TOSVERT VF-S15

Parameter List

VF-S15 Parameter List

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/-	
	PO	
	R/L1	
	S/L2	
	T/L3	
	U/T1	
	V/T2	
	W/T3	
	⏚	
Control terminal block	F	
	R	
	RES	
	S1	
	S2	
	S3	
	CC	
	OUT	
	NO	
	P24	
	CC	
	RY	
	RC	
	FLA	
	FLB	
	FLC	
	VIA	
	VIB	
	VIC	
	PP	
	FM	
	CC	
	+SU	
	+24	
Setting of slide switch	SW1	SINK / PLC / SOURCE
	SW2	VIB / S4
		PTC / S3

(Refer to the instruction manual for reference)

1 Frequency setting parameters

Title	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
FC	Operation frequency of operation panel	Hz	0.1/0.01	LL-UL	0.0		3.2.2

2 Basic parameters

- Five navigation functions

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

- Basic parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
CMOd	0003	Command mode selection	-	-	0: Terminal block 1: Panel keypad (including extension panel) 2: RS485 communication 3: CANopen communication 4: Communication option	1		3.2 6.2.1 7.3
FMOd	0004	Frequency setting mode selection 1	-	-	0: Setting dial 1(save even if power is off) 1: Terminal VIA 2: Terminal VIB 3: Setting dial 2(press in center to save) 4: RS485 communication 5: UP/DOWN from external logic input 6: CANopen communication 7: Communication option 8: Terminal VIC 9, 10: - 11: Pulse train input 12, 13: - 14: Sr0	0		3.2 6.2.1 6.10.1 5.8 7.3

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
FM5L	0005	Meter selection	-	-	0: Output frequency 1: Output current 2: Frequency command value 3: Input voltage (DC detection) 4: Output voltage (command value) 5: Input power 6: Output power 7: Torque 8: - 9: Motor cumulative load factor 10: Inverter cumulative load factor 11: PBR (Braking resistor) cumulative load factor 12: Stator frequency 13: VIA input value 14: VIB input value 15: Fixed output 1 (output current 100% equivalent) 16: Fixed output 2 (output current 50% equivalent) 17: Fixed output 3 (Other than the output current) 18: RS485 communication data 19: For adjustments (FM set value is displayed.) 20: VIC input value 21: Pulse train input value 22: - 23: PID feedback value 24: Integral input power 25: Integral output power	0		5.1

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
FM	0006	Meter adjustment gain	-	-	-	-		5.1
Fr	0008	Forward/reverse run selection (Panel keypad)	-	-	0: Forward run 1: Reverse run 2: Forward run (F/R switching on extension panel) 3: Reverse run (F/R switching on extension panel)	0		6.2.2
ACC	0009	Acceleration time 1	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		5.2
dEC	0010	Deceleration time 1	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		
FH	0011	Maximum frequency	Hz	0.1/0.01	30.0-500.0	80.0		5.3
UL	0012	Upper limit frequency	Hz	0.1/0.01	0.5-FH	*1		5.4
LL	0013	Lower limit frequency	Hz	0.1/0.01	0.0-UL	0.0		
uL	0014	Base frequency 1	Hz	0.1/0.01	20.0-500.0	*1		5.5
uLu	0409	Base frequency voltage 1	V	1/0.1	50-330 (240V class) 50-660 (500V class)	*1		5.5 6.19.6
Pt	0015	V/F control mode selection	-	-	0: V/F constant 1: Variable torque 2: Automatic torque boost control 3: Vector control 4: Energy-saving 5: Dynamic energy-saving (For fan and pump) 6: PM motor control 7: V/F 5-point setting 8: -	*1		6.3
ub	0016	Torque boost value 1	%	0.1/0.1	0.0-30.0	*2		6.4
tHr	0600	Motor electronic-thermal protection level 1	% (A)	1/1	10-100	100		5.6 6.29.1

*1: Default setting values vary depending on the setup menu setting.
*2: Default setting values vary depending on the capacity.
*8: These parameters can be changed to 0.01s unit by setting F519=1.

<table>
<tr><th>Title</th><th>Communication No.</th><th>Function</th><th>Unit</th><th>Minimum setting unit Panel/Communication</th><th>Adjustment range</th><th>Default setting</th><th>User setting</th><th>Reference</th></tr>
<tr><td>OLn</td><td>0017</td><td>Electronic-thermal protection characteristic selection</td><td></td><td>-</td><td>
<table>
<tr><th>Setting</th><th></th><th>Overload protection</th><th>OL stall</th></tr>
<tr><td>0</td><td rowspan="4">Standard motor</td><td>valid</td><td>invalid</td></tr>
<tr><td>1</td><td>valid</td><td>valid</td></tr>
<tr><td>2</td><td>invalid</td><td>invalid</td></tr>
<tr><td>3</td><td>invalid</td><td>valid</td></tr>
<tr><td>4</td><td rowspan="4">VF motor</td><td>valid</td><td>invalid</td></tr>
<tr><td>5</td><td>valid</td><td>valid</td></tr>
<tr><td>6</td><td>invalid</td><td>invalid</td></tr>
<tr><td>7</td><td>invalid</td><td>valid</td></tr>
</table>
</td><td></td><td></td><td>5.6</td></tr>
<tr><td>Sr0</td><td>0030</td><td>Preset-speed operation frequency 0</td><td>Hz</td><td>0.1/0.01</td><td>LL-UL</td><td>0.0</td><td></td><td rowspan="9">5.7</td></tr>
<tr><td>Sr1</td><td>0018</td><td>Preset-speed operation frequency 1</td><td>Hz</td><td>0.1/0.01</td><td>LL-UL</td><td>0.0</td><td></td></tr>
<tr><td>Sr2</td><td>0019</td><td>Preset-speed operation frequency 2</td><td>Hz</td><td>0.1/0.01</td><td>LL-UL</td><td>0.0</td><td></td></tr>
<tr><td>Sr3</td><td>0020</td><td>Preset-speed operation frequency 3</td><td>Hz</td><td>0.1/0.01</td><td>LL-UL</td><td>0.0</td><td></td></tr>
<tr><td>Sr4</td><td>0021</td><td>Preset-speed operation frequency 4</td><td>Hz</td><td>0.1/0.01</td><td>LL-UL</td><td>0.0</td><td></td></tr>
<tr><td>Sr5</td><td>0022</td><td>Preset-speed operation frequency 5</td><td>Hz</td><td>0.1/0.01</td><td>LL-UL</td><td>0.0</td><td></td></tr>
<tr><td>Sr6</td><td>0023</td><td>Preset-speed operation frequency 6</td><td>Hz</td><td>0.1/0.01</td><td>LL-UL</td><td>0.0</td><td></td></tr>
<tr><td>Sr7</td><td>0024</td><td>Preset-speed operation frequency 7</td><td>Hz</td><td>0.1/0.01</td><td>LL-UL</td><td>0.0</td><td></td></tr>
<tr><td>FPId</td><td>0025</td><td>Process Input value of PID control</td><td>Hz</td><td>0.1/0.01</td><td>F368 - F367</td><td>0.0</td><td></td><td>6.24</td></tr>
</table>

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
tYP	0007	Default setting	-	-	0: - 1: 50Hz default setting 2: 60Hz default setting 3: Default setting 1 (Initialization) 4: Trip record clear 5: Cumulative operation time clear 6: Initialization of type information 7: Save user setting parameters 8: Load user setting parameters 9: Cumulative fan operation time record clears 10, 11: - 12: Number of starting clear 13: Default setting 2 (Complete initialization)	0		5.6
SEt	0099	Checking the region setting * 5	-	-	0: Start setup menu 1: Japan (read only) 2: North America (read only) 3: Asia (read only) 4: Europe (read only)	*1		4.4
PSEL	0050	EASY key mode selection	-	-	0: Standard setting mode at power on 1: Easy setting mode at power on 2: Easy setting mode only	0		4.5
F1--	-	Extended parameter starting at 100	-	-	-	-	-	4.2.2
F2--	-	Extended parameter starting at 200	-	-	-	-	-	
F3--	-	Extended parameter starting at 300	-	-	-	-	-	
F4--	-	Extended parameter starting at 400	-	-	-	-	-	
F5--	-	Extended parameter starting at 500	-	-	-	-	-	
F6--	-	Extended parameter starting at 600	-	-	-	-	-	

*1: Default setting values vary depending on the setup menu setting.
*5: Set “0” to activate the setup menu.

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F7--	-	Extended parameter starting at 700	-	-	-	-	-	4.2.2
F8--	-	Extended parameter starting at 800	-	-	-	-	-	
F9--	-	Extended parameter starting at 900	-	-	-	-	-	
A---	-	Extended parameter starting at A	-	-	-	-	-	
C---	-	Extended parameter starting at C	-	-	-	-	-	
GrU	-	Automatic edit function	-	-	-	-	-	4.3.1

3 Extended parameters

- Input/output parameters 1

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F100	0100	Low-speed signal output frequency	Hz	0.1/0.01	0.0-FH	0.0		6.5.1
F101	0101	Speed reach setting frequency	Hz	0.1/0.01	0.0-FH	0.0		6.5.3
F102	0102	Speed reach detection band	Hz	0.1/0.01	0.0-FH	2.5		6.5.2 6.5.3
F104	0104	Always active function selection 1	-	-	0-153 *6	0 (No function)		6.7.1
F105	0105	Priority selection (Both F and R are ON)	-	-	0: Reverse 1: Slowdown Stop	1		6.6.1
F107	0107	Analog input terminal selection (VIB)	-	-	0: 0-+10V 1: -10+10V	0		6.6.2 6.10.2 7.3
F108	0108	Always active function selection 2	-	-	0-153 *6	0 (No function)		6.7.1
F109	0109	Analog/logic input selection (VIA/VIB)	-	-	0: VIA - analog input VIB - analog input 1: VIA - analog input VIB - contact input 2: - 3: VIA - contact input (Sink) VIB - contact input 4: VIA - contact input (Source) VIB-contact input	0		6.6.3 6.7.2 6.10.2 7.2.1 7.3
F110	0110	Always active function selection 3	-	-	0-153 *6	6 (ST)		6.7.1
F111	0111	Input terminal selection 1A (F)	-	-	0-203	2 (F)		6.7.2 7.2.1
F112	0112	Input terminal selection 2A (R)	-	-		4 (R)		
F113	0113	Input terminal selection 3 A(RES)	-	-		8 (RES)		
F114	0114	Input terminal selection 4 A(S1)	-	-		10 (SS1)		
F115	0115	Input terminal selection 5 (S2)	-	-		12 (SS2)		

*6: Refer to the instruction manual for details about input terminal function.

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F116	0116	Input terminal selection 6 (S3)	-	-	0-203 *6	14 (SS3)		6.7.2 7.2.1
F117	0117	Input terminal selection 7 (VIB)	-	-		16 (SS4)		
F118	0118	Input terminal selection 8 (VIA)	-	-	8-55 *6	24 (AD2)		
F130	0130	Output terminal selection 1A (RY-RC)	-	-	0-255 *7	4 (LOW)		6.7.3 7.2.2
F131	0131	Output terminal selection 2A (OUT)	-	-		6 (RCH)		
F132	0132	Output terminal selection 3 (FL)	-	-		10 (FL)		
F137	0137	Output terminal selection 1B (RY-RC)	-	-		255 (always ON)		
F138	0138	Output terminal selection 2B (OUT)	-	-		255 (always ON)		
F139	0139	Output terminal logic selection (RY-RC, OUT)	-	-	0: F130 and F137 F131 and F138 1: F130 or F137 F131 and F138 2: F130 and F137 F131 or F138 3: F130 or F137 F131 or F138	0		
F144	0144	Input terminal response time	ms	1/1	1-1000	1		6.7.2 7.2.1
F146	0146	Logic input/ pulse train input selection (S2)	-	-	0: Logic input 1: Pulse train input	0		6.7.2 6.10.5 7.2.1
F147	0147	Logic input/ PTC input selection (S3)	-	-	0: Logic input 1: PTC input	0		2.3.2 6.7.2 6.29.16 7.2.1
F151	0151	Input terminal selection 1B(F)	-	-	0-203 *6	0		6.7.2 7.2.1

*6: Refer to the instruction manual for details about input terminal function.
*7: Refer to the instruction manual for details about output terminal function.

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F152	0152	Input terminal selection 2B(R)	-	-	0-203 *6	0		6.7.2 7.2.1
F153	0153	Input terminal selection 3B(RES)	-	-		0		
F154	0154	Input terminal selection 4B(S1)	-	-		0		
F155	0155	Input terminal selection 1C(F)	-	-		0		
F156	0156	Input terminal selection 2C(R)	-	-		0		
F167	0167	Frequency command agreement detection range	Hz	0.1/0.01	0.0-FH	2.5		6.24

*6: Refer to the instruction manual for details about input terminal function.

- Basic parameter 2

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F170	0170	Base frequency 2	Hz	0.1/0.01	20.0-500.0	*1		6.8.1
F171	0171	Base frequency voltage 2	V	1/0.1	50-330 (240V class) 50-660 (500V class)	*1		
F172	0172	Torque boost value 2	%	0.1/0.1	0.0-30.0	*2		
F173	0173	Motor electronic-thermal protection level 2	% (A)	1/1	10-100	100		5.6 6.8.1 6.29.1
F185	0185	Stall prevention level 2	% (A)	1/1	10-199, 200 (disabled)	150		6.8.1 6.29.2
F190	0190	V/f5-point setting V/F1 frequency	Hz	0.1/0.01	0.0-FH	0.0		6.3 6.9
F191	0191	V/f5-point setting V/F1 voltage	%	0.1/0.01	0.0-125.0	0.0		
F192	0192	V/f5-point setting V/F2 frequency	Hz	0.1/0.01	0.0-FH	0.0		

*1: Default setting values vary depending on the setup menu setting.

*2: Default setting values vary depending on the capacity.

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F193	0193	V/f5-point setting V/F2 voltage	%	0.1/0.01	0.0-125.0	0.0		6.3 6.9
F194	0194	V/f5-point setting V/F3 frequency	Hz	0.1/0.01	0.0-FH	0.0		
F195	0195	V/f5-point setting V/F3 voltage	%	0.1/0.01	0.0-125.0	0.0		
F196	0196	V/f5-point setting V/F4 frequency	Hz	0.1/0.01	0.0-FH	0.0		
F197	0197	V/f5-point setting V/F4 voltage	%	0.1/0.01	0.0-125.0	0.0		
F198	0198	V/f5-point setting V/F5 frequency	Hz	0.1/0.01	0.0-FH	0.0		
F199	0199	V/f5-point setting V/F5 voltage	%	0.1/0.01	0.0-125.0	0.0		

- Frequency parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F200	0200	Frequency priority selection	-	-	0: FMOd (Switchable to F207 by terminal input) 1: FMOd (Switchable to F207 at 1.0Hz or less of designated frequency)	0		5.8 6.10.1
F201	0201	VIA input point 1 setting	%	1/1	0-100	0		6.10.2 7.3
F202	0202	VIA input point 1 frequency	Hz	0.1/0.01	0.0-500.0	0.0		
F203	0203	VIA input point 2 setting	%	1/1	0-100	100		
F204	0204	VIA input point 2 frequency	Hz	0.1/0.01	0.0-500.0	*1		
F205	0205	VIA input point 1 rate	%	1/0.01	0-250	0		6.31
F206	0206	VIA input point 2 rate	%	1/0.01	0-250	100		
F207	0207	Frequency setting mode selection 2	-	-	0-14 (Same as FMOd)	1		5.8 6.10.1

*1: Default setting values vary depending on the setup menu setting.

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F209	0209	Analog input filter	ms	1/1	2-1000	64		6.10.2 7.3
F210	0210	VIB input point 1 setting	%	1/1	-100-+100	0		
F211	0211	VIB input point 1 frequency	Hz	0.1/0.01	0.0-500.0	0.0		
F212	0212	VIB input point 2 setting	%	1/1	-100-+100	100		
F213	0213	VIB input point 2 frequency	Hz	0.1/0.01	0.0-500.0	*1		
F214	0214	VIB input point 1 rate	%	1/0.01	-250-+250	0		6.31 6.32
F215	0215	VIB input point 2 rate	%	1/0.01	-250-+250	100		
F216	0216	VIC input point 1 setting	%	1/1	0-100	20		6.10.2 7.3
F217	0217	VIC input point 1 frequency	Hz	0.1/0.01	0.0-500.0	0.0		
F218	0218	VIC input point 2 setting	%	1/1	0-100	100		
F219	0219	VIC input point 2 frequency	Hz	0.1/0.01	0.0-500.0	*1		
F220	0220	VIC input point 1 rate	%	1/0.01	0-250	0		6.31
F221	0221	VIC input point 2 rate	%	1/0.01	0-250	100		
F239	0239	Factory specific coefficient 2A	-	-	-	-		*3
F240	0240	Starting frequency	Hz	0.1/0.01	0.1-10.0	0.5		6.11.1
F241	0241	Operation starting frequency	Hz	0.1/0.01	0.0-FH	0.0		6.11.2
F242	0242	Operation starting frequency hysteresis	Hz	0.1/0.01	0.0-FH	0.0		
F243	0243	Stop frequency setting	Hz	0.1/0.01	0.0: same as F240 0.1-30.0	0.0		6.11.1
F249	0249	PWM carrier frequency during DC braking	kHz	0.1/0.1	2.0-16.0	4.0		6.12.1
F250	0250	DC braking starting frequency	Hz	0.1/0.01	0.0-FH	0.0		

*1: Default setting values vary depending on the setup menu setting.

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

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F251	0251	DC braking current	% (A)	1/1	0-100	50		6.12.1
F252	0252	DC braking time	s	0.1/0.1	0.0-25.5	1.0		
F254	0254	Motor shaft fixing control	-	-	0: Disabled 1: Enabled (after DC braking)	0		6.12.2
F256	0256	Time limit for lower-limit frequency operation	s	0.1/0.1	0: Disabled 0.1-600.0	0.0		6.13
F257	0257	Factory specific coefficient 2B	-	-	-	-		*3
F258	0258	Factory specific coefficient 2C	-	-	-	-		*3
F259	0259	Lower limit frequency reach time limit at start-up	s	0.1/0.1	0: Disabled 0.1-600.0	0.0		6.13
F260	0260	Jog run frequency	Hz	0.1/0.01	F240－20.0	5.0		6.14
F261	0261	Jog run stopping pattern	-	-	0: Deceleration stop 1: Coast stop 2: DC braking stop	0		
F262	0262	Panel jog run operation mode	-	-	0: Invalid 1: Valid	0		
F264	0264	External logic input - UP response time	s	0.1/0.1	0.0-10.0	0.1		6.10.4
F265	0265	External logic input - UP frequency steps	Hz	0.1/0.01	0.0-FH	0.1		
F266	0266	External logic input - DOWN response time	s	0.1/0.1	0.0-10.0	0.1		
F267	0267	External logic input - DOWN frequency steps	Hz	0.1/0.01	0.0-FH	0.1		
F268	0268	Initial value of UP/DOWN frequency	Hz	0.1/0.01	LL-UL	0.0		
F269	0269	Change of the initial value of UP/DOWN frequency	-	-	0: Not changed 1: Setting of F268 changed when power is turned off	1		

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

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F270	0270	Jump frequency 1	Hz	0.1/0.01	0.0-FH	0.0		6.15
F271	0271	Jumping width 1	Hz	0.1/0.01	0.0-30.0	0.0		
F272	0272	Jump frequency 2	Hz	0.1/0.01	0.0-FH	0.0		
F273	0273	Jumping width 2	Hz	0.1/0.01	0.0-30.0	0.0		
F274	0274	Jump frequency 3	Hz	0.1/0.01	0.0-FH	0.0		
F275	0275	Jumping width 3	Hz	0.1/0.01	0.0-30.0	0.0		
F287	0287	Preset-speed frequency 8	Hz	0.1/0.01	LL-UL	0.0		5.7
F288	0288	Preset-speed frequency 9	Hz	0.1/0.01	LL-UL	0.0		
F289	0289	Preset-speed frequency 10	Hz	0.1/0.01	LL-UL	0.0		
F290	0290	Preset-speed frequency 11	Hz	0.1/0.01	LL-UL	0.0		
F291	0291	Preset-speed frequency 12	Hz	0.1/0.01	LL-UL	0.0		
F292	0292	Preset-speed frequency 13	Hz	0.1/0.01	LL-UL	0.0		
F293	0293	Preset-speed frequency 14	Hz	0.1/0.01	LL-UL	0.0		
F294	0294	Preset-speed frequency 15	Hz	0.1/0.01	LL-UL	0.0		5.7 6.30
F295	0295	Bumpless operation selection	-	-	0: Disabled 1: Enabled	0		6.16
F297	0297	Low voltage operation upper limit frequency	Hz	0.1/0.01	0.0: Disabled 0.1-30.0	0.0		6.17
F298	0298	Low voltage operation DC voltage	Vdc	1/0.1	240V class: 72(96)-168 *11 500V class: 72(120)-336 *11	120		

*11: 240V class : 4.0kW or less : 72 to 168V, 5.5kW or more : 96 to 168V.
500V class : 4.0kW or less : 72 to 336V, 5.5kW or more : 120 to 336V.

- Operation mode parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F300	0300	PWM carrier frequency	kHz	0.1/0.1	2.0 -16.0	12.0		6.18
F301	0301	Auto-restart control selection	-	-	0: Disabled 1: At auto-restart after momentary stop 2: At ST terminal off and on 3: 1+2 4: At start-up	0		5.9
F302	0302	Regenerative power ride-through control (Deceleration stop)	-	-	0: Disabled 1: Regenerative power ride-through control 2: Deceleration stop during power filure 3: Synchronized acceleration/deceleration (signal) 4: Synchronized acceleration/deceleration (signal + power failure)	0		6.19.2
F303	0303	Retry selection (number of times)	Times	1/1	0: Disabled 1-10	0		6.19.3
F304	0304	Dynamic braking selection	-	-	0: Disabled 1: Enabled, Resister overload protection enabled 2: Enabled 3: Enabled, Resister overload protection enabled (At ST terminal on) 4: Enabled (At ST terminal on)	0		6.19.4
F305	0305	Overvoltage limit operation (Deceleration stop mode selection)	-	-	0: Enabled 1: Disabled 2: Enabled (Quick deceleration control) 3: Enabled (Dynamic quick deceleration control)	2		6.19.5
F307	0307	Supply voltage correction (output voltage limitation)	-	-	0: Supply voltage uncorrected, output voltage limited. 1: Supply voltage corrected, output voltage limited. 2: Supply voltage uncorrected, output voltage unlimited. 3: Supply voltage corrected, output voltage unlimited.	*1		6.19.6

*1 : Default setting values vary depending on the capacity.

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F308	0308	Dynamic braking resistance	Ω	0.1/0.1	1.0-1000	* 2		6.19.4
F309	0309	Dynamic braking resistor capacity	kW	0.01/0.01	0.01-30.00	* 2		
F310	0310	Factory specific coefficient 3A	-	-	-	-		*3
F311	0311	Reverse-run prohibition	-	-	0: Forward/reverse run permitted 1: Reverse run prohibited 2: Forward run prohibited	0		6.19.7
F312	0312	Random mode	-	-	0: Disabled 1: Random mode 1 2: Random mode 2 3: Random mode 3	0		6.18
F314	0314	Factory specific coefficient 3B	-	-	-	-		*3
F316	0316	PWM carrier frequency control mode selection	-	-	0: Carrier frequency without reduction 1: Carrier frequency with automatic reduction 2: Carrier frequency without reduction Support for 500V models 3: Carrier frequency with automatic reduction. Support for 500V models	1		6.18
F317	0317	Synchronized deceleration time (time elapsed between start of deceleration to stop)	s	0.1/0.01	0.0-3600(360.0)	2.0		6.19.2
F318	0318	Synchronized acceleration time (time elapsed between start of acceleration to achievement of specified speed)	s	0.1/0.01	0.0-3600(360.0)	2.0		
F319	0319	Regenerative over-excitation upper limit	%	1/1	100-160	*1		6.19.5
F320	0320	Droop gain	%	0.1/0.1	0.0-100.0	0.0		6.20

*1: Default setting values vary depending on the setup menu setting.
*2: Default setting values vary depending on the capacity.
*3: Factory specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F323	0323	Droop insensitive torque band	%	1/1	0-100	10		6.20
F324	0324	Droop output filter	-	0.1/0.1	0.1-200.0	100.0		
F325	0325	Brake releasing waiting time	s	0.01/0.01	0.00-2.50	0.00		6.22.1
F326	0326	Brake releasing small current detection level	%	1/1	0-100	0		
F327	0327	Factory specific coefficient 3C	-	-	-	-		*3
F328	0328	Light-load high-speed operation selection			0:Disabled 1:High-speed operation speed set automatically (Power running at F command: Increase) 2:High-speed operation speed set automatically (Power running at R command: Increase) 3:High-speed operation speed set with F330 (Power running at F command: Increase) 4:High-speed operation speed set with F330 (Power running at R command: Increase)	0		6.21
F329	0329	Light-load high-speed learning function	-	-	0: No learning 1: Forward run learning 2: Reverse run learning	0		
F330	0330	Automatic light-load high-speed operation frequency	Hz	0.1/0.01	30.0-UL	*1		
F331	0331	Light-load high-speed operation switching lower limit frequency	Hz	0.1/0.01	5.0-UL	40.0		
F332	0332	Light-load high-speed operation load waiting time	s	0.1/0.1	0.0-10.0	0.5		

*1: Default setting values vary depending on the setup menu setting.

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

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F333	0333	Light-load high-speed operation load detection time	s	0.1/0.1	0.0-10.0	1.0		6.21
F334	0334	Light-load high-speed operation heavy load detection time	s	0.1/0.1	0.0-10.0	0.5		
F335	0335	Switching load torque during power running	%	1/0.01	-250 - +250	50		
F336	0336	Heavy-load torque during power running	%	1/0.01	-250 - +250	100		
F337	0337	Heavy-load torque during constant power running	%	1/0.01	-250 - +250	50		
F338	0338	Switching load torque during regenerative braking	%	1/0.01	-250 - +250	50		
F339	0339	Factory specific coefficient 3D	-	-	-	-		*3
F340	0340	Creeping time 1	s	0.01/0.01	0.0-10.00	0.00		6.22.1
F341	0341	Braking mode selection	-	-	0: Disabled 1: Forward winding up 2: Reverse winding up 3: Horizontal operation	0		
F342	0342	Load portion torque input selection	-	-	0: Disabled 1: Terminal VIA 2: Terminal VIB 3: Terminal VIC 4: F343	4		
F343	0343	Hoisting torque bias input (valid only when F324=4)	%	1/0.01	-250 - +250	100		
F344	0344	Lowering torque bias multiplier	%	1/0.01	0-100	100		
F345	0345	Brake release time	s	0.01/0.01	0.00-10.00	0.05		
F346	0346	Creeping frequency	Hz	0.1/0.01	F240-20.0	3.0		
F347	0347	Creeping time 2	s	0.01/0.01	0.00-10.00	0.10		

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

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F348	0348	Braking time learning function	-	1/1	0:Disabled 1: Learning (0 after adjustment)	0		6.22.1
F349	0349	Acceleration/ deceleration suspend function	-	1/1	0:Disabled 1:Parameter setting 2:Terminal input	0		6.23
F350	0350	Acceleration suspend frequency	Hz	0.1/0.01	0.0-FH	0.0		
F351	0351	Acceleration suspend time	s	0.1/0.1	0.0-10.0	0.0		
F352	0352	Deceleration suspend frequency	Hz	0.1/0.01	0.0-FH	0.0		
F353	0353	Deceleration suspend time	s	0.1/0.1	0.0-10.0	0.0		
F359	0359	PID control waiting time	s	1/1	0-2400	0		6.24
F360	0360	PID control	-	-	0: Disabled 1: Process type PID control 2: Speed type PID control	0		
F361	0361	Delay filter	s	0.1/0.1	0.0-25.0	0.1		
F362	0362	Proportional gain	-	0.01/0.01	0.01-100.0	0.30		
F363	0363	Integral gain	s^{-1}	0.01/0.01	0.01-100.0	0.20		
F366	0366	Differential gain	s	0.01/0.01	0.00-2.55	0.00		
F367	0367	Process upper limit	Hz	0.1/0.01	0.0-FH	*1		
F368	0368	Process lower limit	Hz	0.1/0.01	0.0-F367	0.0		
F369	0369	PID control feedback signal selection	-	-	0: Disabled 1: Terminal VIA 2: Terminal VIB 3: Terminal VIC 4 to 6: -	0		
F372	0372	Process increasing rate (speed type PID control)	s	0.1/0.1	0.1-600.0	10.0		
F373	0373	Process decreasing rate (speed type PID control)	s	0.1/0.1	0.1-600.0	10.0		
F375	0375	Factory specific coefficient 3E	-	-	-	-		*3
F376	0376	Factory specific coefficient 3F	-	-	-	-		

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

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F378	0378	Number of pulse train input	pps	1/1	10-500	25		6.10.5
F380	0380	PID forward/ reverse characteristics selection	-	-	0: Forward 1: Reverse	0		6.24
F382	0382	Hit and stop control	-	-	0:Disabled 1:Enabled 2:-	0		6.22.2
F383	0383	Hit and stop control frequency	Hz	0.1/0.01	0.1-30.0	5.0		
F384	0384	Factory specific coefficient 3G	-	-	-	-		*3
F385	0385	Factory specific coefficient 3H	-	-	-	-		
F386	0386	Factory specific coefficient 3I	-	-	-	-		
F389	0389	PID control reference signal selection	-	-	0: FMOd/F207 selected 1: Terminal VIA 2: Terminal VIB 3: FP id 4: RS485 communication 5: UP/DOWN from external logic input 6: CANopen communication 7: Communication option 8: Terminal VIC 9, 10: - 11: Pulse train input	0		6.24
F390	0390	Factory specific coefficient 3J	-	-	-	-		*3
F391	0391	Hysteresis for lower-limit frequency operation	Hz	0.1/0.1	0.0-UL	0.2		6.13
F394	0394	Factory specific coefficient 3K	-	-	-	-		*3

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

•Torque boost parameters 1

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

*1: Default setting values vary depending on the setup menu setting.
*2: Default setting values vary depending on the capacity.
*4: Motor specific coefficient parameters are manufacturer setting parameters. Do not change the value of these parameters.

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F458	0458	Motor specific coefficient 2	-	-	-	-		*4
F459	0459	Load inertia moment ratio	Times	0.1/0.1	0.1-100.0	1.0		6.25
F460	0460	Motor specific coefficient 3	-	-	-	-		*4
F461	0461	Motor specific coefficient 4	-	-	-	-		
F462	0462	Speed reference filter coefficient	-	-	0-100	35		6.25
F467	0467	Motor specific coefficient 5	-	-	-	-		*4

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

- Input/output parameters 2

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

- Torque boost parameters2

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

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

- Acceleration/deceleration time parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F500	0500	Acceleration time 2	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		6.27.2
F501	0501	Deceleration time 2	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		
F502	0502	Acceleration/ deceleration 1 pattern	-	-	0: Linear 1: S-pattern 1 2: S-pattern 2	0		6.27.1
F503	0503	Acceleration/ deceleration 2 pattern	-	-		0		6.27.2
F504	0504	Acceleration/ deceleration selection (1, 2, 3) (Panel keypad)	-	-	1: Acceleration/deceleration1 2: Acceleration/deceleration2 3: Acceleration/deceleration3	1		
F505	0505	Acceleration/ deceleration 1 and 2 switching frequency	Hz	0.1/0.01	0.0: (disabled) 0.1-UL	0.0		
F506	0506	S-pattern lower-limit adjustment amount	%	1/1	0-50	10		6.27.1
F507	0507	S-pattern upper-limit adjustment amount	%	1/1	0-50	10		
F510	0510	Acceleration time 3	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		6.27.2
F511	0511	Deceleration time 3	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		
F512	0512	Acceleration/ deceleration 3 pattern	-	-	0: Linear 1: S-pattern 1 2: S-pattern 2	0		
F513	0513	Acceleration/ deceleration 2 and 3 switching frequency	Hz	0.1/0.01	0.0: (disabled) 0.1-UL	0.0		
F515	0515	Deceleration time at emergency stop	s	0.1/0.1	0.0-3600 (360.0) *8	10.0		6.29.4
F519	0519	Setting of acceleration/ deceleration time unit	-	-	0: - 1: 0.01s unit (after execution: 0) 2: 0.1s unit (after execution: 0)	0		5.2 6.27.2

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

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F590	0590	Shock monitoring	-	-	0: Disabled 1: Current detection 2: Torque detection	0		6.28
F591	0591	Shock monitoring trip/alarm selection	-	-	0: Alarm only 1: Tripping	0		
F592	0592	Shock monitoring detection direction selection	-	-	0: Over-current / torque detection 1: Low-current / torque detection	0		
F593	0593	Shock monitoring detection level	%	1/1	0-250	150		
F595	0595	Shock monitoring detection time	s	0.1/0.1	0.0-10.0	0.5		
F596	0596	Shock monitoring detection hysteresis	%	1/1	0-100	10		
F597	0597	Shock monitoring detection start waiting time	s	0.1/0.1	0.0-300.0	0.0		
F598	0598	Shock monitoring detection action selection	-	-	0: During operation 1: During operation (except acceleration/ deceleration)	0		

- Protection parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F601	0601	Stall prevention level 1	% (A)	1/1	10-199, 200 (disabled)	150		6.29.2
F602	0602	Inverter trip retention selection	-	-	0: Cleared with power off 1: Retained with power off	0		6.29.3
F603	0603	Emergency stop selection	-	-	0: Coast stop 1: Deceleration stop 2: Emergency DC braking 3: Deceleration stop (F515) 4: Quick deceleration stop 5: Dynamic quick deceleration stop	0		6.29.4
F604	0604	DC braking time during emergency stop	s	0.1/0.1	0.0-20.0	1.0		
F605	0605	Output phase failure detection selection	-	-	0: Disabled 1: At start-up (only one time after power on) 2: At start-up (each time) 3: During operation 4: At start-up + during operation 5: Detection of cutoff on output side	0		6.29.5
F607	0607	Motor 150% overload detection time	s	1/1	10-2400	300		5.6 6.29.1
F608	0608	Input phase failure detection selection	-	-	0: Disabled 1: Enabled	1		6.29.6
F609	0609	Small current detection hysteresis	%	1/1	1-20	10		6.29.7
F610	0610	Small current trip/alarm selection	-	-	0: Alarm only 1: Tripping	0		
F611	0611	Small current detection current	% (A)	1/1	0-150	0		
F612	0612	Small current detection time	s	1/1	0-255	0		

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F613	0613	Detection of output short-circuit at start-up	-	-	0: Each time (standard pulse) 1: Only one time after power on (standard pulse) 2: Each time (short pulse) 3: Only one time after power on (short pulse)	0		6.29.8
F614	0614	Ground fault detection selection	-	-	0: Disabled 1: Enabled	1		6.29.9
F615	0615	Over-torque trip/alarm selection	-	-	0: Alarm only 1: Tripping	0		6.29.10
F616	0616	Over-torque detection level	%	1/0.1	0 (disabled) 1-250	150		
F618	0616	Over-torque detection time	s	0.1/0.1	0.0-10.0	0.5		
F619	0619	Over-torque detection hysteresis	%	1/1	0-100	10		
F620	0620	Cooling fan ON/OFF control	-	-	0: ON/OFF control 1: Always ON	0		6.29.11
F621	0621	Cumulative operation time alarm setting	100 hours	0.1/0.1 (=10 hours)	0.0-999.0	876.0		6.29.12
F625	0625	Factory specific coefficient 6A	-	-	-	-		*3
F626	0626	Over-voltage stall protection level	%	1/1	100-150	*2		6.19.4 6.19.5
F627	0627	Undervoltage trip/alarm selection	-	-	0: Alarm only (detection level 60% or less) 1: Tripping (detection level 60% or less) 2: Alarm only (detection level 50% or less, input AC reactor required) 3: -	0		6.29.13

*2: Default setting values vary depending on the capacity.

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

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F629	0629	Factory specific coefficient 6B	-	-	-	-		*3
F631	0631	Inverter overload detection method	-	-	0: 150%-60s (120%-60s) 1: Temperature estimation	0		5.6
F632	0632	Electronic-thermal memory	-	-	0: Disabled (tHr, F173) 1: Enabled (tHr, F173) 2: Disabled (tHr) 3: Enabled (tHr)	0		5.6 6.29.1
F633	0633	Analog input break detection level (VIC)	%	1/1	0: Disabled, 1-100	0		6.29.14
F634	0634	Annual average ambient temperature (parts replacement alarms)	-	-	1: -10 to +10°C 2: 11-20°C 3: 21-30°C 4: 31-40°C 5: 41-50°C 6: 51-60°c	3		6.29.15
F643	0643	Factory specific coefficient 6C	-	-	-	-		*3
F644	0644	Operation selection of analog input break detection (VIC)	-	-	0: Tripping 1: Alarm only (Coast stop) 2: Alarm only (F649 frequency) 3: Alarm only (Maintain running) 4: Alarm only (Deceleration stop)	0		6.29.14
F645	0645	PTC thermal selection	-	-	1: Tripping 2: Alarm only	1		6.29.16
F646	0646	PTC detection resistor value	Ω	1/1	100-9999	3000		
F648	0648	Number of starting alarm	10000 times	0.1/0.1	0.0-999.0	999.0		6.29.17
F649	0649	Fallback frequency	Hz	0.1/0.01	LL-UL	0.0		6.29.14
F650	0650	Forced fire-speed control selection	-	-	0: Disabled 1: Enabled	0		6.30
F656	0656	Factory specific coefficient 6D	-	-	-	-		*3

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

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F657	0657	Overload alarm level	%	1/1	10-100	50		5.6
F660	0660	Override addition input selection	-	-	0: Disabled 1: Terminal VIA 2: Terminal VIB 3: Terminal VIC 4: FC	0		6.31
F661	0661	Override multiplication input selection	-	-	0: Disabled 1: Terminal VIA 2: Terminal VIB 3: Terminal VIC 4: F729	0		
F663	0663	Analog input terminal function selection (VIB)	-	-	0: Frequency command 1: Acceleration/deceleration time 2: Upper limit frequency 3, 4: - 5: Torque boost value 6: Stall prevention level 7: Motor electronic-thermal protection level 8 to 10: - 11: Base frequency	0		6.32

- Output parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F667	0667	Integral input power pulse output unit	-	-	0: 0.1kWh 1: 1kWh 2: 10kWh 3: 100kWh	1		6.33.1
F668	0668	Integral input power pulse output width	s	0.1/0.1	0.1-1.0	0.1		
F669	0669	Logic output/pulse train output selection (OUT)	-	-	0: Logic output 1: Pulse train output	0		6.33.2
F676	0676	Pulse train output function selection (OUT)	-	-	0:Output frequency 1:Output current 2:Frequency command value 3:Input voltage (DC detection) 4:Output voltage (command value) 5: Input power 6: Output power 7: Torque 8: - 9: Motor cumulative load factor 10: Inverter cumulative load factor 11: PBR (Braking resistor) cumulative load factor 12: Stator frequency 13: VIA input value 14: VIB input value 15: Fixed output 1 (output current 100% equivalent) 16: Fixed output 2 (output current 50% equivalent) 17: Fixed output 3 (Other than the output current) 18: Communication data 19: - 20: VIC input value 21, 22: - 23: PID feedback value	0		
F677	0677	Maximum numbers of pulse train output	kpps	0.01/0.01	0.50-2.00	0.80		
F678	0678	Pulse train output filter	ms	1/1	2-1000	64		
F679	0679	Pulse train input filter	ms	1/1	2-1000	2		6.10.5

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F681	0681	Analog output signal selection	-	-	0: Meter option (0 to 1 mA) 1: Current (0 to 20 mA) output 2: Voltage (0 to 10 V) output	0		5.1 6.33.3
F684	0684	Analog output filter	ms	1/1	2-1000	2		
F691	0691	Inclination characteristic of analog output	-	-	0: Negative inclination (downward slope) 1: Positive inclination (upward slope)	1		
F692	0692	Meter bias	%	1/1	0－100	0		
F693	0693	Factory specific coefficient 6E	-	-	-	-		*3

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

- Operation panel parameters

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

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

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F711	0711	Status monitor 1	-	--	0: Output frequency (Hz/free unit) 1: Output current (%/A) 2: Frequency command value (Hz/free unit) 3: Input voltage (DC detection) (%/V) 4: Output voltage (command	2		6.34.6 8.2. 8.3.2
F712	0712	Status monitor 2	-	-		1		
F713	0713	Status monitor 3	-	-		3		
F714	0714	Status monitor 4	-	-		4		
F715	0715	Status monitor 5	-	-		5		
F716	0716	Status monitor 6	-	-		6		
F717	0717	Status monitor 7	-	-		27		

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F718	0718	Status monitor 8	-	-	value) (%/V) 5: Input power (kW) 6: Output power (kW) 7: Torque (%) 8: - 9: Motor cumulative load factor 10: Inverter cumulative load factor 11: PBR (Braking resistor) cumulative load factor 12: Stator frequency (Hz/free unit) 13: VIA input value (%) 14: VIB input value (%) 15 to 17: - 18: Arbitrary code from communication 19: - 20: VIC input value (%) 21: Pulse train input value (pps) 22: - 23: PID feedback value (Hz/free unit) 24: Integral input power (kWh) 25: Integral output power (kWh) 26: Motor load factor (%) 27: Inverter load factor (%) 28: Inverter rated current (A) 29: FM output value (%) 30: Pulse train output value (pps) 31: Cumulative power on time (100 hours) 32: Cumulative fan operation time (100 hours) 33: Cumulative operation time (100 hours) 34: Number of starting (10000 times) 35: Forward number of starting (10000 times) 36: Reverse number of starting (10000 times) 37: Number of trip (times) 38, 39: - 40: Inverter rated current (Carrier frequency corrected) 41 to 51: - 52: Frequency command value / output frequency (Hz/free unit)	0		

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F719	0719	Selection of operation command clear	-	-	0: Clear at coast stop and retained at nOFF. 1: Retained at coast stop and nOFF. 2: Clear at coast stop and nOFF. 3: 2+ clear when CnOd is changed	1		6.34.8
F720	0720	Initial extension panel display selection	-	-	0-52 (Same as F710)	0		6.34.5
F721	0721	Panel stop pattern	-	-	0: Deceleration stop 1: Coast stop	0		6.34.9
F724	0724	Operation frequency setting target by setting dial	-	-	0: Panel frequency (FC) 1: Panel frequency (FC) + Preset speed frequency	0		5.7
F729	0729	Operation panel override multiplication gain	%	1/1	-100 - +100	0		6.31
F730	0730	Panel frequency setting prohibition (FC)	-	-	0: Permitted 1: Prohibited	0		6.34.1
F731	0731	Disconnection detection of extension panel	-	-	0: Permitted 1: Prohibited	0		
F732	0732	Local/remote key prohibition of extension panel	-	-	0: Permitted 1: Prohibited	1		6.16 6.34.1
F733	0733	Panel operation prohibition (RUN key)	-	-	0: Permitted 1: Prohibited	0		6.34.1
F734	0734	Panel emergency stop operation prohibition	-	-	0: Permitted 1: Prohibited	0		
F735	0735	Panel reset operation prohibition	-	-	0: Permitted 1: Prohibited	0		
F736	0736	CnOd / FnOd change prohibition during operation	-	-	0: Permitted 1: Prohibited	1		

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F737	0737	All key operation prohibition	-	-	0: Permitted 1: Prohibited	0		6.34.1
F738	0738	Password setting (F700)	-	-	0: Password unset 1-9998 9999: Password set	0		
F739	0739	Password verification	-	-	0: Password unset 1-9998 9999: Password set	0		
F740	0740	Trace selection	-	-	0: Disabled 1: At tripping 2: At triggering 3: 1+2	1		6.35
F741	0741	Trace cycle	-	-	0: 4ms 1: 20ms 2: 100ms 3: 1s 4: 10s	2		
F742	0742	Trace data 1	-	-	0-42	0		
F743	0743	Trace data 2	-	-		1		
F744	0744	Trace data 3	-	-		2		
F745	0745	Trace data 4	-	-		3		
F746	0746	Status monitor filter	ms	1/1	8-1000	200		6.34.7
F748	0748	Integrating wattmeter retention selection	-	-	0: Disabled 1: Enabled	0		6.36
F749	0749	Integrating wattmeter display unit selection	-	-	0:1=1kWh 1:1=10kWh 2:1=100kWh 3:1=1000kWh 4:1=10000kWh	*2		
F750	0750	EASY key function selection	-	-	0: Easy / standard setting mode switching function 1: Shortcut key 2: Local / remote key 3: Monitor peak / minimum hold trigger 4,5: -	0		4.5 6.16 6.37
F751	0751	Easy setting mode parameter 1	-	-	0-2999 (Set by communication number)	3 (CMod)		4.5 6.37
F752	0752	Easy setting mode parameter 2	-	-		4 (Fmod)		
F753	0753	Easy setting mode parameter 3	-	-		9 (ACC)		
F754	0754	Easy setting mode parameter 4	-	-		10 (dEC)		

*2: Default setting values vary depending on the capacity.

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F755	0755	Easy setting mode parameter 5	-	-	0-2999 (Set by communication number)	12 (UL)		4.5 6.37
F756	0756	Easy setting mode parameter 6	-	-		13 (LL)		
F757	0757	Easy setting mode parameter 7	-	-		600 (tHr)		
F758	0758	Easy setting mode parameter 8	-	-		6 (FM)		
F759	0759	Easy setting mode parameter 9	-	-		999		
F760	0760	Easy setting mode parameter 10	-	-		999		
F761	0761	Easy setting mode parameter 11	-	-		999		
F762	0762	Easy setting mode parameter 12	-	-		999		
F763	0763	Easy setting mode parameter 13	-	-		999		
F764	0764	Easy setting mode parameter 14	-	-		999		
F765	0765	Easy setting mode parameter 15	-	-		999		
F766	0766	Easy setting mode parameter 16	-	-		999		
F767	0767	Easy setting mode parameter 17	-	-		999		
F768	0768	Easy setting mode parameter 18	-	-		999		
F769	0769	Easy setting mode parameter 19	-	-		999		
F770	0770	Easy setting mode parameter 20	-	-		999		
F771	0771	Easy setting mode parameter 21	-	-		999		

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F772	0772	Easy setting mode parameter 22	-	-	0-2999 (Set by communication number)	999		4.5 6.37
F773	0773	Easy setting mode parameter 23	-	-		999		
F774	0774	Easy setting mode parameter 24	-	-		999		
F775	0775	Easy setting mode parameter 25	-	-		999		
F776	0776	Easy setting mode parameter 26	-	-		999		
F777	0777	Easy setting mode parameter 27	-	-		999		
F778	0778	Easy setting mode parameter 28	-	-		999		
F779	0779	Easy setting mode parameter 29	-	-		999		
F780	0780	Easy setting mode parameter 30	-	-		999		
F781	0781	Easy setting mode parameter 31	-	-		701 (F701)		
F782	0782	Easy setting mode parameter 32	-	-		50 (PSEL)		
F790	0790	Panel display selection at power on	-	-	0: HELLO 1: F791 to F794 2, 3: -	0		6.34.10
F791	0791	1st and 2nd characters of F790	hex	-	0-FFFF	2d2d		
F792	0792	3rd and 4th characters of F790	hex	-	0-FFFF	2d2d		
F793	0793	5th and 6th characters of F790	hex	-	0-FFFF	2d2d		
F794	0794	7th and 8th characters of F790	hex	-	0-FFFF	2d2d		
F799	0799	Factory specific coefficient 7A	-	-	-	-		*3

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

• Communication parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F800	0800	Baud rate	-	-	3: 9600bps 4: 19200bps 5: 38400bps	4		6.38.1
F801	0801	Parity	-	-	0: No parity 1: Even parity 2: Odd parity	1		
F802	0802	Inverter number	-	1/1	0-247	0		
F803	0803	Communication time-out time	s	1/1	0: Disabled 0.1-100.0	0.0		
F804	0804	Communication time-out action	-	-	0: Alarm only 1: Trip (Coast stop) 2: Trip (Deceleration stop)	0		
F805	0805	Communication waiting time	s	0.01/0.01	0.00-2.00	0.00		
F806	0806	Setting of master and slave for communication between inverters	-	-	0: Slave (0 Hz command issued in case the master inverter fails) 1: Slave (Operation continued in case the master inverter fails) 2: Slave (Emergency stop tripping in case the master inverter fails) 3: Master (transmission of frequency commands) 4: Master (transmission of output frequency signals)	0		
F808	0808	Communication time-out detection condition	-	-	0: Valid at any time 1: Communication selection of FMOd or CMOd 2: 1 + during operation	1		
F810	0810	Communication command point selection	-	1/1	0: Disabled 1: Enabled	0		6.10.2 6.38.1
F811	0811	Communication command point 1 setting	%	1/1	0-100	0		
F812	0812	Communication command point 1 frequency	Hz	0.1/0.01	0.0-FH	0.0		
F813	0813	Communication command point 2 setting	%	1/1	0-100	0		

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

*1: Default setting values vary depending on the setup menu setting.

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

- PM motor parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F900	0900	Factory specific coefficient 9A	-	-	-	-		*3
F901	0901	Factory specific coefficient 9B	-	-	-	-		
F902	0902	Factory specific coefficient 9C	-	-	-	-		
F909	0909	Factory specific coefficient 9D	-	-	-	-		
F910	0910	Step-out detection current level	%	1/1	1-150	100		6.39
F911	0911	Step-out detection time	s	0.01/0.01	0.0: No detection 0.1-25.0	0.00		
F912	0912	q-axis inductance	mH	0.01/0.01	0.01-650.0	10.00		6.25.2 6.39
F913	0913	d-axis inductance	mH	0.01/0.01	0.01-650.0	10.00		
F914	0914	Factory specific coefficient 9E	-	-	-	-		*3
F915	0915	Factory specific coefficient 9L	-	-	-	-		
F916	0916	Factory specific coefficient 9F	-	-	-	-		
F917	0917	Factory specific coefficient 9G	-	-	-	-		
F918	0918	Factory specific coefficient 9H	-	-	-	-		
F919	0919	Factory specific coefficient 9I	-	-	-	-		
F920	0920	Factory specific coefficient 9J	-	-	-	-		
F930	0930	Factory specific coefficient 9K	-	-	-	-		

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

- Traverse parameters

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

- Factory specific parameters

Title	Function	Reference
A900-A977	Factory specific coefficient	*3

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

- Communication option parameters

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

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

- Default settings by inverter rating

Inverter type	Torque boost value	Dynamic braking resistance	Dynamic braking resistor capacity	Automatic torque boost value	Motor rated capacity	Motor rated current	Motor no-load current	Over-voltage stall protection level	Integrating wattmeter display unit selection
	ub/ F172 (%)	F308 (Ω)	F309 (kW)	F402 (%)	F405 (kW)	F415 (A)	F416 (%)	F626 (%)	F749
VFS15-2004PM-W	6.0	200.0	0.12	6.2	0.40	2.0	65	136	0
VFS15-2007PM-W	6.0	200.0	0.12	5.8	0.75	3.4	60	136	0
VFS15-2015PM-W	6.0	75.0	0.12	4.3	1.50	6.2	55	136	0
VFS15-2022PM-W	5.0	75.0	0.12	4.1	2.20	8.9	52	136	0
VFS15-2037PM-W	5.0	40.0	0.12	3.4	4.00	14.8	48	136	1
VFS15-2055PM-W	4.0	15.0	0.44	3.0	5.50	21.0	46	136	1
VFS15-2075PM-W	3.0	15.0	0.44	2.5	7.50	28.2	43	136	1
VFS15-2110PM-W	2.0	7.5	0.88	2.3	11.00	40.6	41	136	1
VFS15-2150PM-W	2.0	7.5	0.88	2.0	15.00	54.6	38	136	1
VFS15S-2002PL-W	6.0	200.0	0.12	8.3	0.20	1.2	70	136	0
VFS15S-2004PL-W	6.0	200.0	0.12	6.2	0.40	2.0	65	136	0
VFS15S-2007PL-W	6.0	200.0	0.12	5.8	0.75	3.4	60	136	0
VFS15S-2015PL-W	6.0	75.0	0.12	4.3	1.50	6.2	55	136	0
VFS15S-2022PL-W	5.0	75.0	0.12	4.1	2.20	8.9	52	136	0
VFS15-4004PL-W	6.0	200.0	0.12	6.2	0.40	1.0	65	141	0
VFS15-4007PL-W	6.0	200.0	0.12	5.8	0.75	1.7	60	141	0
VFS15-4015PL-W	6.0	200.0	0.12	4.3	1.50	3.1	55	141	0
VFS15-4022PL-W	5.0	200.0	0.12	4.1	2.20	4.5	52	141	0
VFS15-4037PL-W	5.0	160.0	0.12	3.4	4.00	7.4	48	141	1
VFS15-4055PL-W	4.0	60.0	0.44	2.6	5.50	10.5	46	141	1
VFS15-4075PL-W	3.0	60.0	0.44	2.3	7.50	14.1	43	141	1
VFS15-4110PL-W	2.0	30.0	0.88	2.2	11.00	20.3	41	141	1
VFS15-4150PL-W	2.0	30.0	0.88	1.9	15.00	27.3	38	141	1

*1: When region setting is JP, F405 of VFS15-2037PM-W and VFS15-4037PL-W are set to 3.7(kW).

- Default settings by setup menu

Function		Title	Main regions			
			EU (Europe)	ASIA (Asia, Oceania) Note 1)	USA (North America)	JP (Japan)
Frequency		UL / uL / F170 / F204 / F213 / F219 / F330 / F367 / F814	50.0(Hz)	50.0(Hz)	60.0(Hz)	60.0(Hz)
Base frequency voltage 1, 2	240V class	uLu / F171	230(V)	230(V)	230(V)	200(V)
	500V class		400(V)	400(V)	460(V)	400(V)
V/F control mode selection		Pt	0	0	0	2
Supply voltage correction (output voltage limitation)		F307	2	2	2	3
Regenerative over-excitation upper limit		F319	120	120	120	140
Motor rated speed		F417	1410(min^{-1})	1410(min^{-1})	1710(min^{-1})	1710(min^{-1})

Note: Refer to the instruction manual for setup menu.