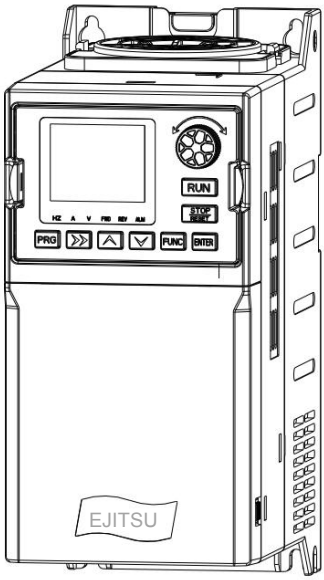
EJITSU

EJ800 Serial

User manual

220V Level 0.4-5.5kW
380V Level 0.4-630kW

Please follow this instruction manual to the User
And keep it safe.



This product is underwritten by China Pacific Insurance Joint Strategy

Shenzhen Yishitong Technology Co.,Ltd. File No.: EJPL800-220901-EN

Contents

Chapter 1 Product standard specifications

1.1、Technical specifications（see table1）

Table1 main technical specifications			
Input	Rated voltage, frequency	3P AC380V;50/60Hz 2P AC220V;50/60Hz	
	Voltage Range	3P AC360V～450V 2P AC190V～250V	
output	Voltage	0～460V 0～260V	
	Frequency	Low Frequency：0～300Hz High frequency：0～3000Hz	
	Overload Capacity	G Type:110% 150% 1min 200% 4s P Type:105% 120% 1min 150% 1s	
Mode of control		V/F control、High Level V/F control、V/F Separation control、No PG current vector control	
Control characteristics	Frequency resolution	Analog Setting	Max output frequency 0.1%
		Digital Setting	0.01Hz
	Frequency accuracy	Analog input	Within the max output frequency 0.2%
		Digital input	Within the setting output frequency 0.01%
	V/F Control	V/F Curve	
		Moment Improvement	Manually set：Rated output 0.0～30.0% Auto Improvement：According output current and motor parameters to auto improve moment.
		Automatic flow limiting and voltage limiting	Whether in the process of acceleration, deceleration or stable operation, the stator current and voltage of the motor can be automatically detected, and it can be suppressed to the allowed range according to a unique algorithm to minimize the possibility of system failure jumping.
	Inductive vector control	voltage frequency characteristics	Automatically adjust the output voltage-frequency ratio according to the motor parameters and unique algorithms.
		Torque characteristics	Starting torque: 3.0 Hz 150% rated torque (VF control) 150% rated torque at 1.0 Hz (Advanced VF Control) 150% rated torque at 0.5 Hz (no PG current vector control) Constant operating speed accuracy :≤±0.2% rated synchronous speed Velocity fluctuation :≤±0.5% rated synchronous speed Torque response :≤20 ms (no PG current vector control)
		Self-determination of motor parameters	Without any restrictions, automatic parameter detection can be completed under the static and dynamic motor to obtain the best control effect.
		Current and voltage suppression	The whole process of current closed-loop control and complete avoidance of current impact has a perfect over-current over-voltage suppression function.
	Under voltage suppression in operation	Especially for users with low grid voltage and frequent grid voltage fluctuations, even if it is below the allowed voltage range, the system can maintain the maximum possible running time based on unique algorithms and residual energy allocation strategies.	
Typical function	Multi-Speed running	16-stage programmable multi- speed control and multiple running modes are optional. Pendulum frequency operation: preset frequency,	

		center frequency adjustable, state memory and recovery after power outage	
	PID control RS485	Built-in PID controller (preset frequency). Standard configuration RS485 communication function, multiple communication protocols are optional, and there is linkage synchronization control function.	
	Frequency setting	Analog input	DC Voltage 0～10V,DC Current 0～20mA
		Digital input	Operation panel setting, RS485 interface setting, UP/DW terminal control, and various combination settings with analog input can also be made.
	Output signal	Digital output	Two DO terminals open collector output and two programmable relay outputs (TA,TB,TC), up to 61 meaning choices
		Analog output	Two analog signals output, the output range of 0~20 mA or 0~10 between the flexible setting, can achieve the set frequency, output frequency and other physical output
	Automatic Steady Pressure Operation	According to the need, dynamic, static and non-stable can be selected to obtain the most stable operation effect	
	Acceleration and deceleration Time setting	0.1 s~3600.0 min continuous adjustable, S type, straight-line optional	
	Breaking: Energy Brake	The starting voltage, the return voltage and the energy consumption braking rate are continuously adjusted	
	Breaking: DC Brake	Stop DC brake start frequency :0.00~[F00.13] upper limit frequency Brake time :0.0~100.0 s; Brake current :0.0%~150.0% rated current	
	Breaking: Magnetic flux Brake	0～100　0：Be of no effect	
	Low Noise Operation	Carrier frequency 1.0KHz~16.0KHz continuously adjustable to minimize motor noise	
	Speed tracking speed Restart function	It can realize the function of smooth restart and instant stop restart of motor in operation	
	Counter	One internal counter to facilitate system integration	
	Function	Frequency setting of upper and lower limits, frequency hopping operation, reversal operation limit, slip frequency compensation, RS485 communication, frequency increment, deceleration control, fault self-recovery operation, etc	

Operation panel display	Running State	Output frequency, output current, output voltage, motor speed, set frequency, module temperature, PID setting, feedback, analog input and output, etc
	Alarm Content	The last six fault records, the last fault trip when the output frequency, set frequency, output current, output voltage, DC voltage, module temperature and other 6 operating parameters record
Defective function		Over-current, over-voltage, under-voltage, module failure, electronic thermal relay, overheating, short circuit, input and output phase deficiency, abnormal tuning of motor parameters, internal memory failure, etc
ENVIRONMENT	Ambient temperature	－10℃～＋40℃
	Ambient humidity	5%～95%RH，No condensation
	Ambient environment	Indoor (no direct sunlight, no corrosion, flammable gas, no oil mist, dust, etc)
	Altitude	10% for each 1000 m increase
ORGANAZATION	levels of protection	IP20
	cooling-down method	Air cooling with fan control
Installation way		Wall mounted, cabinet type

1.2、Product Appearance and Mounting Dimensions，see table 2

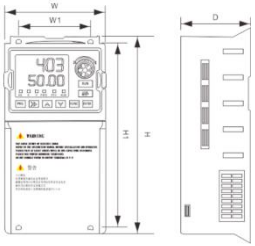


Fig.1

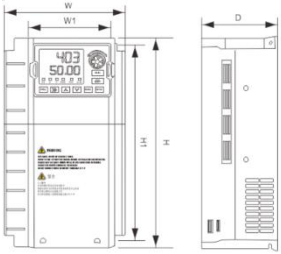


Fig.2

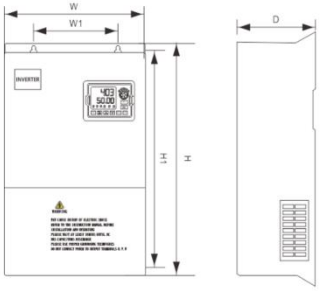


Fig.3

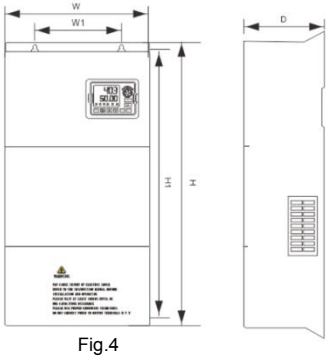


Fig.4

Power (kW)	Voltage (V)	In (A)	Fig.	Product Dimensions (mm)				
				W1	H1	H	W	D
0.75	220	4.0	Fig.1	78	2000	212	95	154
1.5	220	7.0						
2.2	220	9.6						
0.75	380	2.1						
1.5	380	3.8						
2.2	380	5.1						
4.0	380	8.5						
5.5	380	13.0						
7.5	380	16.0	Fig.2	129	230	240	140	180.5
11.0	380	24.0						
15.0	380	32.0	Fig.2	188	305	322	205	199
18.5	380	36.0						
22.0	380	44.0						
30.0	380	58.0						
37.0	380	70.0	Fig.3	195	470	490	270	205
45.0	380	90.0						
55.0	380	110.0	Fig.3	175	450	470	290	250
75.0	380	152.0	Fig.3	175	560	580	290	275
90.0	380	172.0	Fig.13	200	648	670	325	300
110.0	380	205.0						
132.0	380	253.0						
160.0	380	304.0	Fig.3	300	670	700	465	310
185.0	380	334.0						
200.0	380	380.0						
220.0	380	426.0	Fig.4	360	875	900	480	350
250.0	380	465.0						
285.0	380	520.0						
315.0	380	585.0	Fig.4	530	1040	1060	650	355
355.0	380	650.0						
400.0	380	752.0						
450.0	380	840.0	Fig.4	530	1040	1060	840	375
500.0	380	930.0						
560.0	380	1050.0	Fig.4	530	1040	1060	1030	375
630.0	380	1150.0						
750.0	380	1370.0	Fig.4	**	**	1070	1420	385
800.0	380	1480.0						

Table 2

1.3、Product Gross Weight and Packing Dimensions see table 3

Ordering No.	Power (kW)	Gross Weight (Kg)	Fig.	Packing Dimensions (mm)		
				H	W	D
EJ800-G0R7/P1R5-T2	0.75	1.2	Fig.5	212	95	154
EJ800-G1R5/P2R2-T2	1.5	1.3				
EJ800-G2R2/P4R0-T2	2.2	1.3				
EJ800-G0R7/P1R5-T4	0.75	1.3				
EJ800-G1R5/P2R2-T4	1.5	1.3				
EJ800-G2R2/P4R0-T4	2.2	1.3				
EJ800-G4R0/P5R5-T4	4.0	1.4				
EJ800-G5R5/P7R5-T4	5.5	1.5				
EJ800-G7R5/P011-T4	7.5	3.2	Fig.5	240	140	180.5
EJ800-G011/P015-T4	11.0	3.3				
EJ800-G015/P018-T4	15.0	5.7	Fig.5	322	205	199
EJ800-G018/P022-T4	18.5	5.8				
EJ800-G022/P030-T4	22.0	6.2				
EJ800-G030/P037-T4	30.0	6.7				
EJ800-G037/P045-T4	37.0	17.5	Fig.5	490	270	205
EJ800-G045/P055-T4	45.0	18.0				
EJ800-G055/P075-T4	55.0	22.0	Fig.5	470	290	250
EJ800-G075/P090-T4	75.0	28.0	Fig.5	580	290	275
EJ800-G090/P110-T4	90.0	45.0	Fig.6	670	325	300
EJ800-G110/P132-T4	110.0	46.0				
EJ800-G132/P160-T4	132.0	48.5				
EJ800-G160/P185-T4	160.0	63.0	Fig.6	700	465	310
EJ800-G185/P200-T4	185.0	65.0				
EJ800-G200/P220-T4	200.0	65.0				
EJ800-G220/P250-T4	220.0	91.0	Fig.6	900	480	350
EJ800-G250/P285-T4	250.0	93.0				
EJ800-G285/P315-T4	285.0	95.0				
EJ800-G315/P355-T4	315.0	135.0	Fig.6	1060	650	355
EJ800-G355/P400-T4	355.0	140.0				
EJ800-G400/P450-T4	400.0	150.0				
EJ800-G450/P500-T4	450.0	**	Fig.6	**	**	**
EJ800-G500/P560-T4	500.0	**				
EJ800-G560/P630-T4	560.0	220.0	Fig.6	1160	1110	450
EJ800-G630/P750-T4	630.0	226.0				
EJ800-G750/P800-T4	750.0	**	Fig.6			
EJ800-G800/P1000-T4	800.0	**				

Table 4

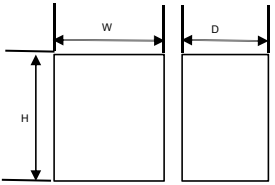


Fig.5

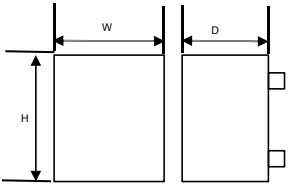


Fig.6

1.4 Breaking component selection guideline

Voltage(V)	Power (KW)	Breaking component		Brake torque
		W	(Ω)	10%ED
2PH 220 Series	0.4	80	200	125
	0.75	80	150	125
	1.5	100	100	125
	2.2	100	70	125
	4.0	300	50	125
3PH 220 Series	0.75	150	110	125
	1.5	250	100	125
	2.2	300	65	125
	4	400	45	125
	5.5	800	22	125
	7.5	1000	16	125
3PH 380 Series	0.75	100	750	125
	1.5	300	400	125
	2.2	300	250	125
	4	400	150	125
	5.5	500	100	125
	7.5	1000	75	125
	11	3000	43	125
	15	3000	32	125
	18.5	3000	25	125
	22	4000	22	125
	30	5000	16	125
	37	6000	13	125
	45	6000	10	125
	55	6000	10	125
	75	7500	6.3	125
	93	9000	9.4/2	125
	110	11000	9.4/2	125
	132	13000	6.3/2	125
	160	16000	6.3/2	125
	200	20000	2.5	125
	220	22000	2.5	125
	250	25000	2.5/2	125
	280	28000	2.5/2	125
	315	32000	2.5/2	125
	355	34000	2.5/2	125
	400	42000	2.5/3	125
	450	45000	2.5/3	125

Note:

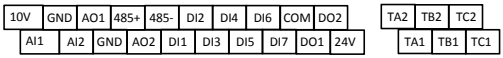
1. please select the resistance value specified by our company.
2. the use of brake resistance not provided by our company, resulting in inverter or other equipment damage, we do not bear any responsibility.The installation of
3. brake resistance must take into account environmental safety, flammability, at least 100 mm. from the frequency converter

Chapter 2 Terminal connection

2.1 The main circuit terminals are described below：

Table 4.1 Main circuit terminal function description	
Terminal name	function declaration
R S T	Three-phase power input terminal
U V W	Three-phase AC motor terminals
P+ P-	External brake unit reserved terminal
P+ PB	External brake resistance reserved terminals (30 kW and below)
P+ P1	External DC reactor reservation terminal
G/PE	Earth terminal

2.2 Terminal of control loop



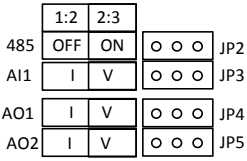
2.1 Distribution of control terminal of control panel

2.1 Function Description of Control Circuit Terminal			
Category	Terminal label	Function Description	Specifications
Multifunctional digital input terminal DI	DI1	the short-time connection between DI (DI1, DI2, DI3, DI4, DI5, DI6, DI7) is effective, and its function is set by parameter F07.00~COMF07.06, respectively ,(common end: COM).	INPUT,0-24 V level signal, low level effective 5 mA.
	DI2		
	DI3		
	DI4		
	DI5		
	DI6		
	DI7	DI7 can be used as a common multi-function terminal, but also programmable as a high-speed pulse input port, see F07.06 function description.	
Multifunctional Digital Output Terminal DO	DO1	DO (DO1, DO2) is a multifunctional collector with open circuit output of up to 62 kinds. For details, see F07.18、F07.19 description of terminal function。	Opto coupler isolation, open collector output, output voltage range :0 V-24V Output current range: 0mA-50mA
	DO2		
AO of analog input AI output terminals	AI1	AI1 receive analog voltage / current input, voltage, current selected by jumper JP3, factory default input voltage, if you want to input is current, just adjust jumper cap to Cin position; AI2 only receive voltage input. Range setting see function code F06.01~F06.10 description. (Reference: GND)	INPUT, input voltage range :0~10 V (input impedance :100 KΩ), input current range :0~20 input impedance :500Ω).
	AI2		
	AO1	AO1 provide the output of analog voltage/current quantity, can represent 14 kinds of physical quantity, output voltage,	OUTPUT,0~10 V DC voltage. The output voltage of the AO1、

	AO2	current is selected by jumper JP4, factory default output voltage, if you want to output current quantity, just jump jumper cap to Co1 position; see function code F06.21、F06.22 description for details. (Reference: GND)	AO2 terminal is the PWM waveform from the central processor. magnitude of the output voltage is proportional to the width of the PWM waveform.
Relay output terminals	TA1	Programmable defined as a multifunctional relay output terminal, up to 62. For more details, see F07.20、F07.21 terminal function introduction.	TA-TB:often close；TA-TC:often open。Contact capacity：250VAC/2A(COSΦ=1);250VAC/1A(COSΦ=0.4),30VDC/1A.
	TB1		
	TC1		
	TA2		
	TB2		
	TC2		
Power interface	24V	24V is the common power supply of digital signal input terminal	maximum output current 200mA
	10V	10V is the common power supply for analog input and output terminals	maximum output current 20mA
	COM	Digital Signal and 24 V Power Reference Ground	Internal and GND segregation
	GND	Analog signal and 10 V power reference ground	Internal and COM segregation
communication interface	485+	RS485signal + terminal	Standard RS485 communication interface, not isolated from GND, please use twisted pair or shielded wire.
	485-	RS485signal - terminal	

2.3 Main control panel jumper settings

JP2	
OFF	Indicates that the resistance matched on 485 communication is not connected
ON	Indicates that the resistance matched on 485 communication is connected
JP3	
Cin	Represents AI1 input current signal, 4-20mA
Vin	Represents AI1 input voltage signal,0-10V
JP4	
Vo1	Represents AO1 output voltage signal, 0-10V
Co1	Represents AO1 output current signal, 4-20mA
JP5	
Vo2	Represents AO2 output voltage signal, 0-10V
Co2	Represents AO2 output current signal, 4-20mA



2.4 Basic wiring diagram

Frequency converter wiring part is divided into main circuit and control circuit. The user can lift the lid of the shell, and you can see the main loop terminal and the control loop terminal. The user must connect accurately according to the following wiring circuit.

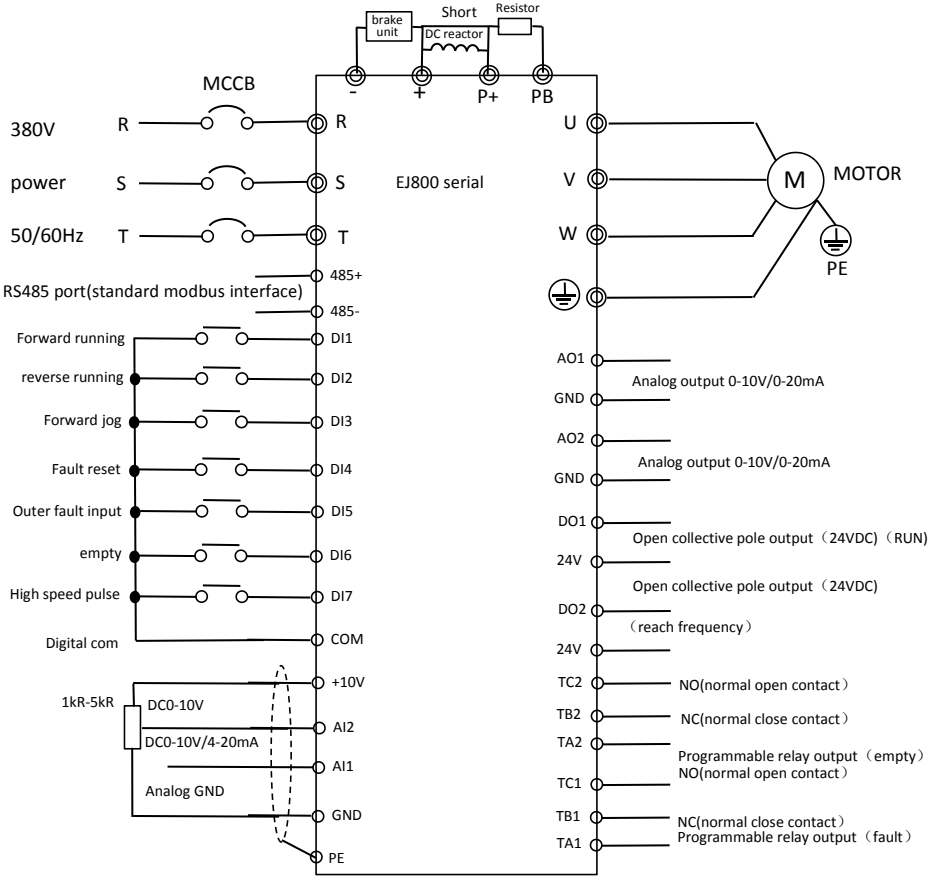


Fig.13

图 4.2 Basic operational wiring diagram

Chapter3 Functional Instructions

The symbols in the functional tables are described below;

×：The set value of this parameter can be changed when the frequency converter is down and running;

○：The set value of the parameter can not be changed when the frequency converter is in operation;

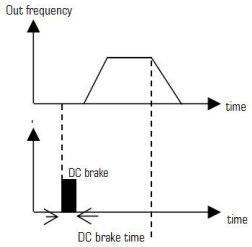
◆：The value representing this parameter is the actual detected record value and can not be changed;

◇：Indicates that this parameter is "manufacturer parameter ", is limited to manufacturer setting, forbids the user to carry on the operation;

F00-Basic func					
Function Code	Name	Content	Setting Range	default	property
F00.00	LCD language	0: Chinese 1: English	0～1	0	○
F00.01	Users macro	0: G mode 1: SPWS mode 2: 1 INV 2 Pump 3: 3pump cycle mode 4: PV mode 5: numerical ctrl mode 6: fire inspection mode 7: EPS power mode 8～20: Reserved	0～20	0	×
F00.02	Ctrl mode	0: Common V/F ctrl 1: Senior V/F ctrl 2: SVC 3: Reserved 4: Separate V/F ctrl Note: This parameter can not be initialized, please modify it manually	0～4	Model setting	×
F00.03	Run order select	0: Operation panel 1: Terminal 2: Communication	0～2	0	○
F00.04	Main freq	0: Digital given1 1: Digital given2 2: Digital given3 3: AI1 4: AI2 5: pulse given 6: Simple PLC set 7: Mu1ti speed set 8: PID freq set 9:potentiometer 10: MPPT given	0～10	9	○

F00.05	Auxiciary freq	0: Digital given1 1: Digital given2 2: Digital given3 3: AI1 4: AI2 5: pulse given 6: Simple PLC set 7: Mu1ti speed set 8: PID freq set 9:potentiometer 10: MPPT given	0～10	3	○
F00.06	Freq setting	0: Main freq A 1: A+K*B 2: A-K*B 3: | A-K*B | 4: MAX（A，A*B） 5: MIN（A，A*B） 6: A switch K*B 7: A switch A+K*B 8: A switch A-K*B Note 1: Frequency switching needs to be achieved through terminal coordination Note 2: Swing control has a higher priority than the given mode of this frequency source。	0～8	0	○
F00.07	Digital setting1	LED Single digit: power out of storage 0: Storage 1: Not Storage LED Tens: Stop Holding 0: Hold 1: Not Hold LED Hundreds：▲/▼Key、UF/DOWN Frequency regulation 0: Be of no effect 1: Effective LED Thousands: Hold	000～111	000	○
F00.08	Digital setting2			000	○
F00.09	Digital freq1	The set value is the initial value given by the frequency number 1	0.00Hz～【F00.13】	50.00	○
F00.10	Digital freq2	The set value is the initial value given by the frequency number 2	0.00Hz～【F00.13】	50.00	○
F00.11	Modulus K	K weight factor of auxiliary frequency source	0.01～10.00	1.00	○
F00.12	MAX freq	The maximum output frequency is the highest frequency allowed by the frequency converter and the benchmark of acceleration and deceleration time setting.	low-frequency stage：MADI{50.00,【F00.13】}～300.00 High-frequency stage：MADI{50.0,【F00.13】}～3000.0	50.00	×

F00.13	Freq upper limit	The operating frequency shall not exceed that frequency	【F00.14】～【F00.12】	50.00	×
F00.14	Freq lower limit	The operating frequency shall not be lower than that frequency	0.00Hz～【F00.13】	0.00	×
F00.15	Freq output mode	LED Single digit: High frequency mode selection 0: Low frequency mode(0.00～300.00Hz) 1: High frequency mode(0.0～3000.0Hz) LED Hundreds: Acceleration and deceleration reference selection 0: Based on maximum output frequency 1: Based on target output frequency LED Hundreds: Hold Note: High frequency mode is only effective for VF control	00～11	00	×
F00.16	Accel Time 1	Time required for frequency converter to accelerate from zero frequency to maximum output frequency	0.1 ～3600.0S 0.4 ～4.0KW 7.5S 5.5 ～30.0KW 15.0S 37～132KW 30.0S 160～630KW 60.0S	Model setting	○
F00.17	Pecel Time 1	Time required for frequency converter to slow down to zero frequency from maximum output frequency		Model setting	○
F00.18	Command option	0: FWD 1: REV 2: REV Prevent Note: this function code setting is valid for all running command channels.	0～2	0	×
F00.19	Carrier freq	In the case of mute operation, the carrier frequency can be raised to meet the requirements, but increasing the carrier frequency will increase the calorific value of the frequency converter.	1.0～16.0KHz 0.4～4.0KW 6.0KHz 5.5～30KW 4.5KHz 37～132KW 3.0KHz 160～630KW 1.8KHz	Model setting	○

F00.20	User password	0～65535 Note 1:0~9: No password protection Note 2: Password setup is successful, it takes 3 minutes to take effect Note 3: Write protection is invalid for this parameter and can not be initialized	0～65535	0	○
F01-Run/StopCtrlpara					
Function Code	Name	Content	Setting Range	default	property
F01.00	Startup mode	0: Start freq 1: DC brake+start freq 2: Speed tracking	0～2	0	×
F01.01	Startup freq		0.00～50.00Hz	1.00	○
F01.02	Dwell time		0.0～100.0s	0.0	○
F01.03	Start DCBrk levl		0.0～150.0% *Motor rated current	0.0%	○
F01.04	Start DCBrk time		0.0～100.0s	0.0	○
F01.05	ACC/DEC mode	0: Straight ACC/DEC 1: Curve ACC/DEC	0～1	0	×
F01.06	S_Cur start time	Setting the S curve starting period	10.0～50.0%	20.0%	○
F01.07	S_Cur end time	Setting S curve end period time ratio	10.0～50.0%	20.0%	○
F01.08	Stop mode	0: Decel stop 1: Free stop	0～1	0	×
F01.09	Cut-in freq		0.00 ～【 F00.13 】Upper limiting frequency	0.00	○
F01.10	DC-Brk wait time		0.0～100.0s	0.0	○
F01.11	DC-Brk level		0.0～150.0% *Motor rated current	0.0%	○
F01.12	DC-Brk time		0.0～100.0s	0.0	○
F01.13	Accel time 2	Set acceleration time 2	0.1～3600.0S 0.4～4.0KW 7.5S 5.5～30KW 15.0S 37～132KW	Model setting	○
F01.14	Deccel time 2	Set deceleration time 2		Model setting	○
F01.15	Accel time 3	Set acceleration time 3		Model setting	○

F01.16	Deccel time 3	Set deceleration time 3	40.0S 160～630KW 60.0S	Model setting	○
F01.17	Accel time 4	Set acceleration time 4		Model setting	○
F01.18	Deccel time 4	Set deceleration time 4		Model setting	○
F01.19	Time unit	0: s 1: m 2: 0.1s	0～2	0	○
F01.20	Jog FWP Freq	Set point-in-transverse operating frequency	0.00 ～【F00.13】	5.00	○
F01.21	Jog REV Freq		0.00 ～【F00.13】	5.00	○
F01.22	Jog Accel time	Set point acceleration time setting	0.1～3600.0S 0.4～4.0KW 7.5S 5.5～30.0KW 15.0S 37～132KW 40.0S 160～630KW 60.0S	Model setting	○
F01.23	Jog Decel time	Set point deceleration time setting		Model setting	○
F01.24	Jog internal	Set point interval setting	0.0～100.0s	0.1	○
F01.25	Jump Freq1		0.00～ upper limiting frequency	0.00	○
F01.26	Jump Freq1 width		0.00～ upper limiting frequency	0.00	○
F01.27	Jump Freq2		0.00～ upper limiting frequency	0.00	○
F01.28	Jump Freq2 width		0.00～ upper limiting frequency	0.00	○
F01.29	Jump Freq3		0.00～ upper limiting frequency	0.00	○
F01.30	Jump Freq3 width		0.00～ upper limiting frequency	0.00	○
F01.31	Set freq lower	0: L Freq operation 1: Delay then zero freq (No delay at start)。 2: Delay then stop (No delay at start)。	0～2	0	×
F01.32	Simple dormancy	Stop delay time when setting frequency below lower limit frequency (simple sleep)。	0.0～3600.0s	10.0	○
F01.33	Zero freq mode	This parameter is the percentage of the rated current of the motor.	0.0 ～ 150.0%*Motor rated current	0.0	×

F01.34	Dead time	The waiting time for the converter to transition from forward to reverse, or from reverse to forward.	0.0～100.0s	0.0	○
F01.35	Switch mode	0: Pass Z freq switch 1: Pass S freq switch	0～1	0	×
F01.36	Space decel time	Effective only for 10 function in switch input terminal (F07.00~F07.06).	0.1～3600.0s	1.0	○
F01.37	Brkcurr holdtime	Set stop DC brake current maintenance time.	0.0～100.0s	0.0	○
F02-Motor para					
Function Code	Name	Content	Setting Range	default	property
F02.00	Motor mode	0: AC motor 1: Permant motor Note 1: This parameter can not be initialized, please modify it manually	0～1	0	×
F02.01	Rtd power	According to the motor nameplate parameters, please press the frequency converter power configuration corresponding to the motor, if the power difference is too large, the frequency converter control performance significantly decreased.	0.4～999.9KW	Model setting	×
F02.02	Rtd Freq		0.01Hz ～【F00.13】	50.00	×
F02.03	Rtd speed		0～60000RFM	Model setting	×
F02.04	Rtd volt		0～999V	Model setting	×
F02.05	Rtd curr		0.1～6553.5A	Model setting	×
F02.06	Asy Stator R	If motor tuning is performed, the F02.06~F02.10 set value will be updated after tuning.	0.001～20.000Ω	Model setting	×
F02.07	Asy Rotor R		0.001～20.000Ω	Model setting	×
F02.08	Stator induct		0.1～6553.5mH	Model setting	×
F02.09	Rotor induct		0.1～6553.5mH	Model setting	×
F02.10	Excitation curr		0.01～655.35A	Model setting	×
F02.11-F02.15	Persist	—	—	0	◆
F02.16	Autotun option	0: NO action 1: Static tuning 2: NO load full tuning	0～2	0	×
F02.17	Flux Up time	Note: This parameter is invalid for VF control	0.00～10.00S	Model setting	×
F03-Reserved Para					
F04-SVR and Torgue					
Function Code	Name	Content	Setting Range	default	property

F04.00	ASR1 KD	The function code F01.00~F01.07 is effective without PG vector control. Under vector control mode, the velocity response characteristics of vector control are changed by setting the proportional gain P and integral time of I, speed regulator.	0.000～6.000	3.0	○
F04.01	ASR1 TD		0.000 ～ 32.000S	0.50	○
F04.02	ASR1 filter time		0.000～0.100S	0.000	○
F04.03	L-Freq switch		0.00Hz ～ 【F04.07】	5.00	○
F04.04	ASR2 KP		0.000～6.000	2.0	○
F04.05	ASR2 TD		0.000 ～ 32.000S	1.00	○
F04.06	ASR2 filter time		0.000～0.100S	0.000	○
F04.07	H-Freq switch		F04.03 】 ～ 【F00.13】	10.00	○
F04.08	Pos slip compen	In the vector control mode, the function code parameter is used to adjust the speed stability accuracy of the motor. When the motor is overloaded, the speed is on the low side, then the parameter is increased, otherwise the parameter is reduced. The positive slip coefficient compensates the speed when the motor slip rate is positive, whereas the negative slip coefficient compensates the speed when the motor slip rate is negative. The set value is the percentage of the rated slip frequency of the motor.	50.0%～200.0%	100.0%	○
F04.09	Neg slip compen		50.0%～200.0%	100.0%	○
F04.10	Speed torque ctr	0：Speed 1：Torque 2 ： Condition effective (Terminal switch)	0～2	0	×
F04.11	Switch delay	Set Speed and Torque Switch Delay	0.01～1.00S	0.05	×
F04.12	Torque command	0：Panel digital given 1：AI1 2：AI2 3：Commuicate given	0～3	0	○
F04.13	Torque set	The set value is the percentage of the rated current of the motor	— 200.0% ～ 200.0%	0.0%	○
F04.14	Speed limit1	0：Panel digital given1 1：AI1 2：AI2	0～2	0	○
F04.15	Speed limit2	0：Panel digital given2 1：AI1 2：AI2	0～2	0	○

F04.16	Panel limit set1	The limit value of the keyboard number limit speed 1 relative to the maximum output frequency. This function code corresponds to the size of the positive velocity limit when F04.14=0.	0.0～100.0%	100.0%	○
F04.17	Panel limit set2	The limit value of the keyboard number limit speed 2 relative to the maximum output frequency. This function code corresponds to the size of the reverse speed limit when F04.15=0.	0.0～100.0%	100.0%	○
F04.18	Torq Raise time	The torque rise / fall time defines the time when the torque rises from 0 to the maximum or drops from the maximum to 0.	0.0～10.0S	0.1	○
F04.19	Ttorq fall time		0.0～10.0S	0.1	○
F04.20	Dyi torque limit	Set the electric torque limit in vector mode, which is the percentage of motor rated current.	G Type: 0.0%～200.0%160.0% P Type: 0.0%～200.0%120.0%	Model setting	○
F04.21	Bra torque limit	Set the brake torque limit in vector mode, which is the percentage of motor rated current.	G Type: 0.0%～200.0%160.0% P Type: 0.0%～200.0%120.0%	Model setting	○
F04.22	Detection action	0: Detection invalid 1: Speed Over_t run 2: Run Over_t run 3: Speed Over_t Cut off 4: Run Over_t Cut off 5: Speed Under_t run 6: Run Under_t run 7: Speed Under_t Cut off 8: Run Under_t Cut off	0～8	0	×
F04.23	Detection level	When the actual torque is F04.24(torque detection time) and continues to be greater than the F04.23(torque detection level), the converter will make the corresponding action according to the F04.22 setting. When the torque detection level is set at 100, the rated torque of the motor is corresponding.	G Type: 0.0%～200.0%150.0% P Type: 0.0%～200.0%110.0%	Model setting	×
F04.24	Detection time		0.0～10.0S	0.0	×

F04.25	Cut-off Freq	Since the starting torque of the motor is not enough and the set value of the F04.26 is increased, the starting torque can be increased. When the speed exceeds the set value of the F04.25, the increased torque can slowly decrease to the given torque within the F04.27 setting time.	0.00～300.00Hz	10.00	○
F04.26	CoeStatic Fric		0.0～200.0	0.0	○
F04.27	Maintenance Time		0.00～600.00s	0.00	×

F05-V/F Control

Function Code	Name	Content	Setting Range	default	property
F05.00	V/F curve set	0: Linear curve 1: Drop torque curve1 (1.3 powers) 2: Drop torque curve2 (1.5 powers) 3: Drop torque curve3 (1.7 powers) 4: Square curve 5: User set V/F curve (determined by F05.03～F05.08)	0～5	0	×
F05.01	Torque boost	Manual torque lift, this setting is the percentage of rated voltage relative to the motor.	0.0～30.0%	Model setting	×
F05.02	Cutoff freq	Set torque lifting cutoff frequency	0.00 ～ Motor rated frequency	15.00	×
F05.03	V/F F1		0.00 ～ FrequencyF1	12.50	×
F05.04	V/F V1		0.0 ～ Voltage V2	25.0%	×
F05.05	V/F F2		FrequencyF1～FrequencyF3	25.00	×
F05.06	V/F V2		Voltage V1～Voltage V3	50.0%	×

F05.07	V/F F3		Frequency F1～【F02.02】	37.50	×
F05.08	V/F V3		Voltage V2～100.0%*Model Rated Voltage	75.0%	×
F05.09	VF Slip compen	The speed of asynchronous motor will decrease after load, and the speed of motor can be close to its synchronous speed by using slip compensation, thus making the speed control accuracy of motor higher.	0.0～200.0% *Motor rated slip	0.0%	○
F05.10	VF Slip filter	This parameter is used to adjust the response speed of slip frequency compensation. The larger the value is, the slower the response speed is and the more stable the motor speed is.	1～10	3	○
F05.11	VF Torque filter	When the free torque is raised, the parameter is used to adjust the response speed of torque compensation. The larger the value is, the slower the response speed is, and the more stable the motor speed is.	0～10	Model setting	○
F05.12	Separate V/F	0: Half separate SVC out 1: Half separate FVC out 2: Full separate SVC out 3: Full separate FVC out Note 1: when selecting VF separation control, turn off the dead zone compensation function of the converter Note 2: the concept of semi-separation is that the frequency and voltage of the frequency converter remain the relationship between frequency conversion and voltage during starting. When the frequency reaches the set frequency, the voltage and frequency are separated	0～3	0	×
F05.13	Given channel	0: Digital given 1: AI1 2: AI2	0～2	0	○

F05.14	feedback	0: AI1 1: AI2 Note: This parameter is only valid for closed loop output mode	0～1	0	×
F05.15	Digital V RMS	In open loop output mode, the maximum output voltage is 100.0% motor rated voltage.	0.0～200.0% *Motor rated voltage	100.0%	○
F05.16	Deviation limit	It is used to limit the maximum deviation amplitude of voltage regulation in closed-loop mode, thus limiting the voltage to a safe range to ensure the reliable operation of the equipment.	0.0 ～ 5.0 % *Model rated voltage	2.0%	×
F05.17	VF Curve MAX V	This voltage represents the output voltage of the converter	0.0～100.0% *Model rated voltage	80.0%	×
F05.18	Adjust perime	This function code represents the speed of voltage adjustment. If the voltage response is slow, the parameter value can be reduced appropriately.	0.01～10.00s	0.10	×
F05.19	V raise time	F05.19~F05.20 is only effective for fully separated voltage open loop output mode。	0.1～3600.0S	10.0	○
F05.20	V fall time		0.1～3600.0S	10.0	○
F05.21	V loss handle	0: Alarm loss V run 1: Alarm limit V run 2: protection free stop	0～2	0	×
F05.22	V loss value	The maximum value given by voltage is taken as the upper limit value of the feedback breakage detection value. During the feedback break detection time, when the voltage feedback value is continuously less than the feedback break detection value, the frequency converter will make the corresponding protection action according to the F05.21 setting.	0.0～ 100.0%*Model rated voltage	2.0%	○
F05.23	V loss time	After the voltage feedback break occurs, the duration before the protection action.	0.0～100.0S	10.0	○

F05.24	Limeting V	This voltage represents the output voltage of the converter, and the reasonable setting of this parameter can prevent the equipment damage caused by the voltage overshoot at the break time	0.0～100.0% *Model rated voltage	80.0%	○
F05.25	Bus u-vol detec	If 0 is invalid, the bus voltage is lower than the parameter value and the E-34" is reported。	0～1000V	0	○
F05.26	Bus u-vol reset	If the bus voltage reaches the set value, the under voltage fault E-34" automatically reset and start.	0～1000V	0	○
F06-Analog termi					
Function Code	Name	Content	Setting Range	default	property
F06.00	AI1 set	0: Speed command (output frequency , -100.0%～100.0%) 1: Torque command (output torque , -200.0%～200.0%) 2: Voltage command (output voltage ,0.0%~200.0%* motor rated voltage)	0～2	0	×
F06.01	AI1 L_Limit	Setting AI1 lower limit	0.00V/0.00mA～10.00V/20.00mA	0.00	○
F06.02	AI1 L_Limit set	Set the lower limit of the AI1, which sets the percentage of the upper limit frequency.	-200.0%～200.0%	0.0%	○
F06.03	AI1 U_Limit	Setting AI1 Upper limit	0.00V/0.00mA～10.00V/20.00mA	10.00	○
F06.04	AI1 U_Limit set	AI1 upper limit is set, which sets the percentage of the upper limit frequency.	-200.0%～200.0%	100.0%	○
F06.05	AI1 Filter time	Setting AI1 Input Filter Time	0.00S～10.00S	0.05	○
F06.06	AI2 set	0: Speed command (output frequency, -100.0%～100.0%) 1: Torque command (output torque, -200.0%～200.0%) 2: Voltage command (output voltage, 0.0%～200.0%*model rated voltage	0～2	0	×
F06.07	AI2 L_Limit	Setting AI2 lower limit	0.00V～10.00V	0.00	○
F06.08	AI2 L_Limit set	Set the lower limit of the AI2, which sets the percentage of the upper limit frequency.	-200.0% ～ 200.0%	0.0%	○
F06.09	AI2 U_Limit	Setting AI2 Upper limit	0.00V～10.00V	10.00	○
F06.10	AI2 U_Limit set	AI2 upper limit is set, which sets the percentage of the upper limit frequency.	-200.0% ～ 200.0%	100.0%	○

F06.11	AI2 Filter time	Setting AI2 Input Filter Time	0.00S～10.00S	0.05	○
F06.12	AI anti shake	when the analog input signal fluctuates frequently near a given value, the frequency fluctuation caused by this fluctuation can be suppressed by setting the F06.12.	0.00V～10.00V	0.00	○
F06.13	ZF threshold	When F00.15=1(high frequency mode), the upper limit of the value of the function code is 500.0 Hz.	Zero frequency return	0.00	○
F06.14	ZF differece	Set Zero Frequency Return Error	0.00 ～ Zero frequency operating threshold	0.00	○
F06.15	DI set	0: Speed command (output frequency , -100.0%～100.0%) 1: Torque command (output torque , -200.0%～200.0%)	0～1	0	×
F06.16	DI L_Limit	External pulse DI7 input lower frequency	0.00～ 50.00kHz	0.00	○
F06.17	DI L_Limit set	setting the lower limit DI7 the external pulse corresponds to setting, this setting is the percentage relative to the maximum output frequency.	-200.0%～ 200.0%	0.0%	○
F06.18	DI U_Limit	External pulse DI7 input upper limit frequency	0.00～ 50.00kHz	50.00	○
F06.19	DI U_Limit set	Sets the upper limit DI7 external pulses as a percentage of the maximum output frequency。	-200.0%～ 200.0%	100.0%	○
F06.20	DI Filter time	Setting External Pulse Input Filter Time	0.00S～10.00S	0.05	○
F06.21	AO1 Func	0: Output freq1 (Before compensation for diversion) 1: Output freq2 (Transfer compensation) 2: Set freq 3: Motor speed (Estimated value) 4: A RMS 5: V RMS 6: Bus Volt 7: PID given 8: PID feedback 9: AI1 10: AI2 11: DI freq 12: Torque curr 13: Flux curr 14: Communication setting	0～14	0	○
F06.22	AO2 Func		0～14	4	○
F06.23	DO Func		0～14	11	○

F06.24	AO1 L_Limit set	Set AO1 output lower limit corresponding physical quantities	-200.0%～200.0%	0.0%	○
F06.25	AO1 L_Limit	Setting AO1 Output Limit	0.00～10.00V	0.00	○
F06.26	AO1 U_Limit set	AO1 output upper limit corresponding to physical quantities	-200.0%～200.0%	100.0%	○
F06.27	AO1 U_Limit	Setting AO1 Output Limit	0.00～10.00V	10.00	○
F06.28	AO2 L_Limit set	Set AO2 output lower limit corresponding physical quantities	-200.0%～200.0%	0.0%	○
F06.29	AO2 L_Limit	Setting AO2 Output Limit	0.00～10.00V	0.00	○
F06.30	AO2 U_Limit set	AO2 output upper limit corresponding to physical quantities	-200.0%～200.0%	100.0%	○
F06.31	AO2 U_Limit	Setting AO2 Output Limit	0.00～10.00V	10.00	○
F06.32	DO L_Limit set (Hold)	Set DO output lower limit corresponding physical quantities	-200.0%～200.0%	0.0%	○
F06.33	DO L_Limit (Hold)	Setting DO Output Limit	0.00～50.00kHz	0.00	○
F06.34	DO U_Limit set (Hold)	DO output upper limit corresponding to physical quantities	-200.0%～200.0%	100.0%	○
F06.35	DO U_Limit (Hold)	Setting DO Output Limit	0.00～50.00kHz	50.00	○
F06.36	Multi-point Cve	LED Single digit: AI1 Multipoint Curve Selection 0: Forbid 1: Effective LED Tens: AI2 Multipoint Curve Selection 0: Forbid 1: Effective LED Hundreds: Analog Input Signal Selection 0: AI1 and AI2 input signals 0～10V 1: AI1 input signal ～20 mA, AI2 input signal 0～10V 2: AI2 input signal 4～20 mA , AI1 input signal 0～10V 3: AI1 and AI2 input signals 4~20mA LED Thousands: Hold	000～311	000	×
F06.37	AI1 min input		0.00～【F06.39】	0.00	○
F06.38	AI1 min set		-200.0%～200.0%	0.0%	○

F06.39	AI1 inf-p1		【F06.37】～【F06.41】	3.00	○
F06.40	AI1 inf-p1 set		-200.0%～200.0%	30.0%	○
F06.41	AI1 inf-p2		【F06.39】～【F06.43】	6.00	○
F06.42	AI1 inf-p2 set		-200.0%～200.0%	60.0%	○
F06.43	AI1 max input		【F06.41】～10.00	10.00	○
F06.44	AI1 max set		-200.0%～200.0%	100.0%	○
F06.45	AI2 min input		0.00～【F06.47】	0.00	○
F06.46	AI2 min set		-200.0%～200.0%	0.0%	○
F06.47	AI2 inf-p1		【F06.45】～【F06.49】	3.00	○
F06.48	AI2 inf-p1 set		-200.0%～200.0%	30.0%	○
F06.49	AI2 inf-p2		【F06.47】～【F06.51】	6.00	○
F06.50	AI2 inf-p2 set		-200.0%～200.0%	60.0%	○
F06.51	AI2 max input		【F06.49】～10.00	10.00	○
F06.52	AI2 max set		-200.0%～200.0%	100.0%	○
F06.53	U limi v-prote	When the value of analog input AI1 is greater than F06.53, or AI1 input is less than F06.54, the converter DO terminal or relay outputs "AI1 input overrun" signal to indicate whether the input voltage of the converter is within the set range.	0.00V/0.00mA～10.00V/20.00mA	6.80	○
F06.54	L limi v-prote		0.00V/0.00mA～10.00V/20.00mA	3.10	○

F07-Digital termi

Function Code	Name	Content	Setting Range	default	property
F07.00	X1 Func (Default 58 function when F15.00 is non-zero value)	0: Controller idle 1: FWD 2: REV 3: 3wire work ctrl 4: FWD Jog ctrl 5: REV Jog ctrl 6: Free stop ctrl 7: RST input 8: Fault open input 9: Fault close input 10: Emergency stop func (Brake as fast as possible)	0～65	1	×
F07.01	X2 Func (Default 59 function when F15.00 is non-zero value)		0～65	2	×

F07.02	X3 Func (Default 60 function when F15.00 is non-zero value)	11: Externa shutdown Ctrl 12: ACC freq 13: DEC freq 14: UP/DOWN freq set 15: Multi step1 16: Multi step2 17: Multi step3 18: Multi step4 19: ACC/DEC time1 20: ACC/DEC time2 21: Run command1 22: Run command2 23: INV ACC/DEC forbid 24: INV run forbid 25: Switch panel 26: Switch termi 27: Switch commuciate 28: Auxiliary freq reset 29: A switch K*B 30: A switch A+K*B 31: A switch A-K*B 32: Reserved 33: PID ctrl input 34: PID ctrl pause 35: SF ctrl input 36: SF ctrl pause 37: SF reset 38: PLC ctrl input 39: PLC pause 40: PLC reset 41: Counter reset 42: Counter trigger 43: Timing trigger 44: Timing reset 45: Pluse freq (DI7 only) 46: Length reset 47: Length count (DI7 only) 48: Speed torgue switch 49: Torque ctrl forbid 50～57: Reserved 58: Start/stop 59: Operating permits 60: Inter lock1 61: Inter lock2 62: Inter lock3 63: PFC start/stop 64: A freq switch to B 65: PID 1 switch PID 2	0～65	4	×
F07.03	X4 Func (Default 61 function when F15.00 is non-zero value)		0～65	7	×
F07.04	X5 Func (Default 62 function when F15.00 is non-zero value)		0～65	8	×
F07.05	X6 Func (Default 63 function when F15.00 is non-zero value)		0～65	0	×

F07.06	X7 Func(High-speed Pulse Input)		0～65	45	×
F07.07	X8 Func	—	—	0	◆
F07.08	Filter num	1: 2 MS Scan time units	1～10	5	○
F07.09	Termi func sele	0: Command invalid 1: Command effective	0～1	0	○
F07.10	Input logic set	0 means positive logic, that is, the DIi terminal is connected to the common end and the disconnection is invalid 1 means Anti-logic, i.e. invalid connection between DIi terminal and common terminal, disconnected effectively	0～7FH	00	×
F07.11	FWD/REV mode	0: Two wire ctrl1 1: Two wire ctrl2 2: Three wire ctrl1 3: Three wire ctrl2	0～3	0	×
F07.12	Freq change rate	When F00.15=1(high frequency mode), the upper limit of the value of the function code is 500.0 Hz/S.	0.01 ～ 50.00Hz/S	1.00	○
F07.13	Reserved	—	—	0	◆
F07.14	DO1 delay time	The function code defines the delay between the switch output terminal DO1、DO2 and the relay R1、R2 state change to the output change。	0.0～100.0s	0.0	×
F07.15	DO2 delay time		0.0～100.0s	0.0	×
F07.16	R1 delay time		0.0～100.0s	0.0	×
F07.17	R2 delay time		0.0～100.0s	0.0	×
F07.18	DO1 set	0: NO output 1: INV FWD 2: INV REV 3: Fault output 4: FDT1 level 5: FDT2 level 6: FAR signal 7: INV zero speed 8: Out freq H_limit 9: Out freq L_limit 10: Set freq L_limit 11: INV overload	0～61	0	×

F07.19	DO2 set	12: Cnt detection output 13: Cnt reset output 14: INV ready1 15: PLC MMS cycle 16: PLC MMS 17: SF up low limit 18: Limiting operation 19: Over V stall action 20: Under V lockout stop 21: Dormay 22: INV alarm signal 23: AI1>AI2 24: Length reach output 25: Regular time 26: Energy braking action 27: DC braking action 28: Flux braking action 29: Torgue limit 30: Torgue instruction 31: Auxiliary motor1 32: Auxiliary motor2 33: Total running time 34～49: MMS0~MMS15 50: Run shom signal 51: High temp output 52: INV stop or z-speed 53: Reserved 54: Reserved 55: Comunication Setting 56: INV ready2 57: AI1 input over vol 58: Out-curr over limit 59: Inter lock1 output 60: Inter lock2 output 61: Inter lock3 output	0～61	0	×
F07.20	Relay R1		0～61	3	×
F07.21	Relay R2		0～61	0	×
F07.22	Output logic set	0: Y1,Y2:Positive 1: Y1:Anti Y2:Positive 2: Y1:Positive Y2:Anti 3: Y1,Y2:Anti	0～3H	0	×
F07.23	FAR		0.0～100.0%*【F00.13】	10.0%	○
F07.24	FDT1 mode	0: Speed set value 1: Speed test value	0～1	0	○
F07.25	FDT1 level set		0.00Hz～【F00.13】	50.00	○
F07.26	FDT1 lag value		0.0～100.0%*【F07.25】	2.0%	○
F07.27	FDT2 mode	0: Speed set value 1: Speed test value	0～1	0	○
F07.28	FDT2 level set	The function code defines the delay between the switch	0.00Hz～【F00.13】	25.00	○

F07.29	FDT2 lag value	output terminal DO1、DO2 and the relay R1、R2 state change to the output change	0.0～100.0%*【F07.28】	4.0%	○
F07.30	Counter reach	0: Stop cnt stop output 1: Stop cnt output 2: Cycle cnt stop output 3: Cycle cnt output	0～3	3	×
F07.31	Counter start	0: Always start 1: Run start Stop stop	0～1	1	×
F07.32	Counter set	This function code defines the counter count reset value and detection value. When the count value of the counter reaches the value set F11.21 the function code, the corresponding multi-function output terminal (counter reset signal output) outputs the valid signal and clears the counter.	【F07.33】～65535	0	○
F07.33	Counter reset		0～【F07.32】	0	○
F07.34	Timing reach	0: timing stop output 1: stop timing output 2: Cycle timing stop out 3: Cycle timing output	0～3	3	×
F07.35	Timing start	0: Always start 1: Run start Stop stop	0～1	1	×
F07.36	Timing sime	Setting timing	0～65535S	0	○
F07.37	DO1 cut off time	The function code defines the delay between the switch output terminal DO1、DO2 and the relay R1、R2 state change to the output change.	0.0～100.0s	0.0	×
F07.38	DO22 cut off time		0.0～100.0s	0.0	×
F07.39	R1 cut off time		0.0～100.0s	0.0	×
F07.40	R2 cut off time		0.0～100.0s	0.0	×

F08-PID Control

Function Code	Name	Content	Setting Range	default	property
F08.00	PID mode	0: Automatic 1: Terminal input	0～1	0	×
F08.01	PID ref sele	0: Digital given 1: AI1 2: AI2 3: Pluse given 4: RS485 comunication 5: Pressure given (MPa、Kg) 6: Potentiometer	0～6	0	○
F08.02	PID ref setting	When analog feedback is used, the function code realizes the use of operation panel to set the feed quantity of closed-loop control. Only	0.0～100.0%	50.0%	○

		when the closed-loop given channel selects the number given (F08.01 is 0), this function is effective.			
F08.03	PID feedback	0: AI1 1: AI2 2: AI1+AI2 3: AI1-AI2 4: MAX(AI1, AI2) 5: MIN(AI1, AI2) 6: Pluse given 7: RS485 comunication	0～7	0	○
F08.04	PID senior set	LED Single digit: PID polarity selection 0: positive 1: negative LED Tens: Proportional adjustment characteristics (Hold) 0: Constant proportional integral adjustment 1: Automatic Variable Scale Integral Adjustment LED Hundreds: Integral adjustment 0: When the frequency reaches the upper and lower limits, stop the integral adjustment 1: When the frequency reaches the upper and lower limits, continue the integral adjustment LED Thousands: Hold	000～111	000	×
F08.05	KP1	PID the speed of adjusting speed is set by the two parameters of proportional gain and integral time. It is necessary to increase the proportional gain and reduce the integral time, and to reduce the proportional gain and the integral time. In general, differential time is not set; 0.0: Automatic。	0.01～100.00	2.50	○
F08.06	TI1		0.01～10.00s	0.10	○
F08.07	TD1		0.01～10.00s	0.00	○
F08.08	Sample cycle	The sampling period is the sampling period for the feedback quantity. In each sampling period, the regulator operates once, and the larger the sampling period, the slower the response is, but the better	0.01～10.00s	0.10	○

		the suppression effect on the interference signal is, generally it is not necessary to set it; 0.00: Auto。			
F08.09	PID err band	Deviation limit is the ratio of the absolute value of the deviation between the system feedback quantity and the given quantity to the given quantity. When the feedback quantity is within the deviation limit range, the PID adjusts the non-action。	0.0～100.0%	0.0%	○
F08.10	Closeloop freq	This function code defines the frequency and running time of the converter before the PID is put into operation when the PID control is effective. In some control systems, in order to make the controlled object reach the predetermined value quickly, the frequency converter is set according to the function code, and the F08.10 of a certain frequency value and the F08.11. of frequency holding time are forced to be output that is, when the control object is close to the control target, the PID controller is put into operation to improve the response speed.	0.00 ～ Upper limiting frequency	0.00	○
F08.11	Preset freq time		0.0～3600.0s	0.0	×
F08.12	Sleep mode	0: Invalid 1: Normal sleep 2: Disturbance sleep 3:	0～3	1	×
F08.13	Sleep stop mode	0: Decel stop 1: Free stop	0～1	0	○
F08.14	Press err band	F08.12=1 sketch map （sleep mode 1）	0.0～10.0%	0.5%	○
F08.15	Sleep threshold		0.0～200.0% *Setting pressure	100.0%	○
F08.16	Wake threshold		0.0～200.0% *Setting pressure	90.0%	○
F08.17	Sleep delay time	F08.12=2 sketch ma（sleep mode 2）	0.0～3600.0s	100.0	○
F08.18	Wake delay time		0.0～3600.0s	5.0	○

F08.19	KP2	PID the speed of adjusting speed is set by the two parameters of proportional gain and integral time. It is necessary to increase the proportional gain and reduce the integral time, and to reduce the proportional gain and the integral time. In general, differential time is not set; 0.0: No differential。	0.01～100.00	1.00	○
F08.20	TI2		0.01～10.00s	0.10	○
F08.21	TD2		0.01～10.00s	0.00	○
F08.22	PID U_limit freq	Setting the PID upper limit frequency	【F08.23】～300.00Hz	50.00	×
F08.23	PID L_limit freq	Setting the PID lower limit frequency	—300.00Hz～【F08.22】	0.00	×
F08.24	Sleep freq	Setting Sleep Frequency	0.00Hz～【F00.13】	0.00	×
F09-PLC&SF&FL Ctrl					
Function Code	Name	Content	Setting Range	default	property
F09.00	PID Run mod sele	0: Single cycle stop 1: Final value running 2: Finite cotinue cycle 3: cotinue cycle	0～3	0	×
F09.01	PLC input mode	0: Automatic 1: Terminal input	0～1	0	×
F09.02	PLC loss memory	0: Not store 1: Store loss time F&P	0～1	0	×
F09.03	PLC start mode	0: Restart 1: Downtime start 2: Downtime freq start	0～2	0	×
F09.04	Finite cycle num	Fixed PLC number of cycles	1～65535	1	○
F09.05	PLC time unit	0: s 1: m	0～1	0	×
F09.06	MU1t_step freq0	Set Multi-Speed Frequency 0	- upper frequency ~ upper frequency	5.00	○
F09.07	MU1t_step freq1	Set Multi-Speed Frequency 1	- upper frequency ~ upper frequency	10.00	○
F09.08	MU1t_step freq2	Set Multi-Speed Frequency 2	- upper frequency ~ upper frequency	15.00	○
F09.09	MU1t_step freq3	Set Multi-Speed Frequency 3	- upper frequency ~ upper frequency	20.00	○
F09.10	MU1t_step freq4	Set Multi-Speed Frequency 4	- upper frequency ~ upper frequency	25.00	○
F09.11	MU1t_step freq5	Set Multi-Speed Frequency 5	- upper frequency ~	30.00	○

			upper frequency		
F09.12	MU1t_step freq6	Set Multi-Speed Frequency 6	- upper frequency ~ upper frequency	40.00	○
F09.13	MU1t_step freq7	Set Multi-Speed Frequency 7	- upper frequency ~ upper frequency	50.00	○
F09.14	MU1t_step freq8	Set Multi-Speed Frequency 8	- upper frequency ~ upper frequency	0.00	○
F09.15	MU1t_step freq9	Set Multi-Speed Frequency 9	- upper frequency ~ upper frequency	0.00	○
F09.16	MU1t_step freq10	Set Multi-Speed Frequency 10	- upper frequency ~ upper frequency	0.00	○
F09.17	MU1t_step freq11	Set Multi-Speed Frequency 11	- upper frequency ~ upper frequency	0.00	○
F09.18	MU1t_step freq12	Set Multi-Speed Frequency 12	- upper frequency ~ upper frequency	0.00	○
F09.19	MU1t_step freq13	Set Multi-Speed Frequency 13	- upper frequency ~ upper frequency	0.00	○
F09.20	MU1t_step freq14	Set Multi-Speed Frequency 14	- upper frequency ~ upper frequency	0.00	○
F09.21	MU1t_step freq15	Set Multi-Speed Frequency 15	- upper frequency ~ upper frequency	0.00	○
F09.22	ACC/DEC time0	Set the speed acceleration and deceleration time in paragraph 0	0～3	0	○
F09.23	Run time0	Set the 0th speed running time	0.0～6553.5S(M)	0.0	○
F09.24	ACC/DEC time1	Set the speed acceleration and deceleration time in paragraph 1	0～3	0	○
F09.25	Rum time1	Set the 1th speed running time	0.0～6553.5S(M)	0.0	○
F09.26	ACC/DEC time2	Set the speed acceleration and deceleration time in paragraph 2	0～3	0	○
F09.27	Run time2	Set the 2th speed running time	0.0～6553.5S(M)	0.0	○
F09.28	ACC/DEC time3	Set the speed acceleration and deceleration time in paragraph 3	0～3	0	○
F09.29	Run time3	Set the 3th speed running time	0.0～6553.5S(M)	0.0	○

F09.30	ACC/DEC time4	Set the speed acceleration and deceleration time in paragraph 4	0～3	0	○
F09.31	Run time4	Set the 4th speed running time	0.0～6553.5S(M)	0.0	○
F09.32	ACC/DEC time5	Set the speed acceleration and deceleration time in paragraph 5	0～3	0	○
F09.33	Run time5	Set the 5th speed running time	0.0～6553.5S(M)	0.0	○
F09.34	ACC/DEC time6	Set the speed acceleration and deceleration time in paragraph 6	0～3	0	○
F09.35	Run time6	Set the 6th speed running time	0.0～6553.5S(M)	0.0	○
F09.36	ACC/DEC time7	Set the speed acceleration and deceleration time in paragraph 7	0～3	0	○
F09.37	Run time7	Set the 7th speed running time	0.0～6553.5S(M)	0.0	○
F09.38	ACC/DEC time8	Set the speed acceleration and deceleration time in paragraph 8	0～3	0	○
F09.39	Run time8	Set the 8th speed running time	0.0～6553.5S(M)	0.0	○
F09.40	ACC/DEC time9	Set the speed acceleration and deceleration time in paragraph 9	0～3	0	○
F09.41	Run time9	Set the 9th speed running time	0.0～6553.5S(M)	0.0	○
F09.42	ACC/DEC time10	Set the speed acceleration and deceleration time in paragraph 10	0～3	0	○
F09.43	Run time10	Set the 10th speed running time	0.0～6553.5S(M)	0.0	○
F09.44	ACC/DEC time11	Set the speed acceleration and deceleration time in paragraph 11	0～3	0	○
F09.45	Run time11	Set the 11th speed running time	0.0～6553.5S(M)	0.0	○
F09.46	ACC/DEC time12	Set the speed acceleration and deceleration time in paragraph 12	0～3	0	○
F09.47	Run time12	Set the 12th speed running time	0.0～6553.5S(M)	0.0	○
F09.48	ACC/DEC time13	Set the speed acceleration and deceleration time in paragraph 13	0～3	0	○
F09.49	Run time13	Set the 13th speed running time	0.0～6553.5S(M)	0.0	○

F09.50	ACC/DEC time14	Set the speed acceleration and deceleration time in paragraph 14	0～3	0	○
F09.51	Run time14	Set the 14th speed running time	0.0～6553.5S(M)	0.0	○
F09.52	ACC/DEC time15	Set the speed acceleration and deceleration time in paragraph 15	0～3	0	○
F09.53	Run time15	Set the 15th speed running time	0.0～6553.5S(M)	0.0	○
F09.54	Reserved	—	—	0	◆
F09.55	SF ctrl	0: Forbid 1: Effective	0～1	0	×
F09.56	SF input mode	0: Automatic 1: Terminal input	0～1	0	×
F09.57	Swing ctrl	0: Fixed swing 1: Variable swing	0～1	0	×
F09.58	SF stop mode	0: Store start 1: Restart	0～1	0	×
F09.59	SF loss store	0: Store 1: Not store	0～1	0	×
F09.60	SF preset freq	The frequency of the frequency converter before entering the swing mode or when it is out of the swing mode and the time at this frequency point. If the function code F09.61=0(swing frequency preset frequency waiting time) is set, the frequency converter directly enters the swing frequency preset frequency operation after starting, and enters the swing frequency mode after passing through the swing frequency preset frequency waiting time.	0.00Hz～Upper limit frequency	10.00	○
F09.61	SF freq time		0.0～3600.0s	0.0	×
F09.62	SF amplitude	The swing amplitude is determined by the F09.62 of its reference quantity, and the operating frequency of the swing is constrained by the upper and lower limit frequencies. if the setting is improper, the swing operation is not normal.	0.0～100.0%	0.0%	○
F09.63	Jump freq	This function code refers to the amplitude of rapid decrease when the frequency reaches the upper limit frequency in the swing process, and of course, the amplitude of rapid rise after the frequency reaches the lower limit frequency of the swing. Set to	0.0 ～ 50.0 %（Relative swing amplitude）	0.0%	○

		0.0%, there is no sudden jump frequency.			
F09.64	SF raise time	This function code defines the running time from the lower limit frequency of the swing frequency to the upper limit frequency of the swing frequency and the running time from the upper limit frequency of the swing frequency to the lower limit frequency of the swing frequency.	0.1～3600.0s	5.0	○
F09.65	SF fall time		0.1～3600.0s	5.0	○
F09.66	Reserved	—	—	0	◆
F09.67	Fix length ctrl	0: Forbid 1: Effective	0～1	0	×
F09.68	Length set	This group function is used to realize the function of fixed length shutdown. The frequency converter inputs the counting pulse from the terminal (DI7 defined as function 47), and the calculated length is obtained according to the number of pulses (F09.73) and the axis circumference (F09.72) per rotation of the speed measuring axis. Calculate length = count pulse number ÷ pulse number per rotation × measure axis circumference. The calculated length is corrected by length ratio (F09.70) and length correction coefficient (F09.71) to obtain the actual length. The actual length = calculated length × length ratio ÷ length correction coefficient. When the actual length (F09.69) ≥ the set length (F09.68), the converter automatically sends out stop instructions to stop. The actual length (F09.69) should be cleared or the actual length (F09.69)< set length (F09.68) should be modified before running again, otherwise it can not start.	0.000 ～ 65.535(KM)	0.000	○
F09.69	Actual length		0.000 ～ 65.535(KM)	0.000	○
F09.70	Length ratio		0.100～30.000	1.000	○
F09.71	Length correct		0.001～1.000	1.000	○
F09.72	Measure axis		0.10 ～ 100.00CM	10.00	○
F09.73	Pluse num		1～65535	1024	○
F10-Protect pata					
Function Code	Name	Content	Setting Range	default	property

F10.00	Overload protect	0: Forbid 1: Ordinary motor (electronic thermal relay mode, low speed with compensation) 2: Frequency conversion motor (electronic thermal relay mode, low speed without compensation)	0～1	1	×
F10.01	Protect ratio	20.0%～120.0%	20.0 % ～ 120.0%	100.0%	×
F10.02	Under_V protect	0: Forbid 1: Effective (Undercurrent as fault)	0～1	0	×
F10.03	Under_V level	This function code specifies the lower limit voltage allowed by DC bus when the frequency converter is working normally.	220V : 180 ～ 280V 380V : 330 ～ 480V	Model setting	×
F10.04	Over_V level	The over voltage limit level defines the operating voltage during over voltage stall protection.	220V : 350 ～ 390V 380V : 600 ～ 780V	Model setting	×
F10.05	Dev_V ratio	In the process of deceleration, the greater of the value, the stronger of the ability to suppress over voltage;0:Over pressure stall protection is invalid.	0～100	Model setting	×
F10.06	Curr level	Over voltage limit level defines the operating voltage when voltage stall protection.	80 % ～ 200 % *Frequency converter rated current	Model setting	×
F10.07	Magnetic curr	0: Curr limit 1: Converting Curr limit	0～1	0	×
F10.08	Acc curr ratio	The larger of the value, the stronger of the ability to suppress over current; 0: The acceleration current limit is invalid.	0～100	Model setting	×
F10.09	Con curr ratio	0: invalid 1: valid	0～1	1	×
F10.10	Overload protect	The detection time (F10.10) defines that the output current of the converter is continuously less than the detection level (F10.11) after a certain period of time, the signal is output; 0: Invalid load detection。	0.1S～60.0S	5.0	○
F10.11	Protect ratio		0 ～ 100%*Frequency converter rated current	0%	○
F10.12	Under_V protect	When the output current of the frequency converter is greater than the horizontal	20 % ～ 200 % *Frequency converter	Model setting	○

		amplitude of overload pre-alarm (F10.12) by setting the parameter F10.12、F10.13, the frequency converter outputs the pre-alarm signal after delay (F10.13) processing, that is, the "A-09"." is displayed in the operation panel	rated current		
F10.13	Under_V level		0.0～30.0s	10.0	○
F10.14	Over_V level	By setting the function 51 in the function code F07.18~F07.21, the indicator signal is output when the temperature reaches the setting.	0.0℃～90.0℃	65.0℃	×
F10.15	Lak_pha prot	0: Prohibit 1: In prohibit Out allow 2: In allow Out prohibit 3: Allow	0～3	Model setting	×
F10.16	Lak_P prot delay	When the input phase-deficiency protection is effective and the input phase-deficiency fault occurs, the action "E-12", and stop freely" after the F10.16 defined time.	0.0～30.0s	1.0	○
F10.17	Lak_P prot bench	When the actual output current of the motor is greater than the rated current[F10.17]], if the output phase-deficiency protection is effective, the converter protection action [E-13], and free shutdown] after 5 S delay time.	0 % ～ 100 % *Frequency converter rated current	50%	×
F10.18	imbala detec	If the ratio of the maximum to the minimum of the three-phase output current is greater than this coefficient and the duration exceeds 10 seconds, the inverter reports that the output current is unbalanced E-13. the fault F10.18=1.00, the output current imbalance detection is invalid.	1.00～10.00	1.00	×
F10.19	Reserved	—	—	0	◆
F10.20	PID loss action	0: NO action 1: Loss freq running 2: protection free stop 3: Alarm zero run	0～3	0	×
F10.21	PID ref loss	PID the maximum given quantitative value as the upper limit of the feedback break	0.0～100.0%	0.0%	○

		detection value. When the feedback value of the PID is continuously less than the feedback detection value during the feedback break detection time, the frequency converter will make the corresponding protection action according to the F09.20 setting.			
F10.22	Loss time	After the feedback break occurs, protect the duration before the action.	0.0～3600.0S	10.0	○
F10.23	Reserved	—	—	0	◆
F10.24	RS485 abnormal	0: Protection free stop 1: Alarm continue run 2: Alarm stop	0～2	1	×
F10.25	RS485 Overtime	RS485 communication is considered does not receive the correct data signal within the time interval defined by this function code, it is considered that RS485 communication is abnormal and the frequency converter will make the corresponding action according to the F10.24 setting. Do not do RS485 communication timeout check when this value is set to 0.0.	0.0～100.0s	5.0	○
F10.26	Panel abnormal	0: Protection free stop 1: Alarm continue run 2: Alarm stop	0～2	1	×
F10.27	Panel overtime	If the panel communication does not receive the correct data signal within the time interval defined by this function code, then if the panel communication is abnormal, the inverter will make the corresponding action according to the F10.26 setting.	0.0～100.0s	1.0	○
F10.28	EEPROM error	0: Protection free stop 1: Alarm continue run	0～1	0	×
F10.29	Out-Gnd protect	—	—	0	◆
F10.30	Overspeed action				
F10.31	Overspeed value				
F10.32	Overspeed time				

F10.33	OC&IGBTResettime				
F10.34	ModifyFreq Coe				
F10.35	Persist				
F11-Comm para					
Function Code	Name	Content	Setting Range	default	property
F11.00	Agreement sele	0: MOBUS 1: Automatic	0～3	0	×
F11.01	Local address	0: Broadcast address 1～247: Slave station	0～247	1	×
F11.02	Baudrate	0: 2400BPS 1: 4800BPS 2: 9600BPS 3: 19200BPS 4: 38400BPS 5: 115200BPS	0～5	3	×
F11.03	Date format	0: (N, 8, 1) for RTU 1: (E, 8, 1) for RTU 2: (O, 8, 1) for RTU 3: (N, 8, 2) for RTU 4: (E, 8, 2) for RTU 5: (O, 8, 2) for RTU ASCII model provisionally retained	0～5	1	×
F11.04	Local delay	This function code defines the end of the frequency converter data frame reception and sends the intermediate time interval of the reply data frame to the upper computer. If the reply time is less than the system processing time, the system processing time shall prevail. If the delay is greater than the system processing time, the system should delay and wait until the reply delay time arrives before sending the data to the upper computer.	0～200ms	5	×
F11.05	Trans response	0: Write response 1: Write not response	0～1	0	×
F11.06	Proportion ratio	This function code is used to set the frequency converter as the weight coefficient of the frequency instruction received by the slave through the RS485 interface. The actual operating frequency of the machine is equal to the	0.01～10.00	1.00	○

		value of the function code multiplied by the frequency set instruction value received through the RS485 interface. In continuous control, this function code can set the proportion of frequency of multiple frequency converters.			
F11.07	Trans mode sele	LED Single digit: Communication Mode Selection 0: General Mode 1: MD380 Mode LED Tens: Broadcast Frequency Source Selection 0: Host setting frequency 1: Host frequency source A 2: Host frequency source B LED Hundreds: Hold LED Thousands: Hold	00～21	00	×
F11.08	Trans disp sele	LED Single digit: Communication Bus Voltage Display Selection 0: Normal display 1: Magnify 10 times 2: Magnify 100 times 3: 10 times smaller 4: 100 times smaller LED Tens: Communication current display selection 0: Normal display 1: Magnify 10 times 2: Magnify 100 times 3: 10 times smaller 4: 100 times smaller LED Hundreds: Running Frequency Display Selection 0: Normal display 1: Magnify 10 times 2: Magnify 100 times 3: 10 times smaller 4: 100 times smaller LED Thousands: Hold	000～444	000	×

F12-Enhanced func

Function Code	Name	Content	Setting Range	default	property
F12.00	Brake func	0: Invalid 1: Whole process 2: Valid Only Dec	0～2	1	×
F12.01	Brake start-V			Model setting	○

F12.02	Brake Volt			Model setting	○
F12.03	Brake propor		10～100%	100%	○
F12.04	Blackout restart	0: Forbid 1: Start freq start 2: Speed tracking	0～2	0	×
F12.05	Restart time	During the waiting time for restart, entering any running instruction is invalid. If the stop instruction is input, the frequency converter automatically releases the speed tracking and restart state and returns to the normal shutdown state.	0.0～60.0s	5.0	×
F12.06	Auto reset time	Failure automatic reset times are set by the F12.06. Failure reset times set to 0, no automatic reset function, can only be manually reset, F12.06 set to 100, indicating that the number of times is not limited, that is, countless times.	0～100	0	×
F12.07	Reset interval	After the failure occurs during operation, the inverter stops output and displays the fault code. After F12.07 the set reset interval, the inverter automatically reset the fault and restart the operation according to the set starting mode。	0.1～60.0s	3.0	×
F12.08	Cool fan ctrl	0: Automati ctrl mode 1: Electricity running 2、Action when>50degree	0～2	0	○
F12.09	Limit password	By default, the password is 0, you can set F12.10,F12.11 item; when there is a password, you must verify the password correctly before you can set F12.10,F12.11 item.	0～65535	0	○
F12.10	Limit func	0: Forbid 1: Effective	0～1	0	○
F12.11	Limit time	Set Limit Time	0～65535(h)	0	×
F12.12	Reduce point	If the frequency converter bus voltage drops below the F12.12* rated bus voltage and the transient stop control is effective, the transient stop starts.	220V:180～330V 250V 380V:300～550V 450V	Model setting	×

F12.13	Reduce ratio	The larger of the value, the faster of the frequency reduction rate; 0: Instant stop function is invalid.	0～100	0	○
F12.14	Dropping ctrl	0.00: The droop control function is invalid. When multiple frequency converters drive the same load, the load distribution is uneven due to different speed, which makes the frequency converter with larger speed bear heavy load. The droop control characteristic is that the speed droop changes with the increase of the load, which can make the load balanced distribution, and this parameter adjusts the frequency variation of the frequency converter with the speed droop.	0.00～10.00Hz	0.00	×
F12.15	Track time	Before the frequency converter speed tracking begins, after this delay, start tracking.	0.1～5.0S	1.0	×
F12.16	Track curr	During the speed tracking process, the function code plays the role of automatic current limiting. When the actual current reaches the threshold (F12.16), the frequency converter reduces the frequency limit and then continues to track and accelerate. The set value is the percentage of rated current relative to the frequency converter.	80 % ～ 200 % *Frequency converter rated current	100%	×
F12.17	Track speed	Speed tracking and restart, select the speed of speed tracking. The smaller the parameter, the faster the tracking speed. But being too fast can lead to unreliable tracking.	1～125	25	×

F12.18	PWM mode	LED Single digit: PWM synthesis 0: Full frequency seven 1: Seven-step speed to five-step speed LED Tens: PWM temperature correlation 0: invalid 1: valid LED Hundreds: PWM frequency correlation 0: Invalid 1: Low frequency adjustment, high frequency adjustment 2: Low frequency does not adjust, high frequency adjustment3: : Low frequency adjustment, high frequency does not adjust LED Thousands: Flexible PWM function 0: Invalid 1: valid	0000～1311	0001	×
F12.19	Volt ctrl	LED Single digit: AVR function 0: Invalid 1: Full valid 2: Invalid for deceleration only LED Tens: Over modulation selection 0: Invalid 1: valid LED Hundreds: Dead zone compensation option 0: Invalid 1: valid LED Thousands: Shock suppression option 0: Invalid 1: Shock suppression mode 1 2: Shock suppression mode 2 3: Shock suppression mode 3	0000～3112	1102	×
F12.20	Shake inhibtion	Set initial frequency of oscillation suppression	0.00 ～ 300.00Hz	Model setting	○
F12.21	Flux brake	This parameter is used to adjust the ability of flux braking in frequency converter during deceleration. The larger this value, the stronger the flux braking ability. To a certain extent, the shorter the deceleration time, the parameter generally does not need to be set, this value is 0, indicating that	0～100	0	○

		the function is invalid. When the over-voltage limit level is low, turning on this function can shorten the deceleration time appropriately. When the over-voltage limit level is set high, this function does not need to be turned on.			
F12.22	Saving ctrl	0: invalid 1: Automatic energy saving operation Note: Energy-saving operation is effective for general V/F control	0～100	0	○
F12.23	MMS priorty	0: Invalid 1: MMS	0～1	0	×
F12.24	Jog priority	0: Invalid 1: Jog priority high	0～1	0	×
F12.25	Special func	LED Single digit:AO2 and DO output selection 0: AO2 valid 1: DO valid (hold) LED Tens: IPM Fault Settings 0: shield the fault 1: the fault is valid LED Hundreds: Input Fault Reset Selection 0: Not reset 1: When the power is normal, reset LED Thousands: Reserved	000～110	010	×
F12.26	U-limit shoc-spr	Set the maximum oscillation suppression frequency	0.00 ～ 300.00Hz	50.00	○
F12.27	Osc Suppre Coe	When F12.19 thousands =1, PWM mode is forced to be five-paragraph; F12.19 thousands =2(shock suppression mode 2), Stay the same pattern, both modes can be adjusted by the oscillation suppression coefficient (F12.27), respectively. On special occasions, If the first two models don't contain shocks, With shock suppression mode 3(F12.19 thousands =3), The parameters F12.27(oscillation suppression coefficient) are adjusted together with F12.28(oscillation suppression voltage.	1～500	50	○
F12.28	Osc Suppre vol		0.0 ～ 25.0%*Motor rated voltage	5.0	○

F12.29	Limit curr sele	LED Single digit: Selection of Wave-by-Wave Current Limit Acceleration 0: Forbid 1: Effective LED Tens: Selection of Wave-by-Wave Current Reduction 0: Forbid 1: Effective LED Hundreds: Selection of Wave by Wave Current Limit Constant Speed 0: Forbid 1: Effective LED Thousands: Selection of anti-over pressure action 0: Forbid 1: Effective	0000～1111	0011	○
F12.30	D-Start Func	LED Single digit: Direct function selection 0: Forbid 1: Effective LED Tens: Over torque alarm code "A-07" show selection 0: display 1: blank LED Hundreds: Reserved LED Thousands: Reserved	00～00	Model setting	○
F13-Reserved para					
F14-Dis and Moni					
Function Code	Name	Content	Setting Range	default	property
F14.00	M-FUNC key func	0: Jog 1: FWD/REV switch 2: Clear set freq 3: Local remote switch 4: REV	0～4	0	×
F14.01	STOP/RST func	0: Panel ctrl 1: Panel termi 2: Panel communication 3: All ctrl	0～3	3	○
F14.02	STOP+RUN func	0: Invalid 1: Free stop	0～1	1	○
F14.03	FVC ratio	This function code is used to correct the display error between the actual physical quantity (pressure, flow, etc.) and the given or feedback quantity (voltage, current) when closed-loop control, and has no effect on the closed-loop regulation.	0.01～100.00	1.00	○

F14.04	Load ratio	This function code is used to correct the error of speed scale display and has no effect on actual speed.	0.01～100.00	1.00	○
F14.05	Lin speed ratio	This function code is used to correct the line speed scale display error and has no effect on the actual speed.	0.01～100.00	1.00	○
F14.06	PG rate	he larger of the value, the faster of the encoder adjusts	1～100	70	○
F14.07	R-monitor para1	The monitoring items of the main monitoring interface can be changed by changing the set value of the above function code. For example, setting the F14.07=5, that is, selecting the output current d-05, the default display item of the main monitoring interface is the current output current value.	0～57	0	○
F14.08	R-monitor para2		0～57	5	○
F14.09	S-monitor para1	0:Output freq 1:Setting freq 2:Reckon freq 3:Main setting freq 4:Assist setting freq 5:A RMS 6:V RMS 7:Output torque 8:Motor speed 9:Power factor 10:Running speed 11:Setting speed 12:Bus Voltage 13:Input Voltage 14:PID setting value 15:PID feedback value 16:AI1 17:AI2 18:Input pulse freq 19:AO1 20:AO2 21:Input termi 22:Output termi 23:INV mode 24:MMS 25:Output pulse freq 26:Reserved 27:Current cnt value 28:Setting cnt value 29:Current time 30:Setting time 31:Current length 32:Setting length	0～57	1	○
F14.10	S-monitor para2		0～57	13	○

		33:Heak sink Temp1 34:Heak sink Temp2 35:Cumulate run time 36:Cumulate elec time 37:Cumulate fan time 38:Cumulate electro1 39:Cumulate electro2 40-47:Reserved 48:Fault code3 49:Fault code2 50:Fault code1 51:Current Fault code 52:Fault running freq 53:Fault A RMS 54:Fault BUS Woltage 55:Fault Input termi 56:Fault Output termi 57:Fault INV mode The monitoring items of the main monitoring interface can be changed by changing the set value of the above function code. For example, setting the F14.09=6, that is, selecting the output voltage d-06, then stopping, the default display item of the main monitoring interface is the current output voltage value.			
F14.11	Para mode	LED Single digit: Function parameter display mode selection 0: Display all functional parameters 1: Displays only parameters different from factory values 2: Displays only parameters modified after last power-up (reserved) LED tens: Monitor parameter display mode selection 0: Main monitoring parameters displayed only 1: Display Alternatives between main and auxiliary (1 S interval) LED Hundreds: Adjustment frequency display selection 0: Display frequency 1: Display status monitoring parameters only LED Thousands: Panel ▲/▼ key adjustment enable 0: valid 1: invalid	0000～1112	0000	○

F14.12	Para init	0: Disp func para 1: Disp diff para 2: All user parameters restored factory setting 3: Clearance of fault records	0～3	0	×
F14.13	Para protect	0:Modify all para(Some parameters in the run can not be modified)1: Modify P00.07、P00.10 2: Forbid modify Note: The above restrictions are invalid for this function code and F14.13	0～2	0	○
F14.14	Para copy	0: NO operation 1: Para upload panel 2: Download INV 3: Download NOmotor para Note 1: when selecting parameters to download, the software will determine whether the inverter power specifications are consistent, if not, the parameters related to the model will not be modified. Note 2: only external keyboard KB2 have copy function, ordinary keyboard copy will improve the error.	0～3	0	×
F14.15	CVN	F14.15 ～ F14.16 can only be viewed, not modified.	1.00～99.99	4.12	◆
F14.16	PVN		1.00～99.99	1.00	◆
F14.17	INV Rtd power	This parameter can only be viewed and can not be modified.	0.4 ～ 999.9KW (G/P)	Model setting	◆
F14.18	INV select	0: G mode (Constant Torque Load Type) 1: P mode (Fan, Pump Load Type) Note 1: after setting to P type machine, the motor parameters are refreshed automatically, and no change of any parameters can be used as a special frequency converter for large fan pump Note 2: This parameter can not be initialized, please modify it manually	0～1	0	×

F15-MP W-supply

Function Code	Name	Content	Setting Range	default	property
F15.00	Terminal delay	Water pump input disconnection delay。	0.0～6000.0s	0.1	○
F15.01	Polling time	Polling time is the time to switch switching frequency conversion pump, which is only valid when single pump works.	0.0～6000.0h	48.0	○

F15.02	Rdu-pump L-limit	When the feedback pressure is higher than the set pressure, the frequency drops to the lower limit frequency of the pump.	0.0～600.00HZ	35.00	×
F15.03	Mpump S-up delay	This parameter is used in "one towing three constant pressure water supply ", after the main and auxiliary pump switch, the main pump start delay.	0.0～3600.0s	0.0	○
F15.04	Aux pump s-up md	0: Direct start 1: Soft start	0～1	0	×
F15.05	Add pump time	Set up pump delay time	0.0～3600.0s	10.0	○
F15.06	Reduce pump time	Set down pump delay time	0.0～3600.0s	10.0	○
F15.07	Sensor range	When F08.01=5, according to the field situation, select sensor range (F15.07), given pressure (F15.08).	0.00 ～ 60.00 (MPa、Kg)	10.00	○
F15.08	Pressure setting		0.00 ～ 【 F15.07 】 (MPa、Kg)	5.00	○

F16-PV para Setting

Function Code	Name	Content	Setting Range	default	property
F16.00	WS dect time	When the bus voltage (d-12) is higher than the MPPT high operating voltage (F16.02) setting value, Run at maximum frequency; When the operating voltage (F16.01) is below the MPPT high, According to (bus voltage / MPPT high operating voltage)* maximum frequency, When the bus voltage reaches MPPT low operating voltage (F16.01), At the lowest operating frequency (F16.04) of the effluent. If the frequency converter operates above the lowest effluent frequency, And the output current is less than the motor no-load current * PV pump water shortage detection current corresponding to the no-load current ratio (F16.03), After the PV pump water shortage detection time (F16.00), Frequency converter reports Err32. of water shortage	0～250s	10	○
F16.01	MPPT L-Point Vol		0～MPPT High operating voltage	350/200V	○
F16.02	MPPT H-Point Vol		【F16.01】～1000 / 【F16.01】～500	537/311V	○
F16.03	DN Curr Ratio		80.0 ～ 300.0%*Motor no-load current	150.0	○
F16.04	PV L-limit Freq		0.00Hz～upper limiting frequency	20.00	○

Group FFF - Factory Para

Function Code	Name	Content	Setting Range	default	property

FFF.00	Factory password	Note: Password setup is successful, it takes 3 minutes to take effect	0～65535	0	○

D Group - Monitoring Parameter Group and Fault Record				
Function Code	Name	Content	Scope	Factory Setting
d-00	Output freq	0.00～Maximum output frequency【F00.13】	0	◆
d-01	Setting freq	0.00～Maximum output frequency【F00.13】	0	◆
d-02	Reckon freq	0.00～Maximum output frequency【F00.13】Note: Motor operating frequency converted from motor estimated speed	0	◆
d-03	Main setting freq	0.00～Maximum output frequency【F00.13】	0	◆
d-04	Assist setting freq	0.00～Maximum output frequency【F00.13】	0	◆
d-05	A RMS	0.0～6553.5A	0	◆
d-06	V RMS	0～999V	0	◆
d-07	Output torque	-200.0～+200.0%	0	◆
d-08	Motor speed	0～36000 (RPM/min)	0	◆
d-09	Power factor	0.00～1.00	0	◆
d-10	Running speed	0.01～655.35(m/s)	0	◆
d-11	Setting speed	0.01～655.35(m/s)	0	◆
d-12	Bus Voltage	0～999V	0	◆
d-13	Input Voltage	0～999V	0	◆
d-14	PID setting value	0.00～10.00V	0	◆
d-15	PID feedback value	0.00～10.00V	0	◆
d-16	AI1	0.00～10.00V	0	◆
d-17	AI2	0.00～10.00V	0	◆
d-18	Input pulse freq	0.00～50.00kHz	0	◆
d-19	AO1	0.00～10.00V	0	◆
d-20	AO2	0.00～10.00V	0	◆
d-21	Input termi	0～7FHNote: expanded to binary means DI7/DI6/DI5/DI4/DI3/DI2/DI1 from high to low	0	◆
d-22	Output termi	0～FHNote: expanded to binary means R2/R1/DO2/DO1 from high to low	0	◆
d-23	INV mode	0～FFFFH BIT0: Operation/stop BIT1: Reverse/positive turn BIT2: Zero-speed operation BIT3: Hold BIT4: Acceleration BIT5: Slow down BIT6: Constant Speed Operation BIT7: Preexcitation BIT8: Motor parameter tuning BIT9: Overcurrent limitation	0	◆

		BIT10: Overpressure Limit BIT11: Torque Limit BIT12: Speed Limit BIT13: Speed control BIT14: Torque control BIT15: Hold		
d-24	MMS	0～15	0	◆
d-25	Output pulse freq	0～50000Hz	0	◆
d-26	Reserved	—	0	◆
d-27	Current cnt value	0～65535	0	◆
d-28	Setting cnt value	0～65535	0	◆
d-29	Current time	0～65535S	0	◆
d-30	Setting time	0～65535S	0	◆
d-31	Current length	0.000～65.535(KM)	0	◆
d-32	Setting length	0.000～65.535(KM)	0	◆
d-33	Heak sink Temp1	0.0℃～+110.0℃	0	◆
d-34	Heak sink Temp2	0.0℃～+110.0℃	0	◆
d-35	Cumulate run time	0～65535H	0	◆
d-36	Cumulate elec time	0～65535H	0	◆
d-37	Cumulate fan time	0～65535H	0	◆
d-38	Cmulate electro1	0～9999KWH	0	◆
d-39	Cmulate electro2	0～9999KWH (*10000)	0	◆
d-40	Actual Pressure	0.00～60.00 (MPa、Kg)	0.00	◆
d-41	Output power	0.0～6553.5KW	0.0	◆
d-42	Pressure setting	0.00～60.00 (MPa、Kg)	0.00	◆
d-43	Reserved	—	0	◆
d-44	Reserved	—	0	◆
d-45	Reserved	—	0	◆
d-46	Reserved	—	0	◆
d-47	Reserved	—	0	◆
d-48	Fault code3	0～27	0	◆
d-49	Fault code2	0～27	0	◆
d-50	Fault code1	0～27	0	◆
d-51	Current Fault code	0～27	0	◆
d-52	Fault running freq	0.00 ～ 【 F00.13 】 upper limiting frequency	0	◆
d-53	Fault A RMS	0.0～6553.5A	0	◆
d-54	Fault Bus Voltage	0～999V	0	◆
d-55	Fault Input termi	0～7FH Note: expanded to binary means DI7/DI6/DI5/DI4/DI3/DI2/DI1 from high to low	0	◆
d-56	Fault Output termi	0～FH Note: expanded to binary means R2/R1/DO2/DO1 from high to low	0	◆
d-57	Fault INV mode	0～FFFFH	0	◆

Chapter 4 Fault Diagnosis

Fault Code	Name	Possible causes of failure	Trouble Shooting
E-01	Overflow in accelerated operation	The acceleration time is too short (including tuning process)	Extension of acceleration time
		Restart the rotating motor	Set to start after DC brake or speed trace start
		Low frequency converter power	Select high power frequency converter
		Improper setting of V/F curve or torque lift	Adjust V/F curve or torque increase
E-02	Overflow during deceleration	Reduction time is too short (including tuning process)	Extended deceleration time
		Low frequency converter power	Select high power frequency converter
		Overload inertia	External brake resistor or brake unit
E-03	Overflow at constant speed	Low grid voltage	Check input power
		Mutation or abnormality of load	Check load and reduce load mutation
		Low frequency converter power	Select high power frequency converter
E-04	Over Voltage in accelerated operation	Abnormal input voltage (including tuning process)	Check input power
		Restart the rotating motor	Set to start after DC brake or speed trace start
		Special potential energy load	External brake resistor or brake unit
E-05	Over-voltage during deceleration	Reduction time is too short (including tuning process)	Extended deceleration time
		Overload inertia	External brake resistor or brake unit
		Abnormal input voltage	Check input power
E-06	Over voltage at constant speed	Abnormal input voltage	Check input power
		Special potential energy load	External brake resistor or brake unit
E-07	Bus bar under voltage	Abnormal input voltage or contactor (relay) not sucked	Check supply voltage or seek service from manufacturer
E-08	Motor overload	Improper setting of V/F curve or torque lift	Adjust V/F curves and torque increases
		Over low voltage grid	Check voltage grid voltage
		Excessive motor shutoff or load mutation	Check the load
		Improper setting of motor overload protection factor	Correctly set up motor overload protection factor
E-09	Frequency converter overload	Improper setting of V/F curve or torque lift	Adjust V/F curves and torque increases
		Over low voltage grid	Check grid voltage
		The acceleration time is too short	Extension of acceleration time

Fault Code	Name	Possible causes of failure	Trouble Shooting
		Motor overload	Select a higher power frequency converter
E-10	Frequency converter drop	Output current less than dead load detection	Check the load
E-11	Power module fault	Frequency converter output short circuit or ground	Check motor wiring
		Frequency converter transient over current	See Overflow Countermeasures
		Air duct blockage or fan damage	Dredging duct or replacing fan
		Abnormal control panel or serious disturbance	Seek services from manufacturers
		Damage to power devices	Seek services from manufacturers
E-12	Input side defects	Power input missing phase	Check power and wiring
E-13	Output side missing or current unbalanced	A missing phase U、V、W the output	Check output wiring
E-14	Output to ground short circuit Fault	Hold	Hold
E-15	Radiator overheating 1	Excessive ambient temperature	Lower ambient temperature
E-16	Radiator overheating 2	Fan damage	Replacement of fans
		Air duct blockage	Dredging Air
E-17	RS485 communication faults	Does not match upper computer baud rate	Adjust baud rate
		RS485 channel disturbance	Check that the communication line is shielded, that the wiring is reasonable and, if necessary, that is considered if necessary
		Communication timeout	retry
E-18	Keyboard communications Fault	Damage to keyboard and control panel connection	Replace the connection between the keyboard and the control panel
E-19	External equipment fault	External fault input terminal closed	Disconnect external equipment fault input terminal and clear fault (note check cause)
E-20	Current detection error	Failure of Hall device or amplifier circuit	Seek services from manufacturers
		Auxiliary power failure	
		Poor contact between Hall and Power Board	
E-21	Motor tuning fault	Error in setting motor parameters	Reset motor parameters
		converter and motor power specifications are serious Not matched	Seek services from manufacturers
		Tuning timeout	Check motor wiring

Fault Code	Name	Possible causes of failure	Trouble Shooting
E-22	EEPROM Read and Write Fault	EEPROM fault	Seek services from manufacturers
E-23	Error in parameter copy	Error in data when inverter parameters are uploaded to operation panel	Check the connection of the operating panel
		Error in data when parameters are downloaded from operation panel to frequency converter	Check the connection of the operating panel
		No parameter copy upload direct parameter download	First upload parameters, then download
E-24	PID feedback breakage	PID feedback lines loose	Check the feedback link
		The feedback is less than the detection value	Adjust test input threshold
E-25	Voltage feedback break	The feedback is less than the detection value	Adjust test input threshold
E-26	Time limit for operation Arrival	Time limit arrival	Seek services from agents
E-27	Co-processor communications Fault	Hold	Hold
E-28	Encoder breakage fault	Hold	Hold
E-29	Excessive speed deviation Fault	Hold	Hold
E-30	Over-speed fault	Hold	Hold

Product Warranty Card Certificate

<table>
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<tr><td>Name:

POST No:</td><td>Contact:

Tel.:</td></tr>
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Date of produce:</td></tr>
<tr><td>Repairing Information</td><td colspan="2">（content）：

Repairman:</td></tr>
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EJITSU

EJ800 Serial

User manual

Shenzhen Yishitong Technology Co.,Ltd.

502-2 6BLD Shenzhen Soft Zone, Nashan Shenzhen

Sale Contact

Please contact sales if any updated about this product and its information

This product is underwritten by China Pacific Insurance Joint Strategy

File No.: EJPL800-220901-EN

◆ *1th Feb 2021 Edited*