11. Table of parameters and data

11.1 User 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

11.2 Basic parameters

- Four navigation functions

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
AUF	-	Quick menu	-	-	The Quick menu refers to the special function of calling up ten frequently used parameters.	-		4.2.4
AUH	-	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
AU1	0000	Automatic acceleration/ deceleration	-	-	0: Disabled (manual) 1: Automatic 2: Automatic (only at acceleration)	1		5.1.1
AU4	0040	Parameter setting macro function	-	-	0: Disabled 1: Coast stop 2: 3-wire operation 3: External input UP/DOWN setting 4: 4-20 mA current input operation	0		5.2

- Basic parameters

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
CMOd	0003	Command mode selection	-	-	0: Terminal board 1: Operation panel 2: Serial communication	0		5.3 7.2
FMOd	0004	Frequency setting mode selection 1	-	-	1: VIA 2: VIB 3: Operation panel 4: Serial communication 5: UP/DOWN from external contact	1		5.3 6.5.1 7.1

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
FMSL	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 12: Frequency setting value (after PID) 13: VIA Input value 14: VIB Input value 15: Fixed output 1 (Output current: 100%) 16: Fixed output 2 (Output current: 50%) 17: Fixed output 3 (Supposition output at FMSL = 17 18: Serial communication data 19: For adjustments (FM set value is displayed.)	0		5.4
FM	0006	Meter adjustment	-	-	-	-		5.4
tYP	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 setting parameters 8. Call user-defined parameters 9. Cumulative fan operation time record clear	0		4.2.7 4.2.8 5.5
Fr	0008	Forward/reverse run selection (Operation panel operation)	-	-	0: Forward run 1: Reverse run 2: Forward run (F/R switching possible) 3: Reverse run (F/R switching possible)	0		5.6
ACC	0009	Acceleration time 1	S	0.1/0.1	0.0-3200	*2		5.1.2
dEC	0010	Deceleration time 1	S	0.1/0.1	0.0-3200	*2		5.1.2
FH	0011	Maximum frequency	Hz	0.1/0.01	30.0-200.0	50.0		5.7
UL	0012	Upper limit frequency	Hz	0.1/0.01	0.5-FH	50.0		5.8
LL	0013	Lower limit frequency	Hz	0.1/0.01	0.0-UL	0.0		5.8
uL	0014	Base frequency 1	Hz	0.1/0.01	25.0-200.0	50.0		5.9
uLu	0409	Base frequency voltage 1	V	1/0.1	50-330 (200V class) 50-660 (400V class)	*1		5.9 6.12.5

*2 : Default values vary depending on the capacity. See the table of the page K-14.

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
PE	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: Do not select 6: PM motor control	1		5.10
ub	0016	Torque boost 1	%	0.1/0.1	0.0-30.0	* 2		5.11
EHr	0600	Motor electronic-thermal protection level 1	% (A)	1/1	10-100	100		5.12 6.17.1
OLN	0017	Electronic-thermal protection characteristic selection *3	-	-	Setting / Overload protection / OL stall 0 (Standard motor): ○ / × 1 (Standard motor): ○ / ○ 2 (Standard motor): × / × 3 (Standard motor): × / ○ 4 (Special motor): ○ / × 5 (Special motor): ○ / ○ 6 (Special motor): × / × 7 (Special motor): × / ○	0		5.12
Sr1	0018	Preset-speed operation frequency 1	Hz	0.1/0.01	LL-UL	15.0		5.13
Sr2	0019	Preset-speed operation frequency 2	Hz	0.1/0.01	LL-UL	20.0		
Sr3	0020	Preset-speed operation frequency 3	Hz	0.1/0.01	LL-UL	25.0		
Sr4	0021	Preset-speed operation frequency 4	Hz	0.1/0.01	LL-UL	30.0		
Sr5	0022	Preset-speed operation frequency 5	Hz	0.1/0.01	LL-UL	35.0		
Sr6	0023	Preset-speed operation frequency 6	Hz	0.1/0.01	LL-UL	40.0		
Sr7	0024	Preset-speed operation frequency 7	Hz	0.1/0.01	LL-UL	45.0		
F---	-	Extended parameters	-	-	-	-	-	4.1.2
Gr.U	-	Automatic edit function	-	-	-	-	-	4.1.3

*1 : 230, 400

*2 : Default values vary depending on the capacity. See the table of the page K-14.

*3 : ○ : valid, × : invalid

11.3 Extended parameters

- Input/output parameters 1

Title	Communication No. HEX	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		6.1.1
F101	0101	Speed reach setting frequency	Hz	0.1/0.01	0.0-FH	0.0		6.1.3
F102	0102	Speed reach detection band	Hz	0.1/0.01	0.0-FH	2.5		6.1.2
F108	0108	Always active function selection 1	-	-	0-71 (No function)	0		6.3.1
F109	0109	Analog/contact input function selection (VIA terminal)	-	-	0: VIA - analog input 1: VIA - contact input (Sink) 2: VIA - contact input (Source)	0		6.2.1
F110	0110	Always-active function selection 2	-	-	0-71 (ST)	1		6.3.1
F111	0111	Input terminal selection 1 (F)	-	-	0-71 (F)	2		6.3.2
F112	0112	Input terminal selection 2 (R)	-	-	0-71 (R)	6 (SS1)		
F113	0113	Input terminal selection 3 (RES)	-	-	0-71 (RES)	10		
F118	0118	Input terminal selection 8 (VIA)	-	-	0-71 (SS1)	7 (SS2)		
F130	0130	Output terminal selection 1A (RY-RC)	-	-	0-255 (LOW)	4		6.3.3
F132	0132	Output terminal selection 3 (FL)	-	-	0-255 (FL)	10		
F137	0137	Output terminal selection 1B (RY-RC)	-	-	0-255 (always ON)	255		6.3.4
F139	0139	Output terminal logic selection (RY-RC)	-	-	0: F130 and F137 1: F130 or F137	0		6.3.4
F167	0167	Frequency command agreement detection range	Hz	0.1/0.01	0.0-FH	2.5		6.3.5
F170	0170	Base frequency 2	Hz	0.1/0.01	25.0-200.0	50.0		6.4.1
F171	0171	Base frequency voltage 2	V	1/0.1	50-330 (200V class) 50-660 (400V class)	* 2		
F172	0172	Torque boost 2	%	0.1/0.1	0.0-30.0	* 1		
F173	0173	Motor electronic-thermal protection level 2	% (A)	1/1	10-100	100		5.12 6.4.1
F185	0185	Stall prevention level 2	% (A)	1/1	10-110	110		6.4.1 6.17.2

*1 : Default values vary depending on the capacity. See the table of page K-14.

*2 : 230, 400

- Frequency parameters

Title	Communication No. HEX	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 less than 1.0Hz of designated frequency)	0		6.5.1 7.1
F201	0201	VIA input point 1 setting	%	1/1	0-100	0		6.5.2
F202	0202	VIA input point 1 frequency	Hz	0.1/0.01	0.0-200.0	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	0.0-200.0	50.0		
F207	0207	Frequency setting mode selection 2	-	-	1: VIA 2: VIB 3: Operation panel 4: Serial communication 5: UP/DOWN from external contact	2		6.3.5 6.5.1 7.1
F210	0210	VIB input point 1 setting	%	1/1	0-100	0		6.5.2
F211	0211	VIB input point 1 frequency	Hz	0.1/0.01	0.0-200.0	0.0		
F212	0212	VIB input point 2 setting	%	1/1	0-100	100		
F213	0213	VIB input point 2 frequency	Hz	0.1/0.01	0.0-200.0	50.0		
F240	0240	Starting frequency setting	Hz	0.1/0.01	0.5-10.0	0.5		6.6.1
F241	0241	Operation starting frequency	Hz	0.1/0.01	0.0-FH	0.0		6.6.2
F242	0242	Operation starting frequency hysteresis	Hz	0.1/0.01	0.0-FH	0.0		6.6.2
F250	0250	DC braking starting frequency	Hz	0.1/0.01	0.0-FH	0.0		6.7.1
F251	0251	DC braking current	%(A)	1/1	0-100	50		
F252	0252	DC braking time	s	0.1/0.1	0.0-20.0	1.0		
F256	0256	Auto-stop in case of lower-limit frequency continuous operation time	s	0.1/0.1	0.0: Disabled 0.1-600.0	0.0		6.8
F264	0264	External contact input - UP response time	s	0.1/0.1	0.0-10.0	0.1		6.5.2
F265	0265	External contact input - UP frequency steps	Hz	0.1/0.01	0.0-FH	0.1		

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F266	0266	External contact input - DOWN response time	s	0.1/0.1	0.0-10.0	0.1		6.5.2
F267	0267	External contact input - DOWN frequency steps	Hz	0.1/0.01	0.0-FH	0.1		
F268	0268	Initial UP/DOWN frequency	Hz	0.1/0.01	LL - UL	0.0		
F269	0269	Change of the initial up/down frequency	-	-	0: Not changed 1: Setting of F268 changed when power is turned off	1		
F270	0270	Jump frequency 1	Hz	0.1/0.01	0.0-FH	0.0		6.9
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		6.10
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		
F294	0294	Forced fire-speed setting frequency	Hz	0.1/0.01	LL-UL	50.0		5.13 6.18
F295	0295	Bumpless operation selection	-	-	0: Disabled 1: Enabled	1		6.10

- 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	6.0 - 16.0	12.0 (8.0)		6.11
F301	0301	Auto-restart control selection	-	-	0: Disabled 1: At auto-restart after momentary stop 2: When turning ST-CC on or off 3: At auto-restart or when turning ST-CC on or off 4: At start-up	0		6.12.1
F302	0302	Instantaneous power failure coast stop selection	-	-	0: Disabled 1: Do not select 2: Coast stop	0		6.12.2
F303	0303	Retry selection (number of times)	Times	1/1	0: Disabled 1-10	3		6.12.3
F305	0305	Overvoltage limit operation (Slowdown stop mode selection)	-	-	0: Enabled 1: Disabled 2: Enabled (Quick deceleration) 3: Enabled (Dynamic quick deceleration)	2		6.12.4

Title	Communication	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
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	3		6.12.5
F311	0311	Reverse-run prohibition	-	-	0: Forward/reverse run permitted 1: Reverse run prohibited 2: Forward run prohibited	1		6.12.6
F312	0312	Random mode	-	-	0: Disabled 1: Automatic setting	0		6.11
F316	0316	Carrier frequency control mode selection	-	-	0: Carrier frequency not reduced automatically 1: Carrier frequency reduced automatically 2: Carrier frequency not reduced automatically Support for 400V models 3: Carrier frequency reduced automatically Support for 400V models	1		6.11
F320	0320	Droop gain	%	1/1	0-100	0		6.13
F323	0323	Droop insensitive torque band	%	1/1	0-100	10		6.13
F359	0359	PID control waiting time	s	1/1	0-2400	0		6.14
F360	0360	PID control	-	-	0: Disabled, 1: Enabled (Feedback: VIA) 2: Enabled (Feedback: VIB)	0		
F362	0362	Proportional gain	-	0.01/0.01	0.01-100.0	0.30		
F363	0363	Integral gain	-	0.01/0.01	0.01-100.0	0.20		
F366	0366	Differential gain	-	0.01/0.01	0.00-2.5	0.00		

*1: Default values vary depending on the capacity. See the table of K-14.

- Torque boost parameters 1

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F400	0400	Auto-tuning	-	-	0: Auto-tuning disabled 1: Application of individual settings of F402 (after execution: 0) 2: Auto-tuning enabled (after execution: 0)	0		5.10 6.15.1
F401	0401	Slip frequency gain	%	1/1	0-150	50		
F402	0402	Automatic torque boost value	%	0.1/0.1	0.0-30.0	* 1		
F415	0415	Motor rated current	A	0.1/0.1	0.1-200.0	* 1		
F416	0416	Motor no-load current	%	1/1	10-100	* 1		
F417	0417	Motor rated speed	min-1	1/1	100-15000	* 1		
F418	0418	Speed control response coefficient	-	1/1	1-150	40		
F419	0419	Speed control stability coefficient	-	1/1	1-100	20		

*1 : Default values vary depending on the capacity. See the table of page K-14.

- 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	-	-	0 - 255	128		6.5.4
F471	0471	VIA input gain	-	-	0 - 255	148		
F472	0472	VIB input bias	-	-	0 - 255	128		
F473	0473	VIB input gain	-	-	0 - 255	148		

- Torque boost parameters 2

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F480	0480	Exciting current coefficient	%	1/1	100-130	100		5.10 6.15.2
F481	0481	Power supply compensation filter	-	1	0 - 9999	0		
F482	0482	Inhibitor filter	-	1	0 - 9999	442		
F483	0483	Inhibitor gain	-	0.1	0.0 – 300.0	100.0		
F485	0485	Stall prevention control coefficient 1	-	1/1	10-250	100		
F492	0492	Stall prevention control coefficient 2	-	1/1	50-150	100		
F494	0494	Motor adjustment coefficient	-	1/1	0-200	* 1		
F495	0495	Maxi. voltage adjustment coefficient	%	1/1	90-120	104		
F496	0496	Waveform switching adjustment coefficient	kHz	0.1/0. 1	0.1-14.0	14.0		

*1: Default values vary depending on the capacity. See the table of page K-14.

*2: Default values vary depending on result of valuation.

- Acceleration/deceleration time parameters

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F500	0500	Acceleration time 2	s	0.1/0.1	0.0-3200	*1		6.16
F501	0501	Deceleration time 2	s	0.1/0.1	0.0-3200	*1		
F502	0502	Acceleration/deceleration 1 pattern	-	-	0: Linear 1: S-pattern 1 2: S-pattern 2	0		
F503	0503	Acceleration/deceleration 2 pattern	-	-		0		
F504	0504	Selecting an acceleration/deceleration pattern	-	-	1: Acceleration/deceleration 1 2: Acceleration/deceleration 2	1		
F505	0505	Acceleration/deceleration 1 and 2 switching frequency	Hz	0.1/0.01	0.0-UL	0.0		
F506	0506	S-pattern lower-limit adjustment amount	%	1/1	0-50	10		
F507	0507	S-pattern upper-limit adjustment amount	%	1/1	0-50	10		6.18

*1 : Default vary depending on the capacity see the table of page K-14

- 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	10-110	110		6.17.2
F602	0602	Inverter trip retention selection	-	-	0: Canceled with the power off 1: Still retained with the power off	0		6.17.3
F603	0603	Emergency stop selection	-	-	0: Coast stop 1: Slowdown stop 2: Emergency DC braking	0		6.17.4
F604	0604	Emergency DC braking time	s	0.1/0.1	0.0-20.0	1.0		6.17.4
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	3		6.17.5
F607	0607	Motor 150%-overload time limit	s	1/1	10-2400	300		6.17.1
F608	0608	Input phase failure detection mode selection	-	-	0: Disabled, 1: Enabled	1		6.17.6

Title	Communication No.	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F609	0609	Small current detection current hysteresis	%	1/1	1-20	10		6.17.7
F610	0610	Small current trip/alarm selection	-	-	0: Alarm only 1: Tripping	0		
F611	0611	Small current detection current	% (A)	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: Only one time after power is turned on (standard pulse) 2: Each time (short-time pulse) 3: Only one time after power is turned on (short-time pulse)	0		6.17.8
F615	0615	Over-torque trip/alarm selection	-	-	0: Alarm only 1: Tripping	0		6.17.9
F616	0616	Over-torque detection level	%	1/1	0-200	130		
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		6.17.9
F621	0621	Cumulative operation time alarm setting	100 Time	0.1/0.1 (=10 hours)	0.0-999.9	610.0		6.17.10
F626	0626	Overvoltage limit operation level	%	1/1	100-150	* 1		6.12.4
F627	0627	Undervoltage trip/alarm selection	-	-	0: Alarm only (detection level below 60%) 1: Tripping (detection level below 60%) 2: Alarm only (detection level below 50%, AC reactor necessary)	0		6.17.12
F632	0632	Motor electric-thermal protection retention selection	-	-	0: Disabled 1: Enabled	0		6.17.1
F633	0633	Trip at VIA low level input mode	%	1/1	0: Disabled, 1-100	0		6.17.13
F634	0634	Annual average ambient temperature (For 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		6.17.14
F645	0645	PTC thermal selection	-	-	0: Disabled 1: Enabled (trip mode) 2: Enabled (alarm mode)	0		6.17.15
F646	0646	PTC detection resistor value	Ω	1/1	100-9999	3000		
F650	0650	Forced fire-speed control selection	-	-	0: Disabled 1: Enabled	0		6.18

* 1: Default values vary depending on the capacity.

- Output parameters

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F691	0691	Inclination characteristic of analog output	-	-	0: Negative inclination (downward slope) 1: Positive inclination (upward slope)	1		6.19.1
F692	0692	Bias of analog output	%	1/1	0－100	0		6.19.1

- Operation panel parameters

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F700	0700	Prohibition of parameter change	-	-	0: Permitted 1: Prohibited	0		6.20.1
F701	0701	Current/voltage display mode	-	-	0: % 1: A (ampere)/V (volt)	1		6.20.2
F702	0702	Frequency free unit magnification	Times	0.01/0.01	0.00: Free unit display disabled (display of frequency) 0.01-200.0	0.00		6.20.3
F705	0705	Inclination characteristic of free unit display	-	-	0: Negative inclination (downward slope) 1: Positive inclination (upward slope)	1		
F706	0706	Bias of free unit display	Hz	0.01/0.01	0.00-FH	0.00		
F707	0707	Free step 1 (pressing a panel key once)	Hz	0.01/0.01	0.00: Disabled 0.01-FH	0.00		6.20.4
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 8 : Output speed 9 : Communication counter 10 : Normal state communication counter	0		6.20.5
F721	0721	Selection of operation panel stop pattern	-	-	0: Slowdown stop 1: Coast stop	0		6.20.6
F730	0730	Prohibition of frequency setting on the operation panel (FC)	-	-	0: Permitted 1: Prohibited	0		6.20.1
F732	0732	Prohibition of panel local/remote operation (LOC/REM key)	-	-	0: Permitted 1: Prohibited	0		
F733	0733	Prohibition of panel operation (RUN/STOP keys)	-	-	0: Permitted 1: Prohibited	0		
F734	0734	Prohibition of panel emergency stop operation	-	-	0: Permitted 1: Prohibited	0		

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F735	0735	Prohibition of panel reset operation	-	-	0: Permitted 1: Prohibited	1		
F738	0738	Head of parameter display selection	-	-	0: AUF 1: AUH	0		6.20.7
F748	0748	Integral output power retention selection	-	-	0: Disabled 1: Enabled	1		6.20.8
F749	0749	Display unit selection for integral output power	-	-	0: 1=1kWh 1: 0.1=1kWh 2: 0.01=1kWh 3: 0.001=1kWh	* 1		

* 1 : Default values vary depending on the capacity. See the table of page K-14

- Communication parameters

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F800	0800	Modbus baud rate	-	-	0: 9600bps 1: 19200bps	1		6.21
F801	0801	Modbus parity	-	-	0: NON (No parity) 1: EVEN (Even parity) 2: ODD (Odd parity)	1		
F802	0802	Modbus address	-	1/1	0-247	1		
F803	0803	Modbus time-out	s	1/1	0: Disabled 1-100	3		
F829	0829	Selection of communication protocol	-	-	0: Reserved 1: ModbusRTU protocol 2: Metasys N2 protocol 3: APOGEE FLN protocol 4: BAC-net protocol	1		6.21

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F851	0851	Modbus behaviour on communication fault	-	-	0:Inverter stop, communication command, frequency mode open (by CMOd, FMOd) 1:None (continued operation) 2:Deceleration stop 3:Coast stop 4:Communication error (Err5 trip) or Network error (Err8 trip)	4		6.21
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		6.21
F870	0870	Block write data 1	-	-	0: No selection 1: Command 1 2: Command 2 3: Frequency command 4: Output data on the terminal board 5: Analog output for communications 6: Motor speed command	0		6.21
F871	0871	Block write data 2	-	-		0		
F875	0875	Block read data 1	-	-	0: No selection 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: VIA terminal board monitor 10: VIB terminal board monitor 11: Output motor speed monitor	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	0-65535	0		
F890	0890	Parameter for option 1	-	1/1	0-65535	0		6.22
F891	0891	Parameter for option 2	-	1/1	0-65535	0		
F892	0892	Parameter for option 3	-	1/1	0-65535	0		
F893	0893	Parameter for option 4	-	1/1	0-65535	0		
F894	0894	Parameter for option 5	-	1/1	0-65535	0		
F895	0895	Parameter for option 6	-	1/1	0-65535	0		
F896	0896	Parameter for option 7	-	1/1	0-65535	0		
F897	0897	Parameter for option 8	-	1/1	0-65535	0		
F898	0898	Parameter for option 9	-	1/1	0-65535	0		
F899	0899	Parameter for option 10	-	1/1	0-65535	0		

- PM motor parameters

Title	Communication No. HEX	Function	Unit	Minimum setting unit Panel/Communication	Adjustment range	Default setting	User setting	Reference
F910	0910	Step-out detection current level	% (A)	1/1	10-150	100		6.23
F911	0911	Step-out detection time	s	0.1/0.1	0.0: No detection 0.1-25.0	0.0		
F912	0912	High-speed torque adjustment coefficient	-	0.01/0.01	0.00-650.0	0.00		

■ Default settings by inverter rating

Inverter type	Torque boost value 1/2	Acceleration /Deceleration	PWM carrier frequency	Automatic torgue boost value	Motor rated current		Motor no-load current		Motor rated speed		Motor adjustment coefficient
	ub/F172 (%)	ACC, dEC, F500, F501	F300 (kHz)	F402 (%)	F415 (A)		F416 (%)		F417 (min-1)		F494
					50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	
ATV21H075M3X	6.0	10	12.0	5.8	3.5	3.0	90	90	1400	1700	80
ATV21HU15M3X	6.0	10	12.0	4.3	6.1	5.8	87	87	1420	1715	70
ATV21HU22M3X	5.0	10	12.0	4.1	8.8	8.0	83	83	1430	1715	70
ATV21HU30M3X	5.0	10	12.0	3.4	12.5	12.4	88	88	1420	1760	70
ATV21HU40M3X	5.0	10	12.0	3.4	15.8	15.2	87	87	1425	1769	70
ATV21HU55M3X	4.0	10	12.0	3.0	20.6	22.0	81	81	1430	1780	70
ATV21HU75M3X	3.0	10	12.0	2.5	26.3	28.0	77	77	1450	1780	70
ATV21HD11M3X	2.0	10	12.0	2.3	36.9	36.0	74	74	1450	1766	60
ATV21HD15M3X	2.0	10	12.0	2.0	49.5	48.0	74	74	1455	1771	50
ATV21HD18M3X	2.0	30	8.0	2.0	61.0	61.0	74	74	1455	1771	50
ATV21HD22M3X	2.0	30	8.0	1.8	68.0	68.0	74	74	1460	1771	50
ATV21HD30M3X	2.0	30	8.0	1.8	93.0	93.0	70	70	1460	1771	50
ATV21●075N4	6.0	10	12.0	5.8	2.0	1.5	90	90	1400	1700	80
ATV21●U15N4	6.0	10	12.0	4.3	3.5	2.9	87	87	1420	1715	70
ATV21●U22N4	5.0	10	12.0	4.1	5.1	4.0	83	83	1430	1715	70
ATV21●U30N4	5.0	10	12.0	3.4	7.2	6.2	88	88	1420	1760	70
ATV21●U40N4	5.0	10	12.0	3.4	9.1	7.6	87	87	1425	1769	70
ATV21●U55N4	4.0	10	12.0	2.6	11.9	11.0	81	81	1430	1780	70
ATV21●U75N4	3.0	10	12.0	2.3	15.2	14.0	77	77	1450	1780	70
ATV21●D11N4	2.0	10	12.0	2.2	21.3	21.0	74	74	1450	1766	60
ATV21●D15N4	2.0	10	12.0	1.9	28.6	27.0	74	74	1455	1771	50
ATV21●D18N4	2.0	30	8.0	1.9	35.1	35.1	74	74	1455	1771	50
ATV21●D22N4	2.0	30	8.0	1.8	41.7	41.7	74	74	1460	1771	50
ATV21●D30N4	2.0	30	8.0	1.8	55.0	55.0	50	33	1460	1771	50
ATV21●D37N4	2.0	30	8.0	1.8	67	67	51	31	1475	1771	50
ATV21●D45N4	2.0	30	8.0	1.7	81	71	51	34	1475	1771	50
ATV21●D55N4	2.0	30	8.0	1.6	99	86	53	31	1480	1771	40
ATV21●D75N4	2.0	30	8.0	1.5	135	114	53	31	1480	1771	40

Display unit selection for integral output power

ATV21H075M3X to U30M3X and ATV21●075N4 to U30N4: 1 = 1 kW per hour

ATV21HU40M3X to D30M3X and ATV21●U40N4 to D75N4: 1 = 0.1 kW per hour