

VFS11 Parameter List for CPU version 116/117/118/119

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.

-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	
	E/G	
Control terminal block	FLA	
	FLB	
	FLC	
	RY	
	RC	
	CC	
	VIA	
	VIB	
	PP	
	FM	
	F	
	R	
	RES	
	S1	
	S2	
	S3	
	CC	
OUT		
NO		
P24		
Setting of slide switch	VIA	V / I
	FM	V / I
	SW1	SOURCE / PLC / SINK

1 User parameters

Title	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>F\bar{C}</i>	Operation frequency of operation panel	Hz	0.1/0.01	<i>L L - U L</i>	0.0		3.2

2 Basic parameters

- Four automatic functions or basic parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>RUH</i>	-	History function	-	-	Displays parameters in groups of five in the reverse order to that in which their settings were changed. * (Possible to edit)	-		4.1.4
<i>RU1</i>	0000	Automatic acceleration/ deceleration	-	-	0: Disabled (manual) 1: Automatic 2: Automatic (only at acceleration)	0		5.1.1
<i>RU2</i>	0001	Automatic torque boost	-	-	0: Disabled 1: Automatic torque boost + auto-tuning 2: Vector control + auto-tuning 3: Energy saving + auto-tuning	0		5.2
<i>RU4</i>	0040	Automatic function setting	-	-	0: Disabled 1: Coast stop 2: 3-wire operation 3: External input UP/DOWN setting 4: 4-20 mA current input operation	0		5.3
<i>CNDd</i>	0003	Command mode selection	-	-	0: Terminal board 1: Operation panel	1		5.4
<i>FNDd</i>	0004	Frequency setting mode selection 1	-	-	0: Built-in potentiometer 1: VIA 2: VIB 3: Operation panel 4: Serial communication 5: UP/DOWN from external contact 6: VIA + VIB (Override)	0		5.4 6.5.1 7.1

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>F_{NSL}</i>	0005	Meter selection	-	-	0:Output frequency 1:Output current 2:Set frequency 3:DC voltage 4:Output voltage command value 5:Input power 6:Output power 7:Torque 8:Torque current 9:Motor cumulative load factor 10:Inverter cumulative load factor 11:PBR (braking reactor) cumulative load factor 12:Frequency setting value (after PID) 13:VIA/II Input value 14:VIB Input value 15:Fixed output 1 (Output current: 100%) 16:Fixed output 2 (Output current: 50%) 17:Fixed output 3 (Other than the output current: 100%) 18:Serial communication data 19:For adjustments (<i>F_π</i> set value is displayed.)	0		5.5
<i>F_π</i>	0006	Meter adjustment	-	-	-	-		5.5
<i>t_{YP}</i>	0007	Default setting	-	-	0: - 1: 50Hz default setting 2: 60Hz default setting 3: Default setting (Initialization) 4: Trip record clear 5: Cumulative operation time clear 6: Initialization of type information 7: Save user-defined parameters 8: Call user-defined parameters 9: Cumulative fan operation time record clears	0		4.2.6 4.2.7 5.6
<i>F_r</i>	0008	Forward/reverse run selection (Operation panel)	-	-	0: Forward run 1: Reverse run 2: Forward run (F/R switching possible) 3: Reverse run (F/R switching possible)	0		5.7

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference																															
<i>ACC</i>	0009	Acceleration time 1	s	0.1/0.1	0.0-3200	10.0		5.1.2																															
<i>DEC</i>	0010	Deceleration time 1	s	0.1/0.1	0.0-3200	10.0		5.1.2																															
<i>FH</i>	0011	Maximum frequency	Hz	0.1/0.01	30.0-500.0	80.0		5.8																															
<i>UL</i>	0012	Upper limit frequency	Hz	0.1/0.01	0.5- <i>FH</i>	50.0 (WP) 60.0 (WN, AN)		5.9																															
<i>LL</i>	0013	Lower limit frequency	Hz	0.1/0.01	0.0- <i>UL</i>	0.0		5.9																															
<i>uL</i>	0014	Base frequency 1	Hz	0.1/0.01	25-500.0	50.0 (WP) 60.0 (WN, AN)		5.10																															
<i>uLv</i>	0409	Base frequency voltage 1	V	1/0.1	50-330 (240V class) 50-660 (500/600V class)	*2		5.10 6.13.6																															
<i>PE</i>	0015	V/F control mode selection 1			0: V/F constant 1: Variable torque 2: Automatic torque boost control 3: Vector control 4: Automatic energy-saving 5: Dynamic automatic energy-saving (for fans and pumps) 6: PM motor control	0 (WP) 2 (WN, AN)		5.11																															
<i>ub</i>	0016	Torque boost 1	%	0.1/0.1	0.0-30.0	*1		5.12																															
<i>tHr</i>	0600	Motor electronic-thermal protection level 1	% (A)	1/1	10-100	100		5.13 6.19.1																															
<i>OLN</i>	0017	Electronic-thermal protection characteristic selection *3	-	-	<table border="1"> <thead> <tr> <th>Set</th> <th></th> <th>OL protect</th> <th>OL stall</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td>on</td> <td>off</td> </tr> <tr> <td>1</td> <td rowspan="3">Standard motor</td> <td>on</td> <td>on</td> </tr> <tr> <td>2</td> <td>off</td> <td>off</td> </tr> <tr> <td>3</td> <td>off</td> <td>on</td> </tr> <tr> <td>4</td> <td rowspan="4">VF motor</td> <td>on</td> <td>off</td> </tr> <tr> <td>5</td> <td>on</td> <td>on</td> </tr> <tr> <td>6</td> <td>off</td> <td>off</td> </tr> <tr> <td>7</td> <td>off</td> <td>on</td> </tr> </tbody> </table>	Set		OL protect	OL stall	0		on	off	1	Standard motor	on	on	2	off	off	3	off	on	4	VF motor	on	off	5	on	on	6	off	off	7	off	on	0		5.13
Set		OL protect	OL stall																																				
0		on	off																																				
1	Standard motor	on	on																																				
2		off	off																																				
3		off	on																																				
4	VF motor	on	off																																				
5		on	on																																				
6		off	off																																				
7		off	on																																				

*1 : Default values vary depending on the capacity. See the table of the last page

*2 : Inverter with a model number ending with
 -WN, AN: 230 (240V class), 460 (500V class), 575V (600V class)
 -WP: 230(240V class), 400(500V class)

*3 : on : valid, off : invalid

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>Sr 1</i>	0018	Preset-speed operation frequency 1	Hz	0.1/0.01	<i>LL-UL</i>	0.0		5.14
<i>Sr 2</i>	0019	Preset-speed operation frequency 2	Hz	0.1/0.01	<i>LL-UL</i>	0.0		
<i>Sr 3</i>	0020	Preset-speed operation frequency 3	Hz	0.1/0.01	<i>LL-UL</i>	0.0		
<i>Sr 4</i>	0021	Preset-speed operation frequency 4	Hz	0.1/0.01	<i>LL-UL</i>	0.0		
<i>Sr 5</i>	0022	Preset-speed operation frequency 5	Hz	0.1/0.01	<i>LL-UL</i>	0.0		
<i>Sr 6</i>	0023	Preset-speed operation frequency 6	Hz	0.1/0.01	<i>LL-UL</i>	0.0		
<i>Sr 7</i>	0024	Preset-speed operation frequency 7	Hz	0.1/0.01	<i>LL-UL</i>	0.0		
<i>F---</i>	-	Extended parameters	-	-	-	-	-	4.1.2
<i>Gr.U</i>	-	Automatic edit function	-	-	-	-	-	4.1.3

3 Extended parameters

• Input/output parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>F 100</i>	0100	Low-speed signal output frequency	Hz	0.1/0.01	0.0- <i>F H</i>	0.0		6.1.1
<i>F 101</i>	0101	Speed reach setting frequency	Hz	0.1/0.01	0.0- <i>F H</i>	0.0		6.1.3
<i>F 102</i>	0102	Speed reach detection band	Hz	0.1/0.01	0.0- <i>F H</i>	2.5		6.1.2
<i>F 105</i>	0105	Priority selection (Both F-CC and R-CC are ON)	-	-	0: Reverse 1: Slowdown Stop	1		6.2.1
<i>F 108</i>	0108	Always-active function selection 1	-	-	0-75	0		6.3.1
<i>F 109</i>	0109	Analog/contact input function selection (VIA/VIB terminal)	-	-	0: VIA - analog input VIB - analog input 1: VIA - analog input VIB - contact input (Sink) 2: VIA - analog input VIB - contact input (Source) 3: VIA - contact input (Sink) VIB - contact input (Sink) 4: VIA - contact input(Source) VIB - contact input (Source)	0		6.2.2
<i>F 110</i>	0110	Always-active function selection 2	-	-	0-75 (ST)	1		6.3.1
<i>F 111</i>	0111	Input terminal selection 1 (F)	-	-	0-75 (F)	2		6.3.2
<i>F 112</i>	0112	Input terminal selection 2 (R)	-	-	0-75 (R)	3		
<i>F 113</i>	0113	Input terminal selection 3 (RES)	-	-	0-75 (RES)	10		
<i>F 114</i>	0114	Input terminal selection 4 (S1)	-	-	0-75 (SS1)	6		
<i>F 115</i>	0115	Input terminal selection 5 (S2)	-	-	0-75 (SS2)	7		
<i>F 116</i>	0116	Input terminal selection 6 (S3)	-	-	0-75 (SS3)	8		
<i>F 117</i>	0117	Input terminal selection 7 (VIB)	-	-	5-17 (SS4)	9		
<i>F 118</i>	0118	Input terminal selection 8 (VIA)	-	-	5-17 (AD2)	5		

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>F 130</i>	0130	Output terminal selection 1A (RY-RC)	-	-	0-255 (LOW)	4		6.3.3
<i>F 131</i>	0131	Output terminal selection 2A (OUT-NO)	-	-	0-255 (RCH)	6		
<i>F 132</i>	0132	Output terminal selection 3 (FL)	-	-	0-255 (FL)	10		
<i>F 137</i>	0137	Output terminal selection 1B (RY-RC)	-	-	0-255 (always ON)	255		
<i>F 138</i>	0138	Output terminal selection 2B (OUT-NO)	-	-	0-255 (always ON)	255		
<i>F 139</i>	0139	Output terminal logic selection (RY-RC, OUT-NO)	-	-	0: <i>F 130</i> and <i>F 137</i> <i>F 131</i> and <i>F 138</i> 1: <i>F 130</i> or <i>F 137</i> <i>F 131</i> and <i>F 138</i> 2: <i>F 130</i> and <i>F 137</i> <i>F 131</i> or <i>F 138</i> 3: <i>F 130</i> or <i>F 137</i> <i>F 131</i> or <i>F 138</i>	0		6.3.4
<i>F 167</i>	0167	Frequency command agreement detection range	Hz	0.1/0.01	0.0- <i>FH</i>	2.5		6.3.5
<i>F 170</i>	0170	Base frequency 2	Hz	0.1/0.01	25.0-500.0	50.0 (WP) 60.0 (WN, AN)		6.4.1
<i>F 171</i>	0170	Base frequency voltage 2	Hz	1/0.1	50-330 (240V class) 50-660 (500/600V class)	* 2		
<i>F 172</i>	0172	Torque boost 2	%	0.1/0.1	0.0-30.0	* 1		
<i>F 173</i>	0173	Motor electronic-thermal protection level 2	% (A)	1/1	10-100	100		5.13 6.4.1
<i>F 185</i>	0185	Stall prevention level 2	% (A)	1/1	10-199 200 (disabled)	150		6.4.1 6.19.2

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• Frequency parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>F200</i>	0200	Frequency priority selection	-	-	0: <i>F_{NOd}</i> (Switchable to <i>F207</i> by terminal input) 1: <i>F_{NOd}</i> (Switchable to <i>F207</i> at less than 1.0Hz of designated frequency)	0		6.5.1 7.1
<i>F201</i>	0201	VIA input point 1 setting	%	1/1	0-100	0		6.5.2
<i>F202</i>	0202	VIA input point 1 frequency	Hz	0.1/0.01	0.0-500.0	0.0		
<i>F203</i>	0203	VIA input point 2 setting	%	1/1	0-100	100		
<i>F204</i>	0204	VIA input point 2 frequency	Hz	0.1/0.01	0.0-500.0	50.0 (WP) 60.0 (WN, AN)		
<i>F207</i>	0207	Frequency setting mode selection 2	-	-	0: Built-in potentiometer 1: VIA 2: VIB 3: Operation panel 4: Serial communication 5: UP/DOWN from external contact 6: VIA + VIB (Override)	1		6.3.5 6.5.1 7.1
<i>F209</i>	0209	Analog input filter	-	-	0-5 (small-big)	4		-
<i>F210</i>	0210	VIB input point 1 setting	%	1/1	0-100	0		6.5.2
<i>F211</i>	0211	VIB input point 1 frequency	Hz	0.1/0.01	0.0-500.0	0.0		
<i>F212</i>	0212	VIB input point 2 setting	%	1/1	0-100	100		
<i>F213</i>	0213	VIB input point 2 frequency	Hz	0.1/0.01	0.0-500.0	50.0 (WP) 60.0 (WN, AN)		
<i>F240</i>	0240	Starting frequency setting	Hz	0.1/0.01	0.5-10.0	0.5		6.6.1
<i>F241</i>	0241	Operation starting frequency	Hz	0.1/0.01	0.0- <i>F_H</i>	0.0		6.6.2
<i>F242</i>	0242	Operation starting frequency hysteresis	Hz	0.1/0.01	0.0- <i>F_H</i>	0.0		6.6.2
<i>F250</i>	0250	DC braking starting frequency	Hz	0.1/0.01	0.0- <i>F_H</i>	0.0		6.7.1

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>F251</i>	0251	DC braking current	% (A)	1/1	0-100	50		6.7.1
<i>F252</i>	0252	DC braking time	s	0.1/0.1	0.0-20.0	1.0		
<i>F254</i>	0254	Motor shaft fixing control	-	-	0: Disabled 1: Enabled (after DC braking)	0		6.7.2
<i>F256</i>	0256	Time limit for lower-limit frequency operation	s	0.1/0.1	0: None 0.1-600.0	0.0		6.8
<i>F260</i>	0260	Jog run frequency	Hz	0.1/0.01	<i>F240</i> -20.0	5.0		6.9
<i>F261</i>	0261	Jog run stopping pattern	-	-	0: Slowdown stop 1: Coast stop 2: DC braking	0		
<i>F262</i>	0262	Panel jog run operation mode	-	-	0: Disabled 1: Panel jog run operation mode enabled	0		
<i>F264</i>	0264	Input from external contacts · UP response time	s	0.1/0.1	0.0-10.0	0.1		6.5.2
<i>F265</i>	0265	Input from external contacts · UP frequency step width	Hz	0.1/0.01	0.0- <i>FH</i>	0.1		
<i>F266</i>	0266	Input from external contacts · DOWN response time	s	0.1/0.1	0.0-10.0	0.1		
<i>F267</i>	0267	Input from external contacts · DOWN frequency step width	Hz	0.1/0.01	0.0- <i>FH</i>	0.1		
<i>F268</i>	0268	Initial value of UP/DOWN frequency	Hz	0.1/0.01	<i>LL</i> - <i>UL</i>	0.0		
<i>F269</i>	0269	Saving of changed value of UP/DOWN frequency	-	-	0: Not changed 1: Setting of <i>F268</i> changed when power is turned off	1		

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>F270</i>	0270	Jump frequency 1	Hz	0.1/0.01	0.0- <i>FH</i>	0.0		6.10
<i>F271</i>	0271	Jumping width 1	Hz	0.1/0.01	0.0-30.0	0.0		
<i>F272</i>	0272	Jump frequency 2	Hz	0.1/0.01	0.0- <i>FH</i>	0.0		
<i>F273</i>	0273	Jumping width 2	Hz	0.1/0.01	0.0-30.0	0.0		
<i>F274</i>	0274	Jump frequency 3	Hz	0.1/0.01	0.0- <i>FH</i>	0.0		6.10
<i>F275</i>	0275	Jumping width 3	Hz	0.1/0.01	0.0-30.0	0.0		
<i>F287</i>	0287	Preset-speed operation frequency 8	Hz	0.1	<i>LL-UL</i>	0.0		5.14
<i>F288</i>	0288	Preset-speed operation frequency 9	Hz	0.1	<i>LL-UL</i>	0.0		
<i>F289</i>	0289	Preset-speed operation frequency 10	Hz	0.1	<i>LL-UL</i>	0.0		
<i>F290</i>	0290	Preset-speed operation frequency 11	Hz	0.1	<i>LL-UL</i>	0.0		
<i>F291</i>	0291	Preset-speed operation frequency 12	Hz	0.1	<i>LL-UL</i>	0.0		
<i>F292</i>	0292	Preset-speed operation frequency 13	Hz	0.1	<i>LL-UL</i>	0.0		
<i>F293</i>	0293	Preset-speed operation frequency 14	Hz	0.1	<i>LL-UL</i>	0.0		
<i>F294</i>	0294	Preset-speed operation frequency 15 (Fire-speed)	Hz	0.1	<i>LL-UL</i>	0.0		

• 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	0.1/0.01	2.0 - 16.0	12.0		6.12
F301	0301	Auto-restart control selection	-	-	0: Disabled 1: At auto-restart after momentary stop 2: ST terminal on or off 3: At auto-restart or when turning ST-CC on or off 4: At start-up	0		6.13.1
F302	0302	Regenerative power ride-through control (Deceleration stop)	-	-	0: Disabled 1: Automatic setting 2: Slowdown stop	0		6.13.2
F303	0303	Retry selection (number of times)	Times	1/1	0: Disabled 1-10	0		6.13.3
F304	0304	Dynamic braking selection	-	-	0: Dynamic braking disabled 1: Dynamic braking enabled, overload protection enabled	0		6.13.4
F305	0305	Over voltage limit operation (Slowdown stop mode selection)	-	-	0: Automatic setting 1: Disabled 2: Enabled (Quick deceleration) 3: Enabled (Dynamic quick deceleration)	2		6.13.5
F307	0307	Supply voltage correction (limitation of output voltage)	-	-	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	2 (WP, WN) 3 (AN)		6.13.6
F308	0308	Dynamic braking resistance	Ohm	0.1/0.1	1.0-1000	* 1		6.13.4
F309	0309	Dynamic braking resistor capacity	kW	0.01/0.01	0.01-30.00	* 1		6.13.4
F311	0311	Reverse-run prohibition	-	-	0: Forward/reverse run permitted 1: Reverse run prohibited 2: Forward run prohibited	0		6.13.7
F312	0312	Random mode	-	-	0: Disabled 1: Automatic setting	0		6.12

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Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>F316</i>	0316	Carrier frequency control mode selection	-	-	0:Carrier frequency not reduced automatically	1		6.12
					1:Carrier frequency reduced automatically			
					2:Carrier frequency not reduced automatically Support for 400V models			
					3:Carrier frequency reduced automatically support for 400V models			
<i>F319</i>	0319	Regenerative over-excitation upper limit	-	1/1	100-160	140		-
<i>F320</i>	0320	Drooping gain	%	1/1	0-100	0		6.14
<i>F323</i>	0323	Drooping insensitive torque band	%	1/1	0-100	10		6.14
<i>F342</i>	0342	Braking mode selection	-	-	0: Disabled 1: Enabled (forward run) 2: Enabled (reverse run) 3: Enabled (operating direction)	0		6.15
<i>F343</i>	0343	Release frequency	Hz	0.1/0.01	<i>F240</i> -20.0	3.0		
<i>F344</i>	0344	Release time	s	0.01/0.01	0.00-2.50	0.05		
<i>F345</i>	0345	Creeping frequency	Hz	0.1/0.01	<i>F240</i> -20.0	3.0		
<i>F346</i>	0346	Creeping time	s	0.01/0.01	0.00-2.50	0.10		
<i>F359</i>	0359	PID control waiting time	s	1/1	0-2400	0		
<i>F360</i>	0360	PID control	-	-	0: Disabled, 1: Enabled	0		
<i>F362</i>	0362	Proportional gain	-	0.01/0.01	0.01-100.0	0.30		
<i>F363</i>	0363	Integral gain	-	0.01/0.01	0.01-100.0	0.20		
<i>F366</i>	0366	Differential gain	-	0.01/0.01	0.00-2.55	0.00		
<i>F396</i>	0396	Canceling mode of stall prevention	-	-	0:Setting acceleration time 1:Shortest acceleration time	0		-

• Torque boost parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>F400</i>	0400	Auto-tuning	-	-	0: Auto-tuning disabled 1: Initialization of <i>F402</i> (reset to 0) 2: Auto-tuning enabled (after execution: 0)	0		5.11 6.17.1
<i>F401</i>	0401	Slip frequency gain	%	1/1	0-150	50		
<i>F402</i>	0402	Motor constant #1 (primary resistance)	%	0.1/0.1	0.0-30.0	* 1		
<i>F415</i>	0415	Motor rated current	A	0.1/0.1	0.1-100.0	* 1		
<i>F416</i>	0416	Motor no-load current	%	1/1	10-90	* 1		
<i>F417</i>	0417	Motor rated speed	min ⁻¹	1/1	100-32000	1410 (WP) 1710 (WN, AN)		
<i>F418</i>	0418	Speed control response coefficient	-	1/1	1-150	40		
<i>F419</i>	0419	Speed control stability coefficient	-	1/1	1-100	20		

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• Input/output parameters2

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>F470</i>	0470	VIA input bias	-	1/1	0-255	128		6.5.4
<i>F471</i>	0471	VIA input gain	-	1/1	0-255	148		
<i>F472</i>	0472	VIB input bias	-	1/1	0-255	128		
<i>F473</i>	0473	VIB input gain	-	1/1	0-255	148		

• Torque boost parameters2

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F480	0480	Exciting strengthening coefficient	%	1/1	100-130	100		5.11 6.17.2
F482	0482	PWM carrier frequency at low speed	kHz	0.1/0.1	1.0-11.0	3.0		-
F485	0485	Stall cooperation gain at field weakening zone 1	-	1/1	10-250	100		5.11 6.17.2
F492	0492	Stall cooperation gain at field weakening zone 2	-	1/1	50-150	100		
F494	0494	Motor adjustment factor	-	1/1	0-200	* 1		
F495	0495	Maximum voltage Adjustment coefficient	%	1/1	90-120	104		
F496	0496	Waveform switching Adjustment coefficient	kHz	0.1/0.1	0.1-14.0	0.2		
F497	0497	Limiting function of starting current	-	-	0:Disabled 1:Enabled	1		-

*1 : Default values vary depending on the capacity. See the table of last page.

• Acceleration/deceleration time parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>F500</i>	0500	Acceleration time 2	s	0.1/0.1	0.0-3200	10.0		6.18
<i>F501</i>	0501	Deceleration time 2	s	0.1/0.1	0.0-3200	10.0		
<i>F502</i>	0502	Acceleration/deceleration 1 pattern	-	-	0: Linear 1: S-pattern 1 2: S-pattern 2	0		
<i>F503</i>	0503	Acceleration/deceleration 2 pattern	-	-		0		
<i>F504</i>	0504	Acceleration/deceleration selection (1, 2, 3)	-	-	1: Acceleration/deceleration 1 2: Acceleration/deceleration 2 3: Acceleration/deceleration 3	1		
<i>F505</i>	0505	Acceleration/deceleration 1 and 2 switching frequency	Hz	0.1/0.01	0.0- <u>UL</u>	0.0		
<i>F506</i>	0506	S-pattern lower-limit adjustment amount	%	1/1	0-50	10		
<i>F507</i>	0507	S-pattern upper-limit adjustment amount	%	1/1	0-50	10		
<i>F510</i>	0510	Acceleration time 3	s	0.1/0.1	0.0-3200	10.0		
<i>F511</i>	0511	Deceleration time 3	s	0.1/0.1	0.0-3200	10.0		
<i>F512</i>	0512	Acceleration/deceleration 3 pattern	-	-	0: Linear 1: S-pattern 1 2: S-pattern 2	0		
<i>F513</i>	0513	Acceleration/deceleration 2 and 3 switching frequency	Hz	0.1/0.01		0.0- <u>UL</u>	0.0	

• 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		6.19.2
F602	0602	Inverter trip retention selection	-	-	0:Canceled with the power off 1:Still retained with the power off	0		6.19.3
F603	0603	Emergency stop selection	-	-	0:Coast stop 1:Slowdown stop 2:Emergency DC braking	0		6.19.4
F604	0604	Emergency DC braking time	s	0.1/0.1	0.0-20.0	1.0		6.19.4
F605	0605	Output phase failure detection mode selection	-	-	0:Disabled 1:At start-up (only one time after power is turned on) 2:At start-up (each time) 3:During operation 4:At start-up + during operation 5:Detection of cutoff on output side	0		6.19.5
F607	0607	Motor 150%-overload time limit	s	1/1	10-2400	300		6.19.1
F608	0608	Input phase failure detection mode selection	-	-	0: Disabled, 1: Enabled	1		6.19.6
F609	0609	Low current detection hysteresis	%	1/1	1-20	10		6.19.7
F610	0610	Low current trip/alarm	-	-	0: Alarm only 1: Tripping	0		
F611	0611	Small current detection current	%	1/1	0-100	0		
F612	0612	Small current detection time	s	1/1	0-255	0		
F613	0613	Detection of output short-circuit during start-up	-	-	0: Each time(standard pulse) 1: At start-up (only one time after power is turned on) (standard pulse) 2: Each time (short-time pulse) 3: At start-up (only one time after power is turned on) (short-time pulse)	0		6.19.8

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F615	0615	Over-torque trip/alarm selection	-	-	0: Alarm only 1: Tripping	0		6.19.9
F616	0616	Over-torque detection level	%	1/1	0-250	150		
F618	0618	Over-torque detection time	s	0.1/0.1	0.0-10.0	0.5		
F619	0619	Over-torque detection level hysteresis	%	1/1	0-100	10		6.19.9
F621	0621	Cumulative operation time alarm setting	100 Time	0.1/0.1 (=10 hours)	0.0-999.9	610		6.19.10
F626	0626	Over-voltage stall protection level	%	1/1	100-150	*1		6.13.5
F627	0627	Under-voltage trip/alarm selection	-	-	0: Alarm only (detection level below 60%) 1: Tripping (detection level below 60%) 2: Alarm only (detection level below 50%, DC reactor necessary)	0		6.19.12
F632	0632	Thermal memory selection	-	-	0:Deselect 1:Select (When the input power becomes off, the drive memorizes the motor and the drive thermal state When the power comes back, the drive starts at the memorized thermal state.)	0(AN, WP) 1(WN)		-
F633	0633	Trip at VIA low level input mode	%	1/1	0: Disabled, 1-100	0		6.19.13
F634	0634	Annual average ambient temperature (calculation for life alarms)	-	-	1: -10 to +10 degree C 2: 11-20 degree C 3: 21-30 degree C 4: 31-40 degree C 5: 41-50 degree C 6: 51-60 degree C	3		6.19.14

*1 : Default values vary depending on the capacity. See the table of last page.

• Output parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F669	0669	Logic output/pulse train output selection (OUT-NO)	-	-	0: Logic output 1: Pulse train output	0		6.20.1
F676	0676	Pulse train output function selection (OUT-NO)	-	-	0:Output frequency 1:Output current 2:Set frequency 3:DC voltage 4:Output voltage command value 5:Input power 6:Output power 7:Torque 8:Torque current 9:Motor cumulative load factor 10:Inverter cumulative load factor 11:PBR (braking reactor) cumulative load factor 12:Frequency setting value (after PID) 13:VIA/II Input value 14:VIB Input value 15:Fixed output 1 (Output current: 100%) 16:Fixed output 2 (Output current: 50%) 17: Fixed output 3 (Other than the output current:100%)	0		6.20.1
F677	0677	Maximum numbers of pulse train	pps	1/1	500-1600	800		6.20.1
F691	0691	Inclination characteristic of analog output	-	-	0: Negative inclination (downward slope) 1: Positive inclination (upward slope)	1		6.20.2
F692	0692	Meter bias	%	1/1	0 - 100	0		6.20.2

• Operation panel parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F700	0700	Prohibition of change of parameter settings	-	-	0: Permitted 1: Prohibited	0		6.21.1
F701	0701	Unit selection	-	-	0:% 1:A (ampere)/V (volt)	0		6.21.2
F702	0702	Free unit selection	Times	0.01/0.01	0.00: Free unit display disabled (display of frequency) 0.01-200.0	0.00		6.21.3
F705	0705	Inclination characteristic of free unit display	-	-	0: Negative inclination (downward slope) 1: Positive inclination (upward slope)	1		
F706	0706	Free unit display bias	Hz	0.01/0.01	0.00- <i>FH</i>	0.00		
F707	0707	Free step 1 (pressing a panel key once)	Hz	0.01/0.01	0.00: Disabled 0.01- <i>FH</i>	0.00		6.21.4
F708	0708	Free step 2 (panel display)	-	1/1	0: Disabled 1-255	0		
F710	0710	Standard monitor display selection	-	-	0:Operation frequency (Hz/free unit) 1:Frequency command (Hz/free unit) 2:Output current (%/A) 3:Inverter rated current (A) 4:Inverter load factor (%) 5:Output power (%) 6:Frequency command after PID control (Hz/free unit) 7:Optional item specified from an external control unit	0		6.21.5
F719	0719	Canceling of operation command when standby terminal (ST) is turned off	-	-	0:Operation command canceled (cleared) 1:Operation command retained	1		6.21.6
F721	0721	Panel stop pattern	-	-	0: Slowdown stop 1: Coast stop	0		6.21.7
F730	0730	Prohibition of frequency setting on the operation panel (<i>F_L</i>)	-	-	0: Permitted 1: Prohibited	0		6.21.1

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F733	0733	Panel operation prohibition (RUN/STOP keys)	-	-	0: Permitted 1: Prohibited	0		6.21.1
F734	0734	Prohibition of panel emergency stop operation	-	-	0: Permitted 1: Prohibited	0		
F735	0735	Prohibition of panel reset operation	-	-	0: Permitted 1: Prohibited	0		
F736	0736	Prohibition of change of <i>CNOd</i> / <i>FNOd</i> during operation	-	-	0: Permitted 1: Prohibited	1		

• Communication parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F800	0800	Communication band speed	-	-	0: 1200bps 1: 2400bps 2: 4800bps 3: 9600bps 4: 19200bps	3		6.22
F801	0801	Parity	-	-	0: NON (No parity) 1: EVEN (Even parity) 2: ODD (Odd parity)	1		
F802	0802	Inverter number	-	1/1	0-255	0		
F803	0803	Communication error trip time	s	1/1	0: (disabled) 1-100	0		
F805	0805	Communication waiting time	s	0.01/0.01	0.00-2.00	0.00		
F806	0806	Setting of master and slave inverters for communication between inverters (setting of master and slave)	-	-	0: Slave inverter (0 Hz command issued in case the master inverter fails) 1: Slave inverter (Operation continued in case the master inverter fails) 2: Slave inverter (Emergency stop tripping in case the master inverter fails) 3: Master inverter (transmission of frequency commands) 4: Master inverter (transmission of output frequency signals)	0		

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>FB11</i>	0811	Point 1 setting	%	1/1	0-100	0		6.5.2 6.22.1
<i>FB12</i>	0812	Point 1 frequency	Hz	0.1/0.01	0.0-500.0	0.0		
<i>FB13</i>	0813	Point 2 setting	%	1/1	0-100	100		
<i>FB14</i>	0814	Point 2 frequency	Hz	0.1/0.01	0.0-500.0	50.0 (WP) 60.0 (WN, AN)		6.5.2 6.22.1
<i>FB29</i>	0829	Selection of communication protocol	-	-	0: Toshiba inverter protocol 1: Modbus RTU protocol	0		6.22
<i>FB70</i>	0870	Block write data 1	-	-	0: No selection 1: Command information 1	0		
<i>FB71</i>	0871	Block write data 2	-	-	2: Command information 2 3: Frequency command 4: Output data on the terminal board 5: Analog output for communications	0		
<i>FB75</i>	0875	Block read data 1	-	-	0: No selection 1: Status information	0		
<i>FB76</i>	0876	Block read data 2	-	-	2: Output frequency 3: Output current	0		
<i>FB77</i>	0877	Block read data 3	-	-	4: Output voltage 5: Alarm information	0		
<i>FB78</i>	0878	Block read data 4	-	-	6: PID feedback value 7: Input terminal board monitor	0		
<i>FB79</i>	0879	Block read data 5	-	-	8: Output terminal board monitor 9: VIA terminal board monitor 10: VIB terminal board monitor	0		
<i>FB80</i>	0880	Free notes	-	1/1	0-65535	0		
<i>FB90</i>	0890	Parameter for option 1	-	1/1	0-65535	0		
<i>FB91</i>	0891	Parameter for option 2	-	1/1	0-65535	0		
<i>FB92</i>	0892	Parameter for option 3	-	1/1	0-65535	0		
<i>FB93</i>	0893	Parameter for option 4	-	1/1	0-65535	0		
<i>FB94</i>	0894	Parameter for option 5	-	1/1	0-65535	0		

• Reservation area parameters

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
<i>F910</i>	0910	Step-out detection current level (for PM motors)	% (A)	1/1	10-150	100		6.24
<i>F911</i>	0911	Step-out detection time (for PM motors)	s	1/1	0.0: No detection 0.1-25.0	0.0		
<i>F912</i>	0912	q axis inductance (for PM motors)	mH	0.01/0.01	0.00-650.00	0.00		
<i>F913</i>	0913	d axis inductance	-	0.01/0.01	0.00-650.00	0.00		-
<i>F914</i>	0914	Cancel frequency of stall prevention	Hz	0.1/0.1	0.0:Deselect 0.1- <i>FH</i>	0.0		-

-Default settings by inverter rating

Inverter type	Torque boost	Dynamic braking resistance	Dynamic braking resistor capacity	Motor constant #1 (primary resistance)	Motor rated current	Motor no-load current	Motor adjustment factor	Over-voltage stall protection level
	<i>F172</i> (%)	<i>F308</i> (Ohm)	<i>F309</i> (kW)	<i>F402</i> (%)	<i>F415</i> (A)	<i>F416</i> (%)	<i>F494</i>	<i>F626</i> (%)
VFS11S-2002PL	6.0	200.0	0.12	8.3	1.2	70	90	134
VFS11S-2004PL	6.0	200.0	0.12	6.2	2.0	65	90	134
VFS11S-2007PL	6.0	200.0	0.12	5.8	3.4	60	80	134
VFS11S-2015PL	6.0	75.0	0.12	4.3	6.2	55	70	134
VFS11S-2022PL	5.0	75.0	0.12	4.1	8.9	52	70	134
VFS11-2002PM	6.0	200.0	0.12	8.3	1.2	70	90	134
VFS11-2004PM	6.0	200.0	0.12	6.2	2.0	65	90	134
VFS11-2007PM	6.0	200.0	0.12	5.8	3.4	60	80	134
VFS11-2015PM	6.0	75.0	0.12	4.3	6.2	55	70	134
VFS11-2022PM	5.0	75.0	0.12	4.1	8.9	52	70	134
VFS11-2037PM	5.0	40.0	0.12	3.4	14.8	48	70	134
VFS11-2055PM	4.0	20.0	0.24	3.0	21.0	46	70	134
VFS11-2075PM	3.0	15.0	0.44	2.5	28.2	43	70	134
VFS11-2110PM	2.0	10.0	0.66	2.3	40.6	41	60	134
VFS11-2150PM	2.0	7.5	0.88	2.0	54.6	38	50	134
VFS11-4004PL	6.0	200.0	0.12	6.2	1.0	65	90	140
VFS11-4007PL	6.0	200.0	0.12	5.8	1.7	60	80	140
VFS11-4015PL	6.0	200.0	0.12	4.3	3.1	55	70	140
VFS11-4022PL	5.0	200.0	0.12	4.1	4.5	52	70	140
VFS11-4037PL	5.0	160.0	0.12	3.4	7.4	48	70	140
VFS11-4055PL	4.0	80.0	0.24	2.6	10.5	46	70	140
VFS11-4075PL	3.0	60.0	0.44	2.3	14.1	43	70	140
VFS11-4110PL	2.0	40.0	0.66	2.2	20.3	41	60	140
VFS11-4150PL	2.0	30.0	0.88	1.9	27.3	38	50	140