TOSHIBA

E6581642

TOSVERT VF-PS1

Parameter List (V650)

VF-PS1 Parameter List (V650)

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-90kW,400V-132kW

1.Panel operation frequency setting

Title	Communication No.	Function	Adjustment range	Default setting	User setting
FC	-	Panel Operation frequency	LL~UL 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
AUH	-	History function		1/1	-	-	●/●	●	●	
AU1	0000	Automatic acceleration/deceleration	0:Disabled 1:Automatic setting 2:Automatic setting (during acceleration only)	1/1	0	Disabled	●/●	●	●	
AU2	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	●/●	●	●	
AU4	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	●/●	●	●	
CMOd	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	●/●	●	●	
FMOd	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	1/1	2	Disabled	●/●	●	●	
Pt	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	-/- -/- ●/- ●/- - -/- -/- -/● - ●/- ●/-	- - - - - - ● - - - -	● ● - - - ● - - - - -	
ub	0016	Manual torque boost 1	0.0~30.0%	0.1/0.1	Depends on capacity	Enabled	-	●	●	
uL	0014	Base frequency 1	25.0~500.0Hz	0.1/0.01	*2	Disabled	●/●	●	●	
uLu	0409	Base frequency voltage 1	200V class:50~330V 400V class:50~660V	1/0.1	Depends on capacity	Disabled	●/●	●	●	
FH	0011	Maximum frequency	30.0~500.0Hz	0.1/0.01	80.0	Disabled	●/●	●	●	
UL	0012	Upper limit frequency	0.0~FH Hz	0.1/0.01	*2	Enabled	●/●	●	●	
LL	0013	Lower limit frequency	0.0~UL Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
ACC	0009	Acceleration time 1	0.1~6000 sec.	0.1/0.1 *1	Depends on capacity	Enabled	●/●	●	●	
dEC	0010	Deceleration time 1	0.1~6000 sec.	0.1/0.1 *1	Depends on capacity	Enabled	●/●	●	●	
AuF2	0213	RR/S4 input point 2 frequency	0.0~FH Hz	0.1/0.01	*2	Enabled	●/●	●	●	
AIF2	0204	VI/II input point 2 frequency	0.0~FH Hz	0.1/0.01	*2	Enabled	●/●	●	●	
Sr1	0019	Preset speed operation frequency 1	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
Sr2	0020	Preset speed operation frequency 2	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
Sr3	0021	Preset speed operation frequency 3	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
Sr4	0022	Preset speed operation frequency 4	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
Sr5	0023	Preset speed operation frequency 5	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
Sr6	0024	Preset speed operation frequency 6	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
Sr7	0019	Preset speed operation frequency 7	LL~UL Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
Fr	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 tYP 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
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 0 / Standard Motor / ○ (protect) / × (not stall) 1 / Standard Motor / ○ (protect) / ○ (stall) 2 / Standard Motor / × (not protect) / × (not stall) 3 / Standard Motor / × (not protect) / ○ (stall) 4 / VF Motor / ○ (protect) / × (not stall) 5 / VF Motor / ○ (protect) / ○ (stall) 6 / VF Motor / × (not protect) / × (not stall) 7 / VF Motor / × (not protect) / ○ (stall)	1/1	0	Enabled	●/●	●	●	
dSPU	0701	Current/voltage unit selection	0:%, 1:A (ampere)/V (volt)	1/1	0	Enabled	●/●	●	●	
FMSL	0005	FM terminal meter selection	0~76 *1	1/1	0	Enabled	●/●	●	●	
FM	0006	FM terminal meter adjustment	-	1/1	*3	Enabled	●/●	●	●	
AMSL	0670	AM terminal meter selection	0~76 *1	1/1	2	Enabled	●/●	●	●	
AM	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	●/●	●	●	
UuC	0302	Regenerative power ride-through control	0:Disabled 1:Power ride-through 2:Deceleration stop during 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	●/●	●	●	
tyP	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-55/90kW 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
F100	0100	Low-speed signal output frequency	0.0~UL Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
F101	0101	Speed reach setting frequency	0.0~UL Hz	0.1/0.01	0.0	Enabled	●/●	●	●	
F102	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
F105	0105	Priority when forward/reverse run commands are entered simultaneously	0:Reverse run 1:Stop	1/1	1	Disabled	●/●	●	●	
F106	0106	Input terminal priority selection	0:Disabled 1:Enabled	1/1	0	Disabled	●/●	●	●	
F108	0108	Analog VI/II voltage/current switching	0:Voltage input 1:Current input	1/1	0	Disabled	●/●	●	●	
F109	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
F110	0110	Always ON function selection 1	0~135 *1	1/1	6	Disabled	●/●	●	●	
F111	0111	Input terminal function selection 1 (F)	0~135 *1	1/1	2	Disabled	●/●	●	●	
F112	0112	Input terminal function selection 2 (R)	0~135 *1	1/1	4	Disabled	●/●	●	●	
F114	0114	Input terminal function selection 4 (RES)	0~135 *1	1/1	8	Disabled	●/●	●	●	
F115	0115	Input terminal function selection 5 (S1)	0~135 *1	1/1	10	Disabled	●/●	●	●	
F116	0116	Input terminal function selection 6 (S2)	0~135 *1	1/1	12	Disabled	●/●	●	●	
F117	0117	Input terminal function selection 7 (S3)	0~135 *1	1/1	14	Disabled	●/●	●	●	
F118	0118	Input terminal function selection 8 (RR/S4)	0~135 *1	1/1	72	Disabled	●/●	●	●	
F119	0119	Input terminal function selection 9 (LI1)	0~135 *1	1/1	0	Disabled	●/●	●	●	
F120	0120	Input terminal function selection 10 (LI2)	0~135 *1	1/1	0	Disabled	●/●	●	●	
F121	0121	Input terminal selection 11 (LI3)	0~135 *1	1/1	0	Disabled	●/●	●	●	
F122	0122	Input terminal selection 12 (LI4)	0~135 *1	1/1	0	Disabled	●/●	●	●	
F123	0123	Input terminal selection 13 (LI5)	0~135 *1	1/1	0	Disabled	●/●	●	●	
F124	0124	Input terminal selection 14 (LI6)	0~135 *1	1/1	0	Disabled	●/●	●	●	
F125	0125	Input terminal selection 15 (LI7)	0~135 *1	1/1	0	Disabled	●/●	●	●	
F126	0126	Input terminal selection 16 (LI8)	0~135 *1	1/1	0	Disabled	●/●	●	●	
F127	0127	Always ON function selection 2	0~135 *1	1/1	0	Disabled	●/●	●	●	
F128	0128	Always ON function selection 3	0~135 *1	1/1	0	Disabled	●/●	●	●	
F130	0130	Output terminal function selection 1 (OUT1)	0~255 *1	1/1	4	Disabled	●/●	●	●	
F131	0131	Output terminal function selection 2 (OUT2)	0~255 *1	1/1	6	Disabled	●/●	●	●	
F132	0132	Output terminal function selection 3 (FL)	0~255 *1	1/1	10	Disabled	●/●	●	●	
F133	0133	Output terminal function selection 4 (OUT3)	0~255 *1	1/1	254	Disabled	●/●	●	●	
F134	0134	Output terminal function selection 5 (OUT4)	0~255 *1	1/1	254	Disabled	●/●	●	●	
F135	0135	Output terminal function selection 6 (R1)	0~255 *1	1/1	254	Disabled	●/●	●	●	
F136	0136	Output terminal function selection 7 (OUT5)	0~255 *1	1/1	254	Disabled	●/●	●	●	
F137	0137	Output terminal function selection 8 (OUT6)	0~255 *1	1/1	254	Disabled	●/●	●	●	
F138	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
F168	0168	Output terminal function selection 10 (R3) *1	0~255 *2	1/1	254	Disabled	●/●	●	●	
F169	0169	Output terminal function selection 11 (R4) *1	0~255 *2	1/1	254	Disabled	●/●	●	●	
F170	0170	Base frequency 2	25.0~FH Hz	0.1/0.01	*3	Disabled	-	-	●	
F171	0171	Base frequency voltage 2	50~330V/660V	1/0.1	Depends on capacity	Disabled	-	-	●	
F172	0172	Manual torque boost 2	0.0~30.0%	0.1/0.1	Depends on capacity	Enabled	-	-	●	
F173	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:FMOd/F207 terminal switching (input terminal function selection 104, 105) 1:FMOd/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	●/●	●	●	
AIF2	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 FMOd (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	●/●	●	●	
AuF2	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~FHHz	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
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	●/●	●	●	
UuC	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	●/●	●	●	
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	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	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 *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	●/●	●	●	
F313	0313	Output voltage waveform selection *4	0:PWM carrier frequency control 1 1:PWM carrier frequency control 2	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 tYP enables to set to 0.01 sec. (adjustment range: 0.01~600.0 sec.).

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

*4:Possible to set 200V-55kW or over, 400V-90kW.

[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 PtH=3 or 7)	0.1/0.1	0.0	Enabled *1	●/●	-	-	
F321	0321	Speed at drooping gain 0%	0.0~320.0Hz (Enabled if PtH=3 or 7)	0.1/0.01	0.0	Enabled	●/●	-	-	
F322	0322	Speed at drooping gain F320	0.0~320.0Hz (Enabled if PtH=3 or 7)	0.1/0.01	0.0	Enabled	●/●	-	-	
F323	0323	Drooping insensitive torque	0~100% (Enabled if PtH=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 PtH=3or 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~UL 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 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	●/●	●	●	
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	●/●	●	●	
F379	0379	PID output dead band	0~100%	1/1	0	Enabled	●/●	●	●	

[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%)	0.1/0.1	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 1000 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
F458	0458	Current control proportion 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	●/●	●	-	
F467	0467	Motor oscillation control *2	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	*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	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)	0~25%	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 tYP is set to 3, no change is made to these values.
*2: The parameter enabled V/F control mode (Pt=0, 1, 5).

[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~FH Hz	0. 1/0.01	0.0	Enabled	●/●	●	●	

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

[22] 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	P card Data1	0~255	1/1	0	Enabled	●/●	●	●	
F578	0578	P card Data2	0~255	1/1	0	Enabled	●/●	●	●	
F579	0579	P card Data3	0~255	1/1	0	Enabled	●/●	●	●	
F580	0580	P 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 Data1	0~255	1/1	0	Enabled	●/●	●	●	
F586	0586	IP gate1 Data2	0~255	1/1	0	Enabled	●/●	●	●	
F587	0587	IP gate1 Data3	0~255	1/1	0	Enabled	●/●	●	●	
F588	0588	IP gate1 Data4	0~255	1/1	0	Enabled	●/●	●	●	
F589	0589	IP master Data1	0~255	1/1	0	Enabled	●/●	●	●	
F590	0590	IP master Data2	0~255	1/1	0	Enabled	●/●	●	●	
F591	0591	IP master Data3	0~255	1/1	0	Enabled	●/●	●	●	
F592	0592	IP master Data4	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	●/●	●	●	

[23] Protection functions(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
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	●/●	-	●	
F623	0623	Overspeed detection frequency upper band	0.00:Disableed, 0.01~30.00Hz	0.01/0.01	0.00	Enabled	●/●	-	●	
F624	0624	Overspeed detection frequency lower band	0.00:Disableed, 0.01~30.00Hz	0.01/0.01	0.00	Enabled	●/●	-	●	
F625	0625	Undervoltage detection level	50~79%,80% Automatic	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	●/●	●	●	
F629	0629	Regenerative power ride-through control level	55~100%	1/1	75	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	●/●	●	●	

[23] Protection functions(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
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 anarog 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 *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	●/●	●	●	
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 regenererative 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: While control power is back up, the inverter will cut off the power supply and issue a 'LOFF'alarm in the event the backup device fail during operation.

[24] 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	●/●	●	●	
AM5L	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.

[25] 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
AM	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 approx120ms 6:Filter approx250ms 7:Filter approx500ms 8:Filter approx1s	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.

[26] 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	●/●	●	●	
dSPU	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.

[26] 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
F710	0710	Standard monitor display selection	0~80 *1	1/1	0	Enabled	●/●	●	●	
F711	0711	Status monitor 1 display selection	Ditto	1/1	1	Enabled	●/●	●	●	
F712	0712	Status monitor 2 display selection	Ditto	1/1	2	Enabled	●/●	●	●	
F713	0713	Status monitor 3 display selection	Ditto	1/1	3	Enabled	●/●	●	●	
F714	0714	Status monitor 4 display Selection	Ditto	1/1	4	Enabled	●/●	●	●	
F721	0721	Operation panel stop pattern Selection	0:Deceleration stop 1:Coast stop	1/1	0	Enabled	●/●	●	●	
F730	0730	Operation panel frequency setting prohibition selection	0:Permit 1:Prohibit	1/1	0	Enabled	●/●	●	●	
F734	0734	Operation panel emergency stop operation prohibition selection	0:Permit 1:Prohibit	1/1	0	Enabled	●/●	●	●	
F735	0735	Operation panel reset operation prohibition selection	0:Permit 1:Prohibit	1/1	0	Enabled	●/●	●	●	
F736	0736	Prohibition of change of CMOd/FMOd during operation	0:Permit 1:Prohibit	1/1	1	Enabled	●/●	●	●	
F737	0737	All key operation prohibition	0:Permit 1:Prohibit	1/1	0	Enabled	●/●	●	●	
F740	0740	Trace selection	0:Deselect 1:At tripping 2:At triggering	1/1	1	Enabled	●/●	●	●	
F741	0741	Trace cycle	0:4ms 1:20ms 2:100ms 3:1s 4:10s	1/1	2	Enabled	●/●	●	●	
F742	0742	Trace data 1	0~49	1/1	0	Enabled	●/●	●	●	
F743	0743	Trace data 2	0~49	1/1	1	Enabled	●/●	●	●	
F744	0744	Trace data 3	0~49	1/1	2	Enabled	●/●	●	●	
F745	0745	Trace data 4	0~49	1/1	3	Enabled	●/●	●	●	
F748	0748	Integral output power retention selection	0:Disabled 1:Enabled	1/1	1	Enabled	●/●	●	●	
F749	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	●/●	●	●	
F750	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	●/●	●	●	
F751	0751	Quick registration parameter 1	0~999 *1	1/1	40 (AU4)	Enabled	●/●	●	●	
F752	0752	Quick registration parameter 2	0~999 *1	1/1	15 (pt)	Enabled	●/●	●	●	
F753	0753	Quick registration parameter 3	0~999 *1	1/1	11 (FH)	Enabled	●/●	●	●	
F754	0754	Quick registration parameter 4	0~999 *1	1/1	9 (ACC)	Enabled	●/●	●	●	
F755	0755	Quick registration parameter 5	0~999 *1	1/1	10 (dEC)	Enabled	●/●	●	●	
F756	0756	Quick registration parameter 6	0~999 *1	1/1	600 (tHr)	Enabled	●/●	●	●	
F757	0757	Quick registration parameter 7	0~999 *1	1/1	6 (FM)	Enabled	●/●	●	●	
F758	0758	Quick registration parameter 8	0~999 *1	1/1	999	Enabled	●/●	●	●	
F759	0759	Quick registration parameter 9	0~999 *1	1/1	999	Enabled	●/●	●	●	
F760	0760	Quick registration parameter 10	0~999 *1	1/1	999	Enabled	●/●	●	●	
F761	0761	Quick registration parameter 11	0~999 *1	1/1	999	Enabled	●/●	●	●	
F762	0762	Quick registration parameter 12	0~999 *1	1/1	999	Enabled	●/●	●	●	
F763	0763	Quick registration parameter 13	0~999 *1	1/1	999	Enabled	●/●	●	●	
F764	0764	Quick registration parameter 14	0~999 *1	1/1	999	Enabled	●/●	●	●	
F765	0765	Quick registration parameter 15	0~999 *1	1/1	999	Enabled	●/●	●	●	
F766	0766	Quick registration parameter 16	0~999 *1	1/1	999	Enabled	●/●	●	●	
F767	0767	Quick registration parameter 17	0~999 *1	1/1	999	Enabled	●/●	●	●	
F768	0768	Quick registration parameter 18	0~999 *1	1/1	999	Enabled	●/●	●	●	
F769	0769	Quick registration parameter 19	0~999 *1	1/1	999	Enabled	●/●	●	●	
F770	0770	Quick registration parameter 20	0~999 *1	1/1	999	Enabled	●/●	●	●	
F771	0771	Quick registration parameter 21	0~999 *1	1/1	999	Enabled	●/●	●	●	
F772	0772	Quick registration parameter 22	0~999 *1	1/1	999	Enabled	●/●	●	●	
F773	0773	Quick registration parameter 23	0~999 *1	1/1	999	Enabled	●/●	●	●	
F774	0774	Quick registration parameter 24	0~999 *1	1/1	999	Enabled	●/●	●	●	
F775	0775	Quick registration parameter 25	0~999 *1	1/1	999	Enabled	●/●	●	●	
F776	0776	Quick registration parameter 26	0~999 *1	1/1	999	Enabled	●/●	●	●	
F777	0777	Quick registration parameter 27	0~999 *1	1/1	999	Enabled	●/●	●	●	

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

[26] 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	●/●	●	●	
F784	0784	MAC address Data1	0~255	1/1	0	-*2	●/●	●	●	
F785	0785	MAC address Data2	0~255	1/1	0	-*2	●/●	●	●	
F786	0786	MAC address Data3	0~255	1/1	0	-*2	●/●	●	●	
F787	0787	MAC address Data4	0~255	1/1	0	-*2	●/●	●	●	
F788	0788	MAC address Data5	0~255	1/1	0	-*2	●/●	●	●	
F789	0789	MAC address Data6	0~255	1/1	0	-*2	●/●	●	●	
F792	0792	Device name Data 1	0000~FFFF	1/1	0	-*2	●/●	●	●	
F793	0793	Device name Data 2	0000~ FFFF	1/1	0	-*2	●/●	●	●	
F794	0794	Device name Data 3	0000~ FFFF	1/1	0	-*2	●/●	●	●	
F795	0795	Device name Data 4	0000~ FFFF	1/1	0	-*2	●/●	●	●	
F796	0796	Device name Data 5	0000~ FFFF	1/1	0	-*2	●/●	●	●	
F797	0797	Device name Data 6	0000~ FFFF	1/1	0	-*2	●/●	●	●	
F798	0798	Device name Data 7	0000~ FFFF	1/1	0	-*2	●/●	●	●	
F799	0799	Device name Data 8	0000~ FFFF	1/1	0	-*2	●/●	●	●	

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

[27] 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	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	●/●	●	●	
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	-*4	●/●	●	●	
F816	0816	Command selection (Modbus puls)	0:Permission,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	●/●	●	●	

*1: Inverter with a model number ending with -WN1: 60.0 -WP1: 50.0
*2:Effective when a command value is sent by communication.

[27] 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	User setting
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	●/●	●	●	
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	●/●	●	●	
F837	0837	Communication option setting 8	0000~FFFF	1/1	0	Enabled	●/●	●	●	
F838	0838	Communication option setting 9	0000~FFFF	1/1	0	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	●/●	●	●	
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) setting13	0000~FFFF	1/1	0000	Enabled	●/●	●	●	
F850	0850	Disconnection detection extended time	0.0~100.0 sec.	0.1/0.1	0.0	Enabled	●/●	●	●	

[27] 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	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~FFFF	1/1	0	Enabled	●/●	●	●	
F899	0899	Network option reset setting	0:None 1:Reset option circuit board and inverter	1/1	0	Disabled	●/●	●	●	

[28] 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:LI1 terminal 10:LI2 terminal 11:LI3 terminal 12:LI4 terminal 13:LI5 terminal 14:LI6 terminal 15:LI7 terminal 16:LI8 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	●/●	●	●	

[28] 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 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 (ub) 6:OC stall (F601) 7:Thermal protection (tHr) 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 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

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 F302	Base frequency voltage Pt1	Acc/dec time ACC/dEC F500/F501	PWM carrier frequency CF	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 nductance) 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	0.5	0.40	2.0	1680	7.8	6.1	120	6.6	0
VFPS1-2007PL	8.0	230	10.0	12.0	200.0	0.12	0.5	0.75	3.4	1690	7.3	5.4	100	6.1	0
VFPS1-2015PL	6.0	230	10.0	12.0	75.0	0.12	0.5	1.50	6.2	1690	7.1	4.5	70	6.1	0
VFPS1-2022PL	6.0	230	10.0	12.0	75.0	0.12	0.5	2.20	8.9	1680	5.9	4.1	70	6.6	0
VFPS1-2037PL	6.0	230	10.0	12.0	40.0	0.12	0.6	3.70	14.8	1690	4.9	3.6	80	6.1	1
VFPS1-2055PL	4.0	230	10.0	12.0	20.0	0.24	0.8	5.50	21.0	1730	3.9	3.4	70	3.8	1
VFPS1-2075PL	4.0	230	10.0	12.0	15.0	0.44	0.8	7.50	28.2	1730	3.4	3.3	70	3.8	1
VFPS1-2110PM	3.0	230	10.0	12.0	10.0	0.66	1.0	11.0	40.6	1730	2.8	2.7	60	3.8	1
VFPS1-2150PM	3.0	230	10.0	12.0	7.5	0.88	1.0	15.0	54.6	1730	2.5	2.7	60	3.8	1
VFPS1-2185PM	3.0	230	30.0	4.0	7.5	0.88	1.3	18.5	68.0	1750	2.6	2.7	70	2.7	1
VFPS1-2220PM	3.0	230	30.0	4.0	3.3	1.76	1.3	22.0	80.0	1750	2.4	2.7	70	2.7	1
VFPS1-2300PM	3.0	230	30.0	4.0	3.3	1.76	1.3	30.0	108.0	1745	2.2	2.6	70	3.0	1
VFPS1-2370PM	3.0	230	30.0	4.0	2.0	2.20	1.3	37.0	134.0	1750	1.8	2.6	70	2.7	2
VFPS1-2450PM	3.0	230	30.0	4.0	2.0	2.20	1.3	45.0	160.0	1750	1.7	2.6	60	2.7	2
VFPS1-2550P	3.0	230	30.0	2.5	2.0	2.20	1.8	55.0	196.0	1755	1.6	2.4	70	2.5	2
VFPS1-2750P	2.0	230	60.0	2.5	1.7	3.40	2.3	75.0	258.0	1775	1.5	2.8	50	1.3	2
VFPS1-2900P	2.0	230	60.0	2.5	1.7	3.40	1.3	90.0	306.0	1775	1.3	2.6	50	1.3	2
VFPS1-4007PL	8.0	*2	10.0	12.0	200.0	0.12	0.5	0.75	1.7	1690	7.3	5.4	100	6.1	0
VFPS1-4015PL	6.0	*2	10.0	12.0	200.0	0.12	0.5	1.50	3.1	1690	7.1	4.5	60	6.1	0
VFPS1-4022PL	6.0	*2	10.0	12.0	200.0	0.12	0.5	2.20	4.5	1680	5.9	4.1	70	6.6	0
VFPS1-4037PL	6.0	*2	10.0	12.0	160.0	0.12	0.6	3.70	7.4	1690	4.9	3.6	70	6.1	1
VFPS1-4055PL	4.0	*2	10.0	12.0	80.0	0.24	0.8	5.50	10.5	1730	3.9	3.4	70	3.8	1
VFPS1-4075PL	4.0	*2	10.0	12.0	60.0	0.44	0.8	7.50	14.1	1730	3.4	3.3	70	3.8	1
VFPS1-4110PL	4.0	*2	10.0	12.0	40.0	0.66	1.0	11.0	20.3	1730	2.8	2.7	60	3.8	1
VFPS1-4150PL	3.0	*2	10.0	12.0	30.0	0.88	1.0	15.0	27.3	1730	2.5	2.7	60	3.8	1
VFPS1-4185PL	3.0	*2	30.0	4.0	30.0	0.88	1.3	18.5	34.0	1750	2.6	2.7	70	2.7	1
VFPS1-4220PL	3.0	*2	30.0	4.0	15.0	1.76	1.3	22.0	40.0	1750	2.4	2.7	70	2.7	1
VFPS1-4300PL	3.0	*2	30.0	4.0	15.0	1.76	1.3	30.0	54.0	1745	2.2	2.6	70	3.0	1
VFPS1-4370PL	3.0	*2	30.0	4.0	8.0	1.76	1.3	37.0	67.0	1750	1.8	2.7	70	2.7	2
VFPS1-4450PL	3.0	*2	30.0	4.0	8.0	1.76	1.3	45.0	80.0	1750	1.7	2.6	60	2.7	2
VFPS1-4550PL	3.0	*2	30.0	4.0	8.0	1.76	1.3	55.0	98.0	1755	1.6	2.4	70	2.5	2
VFPS1-4750PL	2.0	*2	60.0	4.0	8.0	1.76	1.3	75.0	129.0	1775	1.5	2.8	50	1.3	2
VFPS1-4900PC	2.0	*2	60.0	2.5	3.7	3.40	1.3	90.0	153.0	1775	1.3	2.6	50	1.3	2
VFPS1-4110KPC	2.0	*2	60.0	2.5	3.7	3.40	1.3	110.0	183.0	1775	1.5	2.1	30	1.3	2
VFPS1-4132KPC	2.0	*2	60.0	2.5	3.7	3.40	1.3	132.0	217.0	1765	0.7	2.0	40	1.9	2
VFPS1-4160KPC	1.5	*2	60.0	2.5	3.7	3.40	1.3	160.0	271.0	1765	0.6	2.0	40	1.9	2
VFPS1-4220KPC	1.5	*2	60.0	2.5	1.9	8.10	1.3	220.0	371.0	1765	0.6	2.0	40	1.9	2
VFPS1-4250KPC	1.5	*2	60.0	2.5	1.4	14.00	1.3	250.0	378.0	1765	0.6	2.0	40	1.9	2
VFPS1-4280KPC	1.0	*2	60.0	2.5	1.4	14.00	1.3	280.0	464.0	1765	0.6	2.0	40	1.9	2
VFPS1-4315KPC	1.0	*2	60.0	2.5	0.9	14.00	1.3	315.0	473.0	1765	0.6	2.0	40	1.9	2
VFPS1-4400KPC	1.0	*2	60.0	2.5	0.7	17.40	1.3	400.0	691.0	1765	0.6	2.0	30	1.9	3
VFPS1-4500KPC	0.5	*2	60.0	2.5	0.7	28.00	1.3	500.0	830.0	1765	0.6	2.0	30	1.9	3
VFPS1-4630KPC	0.5	*2	60.0	2.5	0.7	28.00	1.3	630.0	946.0	1765	0.6	2.0	30	1.9	3

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

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