

ZT Series Vector Control Frequency Inverter for Synchronous Motor

Parameter List

ZT series is special frequency inverter for 3-phase AC permanent magnet synchronous motor.

1. Technical Specification

Item	Specification	
Max. Frequency	0 ~ 600Hz	
Carrier Frequency	0.5KHz ~ 16KHz	
Input frequency resolution	Digital setting: 0.01Hz Analog setting: max. Frequency X 0.025%	
Control Mode	Sensorless flux vector control (SVC) Closed loop vector control (FVC)	
Startup torque	2.0Hz/100% (SVC)	0Hz/200%(FVC)
Speed range	1:50(SVC)	1:1000(SVC)
Speed stability	±0.5% (SVC)	±0.02% (FVC)
Overload capacity	60s for 150% of rated current,3s for 180% of rated current.	

1. Parameter List:

Function Code	Name	Setting range	Factory setting	modify
Group P0: Basic Parameters				
P0.00	G/P type display	1: G type (constant torque load) 2: P type (variable torque load e.g. Fan & pump)	Depends on application	•
P0.01	Control mode selection	0: open loop without PG card 1: closed loop with PG card	0	★
		0: operation panel control (LED off)	0	

P0.02	Command channel selection	1: terminal control (LED on) 2: communication control (LED spark)		☆
P0.03	Main frequency source X selection	0: Digital Setting (P0.08 preset frequency, can modify by UP/DOWN, power-off without memory function) 1: Digital Setting (P0.08 preset frequency, can modify by UP/DOWN, power-off with memory function) 2: FIV 3: FIC 4: Reserved 5: PULSE setting (X5) 6: Multistage instruction 7: PLC 8: PID 9: Communication given	0	★
P0.04	Auxiliary frequency selection	Same as P0.03 (Main frequency source X selection)	0	★
P0.05	Auxiliary frequency source superposition Y range selection	0: relative to the maximum frequency 1: relative to the main frequency source X	0	☆
P0.06	Auxiliary frequency source superposition Y setting range	0%~150%	100%	☆
P0.07	Frequency source setting range	Unit's digit: frequency source 0: main frequency source X 1: X and Y operation (operation relationship determined by ten's digit) 2: switchover between X and Y 3: switchover between X and "X and Y" "operation" 4: switchover between Y and "X and Y" "operation" 0: X + Y 1: X - Y 2: Maximum of X and Y 3: Minimum of X and Y	00	☆
P0.08	Frequency preset	0.00Hz~max. frequency (P0.10)	50.00Hz	☆
P0.09	Rotation direction	0: same direction 1: reverse direction	0	☆
P0.10	Maximum frequency	5.00Hz~600.00Hz	50.00Hz	★
P0.11		0: P0.12 setting	0	

	Upper limit frequency source	1: FIV 2: FIC 3: reserved 4: PULSE Setting 5: Communication Setting		★
P0.12	Upper limit frequency	Frequency lower limitP0.14～ Maximum frequency P0.10	50.00Hz	☆
P0.13	Upper limit frequency offset	0.00Hz～Maximum frequency P0.10	0.00Hz	☆
P0.14	Frequency lower limit	0.00Hz～Upper limit frequencyP0.12	0.00Hz	☆
P0.15	Carrier frequency	0.5kHz～16.0kHz	Model depended	☆
P0.16	Carrier frequency adjustment with temperature	0: No 1: Yes	1	☆
P0.17	Acceleration time 1	0.00s～65000s	Model depended	☆
P0.18	Deceleration time1	0.00s～65000s	Model depended	☆
P0.19	Acceleration/ deceleration time unit	0: 1s 1: 0.1s 2: 0.01s	1	★
P0.21	Frequency offset of auxiliary frequency source for X and Y operation	0.00Hz～maximum frequency P0.10	0.00Hz	☆
P0.22	Frequency reference	2: 0.01Hz	2	★
P0.23	Retentive of digital setting frequency upon power	0: no memory 1: memory	0	☆
P0.25	Acceleration/Decelera tion time base frequency	0: maximum frequency (P0.10) 1: set frequency 2: 100Hz	0	★
P0.26	Base frequency for UP/DOWN modification during running	0: running frequency 1: set frequency	0	★
P0.27	Binding command source to frequency source	Unit's digit: Binding operation panel command to frequency source 0: No binding 1: Frequency source by digital setting 2: FIV 3: FIC 4: Reserved	0000	☆

		5: PULSE setting (X5) 6: Multi-reference 7: Simple PLC 8: PID 9: communication setting Ten's digit: binding terminal command to frequency source (0~9, same as unit's digit) hundred's digit: Binding communication command to frequency source (0~9, same as unit's digit) Thousand's digit: Binding auto-running command to frequency source (0~9, same as unit's digit)		
Group P1: Motor parameters				
P1.00	Motor type selection	Permanent magnet synchronous motor	2	★
P1.01	Rated motor power	0.1kW~1000.0kW	Model depended	★
P1.02	Rated motor voltage	1V~2000V	Model depended	★
P1.03	Rated motor current	0.1A~6553.5A	Model depended	★
P1.04	Rated Motor frequency	0.01Hz~Maximum frequency	Model depended	★
P1.05	Rated motor rotational speed	1rpm~65535rpm	Model depended	★
P1.16	Stator resistance (synchronous motor)	0.001Ω~65.535Ω (VFD capacity ≤55kW) 0.0001Ω~6.5535Ω (VFD capacity >55kW)	Auto-tuning	★
P1.17	Shaft D inductance (synchronous motor)	0.01mH~655.35mH (VFD capacity ≤55kW) 0.001mH~65.535mH (VFD capacity >55kW)	Auto-tuning	★
P1.18	Shaft Q inductance (synchronous motor)	0.01mH~655.35mH (VFD capacity ≤55kW) 0.001mH~65.535mH (VFD capacity >55kW)	Auto-tuning	★
P1.20	Back EMF (synchronous motor)	0.0V~6553.5V	Auto-tuning	★
P1.27	Encoder pulses per	1~65535	1024	★

	revolution			
P1.28	Encoder type	0: ABZ Incremental encoder 1: UVW Incremental encoder 2: Resolver 3: SIN/COS encoder 4: Wire-saving UVW encoder	0	★
P1.30	ABZ Incremental encoder AB phase sequence	0: forward 1: reverse	0	★
P1.31	Encoder mounting angle	0.0~359.9°	0.0°	★
P1.32	UVW encoder UVW phase sequence	0: forward 1: reverse	0	★
P1.33	UVW encoder angle offset	0.0~359.9°	0.0°	★
P1.34	No. Of pole pairs of resolver	1~65535	1	★
P1.36	Encoder wire-break fault detection time	0.0: No action 0.1s~10.0s	0.0	★
P1.37	Auto-tuning selection	0: No auto-tuning 11: SVC Synchronous motor static auto-tuning (FVC Synchronous motor no-load auto-tuning) 12: SVC Synchronous motor fully auto-tuning (FVC Synchronous motor with-load auto-tuning)	0	★
Group P2: Vector Control Parameters				
P2.00	Speed loop proportional gain 1	1~100	10	☆
P2.01	Speed loop integral time1	0.01s~10.00s	0.50s	☆
P2.02	Switchover frequency 1	0.00~P2.05	5.00Hz	☆
P2.03	Speed loop proportional gain2	1~100	10	☆
P2.04	Speed loop integral time2	0.01s~10.00s	1.00s	☆
P2.05	Switchover frequency2	P2.02~maximum frequency	10.00Hz	☆
P2.06	Vector control slip gain	50%~200%	100%	☆
P2.07	SVC time constant of	0~31s	28	☆

	speed loop filter (open loop)			
P2.08	Vector control over-excitation gain	0~200	64	
P2.09	Torque upper limit source in speed control mode	0: P2.10 1: FIV 2: FIC 3: Reserved 4: PULSE setting 5: Communication setting 6: MIN (FIV,FIC) 7: MAX (FIV,FIC)	0	☆
P2.10	Digital setting of torque upper limit in speed control mode	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 property	Bits: Integral separation 0: Invalid 1: valid	0	☆
P2.18	Field weakening mode of synchronous motor	0: No field weakening 1: automatic adjustment 2: direct calculation	1	☆
P2.19	Field weakening depth of synchronous motor	0~50	10	☆
P2.20	Maximum field weakening	1%~300%	50%	☆
P2.21	Field weakening automatic adjustment gain	10%~500%	100%	☆
P2.22	Field weakening integral	2~10	2	☆
P2.23	Synchronous motor output voltage saturation margin	0%~100%	1%	☆
P2.24	The initial position detection current synchronous motor	50%~120%	80%	☆

P2.25	Synchronous motor initial position angle detection	0 (detected each running) , 1 (no detection) , 2 (detect for the first running after power on)	0	☆
P2.26	Zero speed servo loop	0 (off) , 1 (on)	0	☆
P2.27	Salient pole synchronous motor rate adjustment gain	50~500	100	☆
P2.28	Maximum torque current ratio control	0 (off) , (on)	0	☆
P2.29	Factory setting		Reversed	☆
P2.30	Kp current loop tuning adjustment	1~100	6	☆
P2.31	Ki current loop tuning adjustment	1~100	6	☆
P2.32	Z signal correction	0 (off) , 1 (on)	1	☆
P2.33	Factory setting		Reversed	☆
P2.34	Factory setting		Reversed	☆
P2.35	Factory setting		Reversed	☆
P2.36	No-load current (synchronous motor)	0~80%	30%	☆
P2.37	Start carrier frequency	1KHz~P0.15	4.0KHz	☆
P2.38	SVC low frequency break	0 (no action) , 1 (break when stop)	0	☆
P2.39	SVC frequency of low-frequency braking effect	0~10.00Hz	2.00Hz	☆
P2.40	SVC low-frequency braking step frequency change	0.0005~1.0000Hz	0.0010Hz	☆
P2.41	SVC low-frequency braking current	0~80%	50%	
P2.42	SVC speed tracing	0 (off) , 1 (on)	0	
P2.43	Zero servo enable	0 (off) , 1 (on)	0	
P2.44	Switch frequency	0.00~P2.02	0.30Hz	
P2.45	Zero speed servo loop proportional gain	1~100	10	
P2.46	Zero speed servo loop integral time	0.01s~10.00s	0.50s	
P2.47	Stop ban reversal	0 (off) , 1 (on) (prevent the reversal when the motor decelerates to 0 HZ)	0	
P2.48	Stop angle	0.0°~10.0° (increase the value when it is	0.8°	

		reverse under the factory setting)		
Group P4: Terminals				
P4.00	X1 function selection	0: no function	1	★
P4.01	X2 function selection	1: FWD	4	★
P4.02	X3 function selection	2: REV	9	★
P4.03	X4 function selection	3: three-line running control	12	★
P4.04	X5 function selection	4FWD JOG	13	★
P4.05	X6 function selection	5: REVJOG	0	★
P4.06	X7 function selection	6: UP	0	★
P4.07	X8 function selection	7: DOWN	0	★
		8: Coast to stop		
		9: RESET		
		10: Run pause		
		11: Normally open (no) input of external fault		
		12: Multi-reference terminal 1		
		13: Multi-reference terminal 2		
		14: Multi-reference terminal 3		
		15: Multi-reference terminal 4		
		16: terminal 1 for acc/dec time selection		
		17: terminal 2 for acc/dec time selection		
		18: Frequency source switchover		
		19: UP/DOWN setting clear (terminal, operation panel)		
		20: Command source switchover terminal		
		21: Acc. /Dec.		
		22: PID pause		
		23: PLC status reset		
		24: Swing pause		
		25: Counter input		
		26: Counter reset		
		27: Length count input		
		28: Length reset		
		29: Torque control prohibited		
		30: PULSE input (Enabled only for X5)		
		31: Reserved		
		32: Immediate DC braking		
		33: Normally closed (NC) input of external fault		

		34: Frequency modification forbidden 35: Reverse PID action direction 36: External Stop Terminal 1 37: Command source switchover terminal2 38: PID integral pause 39: switchover between main frequency source X and preset frequency 40: switchover between auxiliary frequency Y and preset frequency 41~42: Reserved 43: PID parameter switchover 44~45: Reserved 46: Speed control/ torque control switchover 47: Emergency stop 48: External Stop terminal 2 49: Deceleration DC Braking 50: Clear the current running time 51-59: Reserved		
P4.10	Switch filter time	0.000s~1.000s	0.010s	☆
P4.11	Terminal command mode	0: two-line control 1 1: two-line control 2 2: three-line control 1 3: three-line control 2	0	★
P4.12	UP/DOWN Change rate	0.001Hz/s~65.535Hz/s	1.00Hz/s	☆
Group P5: Output terminals				
P5.00	YO terminal output mode	0: Pulse output (YOP) 1: switch signal output (YOR)	0	☆
P5.01	YOR function selection	0: No output 1: AC drive running	0	☆
P5.02	control board relay function selection (T/A-T/B-T/C)	2: Fault output (stop) 3: Frequency-level detection FDT 1 output	2	☆
P5.03	Encoder relay output function selection (P/A-P/B-P/C)	4: Frequency reached 5: Zero-speed running (no output at stop)	0	☆
P5.04	YO1output function selection (encoder)	6: Motor overload pre-warning 7: Ac drive overload pre-warning	1	☆
P5.05	YO2 output function selection	8: Set count value reached 9: Designated count value reached	4	☆

		10: Length reached 11: PLC cycle complete 12: Accumulative running time reached 13: Frequency limited 14: Torque limited 15: Ready for Run 16: FIV>FIC 17: Frequency upper limit reached 18: Frequency lower limit reached (relate to running) 19: Under voltage state output 20: Communication setting 21: Position finished (reserved) 22: Position closed (reserved) 23: Zero-speed running 2 (having output at stop) 24: Accumulative power-on time reached 25: Frequency level detection FDT2 output 26: Frequency 1 reached 27: Frequency 2 reached 28: Current 1 reached 29: Current 2 reached 30: timing reached 31: FIV input limit exceeded 32: Load becoming 0 33: Reverse running 34: Zero current state 35: Module temperature reached 36: output current limit exceeded 37: Frequency lower limit reached(having output at stop) 38: Alarm output 39: Motor over-temperature pre-alarm 40: The running time reached		
P5.06	YOP output function selection	0: Running frequency 1: Setting frequency	0	☆
P5.07	FOVoutput function selection	2: Output current 3: Output torque	0	☆
P5.08	FOCoutput function selection	4: Output power 5: Output voltage 6: PULSE input	1	☆

		(100.% corresponds 100.0kHz) 7: FIV 8: FIC 9: Reserved 10: Length 11: The count value 12: Communication setting 13: Motor speed 14: Output current(100% corresponds 1000A) 15: Output voltage (100% correspond 1000V) 16: Reserved		
P5.09	YOP output maximum frequency	0.01kHz~100.00kHz	50.00kHz	☆
P5.10	FOV offset coefficient	-100.0%~+100.0%	0.0%	☆
P5.11	FOV gain	-10.00~+10.00	1.00	☆
P5.12	FOC offset coefficient	-100.0%~+100.0%	0.0%	☆
P5.13	FOC gain	-10.00~+10.00	1.00	☆
P5.18	RA-RB-RC output delay time	0.0s~3600.0s	0.0s	☆
P5.19	YA-YB-YC output delay time	0.0s~3600.0s	0.0s	☆
P5.20	YO1 output delay time	0.0s~3600.0s	0.0s	☆
P5.21	YO2 output delay time	0.0s~3600.0s	0.0s	☆
P5.22	DO output terminal valid state selection	0: Positive logic 1: Negative logic Unit's digit: YOR Ten's digit: RA-RB-RC Hundred's digit: YA-YB-YC Thousand's digit: YO1 Ten thousand's digit: YO2	00000	☆
P5.23	Factory setting		0	☆
Group P6: Start / Stop Control				
P6.00	Start mode	0: Direct start 1: Rotational speed tracing restart	0	☆
P6.01	Rotational speed tracing mode	0: From frequency at stop 1: From zero speed 2: From maximum frequency	0	★
P6.02	Rotational speed tracing speed	1~100	20	☆
P6.03	Startup frequency	0.00Hz~10.00Hz	0.00Hz	☆

P6.04	Startup frequency holding time	0.0s~100.0s	0.0s	★
P6.05	Startup DC braking current/pre-excited current	0%~100%	0%	★
P6.06	Startup DC braking time/ pre-excited time	0.0s~100.0s	0.0s	★
P6.07	Acc. /Dec. mode	0: Linear acceleration /deceleration 1: S-curve acceleration /deceleration A 2: S-curve acceleration /deceleration B	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: Dec. To stop 1: coast to stop	0	☆
P6.11	Initial frequency of stop DC braking	0.00Hz~Maximum frequency	0.00Hz	☆
P6.12	Waiting time of stop DC braking	0.0s~100.0s	0.0s	☆
P6.13	Stop DC braking current	0%~100%	0%	☆
P6.14	Stop DC braking time	0.0s~100.0s	0.0s	☆
P6.15	Brake use ratio	0%~100%	100%	☆
Group P7:Operation panel and Display				
P7.00	Factory parameter		reserved	
P7.01	JOG Function parameter	0: invalid 1: Switch from keypad command and remote operation .Refer to the switch of command resource,it means the switch of current command resource and keypad control (local operation) . If the current command resource is keypad control ,then this button function invalid . 2: FWD/REV switch Through the JOG button to switch the direction of frequency command . This function is valid only when the command recourse is operation panel command .	0	★

		3: FJOG Through keypad JOG button to realize FJOG(JOG-FWD) 4: RJOG Through keypad JOG button to realize RJOG(JOG-REV)		
P7.02	STOP/RESET button function	0: Only under keypad operation mode, the stop function is valid by STOP/RES . 1: Under any operation mode ,the stop function is valid by STOP/RES.	1	☆
P7.03	LED display running parameter 1	0000~FFFF Bit00: Running 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:X Input status Bit08:Y Output status Bit09: FIV voltage (V) Bit10: FIC voltage (V) Bit11: Reserved Bit12: Count value Bit13: Length value Bit14: Load speed display Bit15: PID setting	1F	☆
P7.04	LED display running parameter 2	0000~FFFF Bit00: PID Feedback Bit01: PLC stage Bit02: PULSE setting frequency (kHz) Bit03: Running frequency 2 (Hz) Bit04: Remaining running time Bit05: FIV voltage before correction (V) Bit06: FIC voltage before correction (V) Bit07: Reserved Bit08: Linear speed Bit09: Current power-on time (Hour) Bit10: Current running time (Min) Bit11: PULSE setting frequency (Hz) Bit12: Communication setting value Bit13: Speed feedback from encoder	0	☆

		(Hz) Bit14: Main frequency X display (Hz) Bit15: Auxiliary frequency Y display (Hz)		
P7.05	LED display stop parameters	0000~FFFF Bit00: Set frequency (Hz) Bit01: Bus voltage (V) Bit02: X Input status Bit03: YO Output status Bit04: FIV voltage (V) Bit05: FIC voltage (V) Bit06: Reserved Bit07: Count value Bit08: Length value Bit09: PLC Stage Bit10: Load speed Bit11: PID Set Bit12: PULSE setting frequency (kHz)	33	☆
P7.06	Load speed display coefficient	0.0001~6.5000	1.0000	☆
P7.07	Heatsink temperature of inverter module	0.0℃~100.0℃	-	●
P7.08	Factory parameters		Reserved	
Group P8 : Auxiliary Functions				
P8.00	JOG running frequency	0.00Hz~maximum frequency	2.00Hz	☆
P8.01	JOG acceleration time	0.0s~6500.0s	20.0s	☆
P8.02	JOG deceleration time	0.0s~6500.0s	20.0s	☆
P8.03	Acceleration time 2	0.0s~6500.0s	Model confirmation	☆
P8.04	Deceleration time 2	0.0s~6500.0s	Model confirmation	☆
P8.05	Acceleration time3	0.0s~6500.0s	Model confirmation	☆
P8.06	Acceleration time3	0.0s~6500.0s	Model confirmation	☆
P8.07	Acceleration time 4	0.0s~6500.0s	Model confirmation	☆
P8.08	Acceleration time4	0.0s~6500.0s	Model confirmation	☆
P8.09	Jump frequency 1	0.00Hz~maximum frequency	0.00Hz	☆
P8.10	Jump frequency 2	0.00Hz~maximum frequency	0.00Hz	☆

P8.11	Frequency jump amplitude	0.00Hz~maximum frequency	0.00Hz	☆
P8.12	FWD/REV rotation dead-zone time	0.0s~3000.0s	0.0s	☆
P8.13	REV control	0: Enabled 1: Disabled	0	☆
P8.14	Running mode when set frequency lower than frequency lower limit	0: Run at frequency lower limit 1: Stop 2: Run at zero speed	0	☆
P8.15	Drop control	0.00Hz~10.00Hz	0.00Hz	☆
P8.16	Accumulative power-on time threshold	0h~65000h	0h	☆
P8.17	Accumulative running time threshold	0h~65000h	0h	☆
P8.18	Start up protection	0: NO 1: YES	0	☆
P8.19	Frequency detection value (FDT1)	0.00Hz~maximum frequency	50.00Hz	☆
P8.20	Frequency detection hysteresis (FDT1)	0.0%~100.0% (FDT1 level)	5.0%	☆
P8.21	Detection range of frequency reached	0.0%~100.0% (maximum frequency)	0.0%	☆
P8.22	Jump frequency during acceleration/deceleration	0: Disabled 1: Enable	0	☆
P8.25	Frequency switch over point between acceleration time 1 and acceleration time 2	0.00Hz~maximum frequency	0.00Hz	☆
P8.26	Frequency switch over point between deceleration time 1 and deceleration time 2	0.00Hz~maximum frequency	0.00Hz	☆
P8.27	Terminal JOG preferred	0: Disabled 1: Enable	0	☆
P8.28	Frequency detection value (FDT2)	0.00Hz~maximum frequency	50.00Hz	☆
P8.29	Frequency detection hysteresis (FDT2)	0.0%~100.0% (FDT2 level)	5.0%	☆
P8.30	Any frequency reaching detection	0.00Hz~maximum frequency	50.00Hz	☆

	value 1			
P8.31	Any frequency reaching detection amplitude 1	0.0%~100.0% (maximum frequency)	0.0%	☆
P8.32	Any frequency reaching detection value 2	0.00Hz~maximum frequency	50.00Hz	☆
P8.33	Any frequency reaching detection amplitude 2	0.0%~100.0% (maximum frequency)	0.0%	☆
P8.34	Zero current detection delay time	0.0%~300.0% 100.0% accordingly motor rated current	5.0%	☆
P8.35	Zero current detection delay time	0.01s~600.00s	0.10s	☆
P8.36	Output over current threshold	0.0% (no detection) 0.1%~300.0% (motor rated current)	200.0%	☆
P8.37	Output over current detection delay time	0.00s~600.00s	0.00s	☆
P8.38	Any current reaching 1	0.0%~300.0% (motor rated current)	100.0%	☆
P8.39	Any current reaching 1 amplitude	0.0%~300.0% (motor rated current)	0.0%	☆
P8.40	Any current reaching 2	0.0%~300.0% (motor rated current)	100.0%	☆
P8.41	Any current reaching 2 amplitude	0.0%~300.0% (motor rated current)	0.0%	☆
P8.42	Timing function	0: Disabled 1: Enable	0	☆
P8.43	Timing running time option	0: P8.44 set 1: FIV 2: FIC 3: Reserved 100% of analog input corresponds to the value of P8.44	0	☆
P8.44	Timing duration	0.0Min~6500.0Min	0.0Min	☆
P8.45	FIV input voltage lower limit	0.00V~P8.46	3.10V	☆
P8.46	FIV input voltage upper limit	P8.45~11.00V	6.80V	☆
P8.47	Module temperature threshold	0℃~100℃	75℃	☆
P8.48	Cooling fan control	0: Fan working during running 1: Fan working continuously	0	☆
P8.49	Wake up frequency	Dormant frequency (P8.51) ~ maximum frequency (P0.12)	0.00Hz	☆
P8.50	Wake up delay time	0.0s~6500.0s	0.0s	☆

P8.51	Dormant frequency	0.00Hz~wake up frequency (P8.49)	0.00Hz	☆
P8.52	Dormant delay time	0.0s~6500.0s	0.0s	☆
P8.53	Current running time reached	0.0Min~6500.0Min	0.0Min	☆
P8.55	Factory parameter	0~200%	100%	☆
P8.56	Factory parameter	0~1	0	☆
Group P9 : Fault and Protection				
P9.00	Motor overload protection selection	0: Disabled 1: Enabled	1	☆
P9.01	Motor overload protection gain	0.20~10.00	1.00	☆
P9.02	Motor overload warning coefficient	50%~100%	80%	☆
P9.03	Over voltage stall gain	0~100	50	☆
P9.04	Over voltage stall protective voltage	120%~150%	130%	☆
P9.05	Over current stall gain	0~100	20	☆
P9.06	Over current stall protective current	100%~200%	150%	☆
P9.07	Short-circuit to ground upon power-on	0: Disabled 1: Enabled	1	☆
P9.09	Fault auto reset times	0~20	0	☆
P9.10	YO action during fault auto reset	0: Not act 1: Act	0	☆
P9.11	Time interval of fault auto reset	0.1s~100.0s	1.0s	☆
P9.12	Input lost phase protection option	0: Disabled 1: Enabled	1	☆
P9.13	Output lost phase protection option	0: Disabled 1: Enabled	1	☆
P9.14	1 st fault type	0: No fault 1: Reserved 2: Over current during acceleration 3: Over current during deceleration 4: Over current at constant speed 5: Over voltage during acceleration 6: Over voltage during deceleration 7: Over voltage at constant speed 8: Buffer resistance overload 9: Under voltage 10: Inverter overload 11: Motor overload	—	●

		12: Input lost phase		
P9.15	2 nd fault type	13: Output lost phase 14: Module overheat 15: External equipment fault 16: Communication fault 17: Contactor fault 18: Current detection fault 19: Motor auto-tuning fault 20: Encoder/PG card fault 21: EEPROM read-write fault 22: Inverter hardware fault	—	•
P9.16	3 rd (latest) fault type	23: Motor short-circuit to ground 24: Reserved 25: Reserved 26: Running time reached 27: User-defined fault 1 28: User-defined fault2 29: Accumulative running time reached 30: Load becoming 0 31: PID feedback lost during running 40: With-wave current limit overtime 41: Switch motor when running 42: Big deviation at speed 43: Motor over speed 45: Motor over heat 51: The initial position fault	—	•
P9.17	Frequency upon 3 rd (latest) fault	—	—	•
P9.18	Current upon 3 rd (latest) fault	—	—	•
P9.19	Bus voltage upon 3 rd (latest) fault	—	—	•
P9.20	Input terminal status upon 3 rd (latest) fault	—	—	•
P9.21	Output terminal status upon 3 rd (latest) fault	—	—	•
P9.22	Inverter status upon 3 rd (latest) fault	—	—	•
P9.23	Power-on time upon 3 rd (latest) fault	—	—	•
P9.24	Running time upon 3 rd (latest) fault	—	—	•
P9.27	Frequency upon 2 nd	—	—	•

	fault			
P9.28	Current upon 2 nd fault	—	—	●
P9.29	Bus voltage upon 2 nd fault	—	—	●
P9.30	Input terminal status upon 2 nd fault	—	—	●
P9.31	Output terminal status upon 2 nd fault	—	—	●
P9.32	Inverter status upon 2 nd fault	—	—	●
P9.33	Power-on time upon 2 nd fault	—	—	●
P9.34	Running time upon 2 nd fault	—	—	●
P9.37	Frequency upon 1 st fault	—	—	●
P9.38	Current upon 1 st fault	—	—	●
P9.39	Bus voltage upon 1 st fault	—	—	●
P9.40	Input terminal status upon 1 st fault	—	—	●
P9.41	Output terminal status upon 1 st fault	—	—	●
P9.42	Inverter status upon 1 st fault	—	—	●
P9.43	Power-on time upon 1 st fault	—	—	●
P9.44	Running time upon 1 st fault	—	—	●
P9.47	Fault protection action selection 1	Unit's digit : motor overload (11) 0: Coast to stop 1: Stop according to the stop mode 2: Continue to run Ten's digit : Input lost phase (12) Hundred's digit: output lost phase (13) Thousand's digit: External equipment fault (15) Ten thousand's digit: Communication fault (16)	00000	☆
P9.48	Fault protection action selection 2	Unit's digit: Encoder /PG card fault (20) 0: Coast to stop Ten's digit: function code	00000	☆

		read-write fault (21) 0: Coast to stop 1: Stop according to the stop mode Hundred's digit: reserved Thousand's digit: motor overheat (25) Ten thousand's digit: running time reached (26)		
P9.49	Fault protection action selection 3	Unit's digit: user-defined fault 1 (27) 0: Coast to stop 1: Stop according to the stop mode 2: Continue to run Ten's digit: user-defined fault 2 (28) 0: Coast to stop 1: Stop according to the stop mode 2: Continue to run Hundred's digit: Accumulative power-on time reached (29) 0: Coast to stop 1: Stop according to the stop mode 2: Continue to run Thousand's digit: Load becoming 0 (30) 0: Coast to stop 1: Deceleration to stop 2: Continue to run at 7% of rated motor frequency and resume to the set frequency if the load recovers Ten thousand's digit: PID feedback loss of running (31) 0: Coast to stop 1: Stop according to the stop mode 2: Continue to run	00000	☆
P9.50	Fault protection action selection 4	Unit's digit : Big deviation of speed (42) 0: Coast to stop	00000	☆

		1: Stop according to the stop mode 2: Continue to run Ten's digit : motor over speed (43) Hundred's digit: Initial position fault (51)		
P9.54	Frequency selection for continuing to run	0: Current running frequency 1: Set frequency 2: Frequency upper limit 3: Frequency lower limit 4: Back up frequency upon abnormality	0	☆
P9.55	Back up frequency upon abnormality	60.0%~100.0% (100.0% accordingly maximum frequency P0.12)	100.0%	☆
P9.56	Reserved			☆
P9.57	Reserved			☆
P9.58	Reserved			☆
P9.59	Action selection at instantaneous power failure	0: Invalid 1: Decelerate 2: Decelerate to stop	0	☆
P9.60	Reserved	P9.62~100.0%	9.0%	☆
P9.61	Voltage rally judging time at instantaneous power failure	0.00s~100.00s	0.50s	☆
P9.62	Action judging voltage at instantaneous power failure	60.0%~100.0% (standard bus voltage)	80.0%	☆
P9.63	Protection upon load becoming 0	0: Disabled 1: Enabled	0	☆
P9.64	Detection level of load becoming 0	0.0~100.0%	10.0%	☆
P9.65	Detection time of load becoming 0	0.0~60.0s	1.0s	☆
P9.67	Detection value of over-speed	0~20Hz	15	☆
P9.68	Detection time of over-speed	0.0s~6.0s	0.01s	☆
P9.69	Detection value of big speed deviation	0.0%~50.0% (maximum)	20.0%	☆
P9.70	Detection time of	0.0s~60.0s	5.0s	☆

	big speed deviation			
P9.71	UVW encoder fault	0 (OFF) , 1 (ON)	1	
P9.72	Fault protection action selection 5	Unit's digit: Identify fault of initial position angle (51) 0: Continue to run 1: Coast to stop Ten's digit : On load tuning fault (19) 0: Continue to run 1: Coast to stop	11	
Group PA PID Function				
PA.00	PID setting source	0: PA.01setting 1: FIV 2: FIC 3: Reserved 4: PULSE setting (X5) 5: Communication setting 6: Multi-reference	0	☆
PA.01	PID digital setting	0.0%~100.0%	50.0%	☆
PA.02	PID feedback source	0: FIV 1: FIC 2: Reserved 3: FIV-FIC 4: PULSE setting (X5) 5: Communication setting 6: FIV+FIC 7: MAX (FIV , FIC) 8: MIN (FIV , FIC)	0	☆
PA.03	PID action direction	0: Forward action 1: Reverse action	0	☆
PA.04	PID setting feedback range	0~65535	1000	☆
PA.05	Proportional gain Kp1	0.0~100.0	20.0	☆
PA.06	Integral timeTi1	0.01s~10.00s	2.00s	☆
PA.07	Differential time Td1	0.000s~10.000s	0.000s	☆
PA.08	Cut-off frequency of PID reverse rotation	0.00~maximum frequency	2.00Hz	☆
PA.09	PID deviation limit	0.0%~100.0%	0.0%	☆
PA.10	PID differential limit	0.00%~100.00%	0.10%	☆
PA.11	PID setting change	0.00~650.00s	0.00s	☆

	time			
PA.12	PID feedback filter time	0.00~60.00s	0.00s	☆
PA.13	PID output feedback filter time	0.00~60.00s	0.00s	☆
PA.14	Reserved	-	-	☆
PA.15	Proportional gain KP1	0.0~100.0	20.0	☆
PA.16	Integral time Ti2	0.01s~10.00s	2.00s	☆
PA.17	Differential time Td2	0.000s~10.000s	0.000s	☆
PA.18	PID parameter switch over condition	0: No switch over 1: Switch over via X 2: Automatic switch over based on deviation	0	☆
PA.19	PID parameter switch over deviation 1	0.0%~PA.20	20.0%	☆
PA.20	PID parameter switch over deviation 2	PA.19~100.0%	80.0%	☆
PA.21	PID initial value	0.0%~100.0%	0.0%	☆
PA.22	PID initial value holding time	0.00~650.00s	0.00s	☆
PA.23	Maximum deviation between two PID outputs in forward	0.00%~100.00%	1.00%	☆
PA.24	Maximum deviation between two PID outputs in reverse	0.00%~100.00%	1.00%	☆
PA.25	PID integral property	Unit's digit: Integral separated 0: Invalid 1: Valid Ten's digit: Whether to stop integral operation when the output reaches 0: Continue integral operation 1: Stop integral operation	00	☆
PA.26	Detection value of PID feedback loss	0.0%: No judging feedback loss 0.1%~100.0%	0.0%	☆
PA.27	Detection time of PID feedback loss	0.0s~20.0s	0.0s	☆
PA.28	PID operation at stop	0: No PID operation at stop 1: PID operation at stop	0	☆

Group PB Swing Frequency, Fixed Length and Count				
PB.00	Swing frequency setting mode	0: Relative to the central frequency 1: Relative to the maximum frequency	0	☆
PB.01	Swing frequency amplitude	0.0%~100.0%	0.0%	☆
PB.02	Jump frequency amplitude	0.0%~50.0%	0.0%	☆
PB.03	Swing frequency cycle	0.1s~3000.0s	10.0s	☆
PB.04	Triangular wave rising time coefficient	0.1%~100.0%	50.0%	☆
PB.05	Set length	0m~65535m	1000m	☆
PB.06	Actual length	0m~65535m	0m	☆
PB.07	Number of pulses per meter	0.1~6553.5	100.0	☆
PB.08	Set count value	1~65535	1000	☆
PB.09	Designated count value	1~65535	1000	☆
Group PC Multi-Reference and Simple PLC Function				
PC.00	Multi-reference 0	-100.0%~100.0%	0.0%	☆
PC.01	Multi-reference 1	-100.0%~100.0%	0.0%	☆
PC.02	Multi-reference 2	-100.0%~100.0%	0.0%	☆
PC.03	Multi-reference 3	-100.0%~100.0%	0.0%	☆
PC.04	Multi-reference 4	-100.0%~100.0%	0.0%	☆
PC.05	Multi-reference 5	-100.0%~100.0%	0.0%	☆
PC.06	Multi-reference 6	-100.0%~100.0%	0.0%	☆
PC.07	Multi-reference 7	-100.0%~100.0%	0.0%	☆
PC.08	Multi-reference 8	-100.0%~100.0%	0.0%	☆
PC.09	Multi-reference 9	-100.0%~100.0%	0.0%	☆
PC.10	Multi-reference 10	-100.0%~100.0%	0.0%	☆
PC.11	Multi-reference 11	-100.0%~100.0%	0.0%	☆
PC.12	Multi-reference 12	-100.0%~100.0%	0.0%	☆
PC.13	Multi-reference 13	-100.0%~100.0%	0.0%	☆
PC.14	Multi-reference 14	-100.0%~100.0%	0.0%	☆
PC.15	Multi-reference 15	-100.0%~100.0%	0.0%	☆
PC.16	Simple PLC running function	0: Stop after the AC drive runs one cycle 1: Keep final values after the AC	0	☆

		drive runs one cycle 2: Repeat after the AC drive runs one cycle		
PC.17	Simple PLC retentive selection	Unit's digit: Retentive upon power failure 0: No 1: Yes Ten's digit: Retentive upon stop 0: No 1: Yes	00	☆
PC.20	Running time of simple PLC reference 1	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.21	Acceleration/deceleration time of simple PLC reference 1	0~3	0	☆
PC.22	Running time of simple PLC reference 2	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.23	Acceleration/deceleration time of simple PLC reference 2	0~3	0	☆
PC.24	Running time of simple PLC reference 3	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.25	Acceleration/deceleration time of simple PLC reference 3	0~3	0	☆
PC.26	Running time of simple PLC reference 4	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.27	Acceleration/deceleration time of simple PLC reference 4	0~3	0	☆
PC.28	Running time of simple PLC reference 5	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.29	Acceleration/deceleration time of simple PLC	0~3	0	☆

	reference 5			
PC.30	Running time of simple PLC reference 6	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.31	Acceleration/deceleration time of simple PLC reference 6	0~3	0	☆
PC.32	Running time of simple PLC reference 7	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.33	Acceleration/deceleration time of simple PLC reference 7	0~3	0	☆
PC.34	Running time of simple PLC reference 8	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.35	Acceleration/deceleration time of simple PLC reference 8	0~3	0	☆
PC.36	Running time of simple PLC reference 9	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.37	Acceleration/deceleration time of simple PLC reference 9	0~3	0	☆
PC.38	Running time of simple PLC reference 10	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.39	Acceleration/deceleration time of simple PLC reference 10	0~3	0	☆
PC.40	Running time of simple PLC reference 11	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.41	Acceleration/deceleration time of simple PLC reference 11	0~3	0	☆
PC.42	Running time of	0.0s (h) ~6500.0s (h)	0.0s (h)	☆

	simple PLC reference 12			
PC.43	Acceleration/deceleration time of simple PLC reference 12	0~3	0	☆
PC.44	Running time of simple PLC reference 13	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.45	Acceleration/deceleration time of simple PLC reference 13	0~3	0	☆
PC.46	Running time of simple PLC reference 14	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.47	Acceleration/deceleration time of simple PLC reference 14	0~3	0	☆
PC.48	Running time of simple PLC reference 15	0.0s (h) ~6500.0s (h)	0.0s (h)	☆
PC.49	Acceleration/deceleration time of simple PLC reference 15	0~3	0	☆
PC.50	Time unit of simple PLC	0: s (秒) 1: h (小时)	0	☆
PC.51	Reference 0 source	0: set by PC.00 1: FIV 2: FIC 3: Reserved 4: PULSE setting 5: PID 6: Set by present frequency (P0.10), modified via terminal UP/DOWN	0	☆
Group PD Communication parameters				
PD.00	Baud rate	Units' digit: MODBUS 0: 300BPS 1: 600BPS		

		2: 1200BPS 3: 2400BPS 4: 4800BPS 5: 9600BPS 6: 19200BPS 7: 38400BPS 8: 57600BPS 9: 115200BPS	0005	☆
PD.01	The data format	0: The factory value (8-N-2) 1: Even-parity (8-E-1) 2: Odd parity (8-O-1) 3: 8-N-1	0	☆
PD.02	The machine address	1~247, 0 is the broadcast address	1	☆
PD.03	Response latency	0ms~20ms	2	☆
PD.04	Communication timeout	0.0 (invalid) , 0.1s~60.0s	0.0	☆
PD.05	Communication protocol selection	Unit's digit: MODBUS 0: Non standard MODBUS protocol 1: The standard MODBUS protocol	00	☆
PD.06	Read the current resolution	0: 0.01A 1: 0.1A	1	☆
Group PP User-Defined Function Codes				
PP.00	User password	0~65535	0	☆
PP.01	Restore default settings	0: No operation 01: Restore factory settings except motor parameters	0	★
Group L5 Control Optimization parameters				
L5.00	DPWM switch over frequency upper limit	0.00Hz~100.00Hz	12.00Hz	☆
L5.01	PWM modulation mode	0: Asynchronous modulation 1: Synchronous modulation	0	☆
L5.02	Dead compensation way	0: No compensation 1: compensation mode 1 2: compensation mode 2	1	☆

L5.03	Random PWM depth	0: Random PWM invalid 1~10: PWM carrier frequency random depth	0	☆
L5.04	Fast current limiting open	0: Not open 1: Open	1	☆
L5.05	Current detection compensation	0~100	5	☆
L5.06	Under voltage setting	60.0%~140.0%	100.0%	☆
L5.07	No PG optimization mode selection	0: No optimization 1: optimization 1 2: optimization 2	1	☆
L5.08	Dead time adjustment	100%~200%	150%	☆
L5.09	Over voltage point set	200.0V~2500.0V		
Group L6 FIV/FIC Curve setting				
L6.00	FI curve 4 minimum input	-10.00V~C6.02	0.00V	☆
L6.01	Corresponding setting of FI curves 4 minimum input	-100.0%~+100.0%	0.0%	☆
L6.02	FI curve 4 inflexion 1 input	C6.00~C6.04	3.00V	☆
L6.03	Corresponding setting of FI curve 4 inflexion 1 input	-100.0%~+100.0%	30.0%	☆
L6.04	FI curve 4 inflexion 2 input	L6.02~L6.06	6.00V	☆
L6.05	Corresponding setting of FI curve 4 inflexion 2 input	-100.0%~+100.0%	60.0%	☆
L6.06	FI curve 4 maximum input	L6.06~+10.00V	10.00V	☆
L6.07	Corresponding setting of FI curve 4 maximum input	-100.0%~+100.0%	100.0%	☆
L6.08	FI curve 5 minimum input	-10.00V~L6.10	-10.00V	☆
L6.09	Corresponding setting of FI curve 5 minimum input	-100.0%~+100.0%	-100.0%	☆

L6.10	FI curve 5 inflexion 1 input	L6.08~L6.12	-3.00V	☆
L6.11	Corresponding setting of FI curve 5 inflexion 1 input	-100.0%~+100.0%	-30.0%	☆
L6.12	FI curve 5 inflexion 2 input	L6.10~L6.14	3.00V	☆
L6.13	Corresponding setting of FI curve 5 inflexion 2 input	-100.0%~+100.0%	30.0%	☆
L6.14	FI curve 5 maximum input	L6.12~+10.00V	10.00V	☆
L6.15	Corresponding setting of FI curve 5 maximum input	-100.0%~+100.0%	100.0%	☆
L6.24	Jump point of FIV input corresponding setting	-100.0%~100.0%	0.0%	☆
L6.25	Jump amplitude of FIV input corresponding setting	0.0%~100.0%	0.5%	☆
L6.26	Jump point of FIC input corresponding setting	-100.0%~100.0%	0.0%	☆
L6.27	Jump amplitude of FIC input corresponding setting	0.0%~100.0%	0.5%	☆
L6.28	Reserved			
L6.29	Reserved			
Group LC FIFO Correction				
LC.00	FIV measured voltage 1	-10.00V~10.00V	Factory-corrected	☆
LC.01	FIV displayed voltage 1	-10.00V~10.00V	Factory-corrected	☆
LC.02	FIV measured voltage 2	-10.00V~10.00V	Factory-corrected	☆
LC.03	FIV displayed voltage 2	-10.00V~10.00V	Factory-corrected	☆
LC.04	FIC measured	-10.00V~10.00V	Factory-cor	☆

	voltage 1		rected	
LC.05	FIC displayed voltage 1	-10.00V~10.00V	Factory-corrected	☆
LC.06	FIC measured voltage 2	-10.00V~10.00V	Factory-corrected	☆
LC.07	FIC displayed voltage 2	-10.00V~10.00V	Factory-corrected	☆
LC.08	Reserved			
LC.09	Reserved			
LC.10	Reserved			
LC.11	Reserved			
LC.12	FOV target voltage 1	-10.00V~10.00V	Factory-corrected	☆
LC.13	FOV measured voltage 1	-10.00V~10.00V	Factory-corrected	☆
LC.14	FOV target voltage 2	-10.00V~10.00V	Factory-corrected	☆
LC.15	FOV measured voltage 2	-10.00V~10.00V	Factory-corrected	☆
LC.16	FOC target voltage 1	-10.00V~10.00V	Factory-corrected	☆
LC.17	FOC measured voltage 1	-10.00V~10.00V	Factory-corrected	☆
LC.18	FOC target voltage 2	-10.00V~10.00V	Factory-corrected	☆
LC.19	FOC measured voltage 2	-10.00V~10.00V	Factory-corrected	☆

Group D0: Monitoring Parameter		
Function Code	Parameter name	Unit
D0.00	Running frequency (Hz)	0.01Hz
D0.01	Set frequency (Hz)	0.01Hz
D0.02	Bus voltage (V)	0.1V
D0.03	Output voltage (V)	1V
D0.04	Output current (A)	0.01A
D0.05	Output power (kW)	0.1kW
D0.06	Output torque (%)	0.1%
D0.07	X input state	1
D0.08	Y output state	1
D0.09	FIV voltage (V)	0.01V

D0.10	FIC voltage (V)	0.01V
D0.11	Reserved	
D0.12	Count value	1
D0.13	Length	1
D0.14	Load speed	1
D0.15	PID setting	1
D0.16	PID feedback	1
D0.17	PLC stage	1
D0.18	Pulse input frequency (Hz)	0.01kHz
D0.19	Feedback speed (Unit0.1Hz)	0.1Hz
D0.20	Remaining running time	0.1Min
D0.21	FIV voltage before correction	0.001V
D0.22	FIC voltage before correction	0.001V
D0.23	Reserved	
D0.24	Linear speed	1m/Min
D0.25	On the current time	1Min
D0.26	The current running time	0.1Min
D0.27	Pulse input frequency	1Hz
D0.28	Communication setting value	0.01%
D0.29	The encoder feedback speed	0.01Hz
D0.30	Main frequency X	0.01Hz
D0.31	Auxiliary frequency Y	0.01Hz
D0.32	View any memory address values	1
D0.33	Synchro rotor position	0.1°
D0.34	The motor temperature value	1℃
D0.35	Target torque (%)	0.1%
D0.36	Resolver position	1
D0.37	Power factor angle	0.1°
D0.38	ABZ position	1
D0.39	Target voltage upon V/F separation	1V
D0.40	Output voltage upon V/F separation	1V
D0.41	X input state display	1
D0.42	Y input state display	1
D0.43	X Function stage display 1 (Function01-Function40)	1
D0.44	X Function stage display 2 (Function41-Function80)	1
D0.59	Set frequency (%)	0.01%
D0.60	Running frequency (%)	0.01%
D0.61	Frequency inverter stage	1

The fault code table		
Function code	Name	Remark
OC	Inverter unit protection	
OC1	Over current during acceleration	
OC2	Over current during deceleration	
OC3	Over current at constant speed	
OU1	Over voltage during acceleration	
OU2	Over voltage during deceleration	
OU3	Over voltage at constant speed	
POFF	Control power supply fault	
LU	Lack of voltage	
OL2	AC drive overload	
OL1	Motor overload	
LI	Power input phase loss	
LO	Power output phase loss	
OH	Module overheat	
EF	External equipment fault	
CE	Communication fault	
IE	Current detection fault	
TE	Motor auto-tuning fault	
EEP	EEPROM read-write fault	
OUOC	AC drive hardware fault	
GND	Short circuit to ground fault	
END1	Accumulative running time reached	
END2	Accumulative power-on time reached	
LOAD	Load becoming 0	
PIDE	PID feedback loss during running fault	
CBC	Pulse-by-pulse current limit fault	
ESP	Too large speed deviation fault	
oSP	Motor over-speed fault	
PG	PG Card fault	

If PP-00 is set to a non-zero number, parameter protection is enabled. You must enter the correct user password to enter the menu. To cancel the password protection function, enter with password and set PP.00 to 0. Parameters menu the user customizes are not protected by password. Group P and Group L are the the basic function parameters, Group D is to monitor the function parameters.

The symbols in the function code table are described as follows:

“☆”: The parameter can be modified when the AC drive is in the either stop

or running state.

“★”: The parameter cannot be modified when the AC drive is in the running state.

“●”: The parameter is the actually measured value and cannot be modified.

“*”: The parameter is factory parameter and can be set only by the manufacturer. Users are not allowed.