STEPPERONLINE®

User Manual for EV200 series Variable Frequency Drive
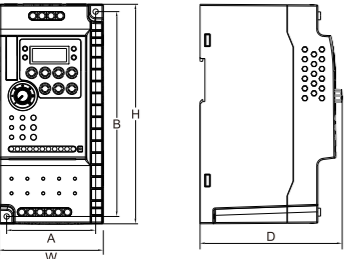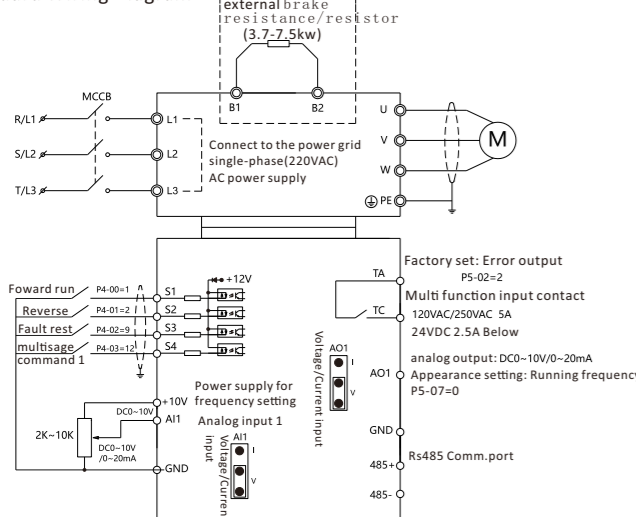
1.Outsize

Voltage	Model type	Power(kW)	Install size(mm) A	B	outsize(mm) W	H	D	Install hole
Single phase 220V	EV200-0400-S2	0.4						
	EV200-0750-S2	0.75						
	EV200-1500-S2	1.5	60	129	73	143	112.6	Φ4.4
	EV200-2200-S2	2.2						
Three phase 380V	EV200-0750-T3	0.75						
	EV200-1500-T3	1.5						
	EV200-2200-T3	2.2						
	EV200-3700-T3	3.7	73	168	85.5	180	116.4	Φ4.4
	EV200-5500-T3	5.5						

2.Standard Wiring Diagram

Wiring instructions

Terminal symbol	Function description
E	Grounding terminal
L1、L3	Connect to the power grid single-phase (220Vac) AC power supply
L1、L2、L3	Connected to the grid three-phase (380Vac) AC power supply
U,V,W	Connect a three-phase AC motor
B1	Filter capacitor DC side positive terminal
B2	A DC braking resistor can be connected directly to B1

3.Technical specifications

Item	Specification
Highest frequency	Vector control: 0～500Hz; V/F control: 0～500Hz
Carrier frequency	0.8kHz～12kHz Carrier frequency can be adjusted automatically according to temperature characteristics
Input frequency resolution	Digital setting: 0.01Hz Analog setting: maximum frequency × 0.025%
control mode	without PG Vector(SVC),Feedback vector(FVC) and V/F control
Start torque	G type: 0.5Hz/150% (SVC) ; 0Hz/180% (FVC) P type: 0.5Hz/100%
Speed range	1: 100 (SVC) / 1: 1000 (FVC)
Speed control accuracy	±0.5% (SVC) / ±0.02% (FVC)
Torque control accuracy	±5% (FVC)
Overload capacity	G type: 150% rated current 60sec; 180% rated current 3sec

4.Function Parameters Table

When PP-00 is set as a non-zero value, that is, the parameter protection password is set. In the function parameter and the user changes the parameter mode, the parameter menu must enter the password correctly. It can cancel the parameter protection function by setting PP-00 as 0.
The parameter menu in user-defined parameter mode is not password protected.
Group P and A include basic function parameters, group d includes the monitoring function parameters. The symbols in the function code table are described as follows:
"☆": it is possible to modify the parameter when the drive in the stop or in the run status;
"★": impossible;
"●": the parameter is the actual measured value and can not be set.
"*": the parameter is a "factory parameter", can be set only by the manufacturer, prohibit the user to modify.

Function Code	Name	Setting Range	Default	Modify
P0 Group: Basic Function				
P0-01	Motor 1 control mode	0: No speed sensor vector control (SVC) 1: Speed sensor vector control (FVC) 2: V/F control	2	★
P0-02	Command source selection	0: Operation panel instruction channel 1: Terminal command channel 2:communication command channel	0	☆
P0-03	Main frequency reference setting A channel selection	0: digital setting (preset frequency P0-08, UP/DOWN can be modified, power is not memory) 1: digital setting (preset frequency P0-08, UP/DOWN can be modified, power-down memory) 2: AI1 (Note: J4 jumper in the PANEL and AI1 connected to the keyboard potentiometer input, PORT and AI1 connected to the external terminal AI1 input) 3: AI2 4: AI3 5:High-speed pulse Inputsetting (S5) 6: multi-segment instructions 7: Simple PLC 8: PID 9: communication given 10: Reserved	2	★
P0-04	Auxiliary frequency source B command input selection	With P0-03 (main frequency source A instruction)	0	★
P0-05	Auxiliay frequency source B Reference object selection	0:relative to maximum frequency 1: relative to frequency source A	0	★
P0-06	auxiliary frequency source B command range	0%~150%	100%	☆
P0-07	Frequency source combination mode selection	Bit: frequency source selection 0: Main frequency source A 1: main and auxiliary operation results (operation relationship determined by ten) 2: Main frequency source A and auxiliary frequency source B switch 3: Main frequency source A and master and slave operation result switching 4: auxiliary frequency source B and master and slave operation result switching Ten: frequency source main and auxiliary operation relationship 0: main + auxiliary 1: main - auxiliary 2: the two maximum 3: the two minimum	00	☆
P0-08	Preset frequency	0.00Hz~max(P0-10) frequency	50.00Hz	☆
P0-09	Running direction	0: same direction 1: opposite direction	0	☆
P0-10	Max.output frequency	50.00Hz~500.00Hz	50.00Hz	★
P0-11	Setting channel of frequency upper limit	0: P0-12 is set 1: AI1(Note:J6jump) 2: AI2 3: AI3 4: High-speed pulse setting (S5) 5: communication given	0	★
P0-12	Frequency reference upper limit	Upper limit P0-10 P0-14~max frequency	50.00Hz	☆
P0-13	Frequency reference upper limit offset	0.00Hz~frequency max. P0-10	0.00Hz	☆
P0-14	Frequency Reference lower limit	0.00Hz~frequency upper limit P0-12	0.00Hz	☆
P0-15	Carrier frequency	0.8kHz~12.0KHz	Model dependent	☆
P0-16	Carrier frequency adjusted with temperature	0: Disabled 1: Enabled	1	☆
P0-17	Acceleration time 1	0.00s~65000s	Model dependent	☆
P0-18	Deceleration time 1	0.00s~65000s	Model dependent	☆
P0-19	Acceleration/ Deceleration time unit	0: 1s 1: 0.1s 2: 0.01s	1	★
P0-21	Frequency offset of auxiliary frequency setting channel for main and auxiliary calculation	0.00Hz~max.frequency P0-10	0.00Hz	☆
P0-22	Frequency reference resolution	2: 0.01Hz	2	★
P0-23	Retentive of digital setting frequency upon stop	0: do not remember 1: memory	1	☆
P0-24	Motor parameter group selection	0: 1st motor parameter 1: 2nd motor parameter	0	★
P0-25	Acceleration/ Deceleration time base frequency	0:maximum (P0-10) 1: Set frequency 2: 100Hz frequency	0	★
P0-26	Base frequency for UP/DOW modification during running	0: Run frequency 1: Set frequency	0	★
P0-27	The run command is tied to the main frequency source A command selection	Bit: Operation panel command Bind frequency source selection 0: no binding 1: Digital setting frequency 2: AI1 (Note: J6 jumper) 3: AI2 4: AI3 5: High-speed pulse input setting (S5) 6: multi-speed 7: Simple PLC 8: PID 9: communication given Ten: Terminal Command Binding Frequency Source Selection Hundreds: communication command binding frequency source selection	0	☆
P0-28	Serial port communication protocol	0: Modbus communication	0	☆
P1 Group: Motor 1 Parameters				
P1-00	Motor type selection	0: ordinary asynchronous motor 1: Variable frequency asynchronous motor	0	★
P1-01	Rated motor power	0.1KW~1000.0KW	Model dependent	★
P1-02	Rated motor voltage	1V~2000V	Model dependent	★
P1-03	Rated motor current	0.01 to 655.35A (AC drive power ≤ 55 KW) 0.1 to 6553.5A (AC drive power > 55 KW)	Model dependent	★
P1-04	Rated motor frequency	0.01Hz~max. frequency	Model dependent	★
P1-05	Rated motor speed	1rpm~65535rpm	Model dependent	★
P1-06	Stator resistance	0.001Ω~65.535Ω（AC drive power≤55KW) 0.0001Ω~6.5535Ω（AC drive power>55KW)	Auto-tuning dependent	★

Function Code	Name	Setting Range	Default	Modify
P1-07	Rotor resistance	0.001Ω~65.535Ω (AC drive power≤55KW) 0.0001Ω~6.5535Ω(AC drive power>55KW)	Auto-tuning dependent	★
P1-08	Leakage inductive reactance	0.01mH~655.35mH(AC drive power≤55KW) 0.001mH~65.535mH (AC drive power>55KW)	Auto-tuning dependent	★
P1-09	Mutual inductive reactance	0.1mH~6553.5mH（AC drive power≤55KW) 0.01mH~655.35mH(AC drive power>55KW)	Auto-tuning dependent	★
P1-10	No-load current	0.01A~P1-03(AC drive power≤55KW) 0.1A~P1-03(AC drive power≤55KW) 0.1A~P1-03(AC drive power>55KW)	Auto-tuning dependent	★
P1-27	Encoder pulses per revolution	1~65535	1024	★
P1-28	Encoder type	0: ABZ incremental encoder 2: Resolver	0	★
P1-30	A/B phase sequence of ABZ incremental encoder	0: Forward 1: Reserve	0	★
P1-34	Number of pole pairs of resolver	1~65535	1	★
P1-36	Encoder wire-break fault detection time	0.0: no operation 0.1s~10.0s	0.0s	★
P1-37	Motor auto-tuning method selection	0: no operation 1: Asynchronous machine static part of the parameters of self-learning 2: asynchronous machine dynamic complete self-learning 3: asynchronous machine static complete self-learning	0	★
P2 Group: Vector Control Parameters				
P2-00	Speed loop proportional gain 1	1~100	30	☆
P2-01	Speed loop integral time 1	0.01s~10.00s	0.50s	☆
P2-02	Switchover frequency 1	0.00~P2-05	5.00Hz	☆
P2-03	Speed loop proportional gain 2	1~100	20	☆
P2-04	Speed loop integral time 2	0.01s~10.00s	1.01.00s0s	☆
P2-05	Switchover frequency 2	P2-02~max frequency (P0-10)	10.00Hz	☆
P2-06	SVC/FVC slip compensation gain	50%~200%	100%	☆
P2-07	SVC Speed feedback filter time constant	0.000s~0.100s	0.015s	☆
P2-09	Torque upper limit command channel selection under speed control	0: function code P2-10 setting 1: AI1 2: AI2 3: AI3 4: high-speed pulse input setting (S5) 5: communication given 6: MIN (AI1, AI2) 7: MAX (AI1, AI2) 1-7 option full scale corresponds to P2-10	0	☆
P2-10	Digital setting of torque limit in speed control	0.0%~200.0%	150.0%	☆
P2-11	Torque limit source in speed control (in regenerative state)	0: Function code P2-12 setting (no distinction between electric and power generation) 1: AI1 2: AI2 3: AI3 4:High-speed pulse input setting 5: communication given 6: MIN (AI1, AI2) 7: MAX (AI1, AI2) 8: communication given Note: Code P2-12 setting 1-7 The full scale of the option corresponds to P2-12	0	☆
P2-12	Digital setting of torque limit in speed control (in regenerative state)	0.0%~200.0%	150.0%	☆
P2-13	Excitation adjustment proportional gain	0~60000	2000	☆
P2-14	Excitation adjustment integral gain	0~60000	1300	☆
P2-15	Torque adjustment proportional gain	0~60000	2000	☆
P2-16	Torque adjustment integral gain	0~60000	1300	☆
P2-17	Speed loop integral separation selection	0: Disabled 1: Enabled	0	☆
P2-20	Max output voltage	-	-	-
P2-21	Max. torque coefficient of field weakening area	50%~200%	100%	☆
P2-22	Regenerative power limit selection	0: Disabled 1: Enabled	0	☆
P2-23	Regenerative power limit	0~200%	Model dependent	☆
P3 Group: V/F Control Parameters				
P3-00	V/F curve setting	0: Straight line V/F 1: multipoint V/F 2: square V/F 3: 1.2 Power V/F 4: 1.4 Power V/F 6: 1.6 Power V/F 8: 1.8 power V/F 9: Reserved 10: VF complete separation mode 11: VF semi-separation mode	0	★
P3-01	Torque boost	0.0%: (Ineffective) 0.1%~30.0%	Model dependent	☆
P3-02	Cut-off frequency of torque boost	0.00Hz~max. frequency	50.00Hz	☆
P3-03	Multi-point V/F frequency1	0.00Hz~P3-05	0.00Hz	★
P3-04	Multi-point V/F voltage 1	0.0%~100.0%	0.0%	★
P3-05	Multi-point V/F frequency 2	P3-03~P3-07	0.00Hz	★
P3-06	Multi-point V/F voltage 2	0.0%~100.0%	0.0%	★
P3-07	Multi-point V/F frequency 3	P3-05~rated motor frequency (P1-04)	0.00Hz	★
P3-08	Multi-point V/F voltage 3	0.0%~100.0%	0.0%	★
P3-09	Slip compensation gain	–	–	–
P3-10	V/F over-excitation gain	0~200	64	☆
P3-11	V/F oscillation suppression gain	0~100	40	★
P3-13	Voltage source for V/F separation	0: digital setting (P3-14) 1: AI1 (Note: J6 jumper) 2: AI2 3: AI3 4: High-speed pulse setting (S5) 5: multi-segment instructions 6: Simple PLC 7: PID 8: communication given Note: 100.0% corresponds to the motor rated voltage	0	☆
P3-14	Digital setting of voltage for V/F separation	0V~rated motor voltage	0V	☆
P3-15	Voltage rise time of V/F separation	0.0s~1000.0s Note: 0V to rated motor voltage	0.0s	☆
P3-16	Voltage decline time of V/F separation	0.0s~1000.0s Note: time of 0V to rated motor voltage	0.0s	☆
P3-17	Stop mode selection for V/F separation	0: Frequency and voltage declining to 0 independently 1: Frequency declining after voltage declines to 0	0	☆
P3-18	Current limit level	50%~200%	150%	☆
P3-19	Current limit selection	0: useless 1: useful	1	★
P3-20	Current limit gain	0~100	20	☆
P3-21	Compensation factor of speed multiplying current limit level	50%~200%	50%	☆
P3-22	Voltage limit	650V~800.0V	770V	★

Function Code	Name	Setting Range	Default	Modify
P3-23	Voltage limit selection	0: useless 1: useful	1	★
P3-24	Frequency gain for voltage limit	0~100	30	★
P3-25	Voltage gain for voltage limit	0~100	30	★
P3-26	Frequency rise threshold during voltage limit	0~50Hz	5Hz	★
P4 Group: Input Terminals				
P4-00	S1 function selection	0: no function 1: Forward run (FWD) or run command 2: reverse run (REV) or positive and negative running direction (Note: set 1, 2 to be used with P4-11) 3:three-wire operation control 4: forward jog (FJOG) 5: reverse jog (RJOG) 6: Terminal UP 7: Terminal DOWN 8: free parking 9: Fault reset (RESET) 10: run pause 11: External fault normally open input 12:Multi-step command terminal 1 13:Multi-step command terminal 2 14:Multi-step command terminal 3 15:Multi-step command terminal 4 16:Acceleration/Deceleration time selection terminal 1 17:Acceleration/Deceleration time selection terminal 2 18: Frequency command switching 19: UP/DOWN setting clear(terminal, keyboard) 20: control command to switch terminal 1 21: Acceleration/Deceleration is prohibited 22: PID pause 23: Easy PLC status reset 24: Wobble is suspended 25: Counter input 26: Counter reset 27: Length count input 28: Length reset 29: Torque control disabled 30: High-speed pulse input (only valid for S5) 31: Reserved 32: Immediate DC braking 33: External fault normally closed input 34: Frequency modification enabled 35: PID direction is reversed 36: External parking terminal 1 37:control command to switch terminal 2 38: PID integral is paused 39: Frequency source A and preset frequency switching 40: Frequency source B and preset frequency switching 41: Motor terminal selection function 42: Reserved 43: PID parameter switch 44: User defined fault 1 45: user defined fault 2 46:Speed control/torque control switching 47: Emergency stop 48: External parking terminal 2 49:Deceleration DC braking 50: This run time is cleared 51:two-wire/three-wire switch 52:Reverse frequency disabled 53-59: Reserved	1	★
P4-01	S2 function selection		4	★
P4-02	S3 function selection		9	★
P4-03	S4 function selection		12	★
P4-04	S5 function selection		13	★
P4-05	S6 function selection		0	★
P4-06	S7 function selection		0	★
P4-07	S8 function selection		0	★
P4-08	Reserved			
P4-09	Reserved			
P4-10	S1~S4 filter time	0.000s~1.000s	0.010s	☆
P4-11	Terminal control mode	0: two lines 1 1: two lines 2 2: three lines 1 3: three lines 2	0	★
P4-12	Terminal UP/DOWN N rate	0.001Hz/s~65.535Hz/s	1.00Hz/s	☆
P4-13	AI1 curve 1 min. input	0.00V~P4-15	0.00V	☆
P4-14	Corresponding percentage of AI curve 1 min. input	-100.0%~+100.0%	0.0%	☆
P4-15	AI1 curve 1 max. input	P4-13~+10.00V	10.00V	☆
P4-16	Corresponding percentage of AI curve 1 max. input	-100.0%~+100.0%	100.0%	☆
P4-17	AI1 filter time	0.00s~10.00s	0.10s	☆
P4-18	AI curve 2 min. input	0.00V~P4-20	0.00V	☆
P4-19	Corresponding percentage of AI curve 2 min. input	-100.0%~+100.0%	0.0%	☆
P4-20	AI curve 2 max. input	P4-18~+10.00V	10.00V	☆
P4-21	Corresponding percentage of AI curve 2 max. input	-100.0%~+100.0%	100.0%	☆
P4-22	AI2 filter time	0.00s~10.00s	0.10s	☆
P4-23	AI3 curve min. input	-10.00V~P4-25	-10.00V	☆
P4-24	Corresponding percentage of AI curve 3 min. input	-100.0%~+100.0%	-100.0%	☆
P4-25	AI curve 3 max. input	P4-23~+10.00V	10.00V	☆
P4-26	Corresponding percentage of AI curve 3 max. input	-100.0%~+100.0%	100.0%	☆
P4-27	AI3 filter time	0.00s~10.00s	0.10s	☆
P4-28	Pulse min. input	0.00kHz~P4-30	0.00KHz	☆
P4-29	Corresponding percentage of pulse min. input	-100.0%~100.0%	0.0%	☆
P4-30	Pulse max. input	P4-28~100.00kHz	50.00KHz	☆
P4-31	Corresponding percentage of pulse max. input	-100.0%~100.0%	100.0%	☆
P4-32	Pulse filter time	0.00s~10.00s	0.10s	☆
P4-33	AI curve selection	Bit: AI1 curve selection 1: curve 1 (2 points, see P4-13~P4-16) 2: Curve 2 (2 points, see P4-18~P4-21) 3: curve 3 (2 points, see P4-23~P4-26) 4: curve 4 (4 points, see A6-00~A6-07) 5: curve 5 (4 points, see A6-08~A6-15) Ten: AI2 curve selection, ibid Hundreds:AI3 curve selection, ibid	321	☆
P4-34	Setting selection when AI less than min. input	Bit: AI1 low than the minimum input setting 0: corresponds to the minimum input setting 1: 0.0% Ten: AI2 is lower than the minimum input setting, ibid Hundreds: AI3 is lower than the minimum input setting, ibid	000	★
P4-35	S1 delay	0.0s~3600.0s	0.0s	★
P4-36	S2 delay	0.0s~3600.0s	0.0s	★
P4-37	S3 delay	0.0s~3600.0s	0.0s	★
P4-38	S1~S5 active mode selection 1	0: active high 1: active low Bit: S1 Ten: S2 Hundred places: S3 Thousands of bits: S4 Million: S5	00000	★

Function Code	Name	Setting Range	Default	Modify
P5 Group: Output Terminals				
P5-02	Relay 1 function selection (TA-TC)	0: No output 1: The inverter is running 2: fault output (fault stop) 3: Frequency level detection FDT1 output 4: frequency arrives 5: Zero speed operation (no output at shutdown) 6: motor overload pre-alarm 7: Inverter overload pre-alarm 8: Set the count value to reach 9: Specifies that the count value arrives 10: length to reach 11: PLC cycle is complete 12: The cumulative run time arrives 13: Frequency limit 14: Torque limit 15: Ready to run 16: AI1>AI2 17: upper limit frequency arrival 18: Lower frequency arrival (operation related) 19:Undervoltage status output 20: communication settings 21:Positioning completed (reserved) 22:positioning close (reserved) 23: zero speed running 2 (also output when stopped) 24: The total power-up time arrives 25: Frequency level 26: Frequency 1 reaches the output 27: Frequency 2 reaches the output 28: current 1 reaches the output 29: current 2 reaches the output 30: Timing arrival output 31: AI1 input is overrun 32: Underload 33: reverse running 34: zero current state 35:Module temperature arrives 36:Output current is exceeded 37: Lower frequency arrival (shutdown also output) 38: Alarm output (continued) 39:Motor over temperature warning 40: This run time arrives 41: fault output (for free stop fault), and under voltage is not output	2	★
P5-07	A01 Output function selection	0:Operating frequency 1:Frequency setting 2:Output current 3:Output torque 4:Output power 5:Output voltage 6:High-speed pulse input(100%corresponding100.0khz) 7:AI1 8:AI2 9:AI3 10:length 11:Count value 12:Communication settings 13:Motor speed 14:Output current:(100% corresponding 1000.0A) 15:Output voltage(100% Corresponding 1000.0V) 16:Motor output torque(Actual value, Percentage relative to motor)	0	☆
P5-10	A01 Zero bias coefficient	-100.0%~+100.0%	0.0%	☆
P5-11	A01 gain	-10.00~+10.00	1.00	☆
P6 Group: Start/Stop Control				
P6-00	Start mode	0: Direct start 1: Catching a spinning motor 2: Pre-excited start 3: SVC quick start	0	☆
P6-01	Mode of catching a spinning motor	0: From stop frequency 1: From 50Hz 2: From max. frequency	0	★
P6-02	Speed of catching a spinning motor	1~100	20	☆
P6-03	Start frequency	0.00Hz~10.00Hz	0.00Hz	☆
P6-04	Start frequency holding time	0.0s~100.0s	0.0s	★
P6-05	DC injection braking 1 level/pre-excitation level	0%~100%	50%	★
P6-06	DC injection braking 1 active time/ pre-excitation active time	0.0s~100.0s	0.0s	★
P6-07	Acceleration/ Deceleration mode	0:Linear acceleration/ deceleration 1:S-curve acceleration/ deceleration A (static) 2:S curve acceleration/ deceleration B (dynamic)	0	★
P6-08	Time proportion of S-curve start segment	0.0%~(100.0%-P6-09)	30.0%	★
P6-09	Time proportion of S-curve end segment	0.0%~(100.0%-P6-08)	30.0%	★
P6-10	Stop mode	0: Decelerate to stop 1: Coast to stop	0	☆
P6-11	DC injection braking 2 start frequency	0.00Hz~max.frequency (P0-10)	0.00Hz	☆
P6-12	DC injection braking 2 delay time	0.0s~100.0s	0.0s	☆
P6-13	DC injection braking 2 level	0%~100%	50%	☆
P6-14	DC injection braking 2 active time	0.0s~100.0s	0.0s	☆
P6-15	Braking use ratio	0%~100%	100%	☆
P6-18	Catching a spinning motor current limit	30%~200%	Model dependent	☆
P6-21	Demagnetization time (effective for SVC)	0.00~5.00s	Model dependent	☆
P7 Group: Keypad Operation and LED Display				
P7-02	STOP/RESET key function	0: The STOP/RES key stop function is valid only during keyboard operation 1: STOP/RES key shutdown is active in any mode of operation	1	★
P7-03	LED display running parameters 1	0000~FFFF Bit00: Operating frequency 1 (Hz) Bit01: Set frequency (Hz) Bit02: Bus voltage (V) Bit03: Output voltage (V) Bit04: Output current (A) Bit05: Output power (kW) Bit06: Output torque (%) Bit07: S terminal input status Bit08: HDO output status Bit09: AI1 voltage (V) Bit10: AI2 Voltage (V) Bit11: AI3 Voltage (V) Bit12: Count value Bit13: Length value Bit14: Load speed display Bit15: PID setting	1F	☆
P7-04	LED display running parameters 2	0000~FFFF Bit00: PID feedback Bit01: PLC stage Bit02: High-speed pulse input frequency (kHz) Bit03: Operating frequency 2 (Hz) Bit04: Remaining runtime Bit05: AI1 before correction voltage (V) Bit06: AI2 before correction voltage (V) Bit07: AI3 Correction before voltage (V) Bit08: Line speed Bit09: Current power-on time (Hour) Bit10: Current running time (Min) Bit11: High-speed pulse input frequency (Hz) Bit12: Communication set point Bit13: Encoderfeedback speed (Hz) Bit14: Main frequency A display (Hz) Bit15: Secondary frequency B display (Hz)	0	☆

P7 Group (continued)

Code	Name	Range	Default	Property
P7-05	LED display stop parameters	0000~FFFF Bit00: Set frequency (Hz) Bit01: Bus voltage (V) Bit02: S input status Bit03: HDO output status Bit04: AI1 voltage (V) Bit05: AI2 voltage (V) Bit06: AI3 voltage (V) Bit07: Count value Bit08: Length value Bit09: PLC stage Bit10: Load speed Bit11: PID setting Bit12: High-speed pulse input frequency (kHz)	33	☆
P7-06	Load speed display coefficient	0.0001~6.5000	1.0000	☆
P7-07	Heatsink temperature of AC Drive IGBT	-20.0℃~120.0℃	–	●
P7-09	Accumulative running time	0h~65535h	-	●
P7-12	Number of decimal places for load speed display	Bit: d0-14 the number of decimal places 0: 0 decimal places 1: 1 decimal place 2: 2 decimal places 3: 3 decimal places Ten: d0-19/d0-29 the number of decimal places 1: 1 decimal place 2: 2 decimal places	21	☆
P7-13	Accumulative power-on time	0h~65535h	-	●
P7-14	Accumulative power consumption	0kW~65535kwh	-	●

P8 Group: Auxiliary Functions

Code	Name	Range	Default	Property
P8-04	Deceleration time 2	0.0s to 6500.0s	Model dependent	☆
P8-05	Acceleration time 3	0.0s to 6500.0s	Model dependent	☆
P8-06	Deceleration time 3	0.0s to 6500.0s	Model dependent	☆
P8-07	Acceleration time 4	0.0s to 6500.0s	Model dependent	☆
P8-08	Deceleration time 4	0.0s to 6500.0s	Model dependent	☆
P8-09	Frequency jump 1	0.00Hz to max. frequency	0.00Hz	☆
P8-10	Frequency jump 2	0.00Hz to max. frequency	0.00Hz	☆
P8-11	Frequency jump band	0.00Hz to max. frequency	0.00Hz	●
P8-12	Forward/Reverse run switch over dead-zone time	0.0s to 3000.0s	0.0s	☆
P8-13	Reverse RUN selection	0: invalid , 1: effective	0	●
P8-14	Running mode when frequency reference lower than frequency lower limit	0 to 2	0	●
P8-15	Droop rate	0.00% to 100.00%	0.00%	☆
P8-16	Accumulative power-on time threshold	0 to 65000h	0h	☆
P8-17	Accumulative running time threshold	0 to 65000h	0h	☆
P8-18	Startup protection selection	0: Not to be protected, 1: protect	0	☆
P8-19	Frequency detection value 1	0.00Hz to max. frequency	50.00Hz	☆
P8-20	Frequency detection hysteresis 1	0.0% to 100.0%	5.0%	☆
P8-21	Detection width of target frequency reached	0.0% to 100.0%	0.0%	☆
P8-22	Jump frequency function	0: invalid , 1: effective	0	☆
P8-25	Switchover frequency of accel time 1 and accel time 2	0.00Hz to max. frequency	0.00Hz	☆
P8-26	Switchover frequency of decel time 1 and decel time 2	0.00Hz to max. frequency	0.00Hz	☆
P8-27	Set highest priority to terminal JOG function	0: invalid , 1:effective	0	☆
P8-28	Frequency detection value 2	0.00Hz to max. frequency	50.00Hz	☆
P8-29	Frequency detection hysteres is 2	0.0% to 100.0%	5.0%	☆
P8-30	Detection of frequency 1	0.00Hz to max. frequency	50.00Hz	☆
P8-31	Detection width of frequency 1	0.0% to 100.0% (max.frequency)	0.0%	☆
P8-32	Detection of frequency 2	0.00Hz to max. frequency	50.00Hz	☆
P8-33	Detection width of frequency 2	0.0% to 100.0% (max frequency)	0.0%	☆
P8-34	Zero current detection level	0.0% to 300.0% (rated motor current)	5.0%	☆
P8-35	Zero current detection delay	0.01s to 600.00s	0.10s	☆
P8-36	Output over current threshold	1.1% (no detection) 1.2% to 300.0% (rated motor current)	200.0%	☆
P8-37	Output over current detection delay	0.00s to 600.00s	0.00s	☆
P8-38	Detection level of current 1	0.0% to 300.0% (rated motor current)	100.0%	☆
P8-39	Detection width of current 1	0.0% to 300.0% (rated motor current)	0.0%	☆
P8-40	Detection level of current 2	0.0% to 300.0% (rated motor current)	100.0%	☆
P8-41	Detection width of current 2	0.0% to 300.0% (rated motor current)	0.0%	☆
P8-42	Timing function	0: invalid 1: valid	0.0%	★
P8-43	Running time setting channel	0 to 3	0	★
P8-44	Running time	0.0 to 6500.0 min	0.0 min	★
P8-45	AI1 input voltage lower limit	0.00V to F8-46	3.10V	☆
P8-46	AI1 input voltage upper limit	F8-45 to 10.00V	6.80V	☆
P8-47	Sleep mode selection	0:no sleep 1:no sleep pressure judgment 2:sleep pressure= setting pressure*sleep pressure percentage wake up pressure= setting pressure* wake up pressure percentage	0	☆
P8-49	sleep pressure	90%-100%	98%	☆
P8-50	Wake up pressure	0%-100%	60%	☆
P8-51	sleep frequency	0HZ-50HZ	30Hz	☆
P8-52	Wake up frequency	0HZ-50HZ	40HZ	☆
P8-53	wake up delay	0-6500S	3.0S	☆
P8-54	Sleep delay	0-6500S	5.0S	☆

P9 Group: Fault and Protection

Code	Name	Range	Default	Property
P9-00	Motor overload protection	0: Forbidden 1: Allowed	1	☆
P9-01	Motor overload protection gain	0.20 to 10.00	1.00	☆
P9-02	Motor overload pre-warning coefficient	50% to 100%	80%	☆
P9-03	Overvoltage protection gain	0~100	30	☆
P9-04	Overvoltage protection voltage	650 to 800V	770V	☆
P9-07	Detection of short-circuit to ground upon power-on	Units: Power-to-ground short-circuit protection selection 0: Invalid 1: valid Tens place: Selection of short-to-ground protection before running 0: Invalid	01	☆
P9-08	Braking unit applied voltage	650 to 800V	720V	☆
P9-09	Auto reset times	0 to 20	0	☆
P9-10	Selection of DO action during auto reset	0: No action 1: Action	0	☆
P9-11	Delay of auto reset	0.1s to 100.0s	1.0s	☆
P9-12	Input phase loss/pre-charge relay protection	Unit digit: input phase loss protection selection Tenth place: Contact or pull-in selection 0: Forbidden 1: Allowed	–	-
P9-13	Output phase loss protection	Unit digits : output phase loss protection selection 0: Forbidden 1: Allowed Tens place: output phase loss protection before running 0: Forbidden 1: Allowed	01	☆
P9-14	1st fault type	-	-	●
P9-15	2nd fault type	00-55	-	●
P9-16	3rd (latest) fault type	-	-	●
P9-17	Frequency upon 3rd fault	-	-	●
P9-18	Current upon 3rd fault	-	-	●
P9-19	Bus voltage upon 3rd fault	-	-	●
P9-20	DI state upon 3rd fault	-	-	●
P9-21	Do state upon 3rd fault	-	-	●
P9-22	AC drive state upon 3rd fault	-	-	●
P9-23	Power-on time upon 3rd fault	-	-	●
P9-24	Running time upon 3rd fault	-	-	●
P9-27	Frequency upon 2nd fault	-	-	●
P9-28	Current upon 2nd fault	-	-	●
P9-29	Bus voltage upon 2nd fault	-	-	●
P9-30	DI state upon 2nd fault	-	-	●
P9-31	DO state upon 2nd fault	-	-	●
P9-32	AC drive state upon 2nd fault	-	-	●
P9-33	Power-on time upon 2nd faul	-	-	●
P9-34	Running time upon 2nd fault	-	-	●
P9-37	Frequency Upon 1st fault	-	-	●
P9-38	Current upon 1st fault	-	-	●
P9-39	Bus voltage upon 1st faul	-	-	●
P9-40	DI state upon 1st fault	-	-	●
P9-41	DO state upon 1st fault	-	-	●
P9-42	AC drive state upon 1st fault	-	-	●
P9-43	Power-on time upon 1st fault	-	-	●
P9-44	Running time upon 1st fault	-	-	●
P9-47	Fault protection action selection 1	0: free 1:stop 2.continue running	00000	☆
P9-48	Fault protection action selection 2	00000 to 11111	00000	☆
P9-49	Fault protection action selection 3	00000 to 22222	00000	☆
P9-50	Fault protection action selection 4	00000 to 22222	00000	☆
P9-54	Frequency selection for continuing to run upon fault	0 to 4	0	☆
P9-55	Backup frequency upon fault	0.0% to 100.0% (max. FrequencyP0-10)	100.0%	☆
P9-56	Type of motor temperature sensor	0: No temperature sensor 1: Pt100 2: PT1000	-	-
P9-59	Power dip ride-through function selection	0: Invalid 1: constant bus voltage control 2: deceleration stop	0	☆
P9-60	Threshold of power dip ride through function disabled	80% to 100%	85%	☆
P9-62	Threshold of power dip through function enabled	60% to 100%	80%	☆
P9-63	Load lost protection	0: Disabled 1: Enabled	0	☆
P9-64	Load lost detection level	0.0% to 100.0%	10.0%	☆
P9-65	Load lost detection time	0.0s to 60.0s	1.0s	☆
P9-67	Overspeed detection level	0.0% to 50.0% (max.frequency)	20.0%	☆
P9-68	Overspeed detection time	0.0s to 60.0s	1.0s	☆
P9-69	Detection level of speed error	0.0% to 50.0% (max.frequency)	20.0%	☆
P9-70	Detection Time of Speed error	0.0s to 60.0s	5.0s	☆
P9-71	Power dip ride-through gain Kp	0 to 100	40	☆
P9-72	Power dip ride-through integral coefficient	0 to 100	30	☆
P9-73	Deceleration time of power dip ride-through	0.0s to 300.0s	20.0s	★

PA Group: PID Function

Code	Name	Range	Default	Property
PA-00	PID reference setting channel	0: PA-01 setting 1: AI1 (Note: J6 jumper) 2: AI2 3: AI3 4: High-speed pulse input setting (S5) 5: Communication given 6: Multi-section instruction given	0	☆
PA-01	PID digital setting	0.0% to 100.0%	50.0%	☆
PA-02	PID feedback	0: AI1 (Note: J6 jumper) 1: AI2 2: AI3 3: AI1-AI2 4: High-speed pulse input setting (S5) 5: Communication given 6: AI1 + AI2 7: MAX (| AI1 |, | AI2 |) 8: MIN (| AI1 |, | AI2 |)	0	☆
PA-03	PID operation direction	0: Positive action 1: reaction	0	☆
PA-04	PID reference and feedback range	0 to 65535	1000	☆
PA-05	Proportional gain Kp1	0.0 to 1000.0	20.0	☆
PA-06	Integral time Ti1	0.01s to 10.00s	2.00s	☆
PA-07	Differential time Td1	0.000s to 10.000s	0.000s	☆
PA-08	PID output limit in reverse direction	0.00 Hz to max. Frequency P0-10	0.00Hz	☆
PA-09	PID error limit	0.0% to 100.0%	0.0%	☆
PA-10	PID differential limit	0.00% to 100.00%	0.10%	☆
PA-11	PID reference change time	0.00s to 650.00s	0.00s	☆
PA-12	PID feedback filter time	0.00s to 60.00s	0.00s	☆
PA-13	PID output filter time	0.00s to 60.00s	0.00s	☆
PA-14	Reserved	–	–	-
PA-15	Proportional gain Kp2	0.0 to 1000.0	20.0	☆
PA-16	Integral time Ti2	0.01s to 10.00s	2.00s	☆
PA-17	Differential time Td2	0.000s to 10.000s	0.000s	☆
PA-18	PID parameter switch over condition	0 to 3	0	☆
PA-19	PID error 1 for auto switch over	0.0% to PA-20	20.0%	☆
PA-20	PID error 2 for auto switch over	PA-19 to 100.0%	80.0%	☆
PA-21	PID initial value	0.0% to 100.0%	0.0%	☆
PA-22	PID initial value active time	0.00s to 650.00s	0.00s	☆
PA-23	Two output deviations forward to maximum	0.0% to 100.0%	1.00%	☆
PA-24	Two output deviations reverse maximum	0.0% to 100.0%	1.00%	☆
PA-25	PID integral property	00 to 11	00	☆
PA-26	Detection level of PID feedback loss	0.0%: No detection 0.1% to 100.0%	0.0%	☆
PA-27	Detection time of PID feedback loss	0.0s to 20.0s	0.0s	☆
PA-28	Selection of PID operation at stop	0: Stop no operation, 1: Down time operation	0	☆

Pb Group: Wobble Function, Fixed Length and Count

Code	Name	Range	Default	Property
Pb-00	Wobble setting mode	0: relative to the center frequency, 1: relative to the maximum frequency	0	☆
Pb-01	Wobble amplitude	0.0% to 100.0%	0.0%	☆
Pb-02	Wobble step	0.0% to 50.0%	0.0%	☆
Pb-03	Wobble cycle	0.1s to 3000.0s	10.0s	☆
Pb-04	Triangular wave rising time coefficient	0.1% to 100.0%	50.0%	☆
Pb-05	Set length	0 to 65535m	1000m	☆
Pb-06	Actual length	0 to 65535m	0m	☆
Pb-07	Number of pulses per meter	0.1 to 6553.5	100.0	☆
Pb-08	Set the count value	1~65535	1000	☆
Pb-09	Specify the count value	1~65535	1000	☆

PC Group: Multi-reference and Simple PLC Function

Code	Name	Range	Default	Property
PC-07	Reference 7	-100.0% to 100.0%	0.0%	☆
PC-08	Reference 8	-100.0% to 100.0%	0.0%	☆
PC-09	Reference 9	-100.0% to 100.0%	0.0%	☆
PC-10	Reference 10	-100.0% to 100.0%	0.0%	☆
PC-11	Reference 11	-100.0% to 100.0%	0.0%	☆
PC-12	Reference 12	-100.0% to 100.0%	0.0%	☆
PC-13	Reference 13	-100.0% to 100.0%	0.0%	☆
PC-14	Reference 14	-100.0% to 100.0%	0.0%	☆
PC-15	Reference 15	-100.0% to 100.0%	0.0%	☆
PC-16	Simple PLC running mode	0: Stop at the end of a single run 1: Keep the final value at the end of a single run 2: keep circulating	0	☆
PC-17	Simple PLC retentive selection	Single digit: power-down memory selection 0: No memory when power off 1: power-down memory Tenth place: Stop memory selection 0: Stop memory 1: shutdown memory	00	☆
PC-18	Running time of simple PLC reference 0	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-19	Acceleration/ deceleration time of simple PLC reference 0	0 to 3	0	☆
PC-20	Running time of simple PLC reference 1	0s (h) to 6500.0s (h)	0.0s (h)	☆
PC-21	Acceleration / deceleration time of simple PLC reference 1	0 to 3	0	☆
PC-22	Running time of simple PLC reference 2	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-23	Acceleration/ deceleration time of simple PLC reference 2	0 to 3	0	☆
PC-24	Running time of simple PLC reference 3	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-25	Acceleration/ deceleration time of simple PLC reference 3	0 to 3	0	☆
PC-26	Running time of simple PLC reference 4	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-27	Acceleration/ deceleration time of simple PLC reference 4	0 to 3	0	☆
PC-28	Running time of simple PLC reference 5	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-29	Acceleration/ deceleration time of simple PLC reference 5	0 to 3	0	☆
PC-30	Running time of simple PLC reference 6	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-31	Acceleration/ deceleration time of simple PLC reference 6	0 to 3	0	☆
PC-32	Running time of simple PLC reference 7	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-33	Acceleration/ deceleration time of simple PLC reference 7	0 to 3	0	☆
PC-34	Running time of simple PLC reference 8	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-35	Acceleration/ deceleration time of simple PLC reference 8	0 to 3	0	☆
PC-36	Running time of simple PLC reference 9	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-37	Acceleration/ deceleration time of simple PLC reference 9	0 to 3	0	☆
PC-38	Running time of simple PLC reference 10	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-39	Acceleration/ deceleration time of simple PLC reference 10	0 to 3	0	☆
PC-40	Running time of simple PLC reference 11	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-41	Acceleration/ deceleration time of simple PLC reference 11	0 to 3	0	☆
PC-42	Running time of simple PLC reference 12	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-43	Acceleration/ deceleration time of simple PLC reference 12	0 to 3	0	☆
PC-44	Running time of simple PLC reference 13	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-45	Acceleration/ deceleration time of simple PLC reference 13	0 to 3	0	☆
PC-46	Running time of simple PLC reference 14	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-47	Acceleration/ deceleration time of simple PLC reference 14	0 to 3	0	☆
PC-48	Running time of simple PLC reference 15	0.0s to 6500.0s (h)	0.0s (h)	☆
PC-49	Acceleration/ deceleration time of simple PLC reference 15	0 to 3	0	☆
PC-50	Time unit of simple PLC running	0:s, 1:h	0	☆
PC-51	Reference 0 source	0: Function code PC-00 is given 1: AI1 2: AI2 3: AI3 4: High speed pulse input 5: PID 6: Preset frequency (P0-08) given, UP/DOWN can be modified	0	☆

Pd Group: Communication

Code	Name	Range	Default	Property
Pd-00	Baud rate	Bit: MODBUS 0:300BPS 1:600BPS 2:1200BPS 3:2400BPS 4:4800BPS 5:9600BPS 6:19200BPS 7:38400BPS 8:57600BP 9:115200BPS Ten: keep Hundred: reserved	005	☆
Pd-01	Data format symbol	0: no parity (8-N-2) 1: Even check (8-E-1) 2: Odd parity (8-O-1) 3: No parity (8-N-1)	0	☆
Pd-02	Local address	0: Broadcast address; 1 to 247	1	☆
Pd-03	Response delay	0 to 20 ms	2	☆
Pd-04	Communication timeout	1.1: invalid 1.2:s to 60.0s	0.0	☆
Pd-05	Modbus protocol selection and PROFIBUS-DP data frame	Bit: MODBUS 0: non-standard MODBUS protocol 1: standard MODBUS protocol	30	☆
Pd-06	Current resolution read by communication	0: 0.01 1: 0.1	0	☆

PE Group: User-Defined Parameters

Code	Name	Range	Default	Property
PE-00	User-defined parameter 0		d3-17	☆
PE-01	User-defined paramete 1		d3-18	☆
PE-02	User-defined parameter 2	P0-00 ~ PP-xx A0-00 ~ Ax-xx d0-00 ~ d0-xx d3-00 ~ d3-xx	P0.00	☆
....	......			
PE-29	User-defined parameter 29		P0.00	☆

PP Group: Function Parameter Management

Code	Name	Range	Default	Property
PP-00	User password	0 to 65535	0	☆
PP-01	Parameter initialization	0: No operation 1: Restore factory parameters except motor parameters 2: Clear records 4: Back up current user parameters 501: Restore user backup parameter	0	☆
PP-02	Parameter display property	Bit: d group display selection 0: not displayed 1: display Ten: Group A shows the selection 0: not displayed 1: display	11	★
PP-03	Selection of individualized parameter display	Bit: user custom parameter group display selection 0: not displayed 1: display Ten: User Change Parameter Group Display Selection 0: not displayed 1: display	00	☆
PP-04	Selection of parameter modification	0: can be modified 1: can not be modified	0	☆

A0 Group: Torque Control and Limit

Code	Name	Range	Default	Property
A0-00	Speed/Torque control selection	0: speed control 1: torque control	0	★
A0-01	Torque reference source in torque control	0: Digital setting 1 (A0-03) 1: AI1 (Note: J6 jumper) 2: AI2 3: AI3 4: High-speed pulse input (S5) 5: Communication given 6: MIN (AI1, AI2) 7: MAX (AI1, AI2) (1-7 options Full scale, corresponding to A0-03 digital setting)	0	★
A0-03	Torque digital setting in torque control	-200.0% to 200.0%	150.0%	☆
A0-05	Forward max. frequency in torque control	0.00Hz to max Frequency:z(P0-10)	to	☆
A0-06	Reverse max. frequency in torque control	0.00Hz (P0-10)	to	☆
A0-07	Acceleration time in torque control	0.00s to 65000s	0.00s	☆
A0-08	Deceleration time in torque control	0.00s to 65000s	0.00s	☆
A2-47	Torque limit source in speed control	0: A2-48 setting 1: AI1 (Note: J6 jumper) 2: AI2 3: AI3 4: High-speed pulse input (S5 5: communication given 6: MIN (AI1, AI2) 7: MAX (AI1, AI2) 1-7 option full scale, corresponding to A2-48 digital settings	0	☆
A2-48	Digital setting of torque limit in speed control	0.0% to 200.0%	150.0%	☆
A2-49	Torque limit source in speed control (regenerative)	0:Function code P2-10 setting 1: AI1 (Note: J6 jumper)	0	☆

A5 Group: Control Optimization

Code	Name	Range	Default	Property
A5-00	DPWM switch over frequency upper limit	5.00Hz to max. frequency	8.00Hz	☆
A5-01	PWM modulation pattern	0: Asynchronous modulation, 1: Synchronous modulation	0	☆
A5-02	Dead zone compensation mode selection	0: No compensation, 1: Compensation Mode 1	1	☆
A5-03	Random PWM depth	0 :PWM invalid 1:PWM can choose	0	☆
A5-04	Over current fast prevention	0:enable 1:uncable	1	☆
A5-05	Voltage over modulation coefficient	100% to 110%	105%	★
A5-06	Under voltage threshold	150 to 420V	350V	☆
A5-08	Dead-zone time adjustment	0.0% to 8.0%	0.0%	★
A5-09	Over voltage threshold	650 to 820V	Model dependent	★

A6 Group: AI CA6 Group: AI Curve Setting/curve Setting

Code	Name	Range	Default	Property
A6-00	AI curve 4 min. input	-10.00V to A6-02	0.00V	☆
A6-01	Corresponding percentage of AI curve 4 min. input	-100.0% to 100.0%	0.0%	☆
A6-02	AI curve 4 in flexion 1 input	A6-00 to A6-04	3.00V	☆
A6-15	Corresponding percentage of AI curve 5 max. input	-100.0% to 100.0%	30.0%	☆
A6-24	Jump point of AI1 input corresponding value	-100.0% to 100.0%	0.0%	☆

AC Group: AIAO Correction

Code	Name	Range	Default	Property
AC-00	AI1 measured voltage 1	-10.00 to 10.000V	factory corrected	☆
AC-01	AI1 displayed voltage 1	-10.00 to 10.000V	factory corrected	☆
AC-02	AI1 measured voltage 2	-10.00 to 10.000V	factory corrected	☆
AC-03	AI1 displayed voltage 2	-10.00 to 10.000V	factory corrected	☆
AC-12	Ao1 Target voltage1	-10.00 to 10.000V	factory corrected	☆
AC-13	AI1 voltage before correction	-10.00 to 10.000V	factory corrected	☆
AC-14	AO1 Target voltage 2	-10.00 to 10.000V	factory corrected	☆
AC-15	Ao1 measured voltage 2	-10.00 to 10.000V	factory corrected	☆

5. Monitoring Parameters

Group d0: Monitoring Parameters

Function Code	Name	Display Range	Communication Address
d0-00	Running frequency	0.01Hz	7000H
d0-01	Frequency reference	0.01Hz	7001H
d0-02	Bus voltage	0.1V	7002H
d0-03	Output voltage	1V	7003H
d0-04	Output current	0.01A	7004H
d0-05	Output power	0.1kW	7005H
d0-06	Output torque	0.1%	7006H
d0-07	S input state	1	7007H
d0-08	HDO output state	1	7008H
d0-09	AI1 voltage	0.01V	7009H
d0-10	AI2 voltage/current	0.01V/0.01mA	700AH
d0-11	AI3 voltage	0.01V	700BH
d0-12	Count value	1	700CH
d0-13	length value	1	700DH
d0-14	Load speed display	1	700EH
d0-15	PID reference	1	700FH
d0-16	PID feedback	1	7010H
d0-17	PLC stage	1	7011H
d0-18	Pulse reference	0.01kHz	7012H
d0-19	feedback speed	0.01Hz	7013H
d0-20	Remaining running time	0.1Min	7014H
d0-21	AI1 voltage before correction	0.001V	7015H
d0-22	AI2 voltage (V)/ current (MA) before correction	0.001V/0.01mA	7016H
d0-23	AI3 voltage before	0.001V	7017H
d0-24	Motor speed	1m/Min	7018H
d0-25	Accumulative power-on time	1Min	7019H
d0-26	Accumulative running time	0.1Min	701AH

6. Fault Display

Fault code	Fault	Fault code	Fault
FU02	Over current during acceleration	FU18	Current detection failure
FU03	Over current during deceleration	FU19	Motor self learning malfunction
FU04	Over current at constant speed	FU20	Encoder fault
FU05	Over voltage during acceleration	FU21	EEPROM read-write
FU06	Over voltage during deceleration	FU23	Short circuit to ground
FU07	Over voltage at constant speed	FU26	Accumulative running time
FU08	Pre-charge resistor fault	FU27	User-defined fault 1
FU09	Under voltage	FU28	User-defined fault 2
FU10	AC drive overload	FU29	Accumulative power reach error
FU11	Motor overload	FU30	Load loss
FU13	Output phase loss	FU31	PID feedback lost during running
FU14	overheat	FU40	Pulse-by-pulse current limit fault
FU15	out project fault	FU41	Motor switchover fault during running
FU16	Communication fault	Fu42	Excessive speed deviation
FU17	Contact or fault	FU43	Motor over speed