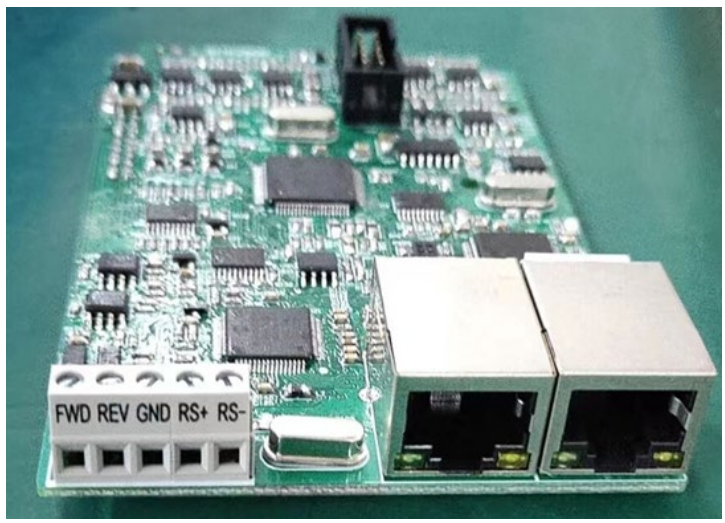
INTEK

AX200 настройка управления по EtherCAT



Распиновка：

FWD REV GND RS+ RS-

Необходимые параметры: После восстановления заводских настроек для управления по протоколу EtherCat необходимо изменить следующие параметры:

Параметр	Значение	Описание
P0.02	2	Источник задания - сеть
P0.4	9	Настройки сети
P0.10	100.00HZ	Максимальная частота
PD.00	5005	Порт
PD.02	1	Адрес

Для управления необходимо задать нужную частоту в ячейку 0x607A. Далее необходимо задать нужную команду в слово управления 0x6040.

При этом очень важно работать со словом управления не как с набором битов, а как с простой переменной. То есть просто посылать числа, соответствующие необходимой команде в ячейку 0x6040. А именно:

Слово управления	**Значение**	**Команда**
0x6040	1	Пуск вперёд
	2	Пуск назад
	5	Останов выбегом
	6	Останов с замедлением
	7	Сброс ошибки

Например, при работающем ПЧ, для остановки с заданным замедлением необходимо послать число 6 в ячейку слова управления 0x6040.

AX200 EtherCAT List of function parameters

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, Group C are 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 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.

When communicating with EtherCAT, the data type of all parameters is UINT16. The index address and sub-index can query the following parameters list, all indexes and sub-indexes are hexadecimal data.

Standard Function Parameters

Function Code	Parameter Name	Setting range	Default	Property	Index
Group P0: Standard Function Parameters					**0x2000**
P0.00	G/P type display	1：G type (constant torque load) 2：P type (variable torque load e.g. fan and pump)	Model dependent	●	Subindex：01h
P0.01	Control mode selection	0：No PG(speed sensor) vector control 1：With PG(speed sensor) vector control 2：V/F control	0	★	Subindex：02h
P0.02	Command source selection	0：Operation panel control (LED off） 1：Terminal control (LED on) 2：Communication control (LED linking)	2	☆	Subindex：03h
P0.03	Frequency source superposition selection	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" Ten's digit (X and Y operation) 0：X+Y 1：X-Y 2：Both the maximum 3：Both the minimum	00	☆	Subindex：04h

P0.04	Main frequency source X selection	0：Digital setting (P0.10 preset frequency, can modify the UP/DOWN, power lost don't memory) 1：Digital setting (P0.10 preset frequency, can modify the UP/DOWN, power lost memory) 2, 3, 4, 5: Reserved 6：Multistage instruction 7：Simple PLC 8：PID 9：Communications given	9	★	Subindex：05h
P0.05	Auxiliary frequency source Y selection	The same as P0.04 (Main frequency source X selection)	0	★	Subindex：06h
P0.06	Auxiliary frequency source superposition Y range selection	0：Relative to the maximum frequency 1：Relative to the main frequency source X	0	☆	Subindex：07h
P0.07	Auxiliary frequency source superposition Y range	0%～150%	100%	☆	Subindex：08h
P0.08	Acceleration time 1	0.00s～65000s	Model dependent	☆	Subindex：09h
P0.09	Deceleration time1	0.00s～65000s	Model dependent	☆	Subindex：0Ah
P0.10	Frequency preset	0.00Hz～maximum frequency（P0.12）	50.00Hz	☆	Subindex：0Bh
P0.11	Rotation direction	0：Same direction 1：Reverse direction	0	☆	Subindex：0Ch
P0.12	Maximum frequency	50.00Hz～320.00Hz	50.00Hz	★	Subindex：0Dh
P0.13	Upper limit frequency source	0：P0.12 setting 1, 2, 3, 4：Reserved 5：Communication given	0	★	Subindex：0Eh
P0.14	Upper limit frequency	Frequency lower limit P0.16～Maximum frequency P0.12	50.00Hz	☆	Subindex：0Fh
P0.15	Upper limit frequency offset	0.00Hz～maximum frequency P0.12	0.00Hz	☆	Subindex：10h
P0.16	Frequency lower limit	0.00Hz～Upper limit frequency P0.14	0.00Hz	☆	Subindex：11h
P0.17	Carrier frequency	0.5kHz～16.0kHz	Model dependent	☆	Subindex：12h
P0.18	Carrier frequency adjustment with temperature	0：No 1：Yes	1	☆	Subindex：13h
P0.19	Acceleration/ Deceleration time unit	0：1 s 1：0.1 s 2：0.01 s	1	★	Subindex：14h
P0.21	Frequency offset of auxiliary frequency source for X and Y operation	0.00Hz～Maximum frequency	0.00Hz	☆	Subindex：16h

P0.22	Frequency command resolution	1：0.1Hz 2：0.01Hz	2	★	Subindex：17h
P0.23	Retentive of digital setting frequency upon power	0:Not retentive 1:Retentive	0	☆	Subindex：18h
P0.24	Acceleration/ Deceleration time base frequency	0:Maximum frequency (P0.12） 1:Set frequency 2:100Hz	0	★	Subindex：19h
P0.25	Base frequency for UP/DOWN modification during running	0：Running frequency 1：Set frequency	0	★	Subindex：1Ah
P0.26	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, 3, 4, 5: Reserved 6:Multi-Reference 7:Simple PLC 8:PID 9:Communication setting Ten's digit: Binding terminal command to frequency source Hundred's digit: Binding communication command to frequency source Thousand’s digit: Auto operate binding to frequency source	0000	☆	Subindex：1Bh
Group P1:Start/Stop Control					**0x2001**
P1.00	Start mode	0：direct start 1：Rotational speed tracking restart 2：Pre-excited start (asynchronous motor)	0	☆	Subindex：01h
P1.01	Rotational speed tracking mode	0：From frequency at stop 1：From zero speed 2：From maximum frequency	0	★	Subindex：02h
P1.02	Rotational speed tracking speed	1～100	20	☆	Subindex：03h
P1.03	Startup frequency	0.00Hz～10.00Hz	0.00Hz	☆	Subindex：04h
P1.04	Startup frequency holding time	0.0s～100.0s	0.0s	★	Subindex：05h
P1.05	Startup DC braking current/Pre-excited current	0%～100%	0%	★	Subindex：06h
P1.06	Startup DC braking time/Pre-excited time	0.0s～100.0s	0.0s	★	Subindex：07h

P1.07	Acceleration/ Deceleration mode	0：Linear acceleration/deceleration 1：S-curve acceleration/deceleration A 2：S-curve acceleration/deceleration B	0	★	Subindex：08h
P1.08	Time proportion of S-curve start	0.0%～（100.0%-P1.09）	30.0%	★	Subindex：09h
P1.09	Time proportion of S-curve end	0.0%～（100.0%-P1.08）	30.0%	★	Subindex：0Ah
P1.10	Stop mode	0：Decelerate to stop 1：Coast to stop	0	☆	Subindex：0Bh
P1.11	Initial frequency of stop DC braking	0.00Hz～Maximum frequency	0.00Hz	☆	Subindex：0Ch
P1.12	Waiting time of stop DC braking	0.0s～100.0s	0.0s	☆	Subindex：0Dh
P1.13	Stop DC braking current	0%～100%	0%	☆	Subindex：0Eh
P1.14	Stop DC braking time	0.0s～100.0s	0.0s	☆	Subindex：0Fh
P1.15	Braking use ratio	0%～100%	100%	☆	Subindex：10h
Group P2: Motor Parameter					**0x2002**
P2.00	Reserved		0	★	Subindex：01h
P2.01	Rated motor power	0.1kW～1000.0kW	Model dependent	★	Subindex：02h
P2.02	Rated motor voltage	1V～2000V	Model dependent	★	Subindex：03h
P2.03	Rated motor current	0.01A～655.35A （AC drive power <=55kW） 0.1A～6553.5A （AC drive power >55kW）	Model dependent	★	Subindex：04h
P2.04	Rated motor frequency	0.01Hz～Maximum frequency	Model dependent	★	Subindex：05h
P2.05	Rated motor rotational speed	1rpm～65535rpm	Model dependent	★	Subindex：06h
P2.06	Stator resistance (asynchronous motor)	0.001Ω～65.535Ω （AC drive power<=55kW） 0.0001Ω～6.5535Ω （AC drive power>55kW）	Auto-tuning	★	Subindex：07h
P2.07	Rotor resistance (asynchronous motor)	0.001Ω～65.535Ω （AC drive power<=55kW） 0.0001Ω～6.5535Ω （AC drive power>55kW）	Auto-tuning	★	Subindex：08h
P2.08	Leakage inductive reactance (asynchronous motor)	0.01mH～655.35mH （AC drive power<=55kW） 0.001mH～65.535mH （AC drive power>55kW）	Auto-tuning	★	Subindex：09h
P2.09	Mutual inductive reactance (asynchronous motor)	0.1mH～6553.5mH （AC drive power<=55kW） 0.01mH～655.35mH （AC drive power>55kW）	Auto-tuning	★	Subindex：0Ah

P2.10	No-load current (synchronous motor)	0.01A～P2.03（AC drive power<=55kW） 0.1A～P2.03（AC drive power>55kW）	Auto-tuning	★	Subindex：0Bh
P2.37	Auto-tuning selection	0：No operation 1:Asynchronous motor static auto-tuning 2:Asynchronous motor complete auto-tuning	0	★	Subindex：26h
Group P3: Vector Control Parameters					**0x2003**
P3.00	Speed loop proportional gain 1	1～100	30	☆	Subindex：01h
P3.01	Speed loop integral time 1	0.01s～10.00s	0.50s	☆	Subindex：02h
P3.02	Switchover frequency 1	0.00～P3.05	5.00Hz	☆	Subindex：03h
P3.03	Speed loop proportional gain 2	1～100	20	☆	Subindex：04h
P3.04	Speed loop integral time 2	0.01s～10.00s	1.00s	☆	Subindex：05h
P3.05	Switchover frequency 2	P3.02～Maximum frequency	10.00Hz	☆	Subindex：06h
P3.06	Vector control slip gain	50%～200%	100%	☆	Subindex：07h
P3.07	Time constant of speed loop filter	0.000s～0.100s	0.000s	☆	Subindex：08h
P3.08	Vector control over-excitation gain	0～200	64	☆	Subindex：09h
P3.09	Torque upper limit source in speed control mode	0：P3.10 setting 5：Communication setting	0	☆	Subindex：0Ah
P3.10	Digital setting of torque upper limit in speed control mode	0.0%～200.0%	150.0%	☆	Subindex：0Bh
P3.13	Excitation adjustment proportional gain	0～60000	2000	☆	Subindex：0Ch
P3.14	Excitation adjustment integral gain	0～60000	1300	☆	Subindex：0Dh
P3.15	Torque adjustment proportional gain	0～60000	2000	☆	Subindex：0Eh
P3.16	Torque adjustment integral gain	0～60000	1300	☆	Subindex：0Fh
P3.17	Speed loop integral property	Unit's digit: integral separation 0：Disabled 1：Enabled	0	☆	Subindex：10h
P3.18	Field weakening mode of synchronous motor	0: No field weakening 1:Direct calculation 2: Automatic calculation	1	☆	Subindex：11h
P3.19	Field weakening depth of synchronous motor	50%～500%	100%	☆	Subindex：12h

P3.20	Maximum field weakening current	1%～300%	50%	☆	Subindex：13h
P3.21	Field weakening automatic adjustment gain	10%～500%	100%	☆	Subindex：14h
P3.22	Field weakening integral multiple	2～10	2	☆	Subindex：15h
Group P4: V/F Control Parameters					**0x2004**
P4.00	V/F curve setting	0：Linear V/F 1：Multi-point 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：V/F complete separation 11：V/F half separation	0	★	Subindex：01h
P4.01	Torque boost	0.0%：（Automatic torque boost） 0.1%～30.0%	Model dependent	☆	Subindex：02h
P4.02	Cut-off frequency of torque boost	0.00Hz～Maximum frequency	50.00Hz	★	Subindex：03h
P4.03	Multi-point V/F frequency 1	0.00Hz～P4.05	0.00Hz	★	Subindex：04h
P4.04	Multi-point V/F voltage 1	0.0%～100.0%	0.0%	★	Subindex：05h
P4.05	Multi-point V/F frequency 2	P4.03～P4.07	0.00Hz	★	Subindex：06h
P4.06	Multi-point V/F voltage 2	0.0%～100.0%	0.0%	★	Subindex：07h
P4.07	Multi-point V/F frequency 3	P4.05～motor rated frequency（P1.04）	0.00Hz	★	Subindex：08h
P4.08	Multi-point V/F voltage 3	0.0%～100.0%	0.0%	★	Subindex：09h
P4.09	V/F slip compensation gain	0.0%～200.0%	0.0%	☆	Subindex：0Ah
P4.10	V/F over-excitation gain	0～200	64	☆	Subindex：0Bh
P4.11	V/F oscillation suppression gain	0～100	Model dependent	☆	Subindex：0Ch
P4.13	Voltage source for V/F separation	0：Digital setting（P4.14） 1, 2,3, 4：Reserved 5：Multi-Reference 6：Simple PLC 7：PID 8：Communication setting Note：100.0% corresponding to rated motor voltage	0	☆	Subindex：0Eh

P4.14	Voltage digital setting for V/F separation	0V～motor rated voltage	0V	☆	Subindex：0Fh
P4.15	Voltage rise time of V/F separation	0.0s～1000.0s It indicates the time for the voltage rising from 0 V to rated motor voltage.	0.0s	☆	Subindex：10h
Group P5: Input Terminals					**0x2005**
P5.00	FWD function selection	0：No function 1：Forward RUN（FWD） 2：Reverse RUN（REV） 3：Three-line control 4：Forward JOG（FJOG） 5：Reverse JOG（RJOG） 6：Terminal UP 7：Terminal DOWN 8：Coast to stop 9：Fault reset（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 acceleration/ deceleration time selection 17：Terminal 2 for acceleration/ deceleration time selection 18：Frequency source Switchover 19：UP and DOWN setting clear (terminal, operation panel) 20：Command source switchover terminal 21：Acceleration/Deceleration Prohibited 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：Reserved 31：Reserved 32：Immediate DC braking 33：Normally closed (NC) input of external fault	1	★	Subindex：01h
P5.01	REV function selection		4	★	Subindex：02h

		34：Frequency modification forbidden 35：Reverse PID action direction 36：External STOP terminal 1 37：Command source switchover terminal 2 38：PID integral pause 39：Switchover between main frequency source X and preset frequency 40：Switchover between auxiliary frequency source Y and preset frequency 41：Reserved 42：Reserved 43：PID parameter switchover 44：Reserved 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			
P5.10	S filter time	0.000s～1.000s	0.010s	☆	Subindex：0Bh
P5.35	FWD delay time	0.0s～3600.0s	0.0s	★	Subindex：24h
P5.36	REV delay time	0.0s～3600.0s	0.0s	★	Subindex：25h
P5.38	Terminal valid mode selection 1	0：High level valid 1：Low level valid Unit’s digit：FWD Ten’s digit：REV	00000	★	Subindex：27h
Group P7: Operation Panel and Display					**0x2007**
P7.02	STOP/RESET key function	0：STOP/RESET key enabled only in operation panel control 1：STOP/RESET key enabled in any operation mode	1	☆	Subindex：03h
P7.03	LED display running parameters 1	0000－FFFF Bit00: Running frequency 1 (Hz) Bit01: Setting 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	1F	☆	Subindex：04h

		Bit08: Reserved Bit09: Reserved Bit10: Reserved Bit11: Reserved Bit12: Count value Bit13: Length value Bit14: Load speed display Bit15: PID setting			
P7.04	LED display running parameters 2	0000 – FFFFH Bit00: PID feedback Bit01: PLC stage Bit02: Reserved Bit03: Running frequency 2 (Hz) Bit04: Remaining running time Bit05: Reserved Bit06: Reserved Bit07: Reserved Bit08: Linear speed Bit09: Current power-on time(Hour) Bit10: Current running time (Min) Bit11: Reserved Bit12: Communication setting value Bit13: Encoder speed feedback Bit14: Main frequency X display(Hz) Bit15:Auxiliary frequency Y display (Hz)	0	☆	Subindex：05h
P7.05	LED display stop parameters	0000 – FFFF Bit00: Set frequency (Hz) Bit01: Bus voltage (V) Bit02: X input status Bit03: Reserved Bit04: Reserved Bit05: Reserved Bit06: Reserved Bit07: Count value Bit08: Length value Bit09: PLC stage Bit10: Load speed Bit11: PID setting Bit12: Reserved	33	☆	Subindex：06h
P7.06	Load speed display coefficient	0.0001～6.5000	1.0000	☆	Subindex：07h
P7.07	Heatsink temperature of inverter	0.0℃～100.0℃	-	●	Subindex：08h
P7.08	Rectifier bridge heat sink temperature	0.0℃～100.0℃	-	●	Subindex：09h

P7.09	Accumulative running time	0h～65535h	-	●	Subindex：0Ah
P7.10	Reserved	-	-	●	Subindex：0Bh
P7.11	Software version	-	-	●	Subindex：0Ch
P7.12	Numbers of decimal places for load speed display	0：0 decimal place 1：1 decimal place 2：2 decimal places 3：3 decimal places	1	☆	Subindex：0Dh
P7.13	Accumulative power-on time	0h～65535h	-	●	Subindex：0Eh
P7.14	Accumulative power consumption	0kW～65535 kW	-	●	Subindex：0Fh
Group P8: Auxiliary Functions					**0x2008**
P8.00	JOG running frequency	0.00Hz～Maximum frequency	2.00Hz	☆	Subindex：01h
P8.01	JOG acceleration time	0.0s～6500.0s	20.0s	☆	Subindex：02h
P8.02	JOG deceleration time	0.0s～6500.0s	20.0s	☆	Subindex：03h
P8.03	Acceleration time 2	0.0s～6500.0s	Model dependent	☆	Subindex：04h
P8.04	Deceleration time 2	0.0s～6500.0s	Model dependent	☆	Subindex：05h
P8.05	Acceleration time 3	0.0s～6500.0s	Model dependent	☆	Subindex：06h
P8.06	Deceleration time 3	0.0s～6500.0s	Model dependent	☆	Subindex：07h
P8.07	Acceleration time 4	0.0s～6500.0s	Model dependent	☆	Subindex：08h
P8.08	Deceleration time 4	0.0s～6500.0s	Model dependent	☆	Subindex：09h
P8.09	Jump frequency 1	0.00Hz～Maximum frequency	0.00Hz	☆	Subindex：0Ah
P8.10	Jump frequency 2	0.00Hz～Maximum frequency	0.00Hz	☆	Subindex：0Bh
P8.11	Frequency jump amplitude	0.00Hz～Maximum frequency	0.01Hz	☆	Subindex：0Ch
P8.12	Forward/Reverse rotation dead-zone time	0.0s～3000.0s	0.0s	☆	Subindex：0Dh
P8.13	Reverse control	0：allow 1：forbidden	0	☆	Subindex：0Eh
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	☆	Subindex：0Fh
P8.15	Droop control	0.00Hz～10.00Hz	0.00Hz	☆	Subindex：10h
P8.16	Accumulative power-on time threshold	0h～65000h	0h	☆	Subindex：11h
P8.17	Accumulative running time threshold	0h～65000h	0h	☆	Subindex：12h

P8.18	Startup protection	0：No 1：Yes	0	☆	
P8.19	Frequency detection value（FDT1）	0.00Hz～Maximum frequency	50.00Hz	☆	Subindex：14h
P8.20	Frequency detection hysteresis（FDT1）	0.0%～100.0%（FDT1level）	5.0%	☆	Subindex：15h
P8.21	Detection range of frequency reached	0.0%～100.0%（Maximum frequency）	0.0%	☆	Subindex：16h
P8.22	Jump frequency during acceleration/ deceleration	0：Disabled 1：Enabled	0	☆	Subindex：17h
P8.25	Frequency switchover point between acceleration time 1 and acceleration time 2	0.00Hz～Maximum frequency	0.00Hz	☆	Subindex：1Ah
P8.26	Frequency switchover point between deceleration time 1 and deceleration time 2	0.00Hz～Maximum frequency	0.00Hz	☆	Subindex：1Bh
P8.27	Terminal JOG preferred	0：Disabled 1：Enabled	0	☆	Subindex：1Ch
P8.28	Frequency detection value（FDT2）	0.00Hz～Maximum frequency	50.00Hz	☆	Subindex：1Dh
P8.29	Frequency detection hysteresis（FDT2）	0.0%～100.0%（FDT2level）	5.0%	☆	Subindex：1Eh
P8.30	Any frequency reaching detection value 1	0.00Hz～Maximum frequency	50.00Hz	☆	Subindex：1Fh
P8.31	Any frequency reaching detection amplitude 1	0.0%～100.0%（Maximum frequency）	0.0%	☆	Subindex：20h
P8.32	Any frequency reaching detection value 2	0.00Hz～Maximum frequency	50.00Hz	☆	Subindex：21h
P8.33	Any frequency reaching detection amplitude 2	0.0%～100.0%（Maximum frequency）	0.0%	☆	Subindex：22h
P8.34	Zero current detection level	0.0%～300.0% 100.0% corresponding to rated motor current	5.0%	☆	Subindex：23h
P8.35	Zero current detection delay time	0.01s～600.00s	0.10s	☆	Subindex：24h
P8.36	Output over-current threshold	0.0%（No detection） 0.1%～300.0%（Rated motor current）	200.0%	☆	Subindex：25h
P8.37	Output over-current detection delay time	0.00s～600.00s	0.00s	☆	Subindex：26h
P8.38	Any current reaching 1	0.0%～300.0%（Rated motor current）	100.0%	☆	Subindex：27h

P8.39	Any current reaching 1 amplitude	0.0%～300.0%（Rated motor current）	0.0%	☆	Subindex：28h
P8.40	Any current reaching 2	0.0%～300.0%（Rated motor current）	100.0%	☆	Subindex：29h
P8.41	Any current reaching 2 amplitude	0.0%～300.0%（Rated motor current）	0.0%	☆	Subindex：2Ah
P8.42	Timing function selection	0:Disabled 1:Enabled	0	☆	Subindex：2Bh
P8.43	Timing duration selection	0：P8.44 setting	0	☆	Subindex：2Ch
P8.44	Timing duration	0.0Min～6500.0Min	0.0Min	☆	Subindex：2Dh
P8.45	Reserved			☆	Subindex：2Eh
P8.46	Reserved			☆	Subindex：2Fh
P8.47	Reserved			☆	Subindex：30h
P8.48	Cooling fan control	0：Fan working during running 1：Fan working continuously	0	☆	Subindex：31h
P8.49	Wakeup frequency	Sleeping frequency（P8.51）～Maximum frequency（P0.12）	0.00Hz	☆	Subindex：32h
P8.50	Wakeup delay time	0.0s～6500.0s	0.0s	☆	Subindex：33h
P8.51	Sleeping frequency	0.00Hz～Wakeup frequency（P8.49）	0.00Hz	☆	Subindex：34h
P8.52	Sleeping delay time	0.0s～6500.0s	0.0s	☆	Subindex：35h
P8.53	Current running time reached setting	0.0Min～6500.0Min	0.0Min	☆	Subindex：36h
Group P9: Fault and Protection					**0x2009**
P9.00	Motor overload protection selection	0：Disabled 1：Enabled	1	☆	Subindex：01h
P9.01	Motor overload protection gain	0.20～10.00	1.00	☆	Subindex：02h
P9.02	Motor overload warning coefficient	50%～100%	80%	☆	Subindex：03h
P9.03	Over-voltage stall gain	0～100	0	☆	Subindex：04h
P9.04	Over-voltage stall protective voltage	120%～150%	130%	☆	Subindex：05h
P9.05	Over-current stall gain	0～100	20	☆	Subindex：06h
P9.06	Over-current stall protective current	100%～200%	150%	☆	Subindex：07h
P9.07	Short-circuit to ground upon	0：not effective 1：effective	1	☆	Subindex：08h
P9.09	Fault auto reset times	0～20	0	☆	Subindex：0Ah
P9.10	Reserved		0	☆	Subindex：0Bh
P9.11	Time interval of fault auto reset	0.1s～100.0s	1.0s	☆	Subindex：0Ch
P9.12	input phase loss protection selection	0：Disabled 1：Enabled	1	☆	Subindex：0Dh
P9.13	Output phase loss protection selection	0：Disabled 1：Enabled	1	☆	Subindex：0Eh

P9.14	1st 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: Snubber resistor overload 9: Undervoltage 10: AC drive overload 11: Motor overload 12: Power input phase loss		●	Subindex：0Fh
P9.15	2nd fault type	13: Power output phase loss 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: Parameters read-write fault 22: AC drive hardware fault 23: Short circuit to ground 24: Reserved 25: Reserved	—	●	Subindex：10h
P9.16	3rd (latest) fault type	26:Accumulative running time reached 27: Reserved 28: Reserved 29: Accumulative power-on time reached 30: Load becoming 0 31: PID feedback lost during running 40: Rapid current limit overtime 41: Switchover motors during running 42:Excessive speed deviation 43:Motor over speed 45: Motor over temperature 51: Initial position error	—	●	Subindex：11h
P9.17	Frequency upon 3rd(latest) fault	—	—	●	Subindex：12h
P9.18	Current upon 3rd (latest)fault	—	—	●	Subindex：13h

P9.19	Bus voltage upon 3rd(latest) fault	—	—	●	Subindex：14h
P9.20	Input terminal status upon 3rd(latest) fault	—	—	●	Subindex：15h
P9.21	Output terminal status upon 3rd (latest)fault	—	—	●	Subindex：16h
P9.22	AC drive status upon 3rd(latest) fault	—	—	●	Subindex：17h
P9.23	Power-on time upon 3rd (latest) fault	—	—	●	Subindex：18h
P9.24	Running time upon 3rd (latest) fault	—	—	●	Subindex：19h
P9.27	Frequency upon 2nd fault	—	—	●	Subindex：1Ch
P9.28	Current upon 2nd fault	—	—	●	Subindex：1Dh
P9.29	Bus voltage upon 2nd fault	—	—	●	Subindex：1Eh
P9.30	Input terminal status upon 2nd fault	—	—	●	Subindex：1Fh
P9.31	Output terminal status upon 2nd fault	—	—	●	Subindex：20h
P9.32	AC drive status upon 2nd fault	—	—	●	Subindex：21h
P9.33	Power-on time upon 2nd fault	—	—	●	Subindex：22h
P9.34	Running time upon 2nd fault	—	—	●	Subindex：23h
P9.37	Frequency upon 1st fault	—	—	●	Subindex：26h
P9.38	Current upon 1st fault	—	—	●	Subindex：27h
P9.39	Bus voltage upon 1st fault	—	—	●	Subindex：28h
P9.40	Input terminal status upon 1st fault	—	—	●	Subindex：29h
P9.41	Output terminal status upon 1st fault	—	—	●	Subindex：2Ah
P9.42	AC drive status upon 1st fault	—	—	●	Subindex：2Bh
P9.43	Power-on time upon 1st fault	—	—	●	Subindex：2Ch
P9.44	Running time upon 1st fault	—	—	●	Subindex：2Dh

P9.47	Fault protection action selection 1	Unit's digit：Motor overload（OL1） 0：Coast to stop 1：Stop according to the stop mode 2：Continue to run Ten's digit：Power input phase loss (LI) Hundred's digit：Power output phase loss（LO） Thousand's digit：External equipment fault（EF） Ten thousand's digit：Communication fault（CE）	00000	☆	Subindex：30h
P9.48	Fault protection action selection 2	Unit's digit：Reserved 0：Coast to stop Ten's digit：Function code read-write fault（EEP） 0：Coast to stop 1：Stop according to the stop mode Hundred's digit：Reserved Thousand's digit：Reserved Ten thousand's digit：Accumulative running time reached（END1）	00000	☆	Subindex：31h
P9.49	Fault protection action selection 3	Unit's digit：Reserved Ten's digit：Reserved Hundred's digit：Accumulative power-on time reached（END2） 0：Coast to stop 1：Stop according to the stop mode 2：Continue to run Thousand's digit：Load becoming 0（LOAD） 0：Coast to stop 1：Stop according to the stop mode Ten thousand's digit： PID feedback loss of running 0：Coast to stop 1：Stop according to the stop mode 2：Continue to run	00000	☆	Subindex：32h

P9.50	Fault protection action selection 4	Unit's digit：Excessive speed deviation 0：Coast to stop 1：Stop according to the stop mode 2：Continue to run Ten's digit：Motor over speed (OSP) 0：Coast to stop 1：Stop according to the stop mode 2：Continue to run Hundred's digit：Initial position error (INI) 0：Coast to stop 1：Stop according to the stop mode 2：Continue to run	00000	☆	Subindex：33h
P9.54	Frequency selection for continuing to run when fault	0：Current running frequency 1：Set frequency 2：Frequency upper limit 3：Frequency lower limit 4：Backup frequency upon abnormality	0	☆	Subindex：37h
P9.55	Backup frequency upon abnormality	60.0%～100.0% （100.0% corresponding to Maximum frequencyP0.12）	100.0%	☆	Subindex：38h
P9.56	Reserved			☆	Subindex：39h
P9.57	Reserved			☆	Subindex：3Ah
P9.58	Reserved			☆	Subindex：3Bh
P9.59	Action selection at instantaneous power failure	0：Invalid 1：Decelerate 2：Decelerate to stop	0	☆	Subindex：3Ch
P9.60	Frequency switching point at instantaneous power failure	P9.62～100.0%	100.0%	☆	Subindex：3Dh
P9.61	Action pause judging voltage at instantaneous power failure	0.00s～100.00s	0.50s	☆	Subindex：3Eh
P9.62	Action judging voltage at instantaneous power failure	60.0%～100.0%（Standard bus voltage）	80.0%	☆	Subindex：3Fh
P9.63	Protection upon load becoming 0	0：Disabled 1：Enabled	0	☆	Subindex：40h
P9.64	Detection level of load becoming 0	0.0～100.0％	10.0%	☆	Subindex：41h
P9.65	Detection time of load becoming 0	0.0～60.0s	1.0s	☆	Subindex：42h

P9.67	Detection value of over speed	0.0%～50.0%（Maximum frequency）	20.0%	☆	Subindex：44h
P9.68	Detection time of over speed	0.0s～60.0s	5.0s	☆	Subindex：45h
P9.69	Detection of excessive speed deviation	0.0%～50.0%（Maximum frequency）	20.0%	☆	Subindex：46h
P9.70	Detection time of excessive speed deviation	0.0s～60.0s	0.0s	☆	Subindex：47h
Function code	**Parameter Name**	**Setting range**	**Default**	**Property**	**Index**
Group PA: Process Control PID Function					**0x200A**
PA.00	PID setting source	0：PA.01 1：Reserved 2：Reserved 3：Reserved 4：Reserved 5：Communication setting 6：Multi-reference	0	☆	Subindex：01h
PA.01	PID digital setting	0.0%～100.0%	50.0%	☆	Subindex：02h
PA.02	PID feedback source	5：Communication setting	5	☆	Subindex：03h
PA.03	PID action direction	0：Forward action 1：Reverse action	0	☆	Subindex：04h
PA.04	PID setting feedback range	0～65535	1000	☆	Subindex：05h
PA.05	Proportional gain Kp1	0.0～100.0	20.0	☆	Subindex：06h
PA.06	Integral time Ti1	0.01s～10.00s	2.00s	☆	Subindex：07h
PA.07	Differential time Td1	0.000s～10.000s	0.000s	☆	Subindex：08h
PA.08	Cut-off frequency of PID reverse	0.00～Maximum frequency	2.00Hz	☆	Subindex：09h
PA.09	PID deviation limit	0.0%～100.0%	0.0%	☆	Subindex：0Ah
PA.10	PID differential limit	0.00%～100.00%	0.10%	☆	Subindex：0Bh
PA.11	PID setting change time	0.00～650.00s	0.00s	☆	Subindex：0Ch
PA.12	PID feedback filter time	0.00～60.00s	0.00s	☆	Subindex：0Dh
PA.13	PID output filter time	0.00～60.00s	0.00s	☆	Subindex：0Eh
PA.14	Reserved	-	-	☆	Subindex：0Fh
PA.15	Proportional gain Kp2	0.0～100.0	20.0	☆	Subindex：10h
PA.16	Integral time Ti2	0.01s～10.00s	2.00s	☆	Subindex：11h
PA.17	Differential time Td2	0.000s～10.000s	0.000s	☆	Subindex：12h
PA.18	PID parameter switchover condition	0：No switchover 1：Switchover via X 2：Automatic switchover based on deviation	0	☆	Subindex：13h
PA.19	PID parameter switchover deviation1	0.0%～PA.20	20.0%	☆	Subindex：14h
PA.20	PID parameter switchover deviation 2	PA.19～100.0%	80.0%	☆	Subindex：15h

PA.21	PID initial value	0.0%～100.0%	0.0%	☆	Subindex：16h
PA.22	PID initial value holding time	0.00～650.00s	0.00s	☆	Subindex：17h
PA.23	Twice the maximum output deviation forward	0.00%～100.00%	1.00%	☆	Subindex：18h
PA.24	Twice the maximum output of the reverse	0.00%～100.00%	1.00%	☆	Subindex：19h
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	☆	Subindex：1Ah
PA.26	Detection value of PID feedback loss	0.0%：Not judging feedback loss 0.1%～100.0％	0.0%	☆	Subindex：1Bh
PA.27	Detection time of PID feedback loss	0.0s～20.0s	0.0s	☆	Subindex：1Ch
PA.28	PID stop operation	0：No PID operation at stop 1：PID operation at stop	0	☆	Subindex：1Dh
Group Pb: Swing Frequency, Fixed Length and Count					**0x200B**
Pb.00	Swing frequency setting mode	0：Relative to the central frequency 1：Relative to the maximum frequency	0	☆	Subindex：01h
Pb.01	Swing frequency amplitude	0.0%～100.0%	0.0%	☆	Subindex：02h
Pb.02	Jump frequency amplitude	0.0%～50.0%	0.0%	☆	Subindex：03h
Pb.03	Swing frequency cycle	0.1s～3000.0s	10.0s	☆	Subindex：04h
Pb.04	Triangular wave rising time coefficient	0.1%～100.0%	50.0%	☆	Subindex：05h
Pb.05	Set length	0m～65535m	1000m	☆	Subindex：06h
Pb.06	Actual length	0m～65535m	0m	☆	Subindex：07h
Pb.07	Number of pulses per meter	0.1～6553.5	100.0	☆	Subindex：08h
Pb.08	Set count value	1～65535	1000	☆	Subindex：09h
Pb.09	Designated count value	1～65535	1000	☆	Subindex：0Ah
Group PC: Multi-Multi-Reference and Simple PLC Function					**0x200B**
PC.00	Multi-Reference 0	-100.0%～100.0%	0.0%	☆	Subindex：01h
PC.01	Multi-Reference 1	-100.0%～100.0%	0.0%	☆	Subindex：02h
PC.02	Multi-Reference 2	-100.0%～100.0%	0.0%	☆	Subindex：03h
PC.03	Multi-Reference 3	-100.0%～100.0%	0.0%	☆	Subindex：04h
PC.04	Multi-Reference 4	-100.0%～100.0%	0.0%	☆	Subindex：05h
PC.05	Multi-Reference 5	-100.0%～100.0%	0.0%	☆	Subindex：06h
PC.06	Multi-Reference 6	-100.0%～100.0%	0.0%	☆	Subindex：07h
PC.07	Multi-Reference 7	-100.0%～100.0%	0.0%	☆	Subindex：08h

PC.08	Multi-Reference 8	-100.0%～100.0%	0.0%	☆	Subindex：09h
PC.09	Multi-Reference 9	-100.0%～100.0%	0.0%	☆	Subindex：0Ah
PC.10	Multi-Reference 10	-100.0%～100.0%	0.0%	☆	Subindex：0Bh
PC.11	Multi-Reference 11	-100.0%～100.0%	0.0%	☆	Subindex：0Ch
PC.12	Multi-Reference 12	-100.0%～100.0%	0.0%	☆	Subindex：0Dh
PC.13	Multi-Reference 13	-100.0%～100.0%	0.0%	☆	Subindex：0Eh
PC.14	Multi-Reference 14	-100.0%～100.0%	0.0%	☆	Subindex：0Fh
PC.15	Multi-Reference 15	-100.0%～100.0%	0.0%	☆	Subindex：10h
PC.16	Simple PLC running mode	0：Stop after the AC drive runs one cycle 1：Keep final values after the AC drive runs one cycle 2：Repeat after the AC drive runs one cycle	0	☆	Subindex：11h
PC.17	Simple PLC retentive selection	Unit's digit：Retentive upon power failure selection 0：No 1：Yes Ten's digit：Retentive upon stop selection 0：No 1：Yes	00	☆	Subindex：12h
PC.20	Running time of simple PLC reference 1	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：15h
PC.21	Acceleration/deceleration time of simple PLC reference 1	0～3	0	☆	Subindex：16h
PC.22	Running time of simple PLC reference 2	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：17h
PC.23	Acceleration/deceleration time of simple PLC reference 2	0～3	0	☆	Subindex：18h
PC.24	Running time of simple PLC reference 3	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：19h
PC.25	Acceleration/deceleration time of simple PLC reference 3	0～3	0	☆	Subindex：1Ah
PC.26	Running time of simple PLC reference 4	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：1Bh
PC.27	Acceleration/deceleration time of simple PLC reference 4	0～3	0	☆	Subindex：1Ch
PC.28	Running time of simple PLC reference 5	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：1Dh
PC.29	Acceleration/deceleration time of simple PLC reference 5	0～3	0	☆	Subindex：1Eh
PC.30	Running time of simple PLC reference 6	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：1Fh

PC.31	Acceleration/deceleration time of simple PLC reference 6	0～3	0	☆	Subindex：20h
PC.32	Running time of simple PLC reference 7	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：21h
PC.33	Acceleration/deceleration time of simple PLC reference 7	0～3	0	☆	Subindex：22h
PC.34	Running time of simple PLC reference 8	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：23h
PC.35	Acceleration/deceleration time of simple PLC reference 8	0～3	0	☆	Subindex：24h
PC.36	Running time of simple PLC reference 9	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：25h
PC.37	Acceleration/deceleration time of simple PLC reference 9	0～3	0	☆	Subindex：26h
PC.38	Running time of simple PLC reference 10	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：27h
PC.39	Acceleration/deceleration time of simple PLC reference 10	0～3	0	☆	Subindex：28h
PC.40	Running time of simple PLC reference 11	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：29h
PC.41	Acceleration/deceleration time of simple PLC reference 11	0～3	0	☆	Subindex：2Ah
PC.42	Running time of simple PLC reference 12	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：2Bh
PC.43	Acceleration/deceleration time of simple PLC reference 12	0～3	0	☆	Subindex：2Ch
PC.44	Running time of simple PLC reference 13	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：2Dh
PC.45	Acceleration/deceleration time of simple PLC reference 13	0～3	0	☆	Subindex：2Eh
PC.46	Running time of simple PLC reference 14	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：2Fh
PC.47	Acceleration/deceleration time of simple PLC reference 14	0～3	0	☆	Subindex：30h
PC.48	Running time of simple PLC reference 15	0.0s（h）～6553.5s（h）	0.0s（h）	☆	Subindex：31h

PC.49	Acceleration/deceleration time of simple PLC reference 15	0～3	0	☆	Subindex：32h
PC.50	Time unit of simple PLC running	0：s（Second） 1：h（hour）	0	☆	Subindex：33h
PC.51	Multi-reference 0 setting source	0：PC.00 setting 1：Reserved 2：Reserved 3：Reserved 4：Reserved 5：PID 6：Preset frequency（P0.10）setting，UP/DOWN can modify	0	☆	Subindex：34h
Group PD: Communication Parameters					
PD.00	Baud rate	Unit's digit：MODBUS 0：300BPS 1：600BPS 2：1200BPS 3：2400BPS 4：4800BPS 5：9600BPS 6：19200BPS 7：38400BPS 8：57600BPS 9：115200BPS Ten's digit：Reserved Hundred's digit：Reserved Thousand's digit：Reserved	5005	☆	
PD.01	Data format	0：No check（8-N-2） 1：Even parity check（8-E-1） 2：Odd parity check（8-O-1） 3：8-N-1	0	☆	
PD.02	Local address	1～200，0 Broadcast address	1	☆	
PD.03	Response delay	0ms～20ms	2	☆	
PD.04	Communication timeout	0.0（invalid），0.1s～60.0s	0.0	☆	
PD.05	Data transfer format selection	Unit's digit：MODBUS 0：Non-standard Modbus protocol 1：Standard Modbus protocol	30	☆	
PD.06	Communication reading current resolution	0：0.01A 1：0.1A	0	☆	
Group PP: User-Defined Function Codes					
PP.00	User password	0～65535	0	☆	
PP.01	Parameter Initialization	0：No operation 01：Restore factory settings	0	★	

Group C0 Torque Control Parameters					0x200E
C0.00	Speed/Torque control selection	0：Speed control 1：Torque control	0	★	Subindex：01h
C0.01	Torque setting source selection in torque control	0：Digital setting 1（C0.03） 1：Reserved 2：Reserved 3：Reserved 4：Reserved 5：Communication setting 6：MIN（FIV,FIC） 7：MAX（FIV,FIC）（Full Scale 1-7 options, corresponding C0.03 digital set）	0	★	Subindex：02h
C0.03	Torque digital setting in torque control	-200.0%～200.0%	150.0%	☆	Subindex：04h
C0.05	Forward maximum frequency in torque control	0.00Hz～Maximum frequency	50.00Hz	☆	Subindex：06h
C0.06	Reverse maximum frequency in torque control	0.00Hz～Maximum frequency	50.00Hz	☆	Subindex：07h
C0.07	Acceleration time in torque control	0.00s～65000s	0.00s	☆	Subindex：08h
C0.08	Deceleration time in torque control	0.00s～65000s	0.00s	☆	Subindex：09h
Group C5: Control Optimization Parameters					**0x200F**
C5.00	DPWM switchover frequency upper limit	0.00Hz～15.00Hz	12.00Hz	☆	Subindex：01h
C5.01	PWM modulation mode	0: Asynchronous modulation 1: Synchronous modulation	0	☆	Subindex：02h
C5.02	Dead zone compensation mode selection	0: No compensation 1: Compensation mode 1 2: Compensation mode 2	1	☆	Subindex：03h
C5.03	Random PWM depth	0: Random PWM invalid 1~10: PWM carrier frequency random depth	0	☆	Subindex：04h
C5.04	Rapid current limit enable	0：Disabled 1：Enabled	1	☆	Subindex：05h
C5.05	Current detection compensation	0～100	5	☆	Subindex：06h
C5.06	Undervoltage threshold setting	60.0%～140.0%	100.0%	☆	Subindex：07h
C5.07	SVC optimization mode selection	0：No optimization 1：Optimization mode 1 2：Optimization mode 2	1	☆	Subindex：08h
C5.08	Dead zone time adjustment	100%～200%	150%	☆	Subindex：09h

Function code	Parameter Name	Unit	Index
Group D0: Monitoring Parameters			0x200D
D0.00	Running frequency（Hz）	0.01Hz	Subindex：01h
D0.01	Set frequency （Hz）	0.01Hz	Subindex：02h
D0.02	Bus voltage（V）	0.1V	Subindex：03h
D0.03	Output voltage（V）	1V	Subindex：04h
D0.04	Output current（A）	0.01A	Subindex：05h
D0.05	Output power（kW）	0.1kW	Subindex：06h
D0.06	Output torque（%）	0.1%	Subindex：07h
D0.07	X Input state	1	Subindex：08h
D0.08	Reserved	1	Subindex：09h
D0.09	Reserved	0.01V	Subindex：0Ah
D0.10	Reserved	0.01V	Subindex：0Bh
D0.11	Reserved	0.01V	Subindex：0Ch
D0.12	Count value	1	Subindex：0Dh
D0.13	Length value	1	Subindex：0Eh
D0.14	Load speed display	1	Subindex：0Fh
D0.15	PID setting	1	Subindex：10h
D0.16	PID feedback	1	Subindex：11h
D0.17	PLC stage	1	Subindex：12h
D0.18	Reserved	0.01kHz	Subindex：13h
D0.19	Feedback speed（unit:0.1Hz）	0.1Hz	Subindex：14h
D0.20	Remaining running time	0.1Min	Subindex：15h
D0.21	Reserved	0.001V	Subindex：16h
D0.22	Reserved	0.001V	Subindex：17h
D0.23	Reserved	0.001V	Subindex：18h
D0.24	Linear speed	1m/Min	Subindex：19h
D0.25	Current power on time	1Min	Subindex：1Ah
D0.26	Current running time	0.1Min	Subindex：1Bh
D0.27	Reserved	1Hz	Subindex：1Ch
D0.28	Communication setting value	0.01%	Subindex：1Dh
D0.29	Encoder feedback speed	0.01Hz	Subindex：1Eh
D0.30	Main frequency X display	0.01Hz	Subindex：1Fh
D0.31	Auxiliary frequency Y display	0.01Hz	Subindex：20h
D0.32	Reserved	1	Subindex：21h
D0.33	Reserved	0.1°	Subindex：22h
D0.34	Reserved	1℃	Subindex：23h
D0.35	Target torque（%）	0.1%	Subindex：24h
D0.36	Resolver position	1	Subindex：25h
D0.37	Power factor angle	0.1°	Subindex：26h
D0.38	ABZ position	1	Subindex：27h
D0.39	VF separation target voltage	1V	Subindex：28h
D0.40	VF separation output voltage	1V	Subindex：29h
D0.41	X input state visual display	1	Subindex：2Ah
D0.42	Reserved	1	Subindex：2Bh
D0.43	X function state visual display1 （Function 01-40）	1	Subindex：2Ch

D0.44	X function state visual display2 （Function 41-80）	1	Subindex：2Dh
D0.59	Set frequency（%）	0.01%	Subindex：3Ch
D0.60	Running frequency（%）	0.01%	Subindex：3Dh
D0.61	AC drive state	1	Subindex：3Eh

PDO Index

Index	Name	Description	Data type
RPDO(RW)			
0x6040	Control word	1：Forward 2：Reverse 5：Coast to stop 6：Deceleration to stop 7：Fault reset	UINT32
0x607A	Frequency percent	Frequency percentage 0-10000（100.00%）	UINT32
0x607B	Target frequency	If set P0.04=0，it can write frequency via index，default as 0x607A valid，0x607B invalid	UINT32
TPDO(RO)			
0x6041	Status word	State feedback 1：Forward 2：Reverse 3：Stop	UINT32
0x6064	DC Voltage	Bus voltage，one decimal	UINT32
0x606C	Actual frequency	Running frequency	UINT32
0x6094	Output current	Output current	UINT32
0x6095	Error code	Fault code	UINT32
0x6096	Output voltage	Output voltage	UINT32
0x6097	Actual torque	Output torque percentage	UINT32
0x6098	Heart	Heartbeat data	UINT32