)	S4 , RR
	SW4 (OUT1 output switching)	PULS , LO

*1:Only for over 200V-75kW, 400V-110kW

1. Panel operation frequency setting

Title	Communication No.	Function	Adjustment range	Default setting	User setting
<i>Ff</i>	-	Panel Operation frequency	<i>LL</i> ~ <i>UL</i> Hz	0.0	

2. Basic parameter [1/2]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
<i>RUH</i>	-	History function		1/1	-	-	●/●	●/●	●	●	
<i>RU1</i>	0000	Automatic acceleration/deceleration	0:Disabled 1:Automatic setting 2:Automatic setting (during acceleration only)	1/1	0	Disabled	●/●	-	●	●	
<i>RU2</i>	0001	Automatic torque boost	0:Disabled 1:Automatic torque boost + auto-tuning 1 2:Sensorless vector control 1+ auto-tuning 1	1/1	0	Disabled	●/●	-	●	●	
<i>RU4</i>	0040	Automatic function setting	0:Disabled 1:Frequency setting by means of voltage 2:Frequency setting by means of current 3:Voltage/current switching from external terminal 4: Frequency setting on operation panel and operation by means of terminals 5: Frequency setting and operation on operation panel	1/1	0	Disabled	●/●	●/●	●	●	
<i>EN0d</i>	0003	Command mode selection	0:Terminal input enabled 1:Operation panel input enabled (including LED/LCD option input) 2:2-wire RS485 communication input 3:4-wireRS485 communication input 4:Communication option input	1/1	0	Disabled	●/●	●/●	●	●	
<i>FN0d</i>	0004	Frequency setting mode selection 1	1:VI/II (voltage/current input) 2:RR/S4 (potentiometer/voltage input) 3:RX (voltage input) 4:Operation panel input enabled (including LED/LCD option input) 5:2-wire RS485 communication input 6:4-wire RS485 communication input 7:Communication option input 8:Optional AI1 (differential current input) 9:Optional AI2 (voltage/current input) 10:UP/DOWN frequency 11:Optional RP pulse input 12:Optional high-speed pulse input 13:Optional binary/BCD input *1	1/1	2	Disabled	●/●	-	●	●	
<i>Pt</i>	0015	V/f control mode selection	0:Constant torque characteristics 1:Voltage decrease curve 2:Automatic torque boost 3:Sensorless vector control 1 (speed) 4:Sensorless vector control 2 (speed/torque) 5:V/f 5-point setting 6:PM control 7:PG feedback control 8:PG feedback vector control	1/1	0	Disabled	-/- -/- ●/- ●/- ●/- -/- -/- -/- -/-	-/- -/- -/- -/- -/- -/- -/- -/- -/-	- - - - - - - - -	● ● - - - - - - -	
<i>ub</i>	0016	Manual torque boost 1	0.0~30.0%	0.1/0.1	Depends on capacity	Enabled	-	-	●	●	
<i>uL</i>	0014	Base frequency 1	25.0~500.0Hz	0.1/0.01	*3	Disabled	●/●	●/●	●	●	
<i>uLv</i>	0409	Base frequency voltage 1	200V class:50~330V 400V class:50~660V	1/0.1	Depends on capacity	Disabled	●/●	●/●	●	●	
<i>FH</i>	0011	Maximum frequency	30.0~500.0Hz	0.1/0.01	80.0	Disabled	●/●	●/●	●	●	
<i>UL</i>	0012	Upper limit frequency	0.0~ <i>FH</i> Hz	0.1/0.01	*3	Enabled	●/●	-	●	●	
<i>LL</i>	0013	Lower limit frequency	0.0~ <i>UL</i> Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
<i>ACC</i>	0009	Acceleration time 1	0.1~6000 sec.	0.1/0.1 *2	Depends on capacity	Enabled	●/●	-	●	●	
<i>dEL</i>	0010	Deceleration time 1	0.1~6000 sec.	0.1/0.1 *2	Depends on capacity	Enabled	●/●	-	●	●	
<i>RUf2</i>	0213	RR/S4 input point 2 frequency	0.0~ <i>FH</i> Hz	0.1/0.01	*3	Enabled	●/●	-	●	●	
<i>RIf2</i>	0204	VI/II input point 2 frequency	0.0~ <i>FH</i> Hz	0.1/0.01	*3	Enabled	●/●	-	●	●	
<i>sr1</i>	0019	Preset speed operation frequency 1	<i>LL</i> ~ <i>UL</i> Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
<i>sr2</i>	0020	Preset speed operation frequency 2	<i>LL</i> ~ <i>UL</i> Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
<i>sr3</i>	0021	Preset speed operation frequency 3	<i>LL</i> ~ <i>UL</i> Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
<i>sr4</i>	0022	Preset speed operation frequency 4	<i>LL</i> ~ <i>UL</i> Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
<i>sr5</i>	0023	Preset speed operation frequency 5	<i>LL</i> ~ <i>UL</i> Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
<i>sr6</i>	0024	Preset speed operation frequency 6	<i>LL</i> ~ <i>UL</i> Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
<i>sr7</i>	0019	Preset speed operation frequency 7	<i>LL</i> ~ <i>UL</i> Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
<i>Fr</i>	0008	Forward run/reverse run selection (operation panel operation)	0:Forward run 1:Reverse run 2:Forward run (Forward/reverse switchable on operation panel) 3:Reverse run (Forward/reverse switchable on operation panel)	1/1	0	Enabled	●/●	●/●	●	●	

*1: Unsupported option

*2: Changing the parameter *tP* enables to set to 0.01 sec. (adjustment range: 0.01~600.0 sec.).

*3: Inverter with a model number ending with -WN1: 60.0 -WP1: 50.0

2. Basic parameter [2/2]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range				Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
										Speed control	Torque control			
EHr	0600	Motor electronic thermal protection level 1	10~100%				1/1	100	Enabled	●/●	●/●	●	●	
OLN	0017	Electronic thermal protection characteristic selection	Setting	Motor type	Overload protection	OL stall	1/1	0	Enabled	●/●	5.14	●	●	
			0	Standard Motor	○ (protect)	× (not stall)								
			1		○ (protect)	○ (stall)								
			2		× (not protect)	× (not stall)								
			3		× (not protect)	○ (stall)								
			4	VF Motor	○ (protect)	× (not stall)								
			5		○ (protect)	○ (stall)								
			6		× (not protect)	× (not stall)								
7	× (not protect)	○ (stall)												
dSPU	0701	Current/voltage unit selection	0:%, 1:A (ampere)/V (volt)				1/1	0	Enabled	●/●	●/●	●	●	
FNSL	0005	FM terminal meter selection	0~76 *1				1/1	0	Enabled	●/●	●/●	●	●	
FN	0006	FM terminal meter adjustment	-				1/1	*3	Enabled	●/●	●/●	●	●	
ANSL	0670	AM terminal meter selection	0~76 *1				1/1	2	Enabled	●/●	●/●	●	●	
AN	0671	AM terminal meter adjustment	-				1/1	*3	Enabled	●/●	●/●	●	●	
CF	0300	PWM carrier frequency	1.0~16.0kHz (2.5~8.0kHz) *2				0.1/0.1	Depends on capacity	Enabled	●/●	●/●	●	●	
UUS	0301	Auto-restart control selection	0:Disabled 1:At auto-restart after momentary stop 2:When turning ST on or off 3:1+2 4:At start-up				1/1	0	Disabled	●/●	●/●	●	●	
UUL	0302	Regenerative power ride-through control	0:Disabled 1:Power ride-through 2:Deceleration stop during power failure 3:Synchronized deceleration/acceleration (synchronized acceleration/deceleration signal) 4:Synchronized deceleration/acceleration (synchronized acceleration/deceleration signal+power failure)				1/1	0	Disabled	●/●	-/-	●	●	
Pb	0304	Dynamic braking selection	0:Disabled 1:Enabled (braking resistance overload detect) 2:Enabled (braking resistance overload not detect)				1/1	0	Disabled	●/●	●/●	●	●	
Pbr	0308	Dynamic braking resistance	0.5~1000Ω				0.1/0.1	Depends on capacity	Disabled	●/●	●/●	●	●	
PbCP	0309	Allowable continuous braking resistance	0.01~600.0kW				0.01/0.01	Depends on capacity	Disabled	●/●	●/●	●	●	
LYP	0007	Factory default setting	0: - 1:50 Hz default setting 2:60 Hz default setting 3:Factory default setting 4:Trip clear 5:Cumulative operation time cleared 6:Initialization of type information 7:Save user-defined parameters 8:Reset of user-defined parameters 9:Cumulative fan operation time record clear 10:Acceleration/deceleration time setting 0.01 sec.~600.0 sec. 11:Acceleration/deceleration time setting 0.1 sec.~6000sec.				1/1	0	Disabled	●/●	●/●	●	●	
PSEL	0050	Registered parameter display selection	0:Standard setting mode at time of activation of motor 1:Quick mode at time of activation of motor 2:Quick mode only				1/1	0	Enabled	●/●	●/●	●	●	
F1- ~ F9--	-	Extended parameters	Set detailed parameters shown in the following pages.				-	-	-	●/●	●/●	●	●	
GRU	-	Automatic edit function	-				-	-	-	●/●	●/●	●	●	

*1: ⇒ For the adjustment range See the Instruction Manual.

*2: For 200V-55/75kW models and 400V-90kW to 400V-280kW models, the carrier frequency is between 2.5 and 8.0kHz inclusive.

*3: Default setting value is adjusted for connection of frequency meters "QS60T". (Between FM and CCA: Approx. 3.6V) (Between AM and CCA: Approx. 3.6V)

3.Extended parameters

[1] Frequency signal

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F 100	0100	Low-speed signal output frequency	0.0~UL Hz	0.1/0.01	0.0	Enabled	●/●	●/●	●	●	
F 101	0101	Speed reach setting frequency	0.0~UL Hz	0.1/0.01	0.0	Enabled	●/●	●/●	●	●	
F 102	0102	Speed reach detection band	0.0~UL Hz	0.1/0.01	2.5	Enabled	●/●	●/●	●	●	

[2] Input signal selection

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F 105	0105	Priority when forward/reverse run commands are entered simultaneously	0:Reverse run 1:Stop	1/1	1	Disabled	●/●	●/●	●	●	
F 106	0106	Input terminal priority selection	0:Disabled 1:Enabled	1/1	0	Disabled	●/●	●/●	●	●	
F 107	0107	Unsupported	0: - 1: - 2: - 3: - 4: - 5: - 6: - 7: - 8: -	1/1	0	Disabled	●/●	●/●	●	●	
F 108	0108	Analog VI/II voltage/current switching	0:Voltage input 1:Current input	1/1	0	Disabled	●/●	●/●	●	●	
F 109	0109	Analog AI2 (optional circuit board) voltage/current switching	0:Voltage input 1:Current input	1/1	0	Disabled	●/●	●/●	●	●	

[3] Terminal function selection

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F 110	0110	Always ON function selection 1	0~135 *1	1/1	6	Disabled	●/●	●/●	●	●	
F 111	0111	Input terminal function selection 1 (F)	0~135 *1	1/1	2	Disabled	●/●	●/●	●	●	
F 112	0112	Input terminal function selection 2 (R)	0~135 *1	1/1	4	Disabled	●/●	●/●	●	●	
F 113	0113	*2	-	-	-	-	-	-	-	-	
F 114	0114	Input terminal function selection 4 (RES)	0~135 *1	1/1	8	Disabled	●/●	●/●	●	●	
F 115	0115	Input terminal function selection 5 (S1)	0~135 *1	1/1	10	Disabled	●/●	●/●	●	●	
F 116	0116	Input terminal function selection 6 (S2)	0~135 *1	1/1	12	Disabled	●/●	●/●	●	●	
F 117	0117	Input terminal function selection 7 (S3)	0~135 *1	1/1	14	Disabled	●/●	●/●	●	●	
F 118	0118	Input terminal function selection 8 (RR/S4)	0~135 *1	1/1	72	Disabled	●/●	●/●	●	●	
F 119	0119	Input terminal function selection 9 (LI1)	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 120	0120	Input terminal function selection 10 (LI2)	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 121	0121	Input terminal selection 11 (LI3)	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 122	0122	Input terminal selection 12 (LI4)	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 123	0123	Input terminal selection 13 (LI5)	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 124	0124	Input terminal selection 14 (LI6)	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 125	0125	Input terminal selection 15 (LI7)	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 126	0126	Input terminal selection 16 (LI8)	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 127	0127	Always ON function selection 2	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 128	0128	Always ON function selection 3	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 130	0130	Output terminal function selection 1 (OUT1)	0~255 *1	1/1	4	Disabled	●/●	●/●	●	●	
F 131	0131	Output terminal function selection 2 (OUT2)	0~255 *1	1/1	6	Disabled	●/●	●/●	●	●	
F 132	0132	Output terminal function selection 3 (FL)	0~255 *1	1/1	10	Disabled	●/●	●/●	●	●	
F 133	0133	Output terminal function selection 4 (OUT3)	0~255 *1	1/1	254	Disabled	●/●	●/●	●	●	
F 134	0134	Output terminal function selection 5 (OUT4)	0~255 *1	1/1	254	Disabled	●/●	●/●	●	●	
F 135	0135	Output terminal function selection 6 (R1)	0~255 *1	1/1	254	Disabled	●/●	●/●	●	●	
F 136	0136	Output terminal function selection 7 (OUT5)	0~255 *1	1/1	254	Disabled	●/●	●/●	●	●	
F 137	0137	Output terminal function selection 8 (OUT6)	0~255 *1	1/1	254	Disabled	●/●	●/●	●	●	
F 138	0138	Output terminal function selection 9 (R2)	0~255 *1	1/1	254	Disabled	●/●	●/●	●	●	

*1: ⇒ For the adjustment range See the Instruction Manual.

*2: F 113 has no function.

[4] Terminal response time setup

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F 140	0140	Input terminal 1 response time selection (F)	2~200ms	1/1	8	Disabled	●/●	●/●	●	●	
F 141	0141	Input terminal 2 response time selection (R)	2~200ms	1/1	8	Disabled	●/●	●/●	●	●	
F 142	0142	*4	-	-	-	-	-	-	-	-	
F 143	0143	Input terminal 4 response time selection (RES)	2~200ms	1/1	8	Disabled	●/●	●/●	●	●	
F 144	0144	Input terminal 5~12 response time selection	2~200ms	1/1	8	Disabled	●/●	●/●	●	●	
F 145	0145	Input terminal 13~20 response time selection	5~200ms	1/1	8	Disabled	●/●	●/●	●	●	
F 154	0164	Input terminal selection 17(B12)	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 155	0165	Input terminal selection 18(B13)	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 156	0166	Input terminal selection 19(B14)	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 157	0167	Input terminal selection 20(B15)	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F 158	0168	Output terminal function selection 10 (R3) *3	0~255 *1	1/1	254	Disabled	●/●	●/●	●	●	
F 159	0169	Output terminal function selection 11 (R4) *3	0~255 *1	1/1	254	Disabled	●/●	●/●	●	●	
F 170	0170	Base frequency 2	25.0~FH Hz	0.1/0.01	*2	Disabled	-	-	-	●	
F 171	0171	Base frequency voltage 2	50~330V/660V	1/0.1	Depends on capacity	Disabled	-	-	-	●	
F 172	0172	Manual torque boost 2	0.0~30.0%	0.1/0.1	Depends on capacity	Enabled	-	-	-	●	
F 173	0173	Thermal protection level 2	10~100%	1/1	100	Enabled	-	-	-	●	
F 174	0174	Base frequency 3	25.0~FH Hz	0.1/0.01	*2	Disabled	-	-	-	●	
F 175	0175	Base frequency voltage 3	50~330V/660V	1/0.1	Depends on capacity	Disabled	-	-	-	●	
F 176	0176	Manual torque boost 3	0.0~30.0%	0.1/0.1	Depends on capacity	Enabled	-	-	-	●	
F 177	0177	Thermal protection level 3	10~100%	1/1	100	Enabled	-	-	-	●	
F 178	0178	Base frequency 4	25.0~FH Hz	0.1/0.01	*2	Disabled	-	-	-	●	
F 179	0179	Base frequency voltage 4	50~330V/660V	1/0.1	Depends on capacity	Disabled	-	-	-	●	
F 180	0180	Manual torque boost 4	0.0~30.0%	0.1/0.1	Depends on capacity	Enabled	-	-	-	●	
F 181	0181	Thermal protection level 4	10~100%	1/1	100	Enabled	-	-	-	●	

*1: ⇒ For the adjustment range See the Instruction Manual. *2: Inverter with a model number ending with -WN1: 60.0 -WP1: 50.0
 *3: Unsupported option *4: F 142 has no function.

[5] V/f 5-point setting

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F 190	0190	V/f 5-point setting VF1 frequency	0.0~FH Hz	0.1/0.01	0.0	Disabled	-	-	-	●	
F 191	0191	V/f 5-point setting VF1 voltage	0.0~100.0%	0.1/0.01	0.0	Disabled	-	-	-	●	
F 192	0192	V/f 5-point setting VF2 frequency	0.0~FH Hz	0.1/0.01	0.0	Disabled	-	-	-	●	
F 193	0193	V/f 5-point setting VF2 voltage	0.0~100.0%	0.1/0.01	0.0	Disabled	-	-	-	●	
F 194	0194	V/f 5-point setting VF3 frequency	0.0~FH Hz	0.1/0.01	0.0	Disabled	-	-	-	●	
F 195	0195	V/f 5-point setting VF3 voltage	0.0~100.0%	0.1/0.01	0.0	Disabled	-	-	-	●	
F 196	0196	V/f 5-point setting VF4 frequency	0.0~FH Hz	0.1/0.01	0.0	Disabled	-	-	-	●	
F 197	0197	V/f 5-point setting VF4 voltage	0.0~100.0%	0.1/0.01	0.0	Disabled	-	-	-	●	
F 198	0198	V/f 5-point setting VF5 frequency	0.0~FH Hz	0.1/0.01	0.0	Disabled	-	-	-	●	
F 199	0199	V/f 5-point setting VF5 voltage	0.0~100.0%	0.1/0.01	0.0	Disabled	-	-	-	●	

[6] Speed/torque reference gain/bias setup [1/2]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F 200	0200	Frequency priority selection	0:F _{PRD} /F ₂₀₇ terminal switching (input terminal function selection 104, 105) 1:F _{PRD} /F ₂₀₇ frequency switching (switching with F ₂₀₈)	1/1	0	Enabled	●/●	-	●	●	
F 201	0201	VI/II input point 1 setting	0~100%	1/1	0	Enabled	●/●	●/●	●	●	
F 202	0202	VI/II input point 1 frequency	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F 203	0203	VI/II input point 2 setting	0~100%	1/1	100	Enabled	●/●	●/●	●	●	
F 204	0204	VI/II input point 2 frequency	0.0~FH Hz	0.1/0.01	*1	Enabled	●/●	-	●	●	
F 205	0205	VI/II input point 1 rate	0~250% (for torque control etc.)	1/0.01	0	Enabled	●/●	●/●	-	-	
F 206	0206	VI/II input point 2 rate	0~250% (for torque control etc.)	1/0.01	100	Enabled	●/●	●/●	-	-	
F 207	0207	Frequency setting mode selection 2	Same as F _{PRD} (1~13)	1/1	1	Disabled	●/●	-	●	●	
F 208	0208	Speed command priority switching frequency	0.1~FH Hz	0.1/0.01	0.1	Enabled	●/●	-	●	●	
F 209	0209	Analog input filter	0:No filter 1:Filter approx. 10ms 2:Filter approx. 15ms 3:Filter approx. 30ms 4:Filter approx. 60ms	1/1	0	Enabled	●/●	●/●	●	●	
F 210	0210	RR/S4 input point 1 setting	0~100%	1/1	0	Enabled	●/●	●/●	●	●	
F 211	0211	RR/S4 input point 1 frequency	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	

■ This parameter moves to a fundamental parameter.
 *1: Inverter with a model number ending with -WN1: 60.0 -WP1: 50.0

[6] Speed/torque reference gain/bias setup [2/2]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F212	0212	RR/S4 input point 2 setting	0~100%	1/1	100	Enabled	●/●	●/●	●	●	
F213	0213	RR/S4 input point 2 frequency	0.0~FH Hz	0.1/0.01	*1	Enabled	●/●	-	●	●	
F214	0214	RR/S4 input point 1 rate	0~250% (for torque control etc.)	1/0.01	0	Enabled	●/●	●/●	-	-	
F215	0215	RR/S4 input point 2 rate	0~250% (for torque control etc.)	1/0.01	100	Enabled	●/●	●/●	-	-	
F216	0216	RX input point 1 setting	-100~100%	1/1	0	Enabled	●/●	●/●	●	●	
F217	0217	RX input point 1 frequency	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F218	0218	RX input point 2 setting	-100~100%	1/1	100	Enabled	●/●	●/●	●	●	
F219	0219	RX input point 2 frequency	0.0~FH Hz	0.1/0.01	*1	Enabled	●/●	-	●	●	
F220	0220	RX input point 1 rate	-250~250% (for torque control etc.)	1/0.01	0	Enabled	●/●	●/●	-	-	
F221	0221	RX input point 2 rate	-250~250% (for torque control etc.)	1/0.01	100	Enabled	●/●	●/●	-	-	
F222	0222	AI1 input point 1 setting	-100~100%	1/1	0	Enabled	●/●	●/●	●	●	
F223	0223	AI1 input point 1 frequency	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F224	0224	AI1 input point 2 setting	-100~100%	1/1	100	Enabled	●/●	●/●	●	●	
F225	0225	AI1 input point 2 frequency	0.0~FH Hz	0.1/0.01	*1	Enabled	●/●	-	●	●	
F226	0226	AI1 input point 1 rate	-250~250% (for torque control etc.)	1/0.01	0	Enabled	●/●	●/●	-	-	
F227	0227	AI1 input point 2 rate	-250~250% (for torque control etc.)	1/0.01	100	Enabled	●/●	●/●	-	-	
F228	0228	AI2 input point 1 setting	0~100%	1/1	0	Enabled	●/●	●/●	●	●	
F229	0229	AI2 input point 1 frequency	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F230	0230	AI2 input point 2 setting	0~100%	1/1	100	Enabled	●/●	●/●	●	●	
F231	0231	AI2 input point 2 frequency	0.0~FH Hz	0.1/0.01	*1	Enabled	●/●	-	●	●	
F234	0234	RP/high speed pulse input point 1 setting	0~100%	1/1	0	Enabled	●/●	-	●	●	
F235	0235	RP/high speed pulse input point 1 frequency	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F236	0236	RP/high speed pulse input point 2 setting	0~100%	1/1	100	Enabled	●/●	-	●	●	
F237	0237	RP/high speed pulse input point 2 frequency	0.0~FH Hz	0.1/0.01	*1	Enabled	●/●	-	●	●	

■ This parameter moves to a fundamental parameter.
*1: Inverter with a model number ending with -WN1: 60.0 -WP1: 50.0

[7] Operation frequency

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F240	0240	Starting frequency setting	0.0~10.0Hz	0.1/0.01	0.1	Enabled	●/●	-	●	●	
F241	0241	Operation start frequency	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F242	0242	Operation start frequency hysteresis	0.0~30.0Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F243	0243	Stop frequency setting	0.0~30.0Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F244	0244	Frequency command dead band	0.0~5.0Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	

[8] DC braking

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F250	0250	DC braking start frequency	0.0~120.0Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F251	0251	DC braking current	0~100%	1/1	50	Enabled	●/●	-	●	●	
F252	0252	DC braking time	0.0~20.0 sec.	0.1/0.1	1.0	Enabled	●/●	-	●	●	
F253	0253	Forward/reverse DC braking priority control	0:Disabled, 1:Enabled	1/1	0	Enabled	●/●	-	●	●	
F254	0254	Motor shaft fixing control	0:Disabled, 1:Enabled	1/1	0	Enabled	●/●	-	●	●	
F255	0255	0Hz command output selection	0:Default (DC braking) 1:0Hz command	1/1	0	Enabled	-/●	-	●	●	
F256	0256	Time limit for lower-limit frequency operation	0.0:Disabled 0.1~600.0 sec.	0.1/0.1	0.0	Enabled	●/●	●/●	●	●	

[9] Jogging operation

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F260	0260	Jog run frequency	F240~20.0Hz	0.1/0.01	5.0	Enabled	●/●	-	●	●	
F261	0261	Jog run stop pattern	0:Deceleration stop 1:Coast stop 2:DC braking stop	1/1	0	Disabled	●/●	-	●	●	
F262	0262	Operation panel jog run mode	0:Disabled 1:Operation panel jog run mode enabled	1/1	0	Enabled	●/●	-	●	●	
F264	0264	Input from external contacts - UP response time	0.0~10.0 sec.	0.1/0.1	0.1	Enabled	●/●	-	●	●	
F265	0265	Input from external contacts - UP frequency step	0.0~FH Hz	0.1/0.01	0.1	Enabled	●/●	-	●	●	
F266	0266	Input from external contacts - DOWN response time	0.0~10.0 sec.	0.1/0.1	0.1	Enabled	●/●	-	●	●	
F267	0267	Input from external contacts - DOWN frequency step	0.0~FH Hz	0.1/0.01	0.1	Enabled	●/●	-	●	●	
F268	0268	Initial UP/DOWN frequency	L1~U1 Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F269	0269	Initial up/down frequency rewriting	0:Not changed 1:Setting of F268 changed when power is turned off	1/1	1	Enabled	●/●	-	●	●	

[10] Jump frequency

Sensorless vector/vector with sensor (●:Effective, - :Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F270	0270	Jump frequency 1	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F271	0271	Jumping width 1	0.0~30.0Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F272	0272	Jump frequency 2	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F273	0273	Jumping width 2	0.0~30.0Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F274	0274	Jump frequency 3	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F275	0275	Jumping width 3	0.0~30.0Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	

[11] Preset speed operation frequency (8~15)

Sensorless vector/vector with sensor (●:Effective, - :Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F287	0287	Preset speed operation frequency 8	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F288	0288	Preset speed operation frequency 9	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F289	0289	Preset speed operation frequency 10	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F290	0290	Preset speed operation frequency 11	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F291	0291	Preset speed operation frequency 12	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F292	0292	Preset speed operation frequency 13	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F293	0293	Preset speed operation frequency 14	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F294	0294	Preset speed operation frequency 15 (Forced operation frequency)	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	

[12] Tripless intensification setup [1/2]

Sensorless vector/vector with sensor (●:Effective, - :Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
CF	0300	PWM carrier frequency	1.0~16.0kHz (2.5~8.0kHz) *1	0.1/0.1	Depends on capacity	Enabled	●/●	●/●	●	●	
UUS	0301	Auto-restart control selection	0:Disabled, 1:At auto-restart 2:When turning ST operation standby signal on or off, 3:1+2, 4:Starting	1/1	0	Disabled	●/●	●/●	●	●	
UUL	0302	Regenerative power ride-through control	0:Disabled, 1:Power ride-through 2:Deceleration stop during power failure 3:Synchronized deceleration/acceleration (synchronized deceleration/acceleration signal) 4:Synchronized deceleration/acceleration (synchronized deceleration/acceleration signal +power failure)	1/1	0	Disabled	●/●	-/-	●	●	
F303	0303	Retry selection	0:Deselect, 1-10 times	1/1	0	Enabled	●/●	●/●	●	●	
Pb	0304	Dynamic braking selection	0:Disabled 1:Enabled (braking resistance overload detect) 2:Enabled (braking resistance overload not detect)	1/1	0	Disabled	●/●	●/●	●	●	
F305	0305	Oversvoltage limit operation	0:Enabled 1:Disabled 2:Enabled (quick deceleration) 3:Enabled (dynamic quick deceleration)	1/1	2	Disabled	●/●	●/●	●	●	
F307	0307	Base frequency voltage selection (correction of supply voltage)	0: Without voltage compensation (limitless output voltage) 1: With voltage compensation (limitless output voltage) 2: Without voltage compensation (limited output voltage) 3: With voltage compensation (limited output voltage)	1/1	0	Disabled	Parameter is changeable, but fixed to "with voltage compensation" internally. When F307 is set to 0 or 1, fixed at 1 internally. When F307 is set to 2 or 3, fixed at 3 internally.			●	
Pbr	0308	Dynamic braking resistance	0.5~1000Ω	0.1/0.1	Depends on capacity	Disabled	●/●	●/●	●	●	
PbCP	0309	Allowable continuous braking resistance	0.01~600.0kW	0.01/0.01	Depends on capacity	Disabled	●/●	●/●	●	●	
F310	0310	Non-stop control time/deceleration time during power failure	0.1~320.0 sec.	0.1/0.1	2.0	Enabled *2/ Disabled	●/●	-/-	●	●	
F311	0311	Reverse-run prohibition selection	0:Permit all, 1:Prohibit reverse run 2:Prohibit forward run	1/1	0	Disabled	●/●	●/●	●	●	
F312	0312	Random mode	0:Disabled, 1:Enabled	1/1	0	Disabled	●/●	●/●	●	●	
F313	0313	Output voltage waveform selection *3	0:PWM carrier frequency control 1 1:PWM carrier frequency control 2	1/1	0	Disabled	●/●	●/●	●	●	

This parameter moves to a fundamental parameter.

*1: For 200V-55/75kW models and 400V-90kW to 400V-280kW models, the carrier frequency is between 2.5 and 8.0kHz inclusive.

*2: Although the setting can be written into memory if UUS is set to 1 (power ride-through control) if cannot be written if UUL is set to 2 (deceleration stop during a power failure)

[12] Tripless intensification setup [2/2]

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F316	0316	Carrier frequency control mode selection	0:Not decrease carrier frequency automatically 1:Decrease carrier frequency automatically 2:Not decrease carrier frequency automatically, 400V class supported 3:Decrease carrier frequency automatically, 400V class supported 4:Not decrease carrier frequency automatically,with sinusoidal filter *1 5:Decrease carrier frequency automatically,with sinusoidal filter *1	1/1	1	Disabled	●/●	●/●	●	●	
F317	0317	Synchronized deceleration time (time elapsed between start of deceleration to stop)	0.1~6000 sec.	0.1/0.1 *2	2.0	Enabled	●/●	-/-	●	●	
F318	0318	Synchronized acceleration time (time elapsed between start of acceleration to achievement of specified speed)	0.1~6000 sec.	0.1/0.1 *2	2.0	Enabled	●/●	-/-	●	●	
F319	0319	Regenerative over-excitation upper limit	100~160%	1/1	140	Disabled	●/●	●/●	-	●	

*1: Possible to set to 200V-55kW/400V-90kW.

*2: Changing the parameter τ_{P} enables to set to 0.01 sec. (adjustment range: 0.01~600.0 sec)

[13] Drooping control

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F320	0320	Drooping gain	0.0~100.0% (Enabled if $P_{\text{L}}=3, 4, 7$ or 8)	0.1/0.1	0.0	Enabled *1	●/●	-	-	-	-
F321	0321	Speed at drooping gain 0%	0.0~320.0Hz (Enabled if $P_{\text{L}}=3, 4, 7$ or 8)	0.1/0.01	0.0	Enabled	●/●	-	-	-	-
F322	0322	Speed at drooping gain F320	0.0~320.0Hz (Enabled if $P_{\text{L}}=3, 4, 7$ or 8)	0.1/0.01	0.0	Enabled	●/●	-	-	-	-
F323	0323	Drooping insensitive torque	0~100% (Enabled if $P_{\text{L}}=3, 4, 7$ or 8)	1/1	10	Enabled	●/●	-	-	-	-

*1: Drooping gain can be changed within a range of 0.1 to 100.0% during operation.

When changing the setting to 0.0 (no drooping) or 0.0, stop operation.

[14] Functions for lift

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F324	0324	Drooping output filter	0.1~200.0 rad/s (Enabled if $P_{\text{L}}=3, 4, 7$ or 8)	0.1/0.1	100.0	Enabled	●/●	-	-	-	-
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)	1/1	0	Disabled	●/●	-	●	●	
F329	0329	Light-load high-speed learning function	0:No learning, 1:Forward run learning 2:Reverse run learning	1/1	0	Disabled	●/●	-	-	-	
F330	0330	Automatic light-load high-speed operation frequency	30.0~ ω_{L} Hz	0.1/0.01	*1	Enabled	●/●	-	●	●	
F331	0331	Light-load high-speed operation switching lower limit frequency	5.0~ ω_{L} Hz	0.1/0.01	40.0	Enabled	●/●	-	●	●	
F332	0332	Light-load high-speed operation load waiting time	0.0~10.0 sec.	0.1/0.1	0.5	Enabled	●/●	-	●	●	
F333	0333	Light-load high-speed operation load detection time	0.0~10.0 sec.	0.1/0.1	1.0	Enabled	●/●	-	●	●	
F334	0334	Light-load high-speed operation heavy load detection time	0.0~10.0 sec.	0.1/0.1	0.5	Enabled	●/●	-	●	●	
F335	0335	Switching load torque during power running	-250~250%	1/0.01	50	Enabled	●/●	-	●	●	
F336	0336	Heavy-load torque during power running	-250~250%	1/0.01	100	Enabled	●/●	-	●	●	
F337	0337	Heavy-load torque during constant power running	-250~250%	1/0.01	50	Enabled	●/●	-	●	●	
F338	0338	Switching load torque during regenerative braking	-250~250%	1/0.01	50	Enabled	●/●	-	●	●	
F340	0340	Creeping time1	0.00~2.50sec.	0.01/0.01	0	Enabled	●/●	—	—	—	
F341	0341	Braking mode selection	0:Disabled, 1:Forward winding up 2:Reverse winding up, 3:Horizontal operation	1/1	0	Disabled	●/●	-	-	-	
F342	0342	Load portion torque input selection	0:Disabled, 1:V/I (voltage/current input) 2:RR/S4 (potentiometer/voltage input) 3:RX (voltage input) 4:F343 enabled 5:2-wire RS485 communication input 6:4-wire RS485 communication input 7:Communications option input enabled 8:Optional AI1 (differential current input)	1/1	4	Enabled	●/●	-	-	-	
F343	0343	Hoisting torque bias input (valid only when F342=4)	-250~250%	1/0.01	100	Enabled	●/●	-	-	-	
F344	0344	Lowering torque bias multiplier	0~100%	1/0.01	100	Enabled	●/●	-	-	-	
F345	0345	Brake release time	0.00~2.50 sec.	0.01/0.01	0.05	Enabled	●/●	-	-	-	
F346	0346	Creeping frequency	F240~20.0 Hz	0.1/0.01	3.0	Disabled	●/●	-	-	-	
F347	0347	Creeping time	0.00~2.50 sec.	0.01/0.01	0.10	Enabled	●/●	-	-	-	
F348	0348	Braking time learning function	0:Disabled 1:Brake signal learning (0 after adjustment)	1/1	0	Enabled	●/●	-	-	-	
F349	0349	Acceleration/deceleration suspend function	0:Disabled, 1:Parameter setting, 2:Terminal input	1/1	0	Disabled	●/●	-	●	●	
F350	0350	Acceleration suspend frequency	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F351	0351	Acceleration suspend time	0.0~10.0 sec.	0.1/0.1	0.0	Enabled	●/●	-	●	●	
F352	0352	Deceleration suspend frequency	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F353	0353	Deceleration suspend time	0.0~10.0 sec.	0.1/0.1	0.0	Enabled	●/●	-	●	●	

*1: Inverter with a model number ending with -WN1: 60.0 -WP1: 50.0

[15] Commercial/inverter switching function

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F354	0354	Commercial power/inverter switching output selection	0:Disabled 1:Automatic switching in the event of a trip 2:Commercial power switching frequency setting 3:Commercial power switching frequency setting + automatic switching in the event of a trip	1/1	0	Disabled	●/●	●/●	●	●	
F355	0355	Commercial power/inverter switching frequency	0~LL Hz	0.1/0.01	*1	Enabled	●/●	●/●	●	●	
F356	0356	Inverter-side switching waiting time	0.10~10.00 sec.	0.01/0.01	Depends on capacity	Enabled	●/●	●/●	●	●	
F357	0357	Commercial power-side switching waiting time	0.40~10.00 sec.	0.01/0.01	0.62	Enabled	●/●	●/●	●	●	
F358	0358	Commercial power switching frequency holding time	0.10~10.00 sec.	0.01/0.01	2.00	Enabled	●/●	●/●	●	●	

*1: Inverter with a model number ending with -WN1: 60.0 -WP1: 50.0

[16] PID control

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F359	0359	PID control switching	0:No PID control 1:Process type PID control (temp./pressure, etc.) operation 2:Speed type PID control (potentiometer, etc.) operation 3:Stop retaining P control 4:Dancer control	1/1	0	Disabled	●/●	-	●	●	
F360	0360	PID control feedback control signal selection	0:Deviation input (no feedback input) 1:VI/II (voltage/current input) 2:RR/S4 (potentiometer/voltage input) 3:RX (voltage input) 4:Optional AI1 (differential current input) 5:Optional AI2 (voltage/current input) 6: PG feedback option	1/1	0	Disabled	●/●	-	●	●	
F361	0361	Delay filter	0.0~25.0	1/1	0.1	Enabled	●/●	-	●	●	
F362	0362	Proportional (P) gain	0.01~100.0	0.01/0.01	0.10	Enabled	●/●	-	●	●	
F363	0363	Integral (I) gain	0.01~100.0	0.01/0.01	0.10	Enabled	●/●	-	●	●	
F364	0364	PID deviation upper limit	LL ~UL Hz	0.1/0.01	*1	Enabled	●/●	-	●	●	
F365	0365	PID deviation lower limit	LL ~UL Hz	0.1/0.01	*1	Enabled	●/●	-	●	●	
F366	0366	Differential (D) gain	0.00~2.55	0.01/0.01	0.00	Enabled	●/●	-	●	●	
F367	0367	Process upper limit	LL ~UL Hz	0.1/0.01	*1	Enabled	●/●	-	●	●	
F368	0368	Process lower limit	LL ~UL Hz	0.1/0.01	LL	Enabled	●/●	-	●	●	
F369	0369	PID control waiting time	0~2400 sec.	1/1	0	Enabled	●/●	-	●	●	
F370	0370	PID output upper limit	LL ~UL Hz	0.1/0.01	*1	Enabled	●/●	-	●	●	
F371	0371	PID output lower limit	LL ~UL Hz	0.1/0.01	LL	Enabled	●/●	-	●	●	
F372	0372	Process increasing rate (speed type PID control)	0.1~600.0	0.1/0.1	10.0	Enabled	●/●	-	●	●	
F373	0373	Process decreasing rate (speed type PID control)	0.1~600.0	0.1/0.1	10.0	Enabled	●/●	-	●	●	

*1: Inverter with a model number ending with -WN1: 60.0 -WP1: 50.0

[17] Speed feedback/positioning control

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F375	0375	Number of PG input pulses	12~9999	1/1	500	Disabled	-/●	-/●	-	-	
F376	0376	Selection of number of PG input phases	1:Single-phase input 2:Two-phase input 3:Two-phase input (Inversion of polarity)	1/1	2	Disabled	-/●	-/●	-	-	
F377	0377	PG disconnection detection	0:Disabled 1:Enabled (with filter) 2:Enabled (Detection of momentary power failure)	1/1	0	Disabled	-/●	-/●	-	-	
F378	0378	Number of RP terminal input pulses	12~9999	1/1	500	Disabled	●/●	●/●	●	●	
F379	0379	PID output dead band	0~100%	1/1	0	Enabled	●/●	-	●	●	
F381	0381	Simple positioning completion range	1~4000	1/1	100	Enabled	-/●	-	-	-	

[18] Motor constant [1/2]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F400	0400	Auto-tuning 1	0:No auto-tuning 1:Initialize motor constant (0 after execution) 2:Continue operation continued after auto-tuning (0 after execution) 3:Auto-tuning by input terminal signal 4:Motor constant auto calculation (0 after execution)	1/1	0	Disabled	●/●	●/●	-	-	
F401	0401	Slip frequency gain	0~150%	1/1	70	Enabled	●/-	-	-	-	
F402	0402	Cooled	0:Disabled 1:Self-cooled motor 2:Forced air-cooled motor	1/1	0	Disabled	●/●	●/●	-	-	
F405	0405	Motor rated capacity (motor name plate)	0.10~500.0kW	0.01/0.01	Depends on capacity	Disabled	●/●	●/●	-	-	
F406	0406	Motor rated current (motor name plate)	0.1~2000A	0.1/0.1	Depends on capacity	Disabled	●/●	●/●	-	-	
F407	0407	Motor rated rotational speed (motor name plate)	100~60000min ⁻¹ *1	1/1	Depends on capacity	Disabled	●/●	●/●	-	-	
F410	0410	Motor constant 1 (torque boost)	0.0~30.0%	0.1/0.1	Depends on capacity	Enabled	●/●	●/●	-	-	
F411	0411	Motor constant 2 (no load current)	10~90%	1/1	Depends on capacity	Disabled	●/●	●/●	-	-	

[18] Motor constant [2/2]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F412	0412	Motor constant 3 (leak inductance)	0~200(×0.1%)	0.1/0.1	Depends on capacity	Disabled	●/●	●/●	-	-	
F413	0413	Motor constant 4 (rated slip)	0.1~25.0%	0.1/0.1	Depends on capacity	Disabled	●/●	●/●	-	-	
F415	0415	Exciting strengthening coefficient	100~130%	1/1	100	Disabled	●/●	●/●	-	-	
F416	0416	Stall prevention factor	10~250	1/1	100	Disabled	●/●	●/●	-	-	

*1: If the speed of rotation is set at 10,000min⁻¹ or more, the error messages $I\overline{O}\overline{O}\overline{O}$ and $E\overline{I}$ (if the speed of rotation is set at 10,000min⁻¹) are displayed alternately.

[19] Torque control

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F420	0420	Torque command selection	1:VI/II (voltage/current input) 2:RR/S4 (potentiometer/voltage input) 3:RX (voltage input) 4:Operation panel input enabled (including LED/LCD option input) 5:2-wire RS485 communication input 6:4-wire RS485 communication input 7:Communications option input enabled 8:Optional AI1 (differential current input)	1/1	3	Enabled	-	●/●	-	-	
F421	0421	Torque reference filter	0~1000ms	1/1	0	Enabled	-	●/●	-	-	
F423	0423	Tension torque bias input selection (torque control)	0:Disabled, 1~8 (same as F420)	1/1	0	Enabled	-	●/●	-	-	
F424	0424	Load sharing gain input selection	0:Disabled, 1~8 (same as F420)	1/1	0	Enabled	-	●/●	-	-	
F425	0425	Forward speed limit input selection	0:Disabled 1:VI/II (voltage/current input) 2:RR/S4 (potentiometer/voltage input) 3:RX (voltage input) 4:F426 enabled	1/1	0	Enabled	-	●/●	-	-	
F426	0426	Forward speed limit input level	0.0~UL Hz	0.1/0.01	*1	Enabled	-	●/●	-	-	
F427	0427	Reverse speed limit input selection	0:Disabled 1:VI/II (voltage/current input) 2:RR/S4 (potentiometer/voltage input) 3:RX (voltage input) 4:F428 enabled	1/1	0	Enabled	-	●/●	-	-	
F428	0428	Reverse speed limit input level	0.0~UL Hz	0.1/0.01	*1	Enabled	-	●/●	-	-	
F430	0430	Speed limit (torque = 0) center value reference selection	0:Disabled 1:VI/II (voltage/current input) 2:RR/S4 (potentiometer/voltage input) 3:RX (voltage input) 4:F431 enabled	1/1	0	Enabled	-	●/●	-	-	
F431	0431	Speed limit (torque = 0) center value	0.0~FH Hz	0.1/0.01	0.0	Enabled	-	●/●	-	-	
F432	0432	Speed limit (torque = 0) band	0.0~FH Hz	0.1/0.01	0.0	Enabled	-	●/●	-	-	
F435	0435	Prohibition of rotation in any direction other than the specified one (F or R)	0:Disabled 1:Enabled	1/1	0	Enabled	-	●/●	-	-	

*1: Inverter with a model number ending with -WN1: 60.0 -WP1: 50.0

[20] Torque limit

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F440	0440	Power running torque limit 1 selection	1:VI/II (voltage/current input) 2:RR/S4 (potentiometer/voltage input) 3:RX (voltage input) 4:F441	1/1	4	Enabled	●/●	●/●	●	-	
F441	0441	Power running torque limit 1 level	0.0~249.9%, 250.0:Disabled	0.1/0.01	250.0	Enabled	●/●	●/●	●	-	
F442	0442	Regenerative braking torque limit 1 selection	1:VI/II (voltage/current input) 2:RR/S4 (potentiometer/voltage input) 3:RX (voltage input) 4:F443	1/1	4	Enabled	●/●	●/●	●	-	
F443	0443	Regenerative braking torque limit 1 level	0.0~249.9%, 250.0:Disabled	0.1/0.01	250.0	Enabled	●/●	●/●	●	-	
F444	0444	Power running torque limit 2 level	0.0~249.9%, 250.0:Disabled	0.1/0.01	250.0	Enabled	●/●	●/●	●	-	
F445	0445	Regenerative braking torque limit 2 level	0.0~249.9%, 250.0:Disabled	0.1/0.01	250.0	Enabled	●/●	●/●	●	-	
F446	0446	Power running torque limit 3 level	0.0~249.9%, 250.0:Disabled	0.1/0.01	250.0	Enabled	●/●	●/●	●	-	
F447	0447	Regenerative braking torque limit 3 level	0.0~249.9%, 250.0:Disabled	0.1/0.01	250.0	Enabled	●/●	●/●	●	-	
F448	0448	Power running torque limit 4 level	0.0~249.9%, 250.0:Disabled	0.1/0.01	250.0	Enabled	●/●	●/●	●	-	
F449	0449	Regenerative braking torque limit 4 level	0.0~249.9%, 250.0:Disabled	0.1/0.01	250.0	Enabled	●/●	●/●	●	-	
F451	0451	Acceleration/deceleration operation after torque limit	0:In sync with acceleration/deceleration 1:In sync with min. time	1/1	0	Disabled	●/●	-	●	-	
F452	0452	Power running stall continuous trip detection time	0.0~1.0 sec.	0.1/0.1	0.0	Enabled	●/●	-	●	●	
F453	0453	Regenerative braking stall prevention mode selection	0:Stall during regenerative braking 1:Not stall during regenerative braking	1/1	0	Enabled	●/●	-	●	●	
F454	0454	Constant output zone torque limit selection	0:Constant output limit 1:Constant torque limit	1/1	0	Disabled	●/●	●/●	●	-	
F455	0455	Torque reference polarity selection	0:It is interchangeable so far. (When reversing, reverses the polarity.) 1:The polarity doesn't reverse when reversing.	1/1	0	Disabled	●/●	●/●	●	-	

[21] Adjustment parameters

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F458	0458	Current control proportional gain	0~100	1/1	0	Disabled	●/●	●/●	-	-	
F460	0460	Speed loop proportional gain	1~9999	1/1	12	Enabled	●/●	-	-	-	
F461	0461	Speed loop stabilization coefficient	1~9999	1/1	100	Enabled	●/●	-	-	-	
F462	0462	Moment of inertia of load 1	0~100	1/1	35	Enabled	●/●	-	●	-	
F463	0463	Second speed loop proportional gain	1~9999	1/1	12	Enabled	●/●	-	-	-	
F464	0464	Second speed loop stabilization coefficient	1~9999	1/1	100	Enabled	●/●	-	●	-	
F465	0465	Moment of inertia of load 2	0~100	1/1	35	Enabled	●/●	-	●	-	
F466	0466	Speed PI switching frequency	0.0~FH Hz	1/1	0.0	Enabled	●/●	-	-	-	
F467	0467	Motor oscillation control *1	0:Disabled 1:Enabled (Low gain) 2:Enabled (Middle gain) 3:Enabled (High gain)	1/1	0	Disabled	-/-	-/-	-	●	
F468	0468	Stall prevention control switching	0: Stall prevention control 1 1: Stall prevention control 2	1/1	0	Disabled	-/-	-/-	-	●	
F469	0469	Overvoltage limit constant	0: Automatic, 1~1000ms	1/1	0	Disabled	-/-	-/-	-	●	
F470	0470	VI/II input bias	0~255	1/1	*2	Enabled	●/●	●/●	●	●	
F471	0471	VI/II input gain	0~255	1/1	*2	Enabled	●/●	●/●	●	●	
F472	0472	RR/S4 input bias	0~255	1/1	*2	Enabled	●/●	●/●	●	●	
F473	0473	RR/S4 input gain	0~255	1/1	*2	Enabled	●/●	●/●	●	●	
F474	0474	RX input bias	0~255	1/1	*2	Enabled	●/●	●/●	●	●	
F475	0475	RX input gain	0~255	1/1	*2	Enabled	●/●	●/●	●	●	
F476	0476	Optional AI1 input bias	0~255	1/1	*2	Enabled	●/●	●/●	●	●	
F477	0477	Optional AI1 input gain	0~255	1/1	*2	Enabled	●/●	●/●	●	●	
F478	0478	Optional AI2 input bias	0~255	1/1	*2	Enabled	●/●	●/●	●	●	
F479	0479	Optional AI2 input gain	0~255	1/1	*2	Enabled	●/●	●/●	●	●	
F495	0495	Max output voltage modulation rate	0:Standard 1:Disabled 2:Enabled(Low gain) 3:Enabled(High gain)	1/1	0	Disabled	●/●	●/●	●	●	
F498	0498	PM motor constant 1 (d axis inductance)	0~100%	0.1/0.1	10.0	Disabled	-	-	●	-	
F499	0499	PM motor constant 2 (q axis inductance)	0~100%	0.1/0.1	10.0	Disabled	-	-	●	-	

*1:The parameter enabled V/F control mode ($P\&=0, I, S$).

*2: ⇒ Settings vary from unit to unit. Even if $\&YP$ is set to 3 no change is made to these values.

[22] Acceleration/deceleration 2

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F500	0500	Acceleration time 2	0.1~6000 sec.	0.1/0.1 *1	Depends on capacity	Enabled	●/●	-	●	●	
F501	0501	Deceleration time 2	0.1~6000 sec.	0.1/0.1 *1	Depends on capacity	Enabled	●/●	-	●	●	
F502	0502	Acceleration/deceleration 1 pattern	0: Straight, 1:S-pattern 1, 2:S-pattern 2	1/1	0	Enabled	●/●	-	●	●	
F503	0503	Acceleration/deceleration 2 pattern	0: Straight, 1:S-pattern 1, 2:S-pattern 2	1/1	0	Enabled	●/●	-	●	●	
F504	0504	Panel acceleration/deceleration selection	1:Acceleration/deceleration 1 2:Acceleration/deceleration 2 3:Acceleration/deceleration 3 4:Acceleration/deceleration 4	1/1	1	Enabled	●/●	-	●	●	
F505	0505	Acceleration/deceleration switching frequency 1	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F506	0506	Acceleration S-pattern lower limit adjustment	0~50%	1/1	10	Enabled	●/●	-	●	●	
F507	0507	Acceleration S-pattern upper limit adjustment	0~50%	1/1	10	Enabled	●/●	-	●	●	
F508	0508	Deceleration S-pattern lower limit adjustment	0~50%	1/1	10	Enabled	●/●	-	●	●	
F509	0509	Deceleration S-pattern upper limit adjustment	0~50%	1/1	10	Enabled	●/●	-	●	●	
F510	0510	Acceleration time 3	0.1~6000 sec.	0.1/0.1 *1	Depends on capacity	Enabled	●/●	-	●	●	
F511	0511	Deceleration time 3	0.1~6000 sec.	0.1/0.1 *1	Depends on capacity	Enabled	●/●	-	●	●	
F512	0512	Acceleration/ deceleration 3 pattern	0: Straight, 1:S-pattern 1, 2:S-pattern 2	1/1	0	Enabled	●/●	-	●	●	
F513	0513	Acceleration/deceleration switching frequency 2	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	
F514	0514	Acceleration time 4	0.1~6000 sec.	0.1/0.1 *1	Depends on capacity	Enabled	●/●	-	●	●	
F515	0515	Deceleration time 4	0.1~6000 sec.	0.1/0.1 *1	Depends on capacity	Enabled	●/●	-	●	●	
F516	0516	Acceleration/ deceleration 4 pattern	0: Straight, 1:S-pattern 1, 2:S-pattern 2	1/1	0	Enabled	●/●	-	●	●	
F517	0517	Acceleration/deceleration switching frequency 3	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	-	●	●	

*1: Changing the parameter $\&YP$ enables to set to 0.01 sec. (adjustment range: 0.01~600.0 sec.).

[23] Pattern operation

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F520	0520	Pattern operation selection	0:Disabled 1:Enabled (setting in units of seconds) 2:Enabled (setting in units of minutes)	1/1	0	Disabled	●/●	-	●	●	
F521	0521	Pattern operation mode	0:Pattern operation reset when system stops operation 1:Pattern operation continued even after system stops operation	1/1	0	Disabled	●/●	-	●	●	
F522	0522	Number of repetitions of pattern group 1	1~254, 255:Successive	1/1	1	Disabled	●/●	-	●	●	
F523	0523	Pattern group 1 selection 1	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F524	0524	Pattern group 1 selection 2	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F525	0525	Pattern group 1 selection 3	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F526	0526	Pattern group 1 selection 4	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F527	0527	Pattern group 1 selection 5	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F528	0528	Pattern group 1 selection 6	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F529	0529	Pattern group 1 selection 7	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F530	0530	Pattern group 1 selection 8	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F531	0531	Number of repetitions of pattern group 2	1~254, 255:Successive	1/1	1	Disabled	●/●	-	●	●	
F532	0532	Pattern group 2 selection 1	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F533	0533	Pattern group 2 selection 2	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F534	0534	Pattern group 2 selection 3	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F535	0535	Pattern group 2 selection 4	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F536	0536	Pattern group 2 selection 5	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F537	0537	Pattern group 2 selection 6	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F538	0538	Pattern group 2 selection 7	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F539	0539	Pattern group 2 selection 8	0:Skip, 1~15	1/1	0	Disabled	●/●	-	●	●	
F540	0540	Speed 1 operation time	0.1~6000 (The unit depends on the setting of F520) 6000:Infinite (depends on the stop trigger entered)	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F541	0541	Speed 2 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F542	0542	Speed 3 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F543	0543	Speed 4 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F544	0544	Speed 5 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F545	0545	Speed 6 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F546	0546	Speed 7 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F547	0547	Speed 8 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F548	0548	Speed 9 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F549	0549	Speed 10 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F550	0550	Speed 11 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F551	0551	Speed 12 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F552	0552	Speed 13 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F553	0553	Speed 14 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F554	0554	Speed 15 operation time	Ditto	0.1/0.1	5.0	Enabled	●/●	-	●	●	
F560	0560	Preset speed operation mode selection	0:Preset speed operation with no mode 1:Preset speed operation with mode	1/1	0	Disabled	●/●	-	●	●	
F561	0561	Preset speed operation frequency 1 operation mode	0:Forward run +1:Reverse run +2:Acceleration/deceleration switching signal 1 +4:Acceleration/deceleration switching signal 2 +8:V/f switching signal 1 +16:V/f switching signal 2 +32:Torque limit switching signal 1 +64:Torque limit switching signal 2	1/1	0	Disabled	●/●	-	●	●	
F562	0562	Preset speed operation frequency 2 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F563	0563	Preset speed operation frequency 3 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F564	0564	Preset speed operation frequency 4 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F565	0565	Preset speed operation frequency 5 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F566	0566	Preset speed operation frequency 6 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F567	0567	Preset speed operation frequency 7 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F568	0568	Preset speed operation frequency 8 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F569	0569	Preset speed operation frequency 9 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F570	0570	Preset speed operation frequency 10 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F571	0571	Preset speed operation frequency 11 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F572	0572	Preset speed operation frequency 12 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F573	0573	Preset speed operation frequency 13 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F574	0574	Preset speed operation frequency 14 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F575	0575	Preset speed operation frequency 15 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	
F575	0575	Preset speed operation frequency 15 operation mode	Ditto	1/1	0	Disabled	●/●	-	●	●	

[24] for communication device

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
F576	0576	IP address setting method	0~2	1/1	0	Enabled	●/●	●/●	●	●	
F577	0577	IP card Data1	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F578	0588	IP card Data2	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F579	0589	IP card Data3	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F580	0580	IP card Data4	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F581	0581	Subnet mask Data1	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F582	0582	Subnet mask Data2	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F583	0583	Subnet mask Data3	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F584	0584	Subnet mask Data4	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F585	0585	IP gate1 Data 1	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F586	0586	IP gate1 Data 2	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F587	0587	IP gate1 Data 3	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F588	0588	IP gate1 Data 4	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F589	0589	IP master Data 1	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F590	0590	IP master Data 2	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F591	0591	IP master Data 3	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F592	0592	IP master Data 4	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F593	0593	IO scan permission	0~1	1/1	0	Enabled	●/●	●/●	●	●	
F594	0594	Communication time-out(Modbus)	0.0~60.0sec.	0.1/0.1	0	Enabled	●/●	●/●	●	●	

[25] Protection functions [1/3]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F601	0601	Stall prevention level	0~164%, 165:Deactivated	1/1	150	Enabled	●/●	-	●	●	
F602	0602	Inverter trip record retention Selection	0:Clear when power is turned off 1:Retain even after power is turned off	1/1	0	Enabled	●/●	●/●	●	●	
F603	0603	Emergency stop	0:Coast stop 1:Deceleration stop 2:Emergency DC braking 3:Deceleration stop (deceleration 4)	1/1	0	Disabled	●/●	●/●	●	●	
F604	0604	Emergency DC braking control Time	0.0~20.0 sec.	0.1/0.1	1.0	Enabled	●/●	●/●	●	●	
F605	0605	Output phase failure detection mode selection	0:Deselect 1:At starting (only one time after power is turned on) 2:At starting (each time power is turned on) 3:During operation 4:At starting + during operation 5:Output cut-off detection enabled	1/1	0	Disabled	●/●	●/●	●	●	
F606	0606	OL reduction starting frequency	0.0~60.0Hz	0.1/0.01	6.0	Enabled	●/●	●/●	●	●	
F607	0607	Motor 150%-overload time limit	10~2400 sec.	1/1	300	Enabled	●/●	●/●	●	●	
F608	0608	Input phase failure detection mode selection	0:Disabled 1:Enabled	1/1	1	Disabled	●/●	●/●	●	●	
F609	0609	Low current detection hysteresis width	1~20%	1/1	10	Enabled	●/●	●/●	●	●	
F610	0610	Low current trip selection	0:No trip 1:Trip	1/1	0	Enabled	●/●	●/●	●	●	
F611	0611	Low current detection current	0~100%	1/1	0	Enabled	●/●	●/●	●	●	
F612	0612	Low current detection time	0~255 sec.	1/1	0	Enabled	●/●	●/●	●	●	
F613	0613	Selection of short circuit detection at starting	0:Each time (standard pulse) 1:Only one time after power is turned on 2:Each time (short pulse) 3:Only one time after power is turned on (short pulse) 4:Each time (Extremely short-time pulse) 5:Only one time after power is turned on (Extremely short-time pulse)	1/1	0	Disabled	●/●	●/●	●	●	
F615	0615	Overtorque trip selection	0:No trip 1:Trip	1/1	0	Enabled	●/●	●/●	●	●	
F616	0616	Overtorque detection level during power running	0~250%	1/0.01	150	Enabled	●/●	●/●	●	●	
F617	0617	Overtorque detection level during regenerative braking	0~250%	1/0.01	150	Enabled	●/●	●/●	●	●	
F618	0618	Overtorque detection time	0.00~10.00 sec.	0.01/0.01	0.50	Enabled	●/●	●/●	●	●	
F619	0619	Overtorque detection hysteresis	0~100%	1/0.01	10	Enabled	●/●	●/●	●	●	
F620	0620	Cooling fan control selection	0:Auto 1:Always ON	1/1	0	Enabled	●/●	●/●	●	●	
F621	0621	Cumulative operation time alarm setting	0.1~999.9 (x100h)	0.1/0.1	610.0	Enabled	●/●	●/●	●	●	
F622	0622	Abnormal speed detection time	0.01~100.0sec.	0.01/0.01	0.01	Enabled	●/●	●/●	-	●	
F623	0623	Overspeed detection frequency upper band	0.00:Disabled, 0.01~30.00Hz	0.01/0.01	0.00	Enabled	●/●	●/●	-	●	
F624	0624	Overspeed detection frequency lower band	0.00:Disabled, 0.01~30.00Hz	0.01/0.01	0.00	Enabled	●/●	●/●	-	●	
F625	0625	Undervoltage detection level	50~79%, 80: (auto mode)	1/1	80	Disabled	●/●	●/●	●	●	
F626	0626	Overvoltage limit operation level	100~150%	1/1	134	Disabled	●/●	-	●	●	
F627	0627	Undervoltage trip selection	0:Disabled 1:Enabled	1/1	0	Disabled	●/●	●/●	●	●	
F628	0628	Undervoltage (trip alarm) detection time	0.01~10.00 sec.	0.01/0.01	0.03	Disabled	●/●	●/●	●	●	
F629	0629	Regenerative power ride-through control level	55~100%	1/1	75	Disabled	●/●	●/●	●	●	
F630	0630	Braking answer waiting time	0.0:Disabled, 0.1~10.0 sec.	0.1/0.1	0.0	Enabled	●/●	-	-	-	
F631	0631	Temperature detection	0:Standard (150%-60 sec.) 1:Estimation of temperature	1/1	0	Disabled	-	-	-	-	
F633	0633	VI/II analog input wire breakage detection level	0:None 1~100%	1/1	0	Enabled	●/●	●/●	●	●	
F634	0634	Annual average ambient temperature (calculation for part replacement alarms)	1: -10~+10°C 2: +11~+20°C 3: +21~+30°C 4: +31~+40°C 5: +41~+50°C 6: +51~+60°C	1/1	3	Enabled	●/●	●/●	●	●	
F635	0635	Rush current suppression relay activation time	0.0~2.5 sec.	0.1/0.1	0.0	Disabled	●/●	●/●	●	●	
F637	0637	PTC1 thermal selection	0:Deselect 1:Select	1/1	0	Disabled	●/●	●/●	●	●	
F638	0638	PTC2 thermal selection	0:Deselect 1:Select	1/1	0	Disabled	●/●	●/●	●	●	
F639	0639	Braking resistance overload time (10 times of rated torque)	0.1~600.0 sec.	0.1/0.1	5.0	Disabled	●/●	●/●	●	●	
F640	0640	Step-out detection current level (for PM motors)	10~150	1/1	100	Disabled	-	-	●	-	
F641	0641	Step-out detection time (for PM motors)	0.0:Not detect 0.1~25.0	0.1/0.1	0.0	Disabled	-	-	●	-	
F643	0643	Brake-equipped motor restart condition selection	0:Default (no waiting time for frequencies of 10Hz and less) 1:Conditional (no waiting time for frequencies of 20Hz and less)	1/1	0	Disabled	●/●	●/●	●	●	
F647	0647	Control power supply backup option failure monitoring	0:Control power supply not backed up *1 1:Control power supply backed up (alarm in the event of a failure) 2:Control power supply backed up (tripping in the event of a failure)	1/1	0	Disabled	●/●	●/●	●	●	

*1 : While control power is back up, the inverter will cut off the power supply and issue a 'CFF' alarm in the event the backup device fail during operation.

[26] Override

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F660	0660	Override addition input selection	0:Disabled 1:VI/II (voltage/current input) 2:RR/S4 (potentiometer/voltage input) 3:RX (voltage input) 4:Operation panel input enabled (including LED/LCD option input) 5:2-wire RS485 input enabled 6:4-wire RS485 input enabled 7:Communications option input enabled 8:Optional AI1 (differential current input) 9:Optional AI2 (voltage/current input) 10:UP/DOWN frequency 11:Optional RP pulse input 12:Optional high-speed pulse input 13:Optional binary/BCD input	1/1	0	Enabled	●/●	-	●	●	
F661	0661	Override multiplication input selection	0:Disabled, 1:VI/II, 2:RR/S4, 3:RX, 4:F123, 5:Optional AI1	1/1	0	Enabled	●/●	-	●	●	
F669	0669	Logic output/pulse output selection (OUT1)	0:Logic output 1:Pulse output	1/1	0	Disabled	●/●	●/●	●	●	
RR5L	0670	AM terminal meter selection	0~64 *1	1/1	2	Enabled	●/●	●/●	●	●	

This parameter moves to a fundamental parameter.
*1: => For the adjustment range See the Instruction Manual.

[27] Meter output

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
RR	0671	AM terminal meter adjustment	-	1/1	-	Enabled	●/●	●/●	●	●	
F672	0672	MON1 terminal meter selection	0~76 *1	1/1	4	Enabled	●/●	●/●	●	●	
F673	0673	MON1 terminal meter adjustment	-	1/1	-	Enabled	●/●	●/●	●	●	
F674	0674	MON2 terminal meter selection	0~76 *1	1/1	5	Enabled	●/●	●/●	●	●	
F675	0675	MON2 terminal meter adjustment	-	1/1	-	Enabled	●/●	●/●	●	●	
F676	0676	Pulse output function selection	0~49 *1	1/1	0	Enabled	●/●	●/●	●	●	
F677	0677	Selection of number of pulses	1.00~43.20kHz	0.01/0.01	3.84	Enabled	●/●	●/●	●	●	
F678	0678	Constant at the time of filtering	4msec, 8msec~100msec	1/1	64	Enabled	●/●	●/●	●	●	
F681	0681	FM voltage/current output switching	0:Voltage 0~10V output 1:Current 0~20mA output	1/1	0	Disabled	●/●	●/●	●	●	
F682	0682	FM output gradient characteristic	0:Negative gradient (descending) 1:Positive gradient (ascending)	1/1	1	Enabled	●/●	●/●	●	●	
F683	0683	FM bias adjustment	-10.0~100.0%	0.1/0.1	0.0	Enabled	●/●	●/●	●	●	
F684	0684	FM output filter	0:No filter 1:Filter approx. 10ms 2:Filter approx. 15ms 3:Filter approx. 30ms 4:Filter approx. 60ms 5:Filter approx. 120ms 6:Filter approx. 250ms 7:Filter approx. 500ms 8:Filter approx. 1s	1/1	0	Enabled	●/●	●/●	●	●	
F685	0685	AM output gradient characteristic	0:Negative inclination (downward slope) 1:Positive inclination (upward slope)	1/1	1	Enabled	●/●	●/●	●	●	
F686	0686	AM bias adjustment	-10.0~100.0%	0.1/0.1	0.0	Enabled	●/●	●/●	●	●	
F688	0688	MON1 voltage/current output switching	0:Voltage -10~10V output 1:Voltage 0~10V output 2:Current 0~20mA output	1/1	1	Disabled	●/●	●/●	●	●	
F689	0689	MON1 output gradient characteristic	0:Negative inclination (downward slope) 1:Positive inclination (upward slope)	1/1	1	Enabled	●/●	●/●	●	●	
F690	0690	MON1 bias adjustment	-10.0~100.0%	0.1/0.1	0.0	Enabled	●/●	●/●	●	●	
F691	0691	MON2 voltage/current output switching	0:Voltage -10~10V output 1:Voltage 0~10V output 2:Current 0~20mA output	1/1	1	Disabled	●/●	●/●	●	●	
F692	0692	MON2 output gradient characteristic	0:Negative inclination (downward slope) 1:Positive inclination (upward slope)	1/1	1	Enabled	●/●	●/●	●	●	
F693	0693	MON2 bias adjustment	-10.0~100.0%	0.1/0.1	0.0	Enabled	●/●	●/●	●	●	

This parameter moves to a fundamental parameter.
*1: => For the adjustment range See the Instruction Manual.

[28] Operation panel parameters[1/2]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F 700	0700	Parameter write protect selection	0:Permit 1:Prohibit	1/1	0	Enabled	●/●	●/●	●	●	
dSPU	0701	Current/voltage unit selection	0:%, 1:A (ampere)/V (volt)	1/1	0	Enabled	●/●	●/●	●	●	
F 702	0702	Frequency free unit display magnification	0.00:OFF, 0.01~200.0	0.01/0.01	0.00	Enabled	●/●	●/●	●	●	
F 703	0703	Frequency free unit conversion selection	0:All frequencies display free unit conversion 1:PID frequencies free unit conversion	1/1	0	Enabled	●/●	●/●	●	●	
F 705	0705	Free unit display gradient characteristic	0:Negative inclination (downward slope) 1:Positive inclination (upward slope)	1/1	1	Enabled	●/●	●/●	●	●	
F 706	0706	Free unit display bias	0.00~FH Hz	0.01/0.01	0.00	Enabled	●/●	●/●	●	●	
F 707	0707	Changing step selection 1	0.00:Disabled, 0.01~FH Hz	0.01/0.01	0.00	Enabled	●/●	●/●	●	●	
F 708	0708	Changing step selection 2	0:Disabled, 1~255	1/1	0	Enabled	●/●	●/●	●	●	
F 709	0709	Standard monitor hold function	0:Real time, 1:Peak hold, 2:Minimum hold	1/1	0	Enabled	●/●	●/●	●	●	
F 710	0710	Standard monitor display selection	0~80 *1	1/1	0	Enabled	●/●	●/●	●	●	
F 711	0711	Status monitor 1 display selection	Ditto	1/1	1	Enabled	●/●	●/●	●	●	
F 712	0712	Status monitor 2 display selection	Ditto	1/1	2	Enabled	●/●	●/●	●	●	
F 713	0713	Status monitor 3 display selection	Ditto	1/1	3	Enabled	●/●	●/●	●	●	
F 714	0714	Status monitor 4 display selection	Ditto	1/1	4	Enabled	●/●	●/●	●	●	
F 715	0715	Status monitor 5 display selection	Ditto	1/1	8	Enabled	●/●	●/●	●	●	
F 716	0716	Status monitor 6 display selection	Ditto	1/1	16	Enabled	●/●	●/●	●	●	
F 717	0717	Status monitor 7 display selection	Ditto	1/1	15	Enabled	●/●	●/●	●	●	
F 718	0718	Status monitor 8 display selection	Ditto	1/1	14	Enabled	●/●	●/●	●	●	
F 719	0719	Operation command clear selection when standby terminal (ST) is OFF	0:Clear operation command 1:Retain operation command	1/1	1	Enabled	●/●	●/●	●	●	
F 721	0721	Operation panel stop pattern selection	0:Deceleration stop 1:Coast stop	1/1	0	Enabled	●/●	●/●	●	●	
F 725	0725	Operation panel torque command	-250~250%	1/0.01	0	Enabled	-	●/●	-	-	
F 727	0727	Operation panel tension torque Bias	-250~250%	1/0.01	0	Enabled	-	●/●	-	-	
F 728	0728	Operation panel load sharing Gain	0~250%	1/0.01	100	Enabled	-	●/●	-	-	
F 729	0729	Operation panel override multiplication gain	-100~100%	1/0.01	0	Enabled	●/●	-	●	●	
F 730	0730	Operation panel frequency setting prohibition selection	0:Permit 1:Prohibit	1/1	0	Enabled	●/●	●/●	●	●	
F 734	0734	Operation panel emergency stop operation prohibition selection	0:Permit 1:Prohibit	1/1	0	Enabled	●/●	●/●	●	●	
F 735	0735	Operation panel reset operation prohibition selection	0:Permit 1:Prohibit	1/1	0	Enabled	●/●	●/●	●	●	
F 736	0736	Prohibition of change of $\int P d t$ during operation	0:Permit 1:Prohibit	1/1	1	Enabled	●/●	●/●	●	●	
F 737	0737	All key operation prohibition	0:Permit 1:Prohibit	1/1	0	Enabled	●/●	●/●	●	●	
F 740	0740	Trace selection	0:Deselect, 1:At tripping, 2:At triggering	1/1	1	Enabled	●/●	●/●	●	●	
F 741	0741	Trace cycle	0:4ms, 1:20ms, 2:100ms, 3:1s, 4:10s	1/1	2	Enabled	●/●	●/●	●	●	
F 742	0742	Trace data 1	0~49	1/1	0	Enabled	●/●	●/●	●	●	
F 743	0743	Trace data 2	0~49	1/1	1	Enabled	●/●	●/●	●	●	
F 744	0744	Trace data 3	0~49	1/1	2	Enabled	●/●	●/●	●	●	
F 745	0745	Trace data 4	0~49	1/1	3	Enabled	●/●	●/●	●	●	
F 748	0748	Integral output power retention selection	0:Disabled 1:Enabled	1/1	1	Enabled	●/●	●/●	●	●	
F 749	0749	Integral output power display unit selection	0:1=1kWh 1:0.1=1kWh 2:0.01=1kWh 3:0.001=1kWh 4:0.0001=1kWh	1/1	Depends on capacity	Enabled	●/●	●/●	●	●	
F 750	0750	EASY key function selection	0:Quick mode/standard setting mode switching function 1:Shortcut key:Pressing for 2 sec. to record the parameter, pressing normally to jump to recorded parameter (first jump to the 1st history) 2:Operation panel/remote key:Operation panel by ON 3:Monitor peak minimum hold trigger	1/1	0	Disabled	●/●	●/●	●	●	
F 751	0751	Quick registration parameter 1	0~999 *1	1/1	40 (AU4)	Enabled	●/●	●/●	●	●	
F 752	0752	Quick registration parameter 2	0~999 *1	1/1	15 (pt)	Enabled	●/●	●/●	●	●	
F 753	0753	Quick registration parameter 3	0~999 *1	1/1	11 (FH)	Enabled	●/●	●/●	●	●	
F 754	0754	Quick registration parameter 4	0~999 *1	1/1	9 (ACC)	Enabled	●/●	●/●	●	●	
F 755	0755	Quick registration parameter 5	0~999 *1	1/1	10 (dEC)	Enabled	●/●	●/●	●	●	
F 756	0756	Quick registration parameter 6	0~999 *1	1/1	600 (tHr)	Enabled	●/●	●/●	●	●	
F 757	0757	Quick registration parameter 7	0~999 *1	1/1	6 (FM)	Enabled	●/●	●/●	●	●	

This parameter moves to a fundamental parameter.
*1: The communication number of the parameter is used for this setting.

[28] Operation panel parameters [2/2]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F 758	0758	Quick registration parameter 8	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 759	0759	Quick registration parameter 9	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 760	0760	Quick registration parameter 10	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 761	0761	Quick registration parameter 11	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 762	0762	Quick registration parameter 12	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 763	0763	Quick registration parameter 13	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 764	0764	Quick registration parameter 14	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 765	0765	Quick registration parameter 15	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 766	0766	Quick registration parameter 16	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 767	0767	Quick registration parameter 17	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 768	0768	Quick registration parameter 18	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 769	0769	Quick registration parameter 19	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 770	0770	Quick registration parameter 20	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 771	0771	Quick registration parameter 21	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 772	0772	Quick registration parameter 22	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 773	0773	Quick registration parameter 23	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 774	0774	Quick registration parameter 24	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 775	0775	Quick registration parameter 25	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 776	0776	Quick registration parameter 26	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 777	0777	Quick registration parameter 27	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 778	0778	Quick registration parameter 28	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 779	0779	Quick registration parameter 29	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 780	0780	Quick registration parameter 30	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 781	0781	Quick registration parameter 31	0~999 *1	1/1	999	Enabled	●/●	●/●	●	●	
F 782	0782	Quick registration parameter 32	0~999 *1	1/1	50 (PSEL)	Enabled	●/●	●/●	●	●	
F 784	0784	MAC address Data1	0~255	1/1	0	-*2	●/●	●/●	●	●	
F 785	0785	MAC address Data2	0~255	1/1	0	-*2	●/●	●/●	●	●	
F 786	0786	MAC address Data3	0~255	1/1	0	-*2	●/●	●/●	●	●	
F 787	0787	MAC address Data4	0~255	1/1	0	-*2	●/●	●/●	●	●	
F 788	0788	MAC address Data5	0~255	1/1	0	-*2	●/●	●/●	●	●	
F 789	0789	MAC address Data6	0~255	1/1	0	-*2	●/●	●/●	●	●	
F 792	0792	Device name Data1	0000~FFFF	1/1	0	-*2	●/●	●/●	●	●	
F 793	0793	Device name Data2	0000~ FFFF	1/1	0	-*2	●/●	●/●	●	●	
F 794	0794	Device name Data3	0000~ FFFF	1/1	0	-*2	●/●	●/●	●	●	
F 795	0795	Device name Data4	0000~ FFFF	1/1	0	-*2	●/●	●/●	●	●	
F 796	0796	Device name Data5	0000~ FFFF	1/1	0	-*2	●/●	●/●	●	●	
F 797	0797	Device name Data6	0000~ FFFF	1/1	0	-*2	●/●	●/●	●	●	
F 798	0798	Device name Data7	0000~ FFFF	1/1	0	-*2	●/●	●/●	●	●	
F 799	0799	Device name Data8	0000~ FFFF	1/1	0	-*2	●/●	●/●	●	●	

*1: The communication number of the parameter is used for this setting. *2: Read only

[29] Communication function [1/3]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F800	0800	Communication speed (2-wire RS485)	0:9600 bps 1:19200 bps 2:38400 bps	1/1	1	Enabled	●/●	●/●	●	●	
F801	0801	Parity (common to 2-wire RS485 and 4-wire RS485)	0:Non parity 1:Even parity, 2:Odd parity	1/1	1	Enabled	●/●	●/●	●	●	
F802	0802	Inverter number (common)	0~247	1/1	0	Enabled	●/●	●/●	●	●	
F803	0803	Communications time-out time (common to 2-wire RS485 and 4-wire RS485)	0:OFF, 1~100 sec.	1/1	0	Enabled	●/●	●/●	●	●	
F804	0804	Communications time-out action (common to 2-wire RS485 and 4-wire RS485)	0~8	1/1	8	Enabled	●/●	●/●	●	●	
F805	0805	Send waiting time (2-wire RS485)	0.00:Default, 0.01~2.00 sec.	0.01/0.01	0.00	Enabled	●/●	●/●	●	●	
F806	0806	Master/slave setting for inverter-to-inverter communications (2-wire RS485)	0:Slave (issues a 0Hz command if something goes wrong with the master) 1:Slave (continues operation if something goes wrong with the master) 2:Slave (trips for emergency stop if something goes wrong with the master) 3:Master (sends a frequency command) 4:Master (sends an output frequency) 5:Master (sends a torque command) 6:Master (sends an output torque command)	1/1	0	Enabled	●/●	●/●	●	●	
F807	0807	Protocol selection (2-wire RS485)	0:TOSHIBA 1:MODBUS	1/1	0	Enabled	●/●	●/●	●	●	
F808	0808	Communication1 time-out condition selection	0:Disconnection detection 1:When communication mode enable 2:1+Driving operation	1/1	0	Enabled	●/●	●/●	●	●	
F810	0810	Frequency point selection	0:Disabled 1:2-wire RS485 2:4-wire RS485 3:Communication add option	1/1	0	Enabled	●/●	-	●	●	
F811	0811	Point 1 setting	0~100%	1/1	0	Enabled *2	●/●	-	●	●	
F812	0812	Point 1 frequency	0.0~FH Hz	0.1/0.01	0.0	Enabled *2	●/●	-	●	●	
F813	0813	Point 2 setting	0~100%	1/1	100	Enabled *2	●/●	-	●	●	
F814	0814	Point 2 frequency	0.0~FH Hz	0.1/0.01	*1	Enabled *2	●/●	-	●	●	
F815	0815	Address monitor (Modbus puls)	1~64	1/1	1	-*3	●/●	●/●	●	●	
F816	0816	Command selection (Modbus puls)	0:Prohibition, 1:Prohibition	1/1	0	Enabled	●/●	●/●	●	●	
F817	0817	Number of command (Modbus puls)	0~8	1/1	0	Enabled	●/●	●/●	●	●	
F818	0818	Number of monitors (Modbus puls)	0~8	1/1	0	Enabled	●/●	●/●	●	●	
F819	0819	Command station (Modbus puls)	0~64	1/1	0	Enabled	●/●	●/●	●	●	
F820	0820	Communication speed (4-wire RS485)	0:9600 bps 1:19200 bps 2:38400 bps	1/1	1	Enabled	●/●	●/●	●	●	
F821	0821	Baud rate (Ethernet)	0:Automatic detection 1:10Mbps Full 2:10Mbps Half 3:100Mbps Full 4:100Mbps Half	1/1	0	Enabled	●/●	●/●	●	●	
F822	0822	Baud rate monitor right port (Ethernet)	0:Automatic detection 1:10Mbps Full 2:10Mbps Half 3:100Mbps Full 4:100Mbps Half	1/1	-	-	●/●	●/●	●	●	
F823	0823	Baud rate monitor left port (Ethernet)	0:Automatic detection 1:10 Mbps Full 2:10Mbps Half 3:100Mbps Full 4:100Mbps Half	1/1	-	-	●/●	●/●	●	●	
F824	0824	(Reservation)	0:- 1:- 2:- 3:-	1/1	0	Enabled	●/●	●/●	●	●	
F825	0825	Send waiting time (4-wire RS485)	0.00:Default, 0.01~2.00 sec.	0.01/0.01	0.00	Enabled	●/●	●/●	●	●	

*1: Inverter with a model number ending with -WN1: 60.0 -WP1: 50.0

*2: Effective when a command value is sent by communication.

*3: Read only

[29] Communication function [2/3]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F826	0826	Inverter-to-inverter communication setting (4-wire RS485)	0:Slave (issues a 0Hz command if something goes wrong with the master) 1:Slave (continues operation if something goes wrong with the master) 2:Slave (trips for emergency stop if something goes wrong with the master) 3:Master (sends a frequency command) 4:Master (sends an output frequency) 5:Master (sends a torque command) 6:Master (sends an output torque command)	1/1	0	Enabled	●/●	●/●	●	●	
F829	0829	Protocol selection (4-wire RS485)	0:TOSHIBA 1:MODBUS	1/1	0	Enabled	●/●	●/●	●	●	
F830	0830	Communication option (DeviceNet/ PROFIBUS) setting 1	0~7	1/1	0	Enabled	●/●	●/●	●	●	
F831	0831	Communication option (DeviceNet/ PROFIBUS) setting 2	0000~FFFF	1/1	0000	Enabled	●/●	●/●	●	●	
F832	0832	Communication option (DeviceNet/ PROFIBUS) setting 3	0000~FFFF	1/1	0000	Enabled	●/●	●/●	●	●	
F833	0833	Communication option (DeviceNet/ PROFIBUS) setting 4	0000~FFFF	1/1	0000	Enabled	●/●	●/●	●	●	
F834	0834	Communication option (DeviceNet/ PROFIBUS) setting 5	0000~FFFF	1/1	0000	Enabled	●/●	●/●	●	●	
F835	0835	Communication option (DeviceNet/ PROFIBUS) setting 6	0000~FFFF	1/1	0000	Enabled	●/●	●/●	●	●	
F836	0836	Communication option (DeviceNet/ PROFIBUS) setting 7	0000~FFFF	1/1	0000	Enabled	●/●	●/●	●	●	
F837	0837	Communication option setting 8	0000~FFFF	1/1	0	Enabled	●/●	●/●	●	●	
F838	0838	Communication option setting 9	0000~FFFF	1/1	0	Enabled	●/●	●/●	●	●	
F841	0841	Communication option (DeviceNet/ PROFIBUS) setting 8	0000~FFFF	1/1	0000	Enabled	●/●	●/●	●	●	
F842	0842	Communication option (DeviceNet/ PROFIBUS) setting 9	0000~FFFF	1/1	0000	Enabled	●/●	●/●	●	●	
F843	0843	Communication option (DeviceNet/ PROFIBUS) setting 10	0000~FFFF	1/1	0000	Enabled	●/●	●/●	●	●	
F844	0844	Communication option (DeviceNet/ PROFIBUS) setting 11	0000~FFFF	1/1	0000	Enabled	●/●	●/●	●	●	
F845	0845	Communication option (DeviceNet/ PROFIBUS) setting 12	0000~FFFF	1/1	0000	Enabled	●/●	●/●	●	●	
F846	0846	Communication option (DeviceNet/ PROFIBUS) setting 13	0000~FFFF	1/1	0000	Enabled	●/●	●/●	●	●	
F847	0847	Communication option setting 15	0000~FFFF	1/1	0	Enabled	●/●	●/●	●	●	
F848	0848	Communication option setting 16	0000~FFFF	1/1	0	Enabled	●/●	●/●	●	●	
F849	0849	Communication2 time-out condition selection	0:Disconnection detection 1:When communication mode enable 2:1+Driving operation	1/1	0	Enabled	●/●	●/●	●	●	
F850	0850	Disconnection detection extended time	0.0~100.0 sec.	0.1/0.1	0.0	Enabled	●/●	●/●	●	●	
F851	0851	Inverter operation at disconnection	0:Inverter stop, communication command, frequency mode open (by \overline{CND} , \overline{FND}) 1:None (continued operation) 2:Deceleration stop 3:Coast stop 4:Network error (\overline{ERR} trip) 5:Preset speed operation (by $F852$ setting)	1/1	0	Enabled	●/●	●/●	●	●	
F852	0852	Preset speed operation selection	0:None 1~15:Preset speed operation (by parameter setting)	1/1	0	Enabled	●/●	●/●	●	●	
F853	0853	Communication option station address monitor	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F854	0854	Communication option speed switch monitor DeviceNet/CC-Link	0~255	1/1	0	Enabled	●/●	●/●	●	●	
F856	0856	Motor pairs of 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	1/1	2	Enabled	●/●	●/●	●	●	
F870	0870	Block write data 1	0:Disabled 1:Command information 1 2:Command information 2 3:Frequency command 4:Terminal board output data 5:Communication analog data 6:Rotational speed instruction	1/1	0	Enabled	●/●	●/●	●	●	
F871	0871	Block write data 2	Ditto	1/1	0	Enabled	●/●	●/●	●	●	

[29] Communication function [3/3]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
F875	0875	Block read data 1	0:Deselect 1:Status information 2:Output frequency 3:Output current 4:Output voltage 5:Alarm information 6:PID feedback value 7:Input terminal board monitor 8:Output terminal board monitor 9:VI/II terminal board monitor 10:RR/S4 terminal board monitor 11:RX terminal board monitor 12:Input voltage (DC detection) 13:Speed feedback frequency 14:Torque 15:MY monitor 1 16:MY monitor 2 17:MY monitor 3 18:MY monitor 4 19:Free notes 20:Rotational speed	1/1	0	Enabled	●/●	●/●	●	●	
F876	0876	Block read data 2	Ditto	1/1	0	Enabled	●/●	●/●	●	●	
F877	0877	Block read data 3	Ditto	1/1	0	Enabled	●/●	●/●	●	●	
F878	0878	Block read data 4	Ditto	1/1	0	Enabled	●/●	●/●	●	●	
F879	0879	Block read data 5	Ditto	1/1	0	Enabled	●/●	●/●	●	●	
F880	0880	Free notes	0~FFFF	1/1	0	Enabled	●/●	●/●	●	●	
F899	0899	Network option reset setting	0:None 1:Reset option circuit board and inverter	1/1	0	Disabled	●/●	●/●	●	●	

[30] My function [1/2]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F900	0900	Input function target 11	Input terminal function number 0:Deselect 1:F terminal 2:R terminal 3:- 4:RES terminal 5:S1 terminal 6:S2 terminal 7:S3 terminal 8:RR/S4 terminal 9:L1 terminal 10:L2 terminal 11:L3 terminal 12:L4 terminal 13:L5 terminal 14:L6 terminal 15:L7 terminal 16:L8 terminal 17:B12 terminal 18:B13 terminal 19:B14 terminal 20:B15 terminal 21:Virtual input terminal 1 22:Virtual input terminal 2 23:Virtual input terminal 3 24:Virtual input terminal 4 25-32:Internal terminal 1-8 918-934:MY function number 1000-1255:Output selection number 2000-2099:FD00-FD99 3000-3099:FE00-FE99	1/1	0	Disabled	●	●	●	●	
F901	0901	Input function command 12	0:NOP (not operation) 1:ST (move) 2:STN 3:AND (logical product) 4:ANDN 5:OR (logical sum) 6:ORN 7:EQ (equal) 8:NE (not equal) 9:GT (greater than) 10:GE (greater or equal) 11:LT (less than) 12:LE (less or equal) 13:ASUB (absolute) 14:ON (on delay timer) 15:OFF (off delay timer) 16:COUNT 1 (counter 1) 17:COUNTR 2 (counter 2) 18:HOLD (hold) 19:SET (set) 20:RESET (reset) 21:CLR 22:CLRn	1/1	0	Disabled	●	●	●	●	
F902	0902	Input function target 12	Same as F900	1/1	0	Disabled	●	●	●	●	
F903	0903	Input function command 13	Same as F901	1/1	0	Disabled	●	●	●	●	
F904	0904	Input function target 13	Same as F900	1/1	0	Disabled	●	●	●	●	
F905	0905	Output function assigned object 1	Same as F900	1/1	0	Disabled	●	●	●	●	
F906	0906	Input function target 21	Same as F900	1/1	0	Disabled	●	●	●	●	
F907	0907	Input function command 22	Same as F901	1/1	0	Disabled	●	●	●	●	
F908	0908	Input function target 22	Same as F900	1/1	0	Disabled	●	●	●	●	
F909	0909	Input function command 23	Same as F901	1/1	0	Disabled	●	●	●	●	
F910	0910	Input function target 23	Same as F900	1/1	0	Disabled	●	●	●	●	
F911	0911	Output function assigned object 2	Same as F900	1/1	0	Disabled	●	●	●	●	
F912	0912	Input function target 31	Same as F900	1/1	0	Disabled	●	●	●	●	
F913	0913	Input function command 32	Same as F901	1/1	0	Disabled	●	●	●	●	
F914	0914	Input function target 32	Same as F900	1/1	0	Disabled	●	●	●	●	
F915	0915	Input function command 33	Same as F901	1/1	0	Disabled	●	●	●	●	
F916	0916	Input function target 33	Same as F900	1/1	0	Disabled	●	●	●	●	
F917	0917	Output function assigned object 3	Same as F900	1/1	0	Disabled	●	●	●	●	
F918	0918	My output percent data 1	0.00~200.0%	0.01/0.01	0.00	Enabled	●	●	●	●	
F919	0919	My output percent data 2	0.00~200.0%	0.01/0.01	0.00	Enabled	●	●	●	●	
F920	0920	My output percent data 3	0.00~200.0%	0.01/0.01	0.00	Enabled	●	●	●	●	
F921	0921	My output percent data 4	0.00~200.0%	0.01/0.01	0.00	Enabled	●	●	●	●	
F922	0922	My output percent data 5	0.00~200.0%	0.01/0.01	0.00	Enabled	●	●	●	●	
F923	0923	My output frequency data 1	0.0~500.0Hz	0.1/0.1	0.0	Enabled	●	●	●	●	
F924	0924	My output frequency data 2	0.0~500.0Hz	0.1/0.1	0.0	Enabled	●	●	●	●	
F925	0925	My output frequency data 3	0.0~500.0Hz	0.1/0.1	0.0	Enabled	●	●	●	●	
F926	0926	My output frequency data 4	0.0~500.0Hz	0.1/0.1	0.0	Enabled	●	●	●	●	
F927	0927	My output frequency data 5	0.0~500.0Hz	0.1/0.1	0.0	Enabled	●	●	●	●	
F928	0928	My output time data 1	0.01~600.0sec	0.01/0.01	0.01	Enabled	●	●	●	●	
F929	0929	My output time data 2	0.01~600.0sec	0.01/0.01	0.01	Enabled	●	●	●	●	
F930	0930	My output time data 3	0.01~600.0sec	0.01/0.01	0.01	Enabled	●	●	●	●	
F931	0931	My output time data 4	0.01~600.0sec	0.01/0.01	0.01	Enabled	●	●	●	●	
F932	0932	My output time data 5	0.01~600.0sec	0.01/0.01	0.01	Enabled	●	●	●	●	
F933	0933	No. of times of My output data 1	0~9999 times	1/1	0	Enabled	●	●	●	●	
F934	0934	No. of times of My output data 2	0~9999 times	1/1	0	Enabled	●	●	●	●	

[30] My function [2/2]

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F935	0935	Input function target 41	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F936	0936	Input function command 42	Same as F901	1/1	0	Enabled	●/●	●/●	●	●	
F937	0937	Input function target 42	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F938	0938	Input function command 43	Same as F901	1/1	0	Enabled	●/●	●/●	●	●	
F939	0939	Input function target 43	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F940	0940	Output function assigned object 4	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F941	0941	Input function target 51	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F942	0942	Input function command 52	Same as F901	1/1	0	Enabled	●/●	●/●	●	●	
F943	0943	Input function target 52	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F944	0944	Input function command 53	Same as F901	1/1	0	Enabled	●/●	●/●	●	●	
F945	0945	Input function target 53	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F946	0946	Output function assigned object 5	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F947	0947	Output function target 61	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F948	0948	Input function command 62	Same as F901	1/1	0	Enabled	●/●	●/●	●	●	
F949	0949	Input function target 62	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F950	0950	Input function command 63	Same as F901	1/1	0	Enabled	●/●	●/●	●	●	
F951	0951	Input function target 63	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F952	0952	Output function assigned object 6	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F953	0953	Input function target 71	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F954	0954	Input function command 72	Same as F901	1/1	0	Enabled	●/●	●/●	●	●	
F955	0955	Input function target 72	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F956	0956	Input function command 73	Same as F901	1/1	0	Enabled	●/●	●/●	●	●	
F957	0957	Input function target 73	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F958	0958	Output function assigned object 7	Same as F900	1/1	0	Enabled	●/●	●/●	●	●	
F959	0959	Analog input function target 11	0:Disabled 1:V/Hz 2:RR/S4 3:RX 4:Optional AI1+, Optional AI1- 5:Optional AI2 6:Internal memory1	1/1	0	Enabled	●/●	●/●	●	●	
F961	0961	Analog function assigned object 11	0:Disabled 1:Acceleration 2:Upper limit frequency (UL) 3:Acceleration multiplication factor 4:Deceleration multiplication factor 5:Manual torque boost (u b) 6:OC stall (F501) 7:Thermal protection (t H r) 8:Speed loop P gain (F460) 9:Drooping gain (F320) 10:PID P gain (F362)	1/1	0	Disabled	●/●	●/●	●	●	
F962	0962	Analog input function target 21	0:Disabled 1:V/Hz 2:RR/S4 3:RX 4:Optional AI1+, Optional AI1- 5:Optional AI2 6:Internal memory2	1/1	0	Enabled	●/●	●/●	●	●	
F964	0964	Analog function assigned object 21	0~10	1/1	0	Disabled	●/●	●/●	●	●	
F965	0965	Monitor output function target 11	2000~2099:FD00~FD99 3000~3099:FE00~FE99	1/1	2000	Enabled	●/●	●/●	●	●	
F966	0966	Monitor output function command 11	0:Normal monitor, 1:Max. value, 2:Min. value	1/1	0	Enabled	●/●	●/●	●	●	
F967	0967	Monitor output function target 21	2000~2099:FD00~FD99 3000~3099:FE00~FE99	1/1	2000	Enabled	●/●	●/●	●	●	
F968	0968	Monitor output function command 21	0:Normal monitor, 1:Max. value, 2:Min. value	1/1	0	Enabled	●/●	●/●	●	●	
F969	0969	Monitor output function target 31	2000~2099:FD00~FD99 3000~3099:FE00~FE99	1/1	2000	Enabled	●/●	●/●	●	●	
F970	0970	Monitor output function command 31	0:Normal monitor, 1:Max. value, 2:Min. value	1/1	0	Enabled	●/●	●/●	●	●	
F971	0971	Monitor output function target 41	2000~2099:FD00~FD99 3000~3099:FE00~FE99	1/1	2000	Enabled	●/●	●/●	●	●	
F972	0972	Monitor output function command 41	0:Normal monitor, 1:Max. value, 2:Min. value	1/1	0	Enabled	●/●	●/●	●	●	
F973	0973	Virtual input terminal selection 1	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F974	0974	Virtual input terminal selection 2	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F975	0975	Virtual input terminal selection 3	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F976	0976	Virtual input terminal selection 4	0~135 *1	1/1	0	Disabled	●/●	●/●	●	●	
F977	0977	My function selection	0:Disabled 1:My function + permission signal 2:My function always ON	1/1	0	Disabled	●/●	●/●	●	●	

*1: ⇒ For the adjustment range See the Instruction Manual

[31] Travenirse function

Sensorless vector/vector with sensor (●:Effective, -:Ineffective)

Title	Communication No.	Function	Adjustment range	Minimum setting unit (Panel/Communication)	Default setting	Write during running	Vector control		PM control	V/f constant	User setting
							Speed control	Torque control			
F980	0980	Traverse selection	0:Disabled 1:Enabled	1/1	0	Disabled	●/●	-	●	●	
F981	0981	Traverse acceleration time	0.1~120.0 sec.	0.1/0.1	25.0	Enabled	●/●	-	●	●	
F982	0982	Traverse deceleration time	0.1~120.0 sec.	0.1/0.1	25.0	Enabled	●/●	-	●	●	
F983	0983	Traverse step	0.0~25.0%	0.1/0.1	10.0	Enabled	●/●	-	●	●	
F984	0984	Traverse jump step	0.0~50.0%	0.1/0.1	10.0	Enabled	●/●	-	●	●	

Standard default settings classified by inverter model (capacity)

The 'depending on capacity/type' in default setting of parameter list is described in next table

Inverter type	Torque boost	Base frequency	Acc/dec time	PWM carrier frequency	Dynamic braking resistance	Allowable continuous braking resistance	Inverter side switching waiting time	Motor rated capacity	Motor rated current	Motor rated rotational speed	Motor constant 1 (torque boost)	Motor constant 2 (no load current)	Motor constant 3 (leak inductance)	Motor constant 4 (rated slip)	Display unit selection for integral output power
	F176 F177 F180	F174 F175 F179	ACC/DEC F500 F501 F510 F511 F514 F515	LF	Pbr	PbCP	F356	F405	F406	F407 *1	F410	F411	F412	F413	F749
VFAS1-2004PL	8.0	23.0	10.0	12.0	200.0	0.12	0.57	0.40	2.0	1680	7.8	6.1	12.0	6.67	0
VFAS1-2007PL	8.0	23.0	10.0	12.0	200.0	0.12	0.57	0.75	3.4	1690	7.3	5.4	10.0	6.11	0
VFAS1-2015PL	6.0	23.0	10.0	12.0	75.0	0.12	0.57	1.50	6.2	1690	7.1	4.5	7.0	6.11	0
VFAS1-2022PL	6.0	23.0	10.0	12.0	75.0	0.12	0.57	2.20	8.9	1680	5.9	4.1	7.0	6.67	0
VFAS1-2037PL	6.0	23.0	10.0	12.0	40.0	0.12	0.67	3.70	14.8	1690	4.9	3.6	8.0	6.11	1
VFAS1-2055PL	4.0	23.0	10.0	12.0	20.0	0.24	0.87	5.50	21.0	1730	3.9	3.4	7.0	3.89	1
VFAS1-2075PL	4.0	23.0	10.0	12.0	15.0	0.44	0.87	7.50	28.2	1730	3.4	3.3	7.0	3.89	1
VFAS1-2110PM	3.0	23.0	10.0	12.0	10.0	0.66	1.07	11.0	40.6	1730	2.8	2.7	6.0	3.89	1
VFAS1-2150PM	3.0	23.0	10.0	12.0	7.5	0.88	1.07	15.0	54.6	1730	2.5	2.7	6.0	3.89	1
VFAS1-2185PM	3.0	23.0	30.0	4.0	7.5	0.88	1.37	18.5	68.0	1750	2.6	2.7	7.0	2.78	1
VFAS1-2220PM	3.0	23.0	30.0	4.0	3.3	1.76	1.37	22.0	80.0	1750	2.4	2.7	7.0	2.78	1
VFAS1-2300PM	3.0	23.0	30.0	4.0	3.3	1.76	1.37	30.0	108.0	1745	2.2	2.6	7.0	3.06	1
VFAS1-2370PM	3.0	23.0	30.0	4.0	2.0	2.20	1.37	37.0	134.0	1750	1.8	2.6	7.0	2.78	2
VFAS1-2450PM	3.0	23.0	30.0	4.0	2.0	2.20	1.37	45.0	160.0	1750	1.7	2.6	6.0	2.78	2
VFAS1-2550P	3.0	23.0	30.0	2.5	2.0	2.20	1.87	55.0	196.0	1755	1.6	2.4	7.0	2.50	2
VFAS1-2750P	2.0	23.0	60.0	2.5	1.7	3.40	2.37	75.0	258.0	1775	1.5	2.8	5.0	1.39	2
VFAS1-4007PL	8.0	*2	10.0	12.0	200.0	0.12	0.57	0.75	1.7	1690	7.3	5.4	10.0	6.11	0
VFAS1-4015PL	6.0	*2	10.0	12.0	200.0	0.12	0.57	1.50	3.1	1690	7.1	4.5	6.0	6.11	0
VFAS1-4022PL	6.0	*2	10.0	12.0	200.0	0.12	0.57	2.20	4.5	1680	5.9	4.1	7.0	6.67	0
VFAS1-4037PL	6.0	*2	10.0	12.0	160.0	0.12	0.67	3.70	7.4	1690	4.9	3.6	7.0	6.11	1
VFAS1-4055PL	4.0	*2	10.0	12.0	80.0	0.24	0.87	5.50	10.5	1730	3.9	3.4	7.0	3.89	1
VFAS1-4075PL	4.0	*2	10.0	12.0	60.0	0.44	0.87	7.50	14.1	1730	3.4	3.3	7.0	3.89	1
VFAS1-4110PL	4.0	*2	10.0	12.0	40.0	0.66	1.07	11.0	20.3	1730	2.8	2.7	6.0	3.89	1
VFAS1-4150PL	3.0	*2	10.0	12.0	30.0	0.88	1.07	15.0	27.3	1730	2.5	2.7	6.0	3.89	1
VFAS1-4185PL	3.0	*2	30.0	4.0	30.0	0.88	1.37	18.5	34.0	1750	2.6	2.7	7.0	2.78	1
VFAS1-4220PL	3.0	*2	30.0	4.0	15.0	1.76	1.37	22.0	40.0	1750	2.4	2.7	7.0	2.78	1
VFAS1-4300PL	3.0	*2	30.0	4.0	15.0	1.76	1.37	30.0	54.0	1745	2.2	2.6	7.0	3.06	1
VFAS1-4370PL	3.0	*2	30.0	4.0	8.0	1.76	1.37	37.0	67.0	1750	1.8	2.7	7.0	2.78	2
VFAS1-4450PL	3.0	*2	30.0	4.0	8.0	1.76	1.37	45.0	80.0	1750	1.7	2.6	6.0	2.78	2
VFAS1-4550PL	3.0	*2	30.0	4.0	8.0	1.76	1.37	55.0	98.0	1755	1.6	2.4	7.0	2.50	2
VFAS1-4750PL	2.0	*2	60.0	4.0	8.0	1.76	1.37	75.0	129.0	1775	1.5	2.8	5.0	1.39	2
VFAS1-4900PC	2.0	*2	60.0	2.5	3.7	7.40	1.37	90.0	153.0	1775	1.3	2.6	5.0	1.39	2
VFAS1-4110KPC	2.0	*2	60.0	2.5	3.7	7.40	1.37	110.0	183.0	1775	1.5	2.1	3.0	1.94	2
VFAS1-4132KPC	2.0	*2	60.0	2.5	3.7	7.40	1.37	132.0	217.0	1765	0.7	2.0	4.0	1.94	2
VFAS1-4160KPC	1.5	*2	60.0	2.5	3.7	7.40	1.37	160.0	271.0	1765	0.6	2.0	4.0	1.94	2
VFAS1-4200KPC	1.5	*2	60.0	2.5	1.9	8.70	1.37	200.0	333.0	1765	0.6	2.0	4.0	1.94	2
VFAS1-4220KPC	1.5	*2	60.0	2.5	1.9	8.70	1.37	220.0	371.0	1765	0.6	2.0	4.0	1.94	2
VFAS1-4280KPC	1.0	*2	60.0	2.5	1.4	14.00	1.37	280.0	464.0	1765	0.6	2.0	4.0	1.94	2
VFAS1-4355KPC	1.0	*2	60.0	2.5	0.9	17.40	1.37	355.0	614.0	1765	0.6	2.0	3.0	1.94	3
VFAS1-4400KPC	1.0	*2	60.0	2.5	0.7	28.00	1.37	400.0	691.0	1765	0.6	2.0	3.0	1.94	3
VFAS1-4500KPC	0.5	*2	60.0	2.5	0.7	28.00	1.37	500.0	830.0	1765	0.6	2.0	3.0	1.94	3

*1: Factory default settings when the base frequency (ωL) is set at 60Hz (50Hz)

*2: Inverter with a model number ending with -WN1: 460 -WP1: 400