

TOSVERT VF-PS1

Parameter List (V612~V620)

VF-PS1 Parameter List (V612~V620)

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)

* Notice:

This parameter sheet is based on CPU version V620.
In CPU version V612 next parameter's function are changed or not included in V614/V620.

[F316, F467, F495, F622, F623, F624]

-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-90kW,400V-132kW

1. Panel operation frequency setting

Title	Communication No.	Function	Adjustment range	Default setting	User setting
<i>F</i>	-	Panel Operation frequency	<i>L</i> ~ <i>U</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
<i>R</i> <i>U</i> <i>H</i>	-	History function		1/1	-	-	●/●	●	●	
<i>R</i> <i>U</i> <i>1</i>	0000	Automatic acceleration/deceleration	0:Disabled 1:Automatic setting 2:Automatic setting (during acceleration only)	1/1	0	Disabled	●/●	●	●	
<i>R</i> <i>U</i> <i>2</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>R</i> <i>U</i> <i>4</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 6:Coast stop	1/1	0	Disabled	●/●	●	●	
<i>C</i> <i>R</i> <i>O</i> <i>d</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-wire RS485 communication input 4:Communication option input	1/1	0	Disabled	●/●	●	●	
<i>F</i> <i>R</i> <i>O</i> <i>d</i>	0004	Frequency setting mode selection 1	1:V/I (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	1/1	2	Disabled	●/●	●	●	
<i>P</i> <i>L</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:- 5:V/f 5-point setting 6:PM control 7:PG feedback control 8:- 9:Energy-saving 10:Advanced energy-saving	1/1	0	Disabled	-/- -/- ●/- ●/- - -/- -/- -/- ●/- ●/-	- - - - - ● - - - -	● ● - - - - - - - -	
<i>u</i> <i>b</i>	0016	Manual torque boost 1	0.0~30.0%	0.1/0.1	Depends on capacity	Enabled	-	●	●	
<i>u</i> <i>L</i>	0014	Base frequency 1	25.0~500.0Hz	0.1/0.01	*2	Disabled	●/●	●	●	
<i>u</i> <i>L</i> <i>u</i>	0409	Base frequency voltage 1	200V class:50~330V 400V class:50~660V	1/0.1	Depends on capacity	Disabled	●/●	●	●	
<i>F</i> <i>H</i>	0011	Maximum frequency	30.0~500.0Hz	0.1/0.01	80.0	Disabled	●/●	●	●	
<i>U</i> <i>L</i>	0012	Upper limit frequency	0.0~ <i>F</i> <i>H</i> Hz	0.1/0.01	*2	Enabled	●/●	●	●	
<i>L</i> <i>L</i>	0013	Lower limit frequency	0.0~ <i>U</i> <i>L</i> Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
<i>R</i> <i>C</i> <i>C</i>	0009	Acceleration time 1	0.1~6000 sec.	0.1/0.1 *1	Depends on capacity	Enabled	●/●	●	●	
<i>d</i> <i>E</i> <i>C</i>	0010	Deceleration time 1	0.1~6000 sec.	0.1/0.1 *1	Depends on capacity	Enabled	●/●	●	●	
<i>R</i> <i>u</i> <i>F</i> <i>2</i>	0213	RR/S4 input point 2 frequency	0.0~ <i>F</i> <i>H</i> Hz	0.1/0.01	*2	Enabled	●/●	●	●	
<i>R</i> <i>i</i> <i>F</i> <i>2</i>	0204	V/I input point 2 frequency	0.0~ <i>F</i> <i>H</i> Hz	0.1/0.01	*2	Enabled	●/●	●	●	
<i>S</i> <i>r</i> <i>1</i>	0019	Preset speed operation frequency 1	<i>L</i> <i>L</i> ~ <i>U</i> <i>L</i> Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
<i>S</i> <i>r</i> <i>2</i>	0020	Preset speed operation frequency 2	<i>L</i> <i>L</i> ~ <i>U</i> <i>L</i> Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
<i>S</i> <i>r</i> <i>3</i>	0021	Preset speed operation frequency 3	<i>L</i> <i>L</i> ~ <i>U</i> <i>L</i> Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
<i>S</i> <i>r</i> <i>4</i>	0022	Preset speed operation frequency 4	<i>L</i> <i>L</i> ~ <i>U</i> <i>L</i> Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
<i>S</i> <i>r</i> <i>5</i>	0023	Preset speed operation frequency 5	<i>L</i> <i>L</i> ~ <i>U</i> <i>L</i> Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
<i>S</i> <i>r</i> <i>6</i>	0024	Preset speed operation frequency 6	<i>L</i> <i>L</i> ~ <i>U</i> <i>L</i> Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
<i>S</i> <i>r</i> <i>7</i>	0019	Preset speed operation frequency 7	<i>L</i> <i>L</i> ~ <i>U</i> <i>L</i> Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
<i>F</i> <i>r</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: Changing the parameter *L**U**P* enables to set to 0.01 sec. (adjustment range: 0.01~600.0 sec.).

*2: 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		
<i>t H r</i>	0600	Motor electronic thermal protection level 1	10~100%	1/1	100	Enabled	●/●	●	●			
<i>Q L n</i>	0017	Electronic thermal protection characteristic selection	Setting	Motor type	Overload protection	OL stall	1/1	0	Enabled	●/●	●	●
			0	Standard Motor	○ (protect)	× (not stall)						
			1		○ (protect)	○ (stall)						
			2		× (not protect)	× (not stall)						
			3	VF Motor	× (not protect)	○ (stall)						
			4		○ (protect)	× (not stall)						
			5		○ (protect)	○ (stall)						
6	× (not protect)	× (not stall)										
7	× (not protect)	○ (stall)										
<i>d S P U</i>	0701	Current/voltage unit selection	0:%, 1:A (ampere)/V (volt)	1/1	0	Enabled	●/●	●	●			
<i>F n S L</i>	0005	FM terminal meter selection	0~64 *1	1/1	0	Enabled	●/●	●	●			
<i>F n</i>	0006	FM terminal meter adjustment	-	1/1	*3	Enabled	●/●	●	●			
<i>A n S L</i>	0670	AM terminal meter selection	0~64 *1	1/1	2	Enabled	●/●	●	●			
<i>A n</i>	0671	AM terminal meter adjustment	-	1/1	*3	Enabled	●/●	●	●			
<i>ε F</i>	0300	PWM carrier frequency	1.0~16.0kHz (2.5~8.0kHz) *2	0.1/0.1	Depends on capacity	Enabled	●/●	●	●			
<i>U u S</i>	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	●/●	●	●			
<i>U u C</i>	0302	Regenerative power ride-through control	0:Disabled 1:Power ride-through 2:Deceleration stop during power failure	1/1	0	Disabled	●/●	●	●			
<i>P b</i>	0304	Dynamic braking selection	0:Disabled 1:Enabled (braking resistance overload detect) 2:Enabled (braking resistance overload not detect)	1/1	0	Disabled	●/●	●	●			
<i>P b r</i>	0308	Dynamic braking resistance	0.5~1000Ω	0.1/0.1	Depends on capacity	Disabled	●/●	●	●			
<i>P b C P</i>	0309	Allowable continuous braking resistance	0.01~600.0kW	0.01/0.01	Depends on capacity	Disabled	●/●	●	●			
<i>t y P</i>	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	●/●	●	●			
<i>P S E L</i>	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	●/●	●	●			
<i>F i - -</i> ~ <i>F g - -</i>	-	Extended parameters	Set detailed parameters shown in the following pages.	-	-	-	●/●	●	●			
<i>ε r U</i>	-	Automatic edit function	-	-	-	-	●/●	●	●			

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

*2: For 200V-55/90kW models and 400V-90kW to 400V-630kW 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
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
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 108	0108	Analog V/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
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 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.

[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
F 168	0168	Output terminal function selection 10 (R3) *1	0~255 *2	1/1	254	Disabled	●/●	●	●	
F 169	0169	Output terminal function selection 11 (R4) *1	0~255 *2	1/1	254	Disabled	●/●	●	●	
F 170	0170	Base frequency 2	25.0~FH Hz	0.1/0.01	*3	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	-	-	●	

*1: Unsupported option

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

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

[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
F190	0190	V/f 5-point setting VF1 Frequency	0.0~FH Hz	0.1/0.01	0.0	Disabled	-	-	●	
F191	0191	V/f 5-point setting VF1 voltage	0.0~100.0%	0.1/0.01	0.0	Disabled	-	-	●	
F192	0192	V/f 5-point setting VF2 Frequency	0.0~FH Hz	0.1/0.01	0.0	Disabled	-	-	●	
F193	0193	V/f 5-point setting VF2 voltage	0.0~100.0%	0.1/0.01	0.0	Disabled	-	-	●	
F194	0194	V/f 5-point setting VF3 Frequency	0.0~FH Hz	0.1/0.01	0.0	Disabled	-	-	●	
F195	0195	V/f 5-point setting VF3 voltage	0.0~100.0%	0.1/0.01	0.0	Disabled	-	-	●	
F196	0196	V/f 5-point setting VF4 Frequency	0.0~FH Hz	0.1/0.01	0.0	Disabled	-	-	●	
F197	0197	V/f 5-point setting VF4 voltage	0.0~100.0%	0.1/0.01	0.0	Disabled	-	-	●	
F198	0198	V/f 5-point setting VF5 Frequency	0.0~FH Hz	0.1/0.01	0.0	Disabled	-	-	●	
F199	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

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
F200	0200	Frequency priority selection	0:FRQd/F207 terminal switching (input terminal function selection 104, 105) 1:FRQd/F207 frequency switching (switching with F208)	1/1	0	Enabled	●/●	●	●	
F201	0201	VI/II input point 1 setting	0~100%	1/1	0	Enabled	●/●	●	●	
F202	0202	VI/II input point 1 frequency	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
F203	0203	VI/II input point 2 setting	0~100%	1/1	100	Enabled	●/●	●	●	
F204	0204	VI/II input point 2 frequency	0.0~FH Hz	0.1/0.01	*1	Enabled	●/●	●	●	
F205	0205	VI/II input point 1 rate	0~250% (for torque control etc.)	1/0.01	0	Enabled	●/●	-	-	
F206	0206	VI/II input point 2 rate	0~250% (for torque control etc.)	1/0.01	100	Enabled	●/●	-	-	
F207	0207	Frequency setting mode selection 2	Same as FRQd (1~12)	1/1	1	Disabled	●/●	●	●	
F208	0208	Speed command priority switching frequency	0.1~FH Hz	0.1/0.01	0.1	Enabled	●/●	●	●	
F209	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	●/●	●	●	
F210	0210	RR/S4 input point 1 setting	0~100%	1/1	0	Enabled	●/●	●	●	
F211	0211	RR/S4 input point 1 frequency	0.0~FH Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
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%	1/0.01	0	Enabled	●/●	-	-	
F215	0215	RR/S4 input point 2 rate	0~250%	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%	1/0.01	0	Enabled	●/●	-	-	
F221	0221	RX input point 2 rate	-250~250%	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	●/●	●	●	
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
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
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
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	LL~UL 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
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
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	●/●	●	●	
F295	0295	Bumpless operation selection	1:Disabled 2:Enabled	1/1	0	Enabled	●/●	●	●	

[12] Tripless intensification 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
ζF	0300	PWM carrier frequency	1.0~16.0kHz (2.5~8.0kHz) *1	0.1/0.1	Depends on capacity	Enabled	●/●	●	●	
$\psi \omega S$	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	●/●	●	●	
$\psi \omega \zeta$	0302	Regenerative power ride-through control	0:Disabled 1:Power ride-through 2:Deceleration stop during power failure	1/1	0	Disabled	●/●	●	●	
$F303$	0303	Retry selection	0:Deselect, 1-10 times	1/1	0	Enabled	●/●	●	●	
P_b	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	Overvoltage 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: Without voltage compensation (limitless output voltage) 2: Without voltage compensation (limited output voltage) 3: Without voltage compensation (limited output voltage)	1/1	0	Disabled			●	
P_{br}	0308	Dynamic braking resistance	0.5~1000Ω	0.1/0.1	Depends on capacity	Disabled	●/●	●	●	
P_{bCP}	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 *3/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	●/●	●	●	
$F316$	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 *4 5:Decrease carrier frequency automatically, with sinusoidal filter *4	1/1	1	Disabled	●/●	●	●	
$F319$	0319	Regenerative over-excitation upper limit	100~160%	1/1	140	Disabled	●/●	-	●	

■ This parameter moves to a fundamental parameter.

*1: For 200V-55/90kW models and 400V-90kW to 400V-630kW models, the carrier frequency is between 2.5 and 8.0kHz inclusive.

*2: Changing the parameter $\zeta \psi P$ enables to set to 0.01 sec. (adjustment range: 0.01~600.0 sec.).

*3: Although the setting can be written into memory if $\psi \omega \zeta$ is set to 1 (power ride-through control), it cannot be written if $\psi \omega \zeta$ is set to 2 (deceleration stop during a power failure).

*4: The adjustment range is changing in V614, V620. possible to set 200V-55kW or over, 400V-90kW or over in V614, V620.

[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
$F320$	0320	Drooping gain	0.0~100.0% (Enabled if $P_{\zeta}=3$ or 7)	0.1/0.1	0.0	Enabled *1	●/●	-	-	
$F321$	0321	Speed at drooping gain 0%	0.0~320.0Hz (Enabled if $P_{\zeta}=3$ or 7)	0.1/0.01	0.0	Enabled	●/●	-	-	
$F322$	0322	Speed at drooping gain $F320$	0.0~320.0Hz (Enabled if $P_{\zeta}=3$ or 7)	0.1/0.01	0.0	Enabled	●/●	-	-	
$F323$	0323	Drooping insensitive torque	0~100% (Enabled if $P_{\zeta}=3$ or 7)	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
$F324$	0324	Drooping output filter	0.1~200.0 rad/s (Enabled if $P_{\zeta}=3$ or 7)	0.1/0.1	100.0	Enabled	●/●	-	-	

[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
$F354$	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~ ω_{L} 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
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	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	L L ~U L Hz	0.1/0.01	*1	Enabled	●/●	●	●	
F365	0365	PID deviation lower limit	L L ~U L 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	L L ~U L Hz	0.1/0.01	*1	Enabled	●/●	●	●	
F368	0368	Process lower limit	L L ~U L Hz	0.1/0.01	L L	Enabled	●/●	●	●	
F369	0369	PID control waiting time	0~2400 sec.	1/1	0	Enabled	●/●	●	●	
F370	0370	PID output upper limit	L L ~U L Hz	0.1/0.01	*1	Enabled	●/●	●	●	
F371	0371	PID output lower limit	L L ~U L Hz	0.1/0.01	L L	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	●/●	●	●	
F374	0374	Frequency command agreement detection range	0.0~FH Hz	0.1/0.01	2.5	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
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	●/●	●	●	

[18] Motor constant

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
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	Auto-tuning 2	0:Disabled 1:Self-cooled motor 2:Forced air-cooled motor	1/1	0	Disabled	●/●	-	-	
F405	0405	Motor rated capacity (motor name plate)	0.10~630.0kW	0.01/0.01	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	●/●	-	-	
F412	0412	Motor constant 3 (leak inductance)	0~200%	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 *i000* and *E1* (if the speed of rotation is set at 10,000min⁻¹) are displayed alternately.

[19] 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
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 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	●/●	●	-	
F454	0454	Constant output zone torque limit selection	0:Constant output limit 1:Constant torque limit	1/1	0	Disabled	●/●	●	-	

[20] 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
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	●/●	●	-	
F467	0467	Motor oscillation control *2	0:Disabled 1:Enabled (Low gain) 2:Enabled (Middle gain) 3:Enabled (High gain)	1/1	0	Disabled	-/-	-	●	
F470	0470	VI/II input bias	0~255	1/1	*1	Enabled	●/●	●	●	
F471	0471	VI/II input gain	0~255	1/1	*1	Enabled	●/●	●	●	
F472	0472	RR/S4 input bias	0~255	1/1	*1	Enabled	●/●	●	●	
F473	0473	RR/S4 input gain	0~255	1/1	*1	Enabled	●/●	●	●	
F474	0474	RX input bias	0~255	1/1	*1	Enabled	●/●	●	●	
F475	0475	RX input gain	0~255	1/1	*1	Enabled	●/●	●	●	
F476	0476	Optional AI1 input bias	0~255	1/1	*1	Enabled	●/●	●	●	
F477	0477	Optional AI1 input gain	0~255	1/1	*1	Enabled	●/●	●	●	
F478	0478	Optional AI2 input bias	0~255	1/1	*1	Enabled	●/●	●	●	
F479	0479	Optional AI2 input gain	0~255	1/1	*1	Enabled	●/●	●	●	
F495	0495	Max output voltage modulation rate *3	0:Standard 1:100% 2:102.5% 3:105%	1/1	0	Disabled	●/●	●	●	
F498	0498	PM motor constant 1 (d axis inductance)	0~25%	0.1/0.1	10.0	Disabled	-	●	-	
F499	0499	PM motor constant 2 (q axis inductance)	0~25%	0.1/0.1	10.0	Disabled	-	●	-	

*1: ⇒ Settings vary from unit to unit. Even if $\xi \gamma P$ is set to 3, no change is made to these values.

*2: The parameter enabled V/F control mode ($P \xi = 0, 1, 5$) in V614, V620.

*3: Possible to set V614, V620.

[21] 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
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	1/1	1	Enabled	●/●	●	●	
F505	0505	Acceleration/deceleration switching frequency	0.0~F Hz	0.1/0.01	0.0	Enabled	●/●	●	●	

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

[22] Protection functions

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
F601	0601	Stall prevention level	0~164%, 165:Deactivated	1/1	120	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	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	●/●	●	●	
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	●/●	●	●	
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	0.01~100.0 sec.	0.01/0.01	0.01	Enabled	●*1/●	-	●*1	
F623	0623	Overspeed detection frequency upper band	0.0:Disabled, 0.1~30.0Hz	0.01*2/0.01	0.0	Enabled	●*1/●	-	●*1	
F624	0624	Overspeed detection frequency lower band	0.0:Disabled, 0.1~30.0Hz	0.01*2/0.01	0.0	Enabled	●*1/●	-	●*1	
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	●/●	●	●	
F631	0631	Temperature detection	0:Standard (120%-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	●/●	●	●	
F644	0644	Action in the event of VI/II analog input wire breakage	0:Trip mode 1:The inverter operates the motor at preset speed operation frequency 14	1/1	0	Disabled	●/●	●	●	
F645	0645	PTC thermal selection	0:Disabled 1:Enabled (trip mode) 2:Enabled (alarm mode)	1/1	0	Disabled	●/●	●	●	
F646	0646	PTC detection resistor value	100-9999ohm	1/1	3000	Disabled	●/●	●	●	
F647	0647	Control power supply backup option failure monitoring	0:Control power supply not backed up *3 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	●/●	●	●	
F650	0650	Forced fire-speed control selection	0:Disabled 1:Enabled	1/1	0	Enabled	●/●	●	●	
F651	0651	Undertorque detection selection	0:Alarm mode 1:Trip mode	1/1	0	Enabled	●/●	●	●	
F652	0652	Undertorque detection level during power running	0~250%	1/0.01	0	Enabled	●/●	●	●	
F653	0653	Undertorque detection level during regenerative braking	0~250%	1/0.01	0	Enabled	●/●	●	●	
F654	0654	Undertorque detection time	0.00-10.00sec	0.01/0.01	0.50	Enabled	●/●	●	●	
F655	0655	Undertorque detection hysteresis	0~100%	1/0.01	10	Enabled	●/●	●	●	

*1: In V612 only a vector with sensor of the speed control becomes effective

*2: In V612 setting ranges are different (Minimum setting unit:0.1/0.01)

*3: 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.

[23] 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	User setting
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:- 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	●/●	●	●	
R75L	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.

[24] 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	User setting
R7	0671	AM terminal meter adjustment	-	1/1	-	Enabled	●/●	●	●	
F672	0672	MON1 terminal meter selection	0~64 *1	1/1	4	Enabled	●/●	●	●	
F673	0673	MON1 terminal meter adjustment	-	1/1	-	Enabled	●/●	●	●	
F674	0674	MON2 terminal meter selection	0~64 *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	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.

[25] Operation panel parameters [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	User setting
F700	0700	Parameter write protect selection	0:Permit 1:Prohibit	1/1	0	Enabled	●/●	●	●	
d5PU	0701	Current/voltage unit selection	0:% 1:A (ampere)/V (volt)	1/1	0	Enabled	●/●	●	●	
F702	0702	Frequency free unit display magnification	0.00:OFF, 0.01~200.0	0.01/0.01	0.00	Enabled	●/●	●	●	
F703	0703	Frequency free unit conversion selection	0:All frequencies display free unit conversion 1:PID frequencies free unit conversion	1/1	0	Enabled	●/●	●	●	
F705	0705	Free unit display gradient characteristic	0:Negative inclination (downward slope) 1:Positive inclination (upward slope)	1/1	1	Enabled	●/●	●	●	
F706	0706	Free unit display bias	0.00~FH Hz	0.01/0.01	0.00	Enabled	●/●	●	●	
F707	0707	Changing step selection 1	0.00:Disabled, 0.01~FH Hz	0.01/0.01	0.00	Enabled	●/●	●	●	
F708	0708	Changing step selection 2	0:Disabled, 1~255	1/1	0	Enabled	●/●	●	●	
F709	0709	Standard monitor hold function	0:Real time 1:Peak hold 2:Minimum hold	1/1	0	Enabled	●/●	●	●	

■ This parameter moves to a fundamental parameter.

[25] Operation panel parameters [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	User setting
F 710	0710	Standard monitor display selection	0~73 *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 721	0721	Operation panel stop pattern Selection	0:Deceleration stop 1:Coast stop	1/1	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 C _{ND} d/F _{ND} d 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 1:1=10kWh 2:1=100kWh 3:1=1000kWh 4:1=10000kWh	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:Local/remote key:Local 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	●/●	●	●	
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	●/●	●	●	

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

[25] Operation panel parameters [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	User setting
F778	0778	Quick registration parameter 28	0~999 *1	1/1	999	Enabled	●/●	●	●	
F779	0779	Quick registration parameter 29	0~999 *1	1/1	999	Enabled	●/●	●	●	
F780	0780	Quick registration parameter 30	0~999 *1	1/1	999	Enabled	●/●	●	●	
F781	0781	Quick registration parameter 31	0~999 *1	1/1	999	Enabled	●/●	●	●	
F782	0782	Quick registration parameter 32	0~999 *1	1/1	50 (PSEL)	Enabled	●/●	●	●	

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

[26] Communication 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	User setting
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:- 6:-	1/1	0	Enabled	●/●	●	●	
F807	0807	Protocol selection (2-wire RS485)	0:TOSHIBA 1:MODBUS	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	●/●	●	●	
F820	0820	Communication speed (4-wire RS485)	0:9600 bps 1:19200 bps 2:38400 bps	1/1	1	Enabled	●/●	●	●	
F825	0825	Send waiting time (4-wire RS485)	0.00:Default, 0.01~2.00 sec	0.01/0.01	0.00	Enabled	●/●	●	●	
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:- 6:-	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	●/●	●	●	
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	●/●	●	●	
F850	0850	Disconnection detection extended time	0.0~100.0 sec.	0.1/0.1	0.0	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.

[26] Communication 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	User setting
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	Number of motor poles for communication	1:2poles 2:4poles 3:6poles 4:8poles 5:10poles 6:12poles 7:14poles 8:16poles	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	1/1	0	Enabled	●/●	●	●	
F871	0871	Block write data 2	Ditto	1/1	0	Enabled	●/●	●	●	
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~FFF	1/1	0	Enabled	●/●	●	●	
F899	0899	Network option reset setting	0:None 1:Reset option circuit board and inverter	1/1	0	Disabled	●/●	●	●	

[27] 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	User setting
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:L11 terminal 10:L12 terminal 11:L13 terminal 12:L14 terminal 13:L15 terminal 14:L16 terminal 15:L17 terminal 16:L18 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)	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	●●	●	●	

[27] 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	User setting
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	●/●	●	●	
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:VI/II 2:RR/S4 3:RX 4:Optional AI1+, Optional AI1- 5:Optional AI2	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 (ωb) 6:OC stall (F50i) 7:Thermal protection (EHR) 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:VI/II 2:RR/S4 3:RX 4:Optional AI1+, Optional AI1- 5:Optional AI2	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

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 F 112	Base frequency F 111	Acc/dec time F500/F501	PWM carrier frequency F	Dynamic braking resistance Pbr	Allowable continuous braking resistance PbCP	Inverter side switching waiting time F356	Motor rated capacity F405	Motor rated current F406	Motor rated rotational speed F407 *1	Motor constant 1 (torque boost) F410	Motor constant 2 (no load current) F411	Motor constant 3 (leak inductance) F412	Motor constant 4 (rated slip) F413	Display unit selection for integral output power F749
VFPS1-2004PL	8.0	230	10.0	12.0	200.0	0.12	0.57	0.40	2.0	1680	7.8	6.1	120	6.67	0
VFPS1-2007PL	8.0	230	10.0	12.0	200.0	0.12	0.57	0.75	3.4	1690	7.3	5.4	100	6.11	0
VFPS1-2015PL	6.0	230	10.0	12.0	75.0	0.12	0.57	1.50	6.2	1690	7.1	4.5	70	6.11	0
VFPS1-2022PL	6.0	230	10.0	12.0	75.0	0.12	0.57	2.20	8.9	1680	5.9	4.1	70	6.67	0
VFPS1-2037PL	6.0	230	10.0	12.0	40.0	0.12	0.67	3.70	14.8	1690	4.9	3.6	80	6.11	1
VFPS1-2055PL	4.0	230	10.0	12.0	20.0	0.24	0.87	5.50	21.0	1730	3.8	3.4	70	3.89	1
VFPS1-2075PL	4.0	230	10.0	12.0	15.0	0.44	0.87	7.50	28.2	1730	3.4	3.3	70	3.89	1
VFPS1-2110PM	3.0	230	10.0	12.0	10.0	0.66	1.07	11.0	40.6	1730	2.8	2.7	60	3.89	1
VFPS1-2150PM	3.0	230	10.0	12.0	7.5	0.88	1.07	15.0	54.6	1730	2.5	2.7	60	3.89	1
VFPS1-2185PM	3.0	230	30.0	4.0	7.5	0.88	1.37	18.5	68.0	1750	2.6	2.7	70	2.78	1
VFPS1-2220PM	3.0	230	30.0	4.0	3.3	1.76	1.37	22.0	80.0	1750	2.4	2.7	70	2.78	1
VFPS1-2300PM	3.0	230	30.0	4.0	3.3	1.76	1.37	30.0	108.0	1745	2.2	2.6	70	3.06	1
VFPS1-2370PM	3.0	230	30.0	4.0	2.0	2.20	1.37	37.0	134.0	1750	1.8	2.6	70	2.78	2
VFPS1-2450PM	3.0	230	30.0	4.0	2.0	2.20	1.37	45.0	160.0	1750	1.7	2.6	60	2.78	2
VFPS1-2520PL	3.0	230	30.0	2.5	2.0	2.20	1.87	55.0	196.0	1755	1.6	2.4	70	2.50	2
VFPS1-2750P	2.0	230	60.0	2.5	1.7	3.40	2.37	75.0	258.0	1775	1.5	2.8	50	1.39	2
VFPS1-2900P	2.0	230	60.0	2.5	1.7	3.40	1.37	90.0	306.0	1775	1.3	2.6	50	1.39	2
VFPS1-4007PL	8.0	*2	10.0	12.0	200.0	0.12	0.57	0.75	1.7	1690	7.3	5.4	100	6.11	0
VFPS1-4015PL	6.0	*2	10.0	12.0	200.0	0.12	0.57	1.50	3.1	1690	7.1	4.5	60	6.11	0
VFPS1-4022PL	6.0	*2	10.0	12.0	200.0	0.12	0.57	2.20	4.5	1680	5.9	4.1	70	6.67	0
VFPS1-4037PL	6.0	*2	10.0	12.0	160.0	0.12	0.67	3.70	7.4	1690	4.9	3.6	70	6.11	1
VFPS1-4055PL	4.0	*2	10.0	12.0	80.0	0.24	0.87	5.50	10.5	1730	3.9	3.4	70	3.89	1
VFPS1-4075PL	4.0	*2	10.0	12.0	60.0	0.44	0.87	7.50	14.1	1730	3.4	3.3	70	3.89	1
VFPS1-4110PL	4.0	*2	10.0	12.0	40.0	0.66	1.07	11.0	20.3	1730	2.8	2.7	60	3.89	1
VFPS1-4150PL	3.0	*2	10.0	12.0	30.0	0.88	1.07	15.0	27.3	1730	2.5	2.7	60	3.89	1
VFPS1-4185PL	3.0	*2	30.0	4.0	30.0	0.88	1.37	18.5	34.0	1750	2.6	2.7	70	2.78	1
VFPS1-4220PL	3.0	*2	30.0	4.0	15.0	1.76	1.37	22.0	40.0	1750	2.4	2.7	70	2.78	1
VFPS1-4300PL	3.0	*2	30.0	4.0	15.0	1.76	1.37	30.0	54.0	1745	2.2	2.6	70	3.06	1
VFPS1-4370PL	3.0	*2	30.0	4.0	8.0	1.76	1.37	37.0	67.0	1750	1.8	2.7	70	2.78	2
VFPS1-4450PL	3.0	*2	30.0	4.0	8.0	1.76	1.37	45.0	80.0	1750	1.7	2.6	60	2.78	2
VFPS1-4550PL	3.0	*2	30.0	4.0	8.0	1.76	1.37	55.0	98.0	1755	1.6	2.4	70	2.50	2
VFPS1-4750PL	2.0	*2	60.0	4.0	8.0	1.76	1.37	75.0	129.0	1775	1.5	2.8	50	1.39	2
VFPS1-4900PC	2.0	*2	60.0	2.5	3.7	7.40	1.37	90.0	153.0	1775	1.3	2.6	50	1.39	2
VFPS1-4110KPC	2.0	*2	60.0	2.5	3.7	7.40	1.37	110.0	183.0	1775	1.5	2.1	30	1.39	2
VFPS1-4132KPC	2.0	*2	60.0	2.5	3.7	7.40	1.37	132.0	217.0	1765	0.7	2.0	40	1.94	2
VFPS1-4160KPC	1.5	*2	60.0	2.5	3.7	7.40	1.37	160.0	271.0	1765	0.6	2.0	40	1.94	2
VFPS1-4220KPC	1.5	*2	60.0	2.5	1.9	8.70	1.37	220.0	371.0	1765	0.6	2.0	40	1.94	2
VFPS1-4250KPC	1.5	*2	60.0	2.5	1.4	14.00	1.37	250.0	378.0	1765	0.6	2.0	40	1.94	2
VFPS1-4280KPC	1.0	*2	60.0	2.5	1.4	14.00	1.37	280.0	464.0	1765	0.6	2.0	40	1.94	2
VFPS1-4315KPC	1.0	*2	60.0	2.5	0.9	14.00	1.37	315.0	473.0	1765	0.6	2.0	40	1.94	2
VFPS1-4400KPC	1.0	*2	60.0	2.5	0.7	17.40	1.37	400.0	691.0	1765	0.6	2.0	30	1.94	3
VFPS1-4500KPC	0.5	*2	60.0	2.5	0.7	28.00	1.37	500.0	830.0	1765	0.6	2.0	30	1.94	3
VFPS1-4630KPC	0.5	*2	60.0	2.5	0.7	28.00	1.37	630.0	946.0	1765	0.6	2.0	30	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