



STEPPERONLINE®

User Manual for
EV200 series Variable Frequency Drive

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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 input setting (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 input selection)	0	★
P0-05	Auxiliary 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(Not: J6 jumper) 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	★

P1-07	Rotor resistance	0.0010~65.5350(AC drive power≤55KW) 0.00010~6.55350(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: Reverse	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	Speedover 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: Function 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 input 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	★

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/OF 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		-	★
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	-	★
P4-12	Terminal UP/DOWN rate	0.001Hz/s~65.535Hz/s	1.00Hz/s	☆
P4-13	Al curve 1 min. input	0.00V~P4-15	0.00V	☆
P4-14	Corresponding percentage of Al curve 1 min. input	-100.0%~+100.0%	0.0%	☆
P4-15	Al curve 1 max. input	P4-13~+10.00V	10.00V	☆
P4-16	Corresponding percentage of Al curve 1 max. input	-100.0%~+100.0%	100.0%	☆
P4-17	A11 filter time	0.00s~10.00s	0.10s	☆
P4-18	Al curve 2 min. input	0.00V~P4-20	0.00V	☆
P4-19	Corresponding percentage of Al curve 2 min. input	-100.0%~+100.0%	0.0%	☆
P4-20	Al curve 2 max. input	P4-18~+10.00V	10.00V	☆
P4-21	Corresponding percentage of Al curve 2 max. input	-100.0%~+100.0%	100.0%	☆
P4-22	A12 filter time	0.00s~10.00s	0.10s	☆
P4-23	A13 curve min. input	-10.00V~P4-25	-10.0V	☆
P4-24	Corresponding percentage of Al curve 3 min. input	-100.0%~+100.0%	-100.0%	☆
P4-25	Al curve 3 max. input	P4-23~+10.00V	10.00V	☆
P4-26	Corresponding percentage of Al curve 3 max. input	-100.0%~+100.0%	100.0%	☆
P4-27	A13 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	Al curve selection	Bit: Al curve selection 1: curve 1 (2 points, see P4-13~P4-16) 2: curve 2 (2 points, see P4-13~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: A12 curve selection, ibid Hundreds: A13 curve selection, ibid	321	☆
P4-34	Setting selection when Al less than min. input	Bit: A11 is lower than the minimum input setting 0: corresponds to the minimum input setting 1: 0.0% Ten: A12 is lower than the minimum input setting, ibid Hundreds: A13 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 Hundreds places: S3 Thousands of bits: S4 Million: S5	00000	★

P5 Group: Output Terminals					
		0: pulse output (HDP) 1: Switching output (HDY)			
		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	
P5-02	Relay 1 function selection (TA-TC)				
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% corresponding 100.0kHz) 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: Encoder feedback speed (Hz) Bit14: Main frequency A display (Hz) Bit15: Secondary frequency B display (Hz)		0	☆

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				
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 hysteresis 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	IGBT temperature threshold	0℃ to 100℃	75℃	☆
P8-48	Cooling fan working mode	0: Fan runs during operation 1: the fan keeps running	0	☆
P8-49	Wake up frequency	F8-51 to max. Frequency (F0-10)	0.00Hz	☆
P8-50	Wake up delay time	0.0s~6500.0s	0.0s	☆
P8-51	Hibernating frequency	0.00Hz to wake up frequency (P8-49)	0.00Hz	☆
P8-52	Hibernating delay time	0.0s~6500.0s	0.0s	☆
P8-53	Running time threshold this time	0.0~6500.0 min	0.0 min	☆
P8-54	Output power correction coefficient	0.0% to 200.0%	100.0%	☆
P9 Group: Fault and Protection				
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 protection 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 selection before running 0: Forbidden 1: Allowed	01	☆
P9-14	1st fault type	00-55	-	●
P9-15	2nd fault type		-	●
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 ride 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				
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				
Pb-00	Wobble setting mode	0: 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 ~ 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				
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 (h) 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 (h) 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 (h) 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 (h) 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 (h) 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 (h) 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 (h) 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 (h) 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 (h) 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 (h) to 6500.0s (h)	0.0s (h)	☆
PC-39	Acceleration/ deceleration time of simple PLC reference 10	0 to 3	0	☆
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 (h) 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 (h) 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 (h) 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 (h) 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				
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				
PE-00	User-defined parameter 0	P0-00 ~ PP-xx A0-00 ~ Ax-xx d0-00 ~ d0-xx d3-00 ~ d3-xx	d3-17	☆
PE-01	User-defined parameter1		d3-18	☆
PE-02	User-defined parameter 2		P0.00	☆
.....			P0.00	☆
PE-29	User-defined parameter 29		P0.00	☆
PP Group: Function Parameter Management				
PP-00	User password	0 to 65535	0	☆
PP-01	Parameter initialization	0: No operation 1: Restore factory 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				
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	max.
A0-06	Reverse max. frequency in torque control	0.00Hz (P0-10)	to	max.
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				
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 Settingcurve Setting				
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 setting	-100.0% to 100.0%	0.0%	☆