131 Mini type VFD of CV20 series

Thank you for using CV20 series Variable Frequency Drive made by Kinco Automation

CV20 satisfies the high performance requirements by using a unique control method to achieve high torque, high accuracy and wide speed-adjusting range. Its anti-tripping function and capabilities of adapting to severe power network, temperature, humidity and dusty environment exceed those of similar product made by other companies, which improves the product's reliability noticeably;Without PG connector, strong speed control, flexible input/output terminal, pulse frequency setting, saving parameters at power outage and stop, frequency setting channel, master and slave frequency control and so on, all these satisfy various of high accuracy and complex drive command, at the same time we provide the OEM customer high integration total solution, it values highly in system cost saving and improving the system reliability.

CV20 can satisfy the customers' requirements on low noise and EMI by using optimized PWM technology and EMC design.

This manual provides information on installation, wiring, parameters setting, trouble-shooting, and daily maintenance. To ensure the correct installation and operation of CV20, please read this manual carefully before starting the drive and keep it in a proper place and to the right person.

Unpacking Inspection Note

Upon unpacking, please check for:

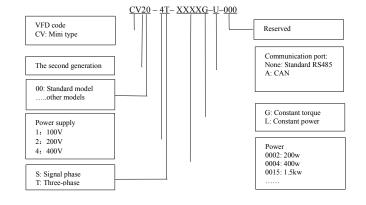
Any damage occurred during transportation;

• Check whether the rated values on the nameplate of the drive are in accordance with your order. Our product is manufactured and packed at factory with great care. If there is any error, please contact us

or distributors. The user manual is subject to change without notifying the customers due to the continuous process of

product improvements

VFD model rule



Production introduction:

General specifications

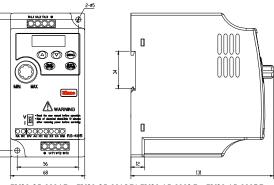
Item		Description
Input	Rated voltage and frequency	4T:3-phase,380V~440V AC; 50Hz/60Hz 2S:Single-phase,200V~240V;50Hz/60Hz 1S:Single-phase, 100~120V; 50/60HZ
	Allowable voltage range	4T: 320V~460V AC;2S:180V~260V; 1S: 90~132V
	Rated voltage	Voltage tolerance<3%; Frequency: ±5% 2S/4T: 0~Rated input voltage; 1S: 0~2*Rated input voltage
	Frequency	0Hz~300Hz (0~800HZ customizable)
Output	Overload capacity	G type: 150% rated current for 1 minute, 180% rated current for 10 seconds;
	Control mode	V/F control
	Modulation mode	Space vector PWM modulation
	Starting torque	1 Hz 150%rated torque
	Frequency accuracy	Digital setting: Max frequency ×±0.01%; Analog setting: Max. frequency ×±0.2%
	Frequency resolution	Digital setting: 0.01Hz; Analog setting: Max frequency×0.1%
Control	Torque boost	Manual torque boost : $0\% \sim 30.0\%$
Characteristics	V/F pattern	4 patterns: 1 V/F curve mode set by user and 3 kinds of torque-derating modes (2.0 order, 1.7 order, and 1.2 order)
	Acc/Dec curve	Linear acceleration/deceleration, Four kinds of acceleration/deceleration time
	Auto current limit	Limit current during the operation automatically to prevent frequent overcurrent trip
On anoti an	Operation Command	Operation Panel, Terminal, Communication Control, Support switching between these control channesl.
Operation Function	Frequency Setting	Digital, Analog Voltage/current setting.
	Auxiliary frequency	Support main and auxiliary setting("+","-", "min", "max")
Operation panel	LED Display	Display setting frequency, output frequency, output voltage, output current and so on, about 20 parameters.

	Keys lock and	Lock part of keys or all the keys.				
	function selection	Define the function of part of keys				
		Open phase protection (optional), overcurrent protection,				
Protection func	tion	overvoltage protection, under-voltage protection, overheat				
		protection, over-load protection and so on.				
	Omenating site	Indoor, installed in the environment free from directsunlight,				
	Operating site	dust, corrosive gas, combustible gas, oil mist, steam and drip.				
	Altitude	Derated above 1000m, the rated output current				
Environment	Altitude	shall be decreased by 10% for every rise of 1000m				
Liiviioiinient	Ambient temperature	-10°C~40°C, derated at 40°C~ 50°C				
	Humidity	5%~95%RH, non-condensing				
	Vibration	Less than 5.9m/s2 (0.6g)				
	Storage temperature	-40°C \sim $+70^{\circ}\text{C}$				
Structure	Protection class	IP20				
Structure	Cooling method	Air cooling, with fan control.				
Installation method		Wall-mounted				
Efficiency		≥90%				

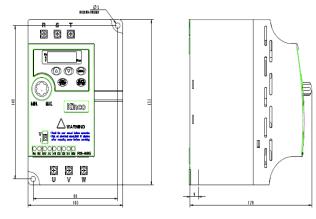
Introduction of CV20 series:

Model of VFD	Rated capacity (kV A)	Rated input current (A)	Rated output current (A)	Motor power (kW)
CV20-1S-0002G	0.6	6.0	1.3	0.2
CV20-1S-0004G	1.0	9.0	2.5	0.4
CV20-1S-0007G	1.5	18.0	4.0	0.75
CV20-2S-0004G	1.0	5.3	2.5	0.4
CV20-2S-0007G	1.5	8.2	4.0	0.75
CV20-2S-0015G	3.0	14.0	7.5	1.5
CV20-4T-0007G	1.5	3.4	2.3	0.75
CV20-4T-0015G	3.0	5.0	3.7	1.5
CV20-4T-0022G	4.0	5.8	5.5	2.2

External dimension:



CV20-2S-0004G~ CV20-2S-0015G/ CV20-1S-0002G~ CV20-1S-0007G



CV20-4T-0007G~CV20-4T-0022G

Mechanical parameters

VFD model (G: Constant torque load;	External dimension and (mm)						Weight (kg)		
L: Draught fan and water pump load)	W	Н	D	W1	H1	D1	T1	Installation hole(d)	
CV20-1S-0002G									
CV20-1S-0004G				56	120	-	12	5	
CV20-1S-0007G		132	131						0.8
CV20-2S-0004G	68	132	131						
CV20-2S-0007G									
CV20-2S-0015G									
CV20-4T-0007G									
CV20-4T-0015G	100	151	128	89	140	-	9	5	1.0
CV20-4T-0022G									

Operation Button Description

Button	Description				
Δ	Increase the value or function				
∇	Decrease the value or function				
MENU	Enter or Exit the programming status				
RUN / STOP	In panel operation mode, run the vfd by the first pressing; stop vfd by the second pressing. In VFD error status, reset the error by pressing				
SHIFT / ENTER	Short pressing to shift data or function code. Hold pressing(more than 1s) to enter function code or save the changed value				

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Wiring:



voltage between main circuit power terminals $+ \mbox{ and } - \mbox{ is below DC36V}.$

-Wire connections can only be done by trained and authorized person

-Check the wiring carefully before connecting emergency stop or safety circuits.

-Check the drive's voltage level before supplying power to it, otherwise human injuries or equipment damage may happen.

Attention

-Check whether the Variable Speed Drive's rated input voltage is in compliant with the AC supply voltage before using.

-Dielectric strength test of the drive has been done in factory, so you need not do it again.

-Refer to chapter 2 on connected braking resistor or braking kit. -It is prohibited to connect the AC supply cables to the drive's terminals U, V and W.

-Grounding cables should be copper cables with section area bigger than 3.5mm2, and the grounding resistance should be less than 10Ω .

-There is leakage current inside the drive. The total leakage current is greater than 3.5mA, depending on

the usage conditions. To ensure safety, both the drive and the motor should be grounded, and a leakage current protector (RCD) should be installed. It is recommended to choose B type RCD and set the

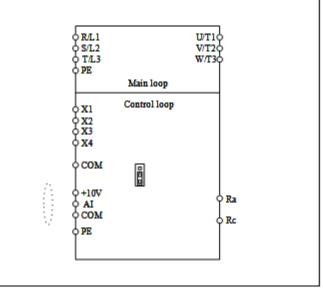
leakage current at 300mA. -The drive should be connected to the AC supply via a circuit breaker or fuse to provide convenience to

input over-current protection and maintenance.

Top of single-phase/3-phase R/L1 S/L2 T/L3

Bottom U/T1 V/T2 W/T3 (=)

Terminal name	Function description
R/L1、S/L2、T/L3	Single-phase 220V(R/L1, S/L2) or 3-phase 380VAC input terminal
U/T1、V/T2、W/T3	3-phase AC output terminal
Ð	Shield terminal



Arrangement of control circuit terminals is as follows:



It lists the possible faults of CV20. The fault code varies from E001 to E027. Once a fault occurs, you may check it against the table and record the detailed phenomena before seeking service from your supplier.

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		161			
Fault code	Fault categories	Faults and actions Possible reasons for fault	Actions		
couc	cutegories	Acc time is too short	Prolong the Acc time		
		Parameters of motor are wrong	Auto-tune the parameters of motor		
E001	Over-current during acceleration	Coded disc breaks down, when PG is running	Check the coded disc and the connection		
		Drive power is too small	Select a higher power drive		
		V/F curve is not suitable	Check and adjust V/F curve, adjust torque boost		
		Deceleration time is too short	Prolong the Dec time		
E002	Over-current during	The load generates energy or the load inertial is too big	Connect suitable braking kit		
	deceleration	Coded disc breaks down, when PG is running	Check the coded disc and the connection		
		Drive power is too small Acceleration /Deceleration time is too	Select a higher power drive Prolong Acceleration/		
		short	Deceleration time		
E002	Over-current in	Sudden change of load or Abnormal load	Check the load		
E003	constant speed	Low AC supply voltage	Check the AC supply voltage		
	operation	Coded disc breaks down, when PG is running	Check the coded disc and the connection		
		Drive power is too small	Select a higher power drive		
E004	Over voltage	Abnormal AC supply voltage	Check the power supply		
	during acceleration	Too short acceleration time	Prolong acceleration time		
E005	Over voltage during deceleration	Too short Deceleration time (with reference to generated energy)	Prolong the deceleration time		
	decentation	The load generates energy or the load inertial	Connect suitable braking kit		
	Overseeltees	is too big	Defente A5 ASD removator		
	Over voltage in constant-	Wrong ASR parameters, when drive run in the vector control mode	Refer to A5. ASR parameter setting		
E006	speed operating	Acceleration /Deceleration time is too short	Prolong Acceleration/ Deceleration time		
	process	Abnormal AC supply voltage	Check the power supply		
	.	Abnormal change of input voltage	Install input reactor		
T.0.0		Too big load inertia	Connect suitable braking kit		
E007	Drive's control power supply over voltage	Abnormal AC supply voltage	Check the AC supply voltage or seek service		
E008	Input phase loss	Any of phase R, S and T cannot be detected	Check the wiring and installation Check the AC supply voltage		
E009	Output phase loss	Any of Phase U, V and W cannot be detected	Check the drive's output wiring Check the cable and the motor		
		Short-circuit among 3-phase output or line-to-ground short circuit	Rewiring, please make sure the insulation of motor is good		
		Instantaneous over-current	Refer to E001~E003 Clean the vent or replace the		
		Vent is obstructed or fan does not work	fan Lower the ambient		
		Over-temperature Wires or connectors of control board	temperature		
E010	Protections of IGBT act	are loose Current waveform distorted due to	Check and rewiring		
		output phase loss	Check the wiring		
		Auxiliary power supply is damaged or IGBT	Seek service		
		driving voltage is too low			
		Short-circuit of IGBT bridge	Seek service		
		Control board is abnormal	Seek service		
	IGBT module's	Ambient over-temperature	Lower the ambient temperature		
E011	heatsink	Vent is obstructed	Clean the vent		
	overheat	Fan does not work	Replace the fan		
	Destific-'-	IGBT module is abnormal Ambient over-temperature	Seek service Lower the ambient		
E012	Rectifier's heatsink	Vent is obstructed	temperature Clean the vent		
	overheat	Fan does not work	Replace the fan		
E013	Drive overload	Parameters of motor are wrong	Auto-tune the parameters of motor		
	overload	Too heavy load	Select the drive with bigger		
	1		power		

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Fault code	Fault categories	Possible reasons for fault	Actions					
		DC injection braking current is too big	Reduce the DC injection braking current and prolong the braking time					
		Too short acceleration time	Prolong acceleration time					
		Low AC supply voltage	Check the AC supply voltage					
		Improper V/F curve	Adjust V/F curve or torque boost value					
		Improper motor's overload protection threshold	Modify the motor's overload protection threshold.					
		Motor is locked or load suddenly become too big	Check the load					
E014	Motor over- load	Common motor has operated with heavy load at low speed for a long time.	Use a special motor if the motor is required to operate for a long time.					
		Low AC supply voltage	Check the AC supply voltage					
		Improper V/F curve	Set V/F curve and torque boost value correctly					
E015	external equipment fails	Terminal used for stopping the drive in emergent status is closed	Disconnect the terminal if the external fault is cleared					
E016	EEPROM R/W fault	R/W fault of control parameters	Press STOP/RST to reset, seek service					
E017	Communicati on timeout	The setting time is too shot	Set b3.02 to 0, it means do not detection					
		Low AC supply voltage	Check the AC supply voltage					
	Contactor not closed	Contactor damaged	Replace the contactor in main circuit and seek service					
E018		Soft start resistor is damaged	Replace the soft start resistor and seek service					
		Control circuit is damaged	Seek service					
		Input phase loss	Check the wiring of R, S, T.					
	Current	Wires or connectors of control board are loose	Check and re-wire					
E019	detection	Auxiliary power supply is damaged	Seek service					
1019	circuit	Hall sensor is damaged	Seek service					
	fails	Amplifying circuit is abnormal	Seek service					
E020	System interference	Terrible interference	Press STOP/RST key to reset or add a power filter in front of power supply input					
	interference	DSP in control board read/write by mistake	Press STOP/RST key or seek service.					
E023	Parameter copy	Panel's parameters are not complete or the version of the parameters are not the same	Update the panel's parameters and version again. First set b4.04 to 1 to upload the parameters and then set					
1.025	error	as that of the main control board	b4.04 to 2 or 3 to download the parameters.					
		Panel's EEPROM is damaged	Seek service					
		Improper settings of parameters on the nameplate	Set the parameters correctly according to the nameplate					
		Prohibiting contra Auto-turning during rollback	Cancel prohibiting rollback					
E024	Auto-tuning fault		Check the motor's wiring					
	laun	Overtime of auto-tuning	Check the set value of A0.10(upper limiting frequency), make sure if it is lower than the rated frequency or not					
E026	The load of drive is lost	The load is lost or reduced	Check the situation of the load					
E027	Brake unit fault	Brake tube is broken	Seek service					

Function code	Name	Descriptions	Unit	Factory setting	Mod if.	Setting range
		Group A0: Basic operating p	arameters			
A0.00	User password	0: No password protection. Others: Password protection.	1	0	0	0~FFFF
A0.01	Control mode	0:reserved 1: reserved 2: V/F control	1	0	×	0~2
A0.02	Main reference frequency selector	0: Digital setting in A0.03 1: AI 2: Reserved 3:Potentiometer	1	3	0	0~5
A0.03	Set the operating frequency in digital mode	A0.11~A0.10	0.01H	50.00	0	0~3000
A0.04	Methods of inputting	0: Panel control 1: Terminal control	1	0	0	0~2

Nome ommune service Openation service			142							152	
normal Normal 		Name	Descriptions	Unit					Name	Descriptions	Unit
MADEServaming Actional Legence1000<			2: Communication control					A2.04		0.10~50.00Hz	0.011
AltisAsisAsisCoGAsisCoAsisAsisCoAsis<	A0.05	Set running	0: Forward 1: Reverse	1	0	0	0~1	A2.05	Interval of Jog	0.0~100.0s	0.1s
AHPDec mart0 Result0 Risk6 Risk6 Risk6 Risk6 Risk6 Risk6 Risk6 Risk6 Risk8 Risk6 Risk8 R	A0.06		0.0~6000.0	0.15	6.0s	0	0~60000	A2.06		0.00~300.00Hz	0.011
network 100 migra0-401000-10100 <th< td=""><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td>Range of skip</td><td></td><td>0.011</td></th<>						_			Range of skip		0.011
56.09 Mate. origin wing 0-500 W WT W WT N 0-400 Auto Bang of kall 000-500/16 0010 A1.00 Import int of topony 000-500/16 00011 0000 0 0 0.00	A0.08		50Hz~ 300.00Hz	0.01Hz	50.00	×	0~30000	A2.08		0.00-300.00Hz	0.011
Hole Value	A0.09		0~480	1V	VFD's	×	0~480				0.011
0.101001000.0000.000000.000000.000000.000000.000000.000000.000 <td></td> <td>voltage</td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td>12.10</td> <td></td> <td>0.00.200.0011</td> <td>0.011</td>		voltage			1			12.10		0.00.200.0011	0.011
is property A0110.0000.0000.0000.00000.000000.0000000.00000000.000000000.00000000000000000000000000000000000	A0.10	Upper limit of	A0.11~A0.08	0.01Hz		0	0~30000				0.011
Image set by the set of the set				0.0411			0.0000		0 1		
60.12 1000000000000000000000000000000000000	A0.11		0.00~A0.10	0.01Hz	0.00	0	0~30000	A3 00	Reference		
Ah13 Singler box Unput Alam 0.154-3007 OIA OIA O -300 Ah.00 String mode 1 - State of mode and 1 - State of mode and 2 - Starrend 40 - March 1000 0.00 <td>A0.12</td> <td></td> <td>0.00~300.00Hz</td> <td>0.01Hz</td> <td>50.00</td> <td>0</td> <td>0~30000</td> <td></td> <td>frequency</td> <td>selection</td> <td></td>	A0.12		0.00~300.00Hz	0.01Hz	50.00	0	0~30000		frequency	selection	
Linear AL Set in all to grammeter 2. Curve 3 A1.00 Starting mode 0.5 mpt from the starting 0 <t< td=""><td>A0 13</td><td>· · ·</td><td>0.0%(Auto) 0.1%~30.0%</td><td>0.1%</td><td>0.0%</td><td>0</td><td>0~300</td><td></td><td>curve selection</td><td></td><td></td></t<>	A0 13	· · ·	0.0%(Auto) 0.1%~30.0%	0.1%	0.0%	0	0~300		curve selection		
1.1000 Outbox Outbox Outbox Image of the state is state in the state is state is state in the state is state is state in the state is state is state is state in the state is state is state is state in the state is stat		1	Group A1: Start and stop par		<u>.</u>	-				2: Curve 3	
Image: Starting Image: Sta	A1.00	Starting mode		1	0	×	0~2	A3 01	Max reference of		0.01%
Al.01 Statuing 00-000012 0111 00012 0 0-00000000000000000000000000000000000			1: Brake first and then start						curve 1		
Integration 10Integration integrationIntegration 000000000000000000000000000000000000	A1.01	Starting		0.01Hz	0.00Hz	0	0~6000	A3.02			0.01%
Instrume Normal Norm	A1.01	frequency	0.00-00.00112	0.01112	0.00112	Ŭ	0.0000		the Max		
integram respanse A <	A1.02		0.00~10.00s	0.01s	0.00s	0	0~1000				
Number in taking surrout all current in the same and								A3.03		0.0%~A3.01	0.01%
isin isin<	A1.03			0.1%	0.0%	0	0~1000	A 2 04		The same as A2.02	0.019
Initiality fine at start Onlog Onl			current					A3.04		The same as A5.02	0.017
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Al.05 Stopping model I: Const-stop 2.Dec-to-stop=PC species Intra- stop 0.Dec-to-stop PC species Intra- stop 0.Dec-to-stop I: Const-stop 0.012 0.012 0.0-2 Al.06 Declipcion Intra- stop 0.00-60.00FL 0.011 0.0015 0.010 0 0.0000 0.011 0.01000 0.01000 0.010			0.01~30.00s					A3.05		A3.07~110.00%	0.01%
Image: space of the s	A1.05			1	0	×	0~2	12.00		TI + 2.02	0.010
Image <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>A3.06</td><td></td><td>The same as A3.02</td><td>0.019</td></th<>								A3.06		The same as A3.02	0.019
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increating at any waiting time at topincreating topA3.07Matterneed uniceA3.050.010.01A.107hypethon braking top0.0%-100.0% drive's rated top0.1%0.0% 0.0%00-1000A3.080.0% corresponding to topA3.07Mitescreed unice0.0% corresponding to top0.010.000000.01000.011<	A1.06		0.00~60.00Hz	0.01Hz	0.00Hz	0	0~6000				
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atopa	A1.07		0.00~10.00s	0.01s	0.00s	0	0~1000	A3 08		The same as A3 02	0.01%
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$								12.00	corresponding to	The same as risto	0.017
stopstopMax reference of curve 3A 1.11-110.00% curve 30.01 0.00%A1.09DC isolot0.01s0.00s00-30000.010.00%0.010.00%0.010.00%0.010.010.00%0.010.0	A1.08			0.1%	0.0%	0	0~1000				
backing time at stop0.01-30.00s0.010.000.010.010.010.01A1.10Restart after record failure10 \times 0-10.110.01			current					A3.09	Max reference of	A3.11~110.00%	0.01%
stopstopcorresponding to reference of urve 3corresponding to reference of urve 3corresponding to reference of urve 3corresponding to reference of urve 3corresponding to urve 4corresponding to urve 3corresponding to urve 3corresponding to urve 4corresponding to urve 4	A1.09			0.01s	0.00s	0	0~3000	A3 10	+	The same as A 2.02	0.019
power failure 1Enable o		-	0.01~50.008					A5.10		The same as A5.02	0.017
A1.11 restart after pover failure0.0-10.0s estart after pover failure0.0-10.0s estart after pover failure0.0-10.0s estart after pover failure0.0-10.0s estart after for the same as A3.020.01' 0.01'A1.12 A 1.13Anti-reverse transing function0.0 is abled 1: Enabled (It will operate at reverse forward reverse forward10 \times 0-1A1.13 reverse forward reverse forward reverse forward reverse forward0.00s transition0.01s 0.00s transition0.00s the same as A3.020.01' and the former of the for	A1.10			1	0	×	0~1				
nower lailurecourse </td <td>A1.11</td> <td></td> <td></td> <td>0.1s</td> <td>0.0s</td> <td>0</td> <td>0~100</td> <td></td> <td></td> <td></td> <td></td>	A1.11			0.1s	0.0s	0	0~100				
Initre Initre Image								A3.11		0.0%~A3.09	0.01%
Imming function1: Enabled (It will operate at zero frequency when input a reverse (contramad)Imming function1: Enabled (It will operate at zero frequency when input a reverse (contramad)Imming function $A1.13$ Delay time of run $0.00-360.00s$ $0.01s$ $0.00s$ 0 $0-36000$ A1.14Switch mode of run $0.0-360.00s$ $0.01s$ $0.00s$ 0 $0-36000$ $A3.13$ Max reference of curve 4 $A1.14$ Actual value corresponding to the Man reference of inflection point 2 $A1.15$ $Detering frequency of stopA1.16Actual value corresponding to the Man reference of inflection point 2A3.17-A3.130.01^{\circ}A1.15Detering frequency of stopA1.16Actual value corresponding to the Min reference of inflection point 2A3.17-A3.130.01^{\circ}A2.00Auxiliary reference frequency of stop1.160.010.000505A3.16Actual value corresponding to the Min reference of inflection point 2 of curve 4A3.10 - A3.13A3.17-A3.130.01^{\circ}A2.01Main and treference frequency in reference frequency in the reference of frequency in point 2 of curve 4A3.14A.10 - Actual value corresponding to the Min reference of inflection point 1 of curve 4A3.10 - A3.15A3.19 - A3.150.01^{\circ}A2.02UP/DN rate0.01-999Hz/s0.011.0001-9999Hz/sA.00A.100A.20 - Correy A1A.3.02A.3.02A.3.02A.3.02A.3.02A.3.02A.3.02A.3.00A2.03UP/DN rate0$								A3.12		The same as A3.02	0.01%
All.13 Delay time of run reverse/forward (Reserved) 0.01s 0.00s 0 0-36000 A1.14 Switch mode of nu reverse/forward (Reserved) 0.03-360.00s 0.01s 0.00s 0 0-36000 A1.14 Switch when pass 0Hz inverse/forward (Reserved) 0.00-150.00Hz 0.01Hz 0.01Hz 0 0-1 A1.15 Detecting frequency of sop 0.00-150.00Hz 0.01Hz 0.01Hz 0 0-1 A1.16 Reserved 0.00-150.00Hz 0.01Hz 0.01Hz 0 0 0-1 A1.16 Reserved 0.00-150.00Hz 0.01Hz 0.01Hz 0 0 0-1 A2.00 Auxiliary frequency selector 0.00 value 0.01Hz 0 0 0 A2.01 Main and auxiliary reference frequency ereleution 0.1 0 0 0 A2.01 Main and auxiliary reference frequency 0.01 1.00 0 0 A2.02 UP/DN rate upon power outage. Ten's place of LED: 0.1Hold reference frequency it No tase reference frequency it No UP/DN mitige and LED: 0.1Hold reference Ten's place of LED: 0.1Hold reference it n's place of LED: 0.1Hold r	A1.12			1	0	×	0~1				
Image: constraint of the served serverse forward reverse forw		running function									
A1.19reverse/forward reverse/forward00000 color00000 color			reverse command)					A3.13		A3.15~110.00%	0.01%
A1.14Switch mode of run reverse forward0: Switch when pass starting frequency10×0-1corresponding to the Max reference of curve 40A1.15Detecting frequency of stop0.00-150.00Hz0.01Hz0.10Hz×0-150000.317-A3.130.01*A1.16Reserved0.00-150.00Hz0.01Hz0.10Hz×0-1500000.317-A3.130.01*A2.00Auxiliary reference frequency selector0: Nauxiliary reference frequency treference1000-500-5A2.01Main and auxiliary reference requency calculation0: +10000-30.317-A3.150.01*A2.02UP/DN rate0: +10000-30-3A3.17Reference of inflection point 2 of curve 4A3.18Actual value corresponding to the Min reference of inflection point 2 of curve 4A3.19-A3.150.01*A2.02UP/DN rate0.01-99.99Hz/s0.011.0001-9999-4A3.18Actual value corresponding to the Min reference of inflection point 1 of curve 4A3.19Min reference of inflection point 1 of curve 4A3.19Min reference of curve 4A3.100.01*A2.02UP/DN rate0.01-99.99Hz/s0.011.00000-11HA3.20Actual value corresponding to the Min reference of curve 4A3.20Corresponding to the Min reference of curve 4A3.20 <td< td=""><td>A1.13</td><td></td><td>0.00~360.00s</td><td>0.01s</td><td>0.00s</td><td>0</td><td>0~36000</td><td>A3.14</td><td></td><td>The same as A3.02</td><td>0.01%</td></td<>	A1.13		0.00~360.00s	0.01s	0.00s	0	0~36000	A3.14		The same as A3.02	0.01%
Inverse/forward (Reserved) frequency frequency frequency of stop frequency (Reserved) frequency (Reserved) 0.00-150.00Hz 0.01Hz 0.10Hz × 0~15000 A1.15 Detecting frequency of stop 0.00-150.00Hz 0.01Hz 0.10Hz × 0~15000 A3.15 Reference of inflection point 2 A3.17~A3.13 0.01* A2.00 Auxiliary reference 0.10 × auxiliary reference frequency 1 0 0 0~5 A3.16 Actual value corresponding to inflection point 1 of curve 4 The same as A3.02 0.01* A2.01 Main and uxiliary reference) 0.1 0 0 0~3 A3.17 Reference of inflection point 2 A3.16 Actual value corresponding to inflection point 1 The same as A3.02 0.01* A2.02 UP/DN rate 0.01-99.99Hz/s 0.01 1.00 0 1-9999 A3.18 Actual value corresponding to the Min reference of inflection point 1 of curve 4 A3.19 Min reference of inflection point 1 of curve 4 A3.19 Min reference of inflection point 1 of curve 4 0.01* A2.02 UP/DN rate 0.01-99.99Hz/s 0.01 1.00 0 1-9999 A3.18 Actual value corresponding to the Min	A1.14	Switch mode of	1	1	0	×	0~1		corresponding to		
$ \begin{array}{ c c c c c c } \hline (Reserved) & 1 \\ \hline (Reserved) & 0.00-150.00Hz & 0.01Hz & 0.01Hz & 0.01Hz & 0.01Hz & 0.01S \\ \hline (Requency of stop & 0.00-150.00Hz & 0.01Hz & 0.01Hz & 0.01S \\ \hline (Requency of stop & 0.00-150.00Hz & 0.01Hz & 0.01Hz & 0.01S \\ \hline (Requency of stop & 0.00-150.00Hz & 0.01Hz & 0.01Hz & 0.01S \\ \hline (Requency of stop & 0.00-150.00Hz & 0.01Hz & 0.01Hz & 0.01S \\ \hline (Requency of stop & 0.00-150.00Hz & 0.01Hz & 0.01Hz & 0.01Hz & 0.01S \\ \hline (Requency & 0.01Hz & 0.01Hz & 0.01Hz & 0.01S \\ \hline (Requency & 0.01Hz & 0.01Hz & 0.01S \\ \hline (Requency & 0.01Hz & 0.01Hz & 0.01S \\ \hline (Requency & 0.01Hz & 0.01Hz & 0.01S \\ \hline (Requency & 0.01Hz & 0.01Hz & 0.01S \\ \hline (Requency & 0.01Hz & 0.01-S \\ \hline (Requency &$											
Internal Internal <th< td=""><td></td><td>(Reserved)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>		(Reserved)									
A1.16~ Reserved of curve 4 of curve 4 A2.00 Auxiliary 0: No auxiliary reference 1 0 0 0-5 A2.01 Main and 0: + 1 0 0 0-5 A2.01 Main and 0: + 1 0 0 0-3 A2.01 Main and 0: + 1 0 0 0-3 Main and 0: + 1 0 0 0-3 auxiliary 1: - 0 0 0-3 auxiliary 1: - 0 0 0-3 auxiliary 1: - 0 0 0-3 A2.02 UP/DN reference 2: MAX (Main reference, Auxiliary reference) 1 00 0 A2.03 UP/DN Unit's place of LED: 1 00 0 1-9999 A2.03 UP/DN Unit's place of LED: 1 00 0 0-11H A2.04 UP/DN Unit's place of LED: 1 00 0 0-11H A2.05 UP/DN Unit's place of LED: 0.01	A1.15		0.00~150.00Hz	0.01Hz	0.10Hz	×	0~15000	A3.15			0.01%
A2.00 Auxiliary reference frequency 1: Na selector 0: No auxiliary reference frequency 1: Al 0 0 0 0-5 A2.01 Main and auxiliary 0: + 1 0 0 0-3 0 <t< td=""><td>A1.16~~</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>of curve 4</td><td></td><td></td></t<>	A1.16~~								of curve 4		
A2.01 Main and auxiliary reference 0.+ 5. Output by PID process 1 0 03 A2.01 Main and auxiliary reference 0.+ 5. Output by PID process 1 0 03 A2.01 Main and auxiliary reference 0.+ 5. MAX (Main reference, frequency 1 0 0 03 A2.02 UP/DN rate 0.01-99.99Hz/s 0.01 1.00 0 1-99999 A2.03 UP/DN rate 0.01-99.99Hz/s 0.01 1.00 0 1-99999 A2.03 UP/DN rate 0.01-99.99Hz/s 0.01 1.00 0 1-99999 A2.03 UP/DN rate 0.01-stave reference frequency upon power outage 1 00 0 0-11H A3.19 Min reference of curve 4 1 0.01 0 0 0-11H A3.19 UP/DN rate 0.01-stave reference frequency upon power outage. 1 00 0 0-11H A3.19 Min reference of curve 4 0.0%-A3.17 0.019 0. Hold reference frequency at stop 1. Clear reference frequency at stop 1 00 0 0 0-11H <	12.00	A 11.				1	0.5	A3.16		The same as A3.02	0.01%
Inductory 1. All point 2 of curve 4 A2.01 Main and 0: + 1 0 0 03 A2.01 Main and 0: + 1 0 0 03 influency 1: - - 0 0 03 influency 2: MAX (Main reference, - - - - calculation 3: MIN (Main reference, - - - - A2.02 UP/DN rate 0.01-99.99Hz/s 0.01 1.00 0 1~99999 A2.03 UP/DN Unit's place of LED: 1 00 0 0~11H A2.03 UP/DN Unit's save reference frequency 1 00 0 0~11H A2.03 UP/DN Unit's save reference frequency 1 00 0 0~11H A2.04 Upon power outage 1: Not save reference frequency at stop 1 00 0 0~11H A3.19 Min reference of curve 4 - - - - A2.05 Hundred's place of LED: 0: Hold reference frequency at stop <t< td=""><td>A2.00</td><td></td><td></td><td>1</td><td>0</td><td>0</td><td>0~5</td><td></td><td>the Min reference</td><td></td><td></td></t<>	A2.00			1	0	0	0~5		the Min reference		
A2.01 Main and auxiliary 0: + 1: - reference 1 0 0 0-3 A2.01 Main and auxiliary 1: - reference 1 0 0 0-3 A2.02 MAX (Main reference, frequency calculation 3: MIN (Main reference, Auxiliary reference) 1 0 0 199999 A2.03 UP/DN rate 0.01-99.99Hz/s 0.01 1.00 0 199999 A2.03 UP/DN Unit's place of LED: upon power outage 1 00 0 011H A3.19 Min reference of curve 4 100 0 011H A3.19 A1.17 The same as A3.02 0.019 A2.03 UP/DN Unit's place of LED: upon power outage 1 00 0 011H A3.19 Min reference of curve 4 0.0%~A3.17 0.019 A3.20 Actual value corresponding to the Min reference of curve 4 0.019 - - - - - - - - 0.019 A2.02 Dec of LED: 0: Hold reference frequency at stop 1: Clear reference frequency at stop 1: Clear reference frequency at stop 1: Clear reference frequency at stop											
auxiliary reference 1: - 2: MAX (Main reference, frequency calculation Auxiliary reference) Image: Second S	A2.01			1	0	0	0~3	A3.17			0.01%
A2.02 UP/DN rate 0.01-99.99Hz/s 0.01 1.00 0 1~9999 A2.03 UP/DN rate 0.01-99.99Hz/s 0.01 1.00 0 1~9999 A2.03 UP/DN regulating control 0: Save reference frequency upon power outage 1 00 0 0~11H A2.03 UP/DN Unit's place of LED: 1 00 0 0~11H A2.03 UP/DN Unit's place of LED: 1 00 0 0~11H A3.18 Actual value corresponding to the Min reference of curve 4 0.00%~A3.17 0.01% Display= 1: Not save reference frequency upon power outage 1: Not save reference frequency at stop 0 0 0 0~11H I: Clear reference frequency at stop 1: Clear reference frequency at stop 1: Clear reference frequency at stop 1 0 <		auxiliary									
calculation 3: MIN (Main reference, Auxiliary reference) 0								A3.18		The same as A3.02	0.01%
A2.02 UP/DN rate 0.01~99.99Hz/s 0.01 1.00 0 1~9999 A2.03 UP/DN Unit's place of LED: 1 00 0 0~11H 01 regulating control 0: Save reference frequency upon power outage 1 00 0 0~11H A3.19 Min reference of curve 4 0.0%~A3.17 0.01% I: Not save reference frequency upon power outage. 1: Not save reference frequency at stop The same as A3.02 0.01% 0.01% I: Clear reference frequency at stop 1: Clear reference of LED: 0.0-6000.0 0.1S A4.01 Acc time 2 0.0-6000.0 0.1S A4.02 Dec time 2 0.0-6000.0 0.1S			3: MIN (Main reference,								
A2.03 UP/DN regulating control Unit's place of LED: 0: Save reference frequency upon power outage 1: Not save reference frequency upon power outage. 1: Not save reference frequency upon power outage. Ten's place of LED: 0: Hold reference frequency at stop 00 0 0~11H point 1 of curve 4 0.0%~A3.17 0.01% A3.19 Min reference of curve 4 0.0%~A3.17 0.01% 0.01% A3.20 Actual value corresponding to the Min reference of curve 4 The same as A3.02 0.01% V 0: Hold reference frequency at stop 1: Clear reference frequency at stop 1: Clear reference frequency at stop 1: Clear reference frequency at stop 1: S Curve 1 Hundred's place of LED: 0: UP/DN integral time valid 0: UP/DN integral time valid 0 0.18 0.0-6000.0 0.18	A2 02	UP/DN rate		0.01	1.00	0	1~9999				
regaring control 0. Site reference frequency upon power outage 1: Not save reference frequency upon power outage. Ten's place of LED: 0: Hold reference frequency at stop A3.20 Actual value corresponding to the Min reference of curve 4 The same as A3.02 0.019		UP/DN	Unit's place of LED:	-		_		42.10		0.09/ 42.17	0.010
1: Not save reference frequency upon power outage. Ten's place of LED: 0: Hold reference frequency at stop A3.20 Actual value corresponding to the Min reference of curve 4 The same as A3.02 0.019		regulating control						A3.19		0.0%~A3.17	0.019
Ten's place of LED: the Min reference of curve 4 0: Hold reference frequency at stop 1: Clear reference frequency at stop 1: Clear reference frequency at stop 1: S Curve Hundred's place of LED: 0.00-6000.0 0: UP/DN integral time valid A4.02			1: Not save reference frequency					A3.20		The same as A3.02	0.01%
0: Hold reference frequency at stop 0: Linear Acc/Dec parameters 1: Clear reference frequency at stop A4.00 Hundred's place of LED: A4.01 0: UP/DN integral time valid A4.02											
1: Clear reference frequency at stop A4.00 Acc/Dec mode 0: Linear Acc/Dec 1 Hundred's place of LED: 0:UP/DN integral time valid A4.01 Acc time 2 0.0~6000.0 0.1S											
stop 1: S Curve Hundred's place of LED: A4.01 Acc time 2 0.0~6000.0 0.1S 0:UP/DN integral time valid A4.02 Dec time 2 0.0~6000.0 0.1S								A4 00	Acc/Dec mode		-
0:UP/DN integral time valid A4.02 Dec time 2 0.0~6000.0 0.1S			stop							1: S Curve	
											0.15
10 I I I I I I I I I I I I I I I I I I I			1:UP/DN speed value					A4.02 A4.03	Acc time 3	0.0~6000.0	0.15

Unit

0.01Hz

Factory Mod Setting

range

10~5000

0~1000

0~30000

0~3000

0~30000

0~3000

0~30000

0~3000

0~3333H

0~11000

0~10000

0~11000

0~10000

0~11000

0~10000

0~11000

0~10000

0~11000

0~10000

0~11000

0~10000

0~11000

0~10000

0~11000

0~10000

0~11000

0~10000

0~11000

0~10000

0~1

0~60000

0.1S 20.0S 0~60000

0.18 20.08 0 0~60000

if.

×

setting

5.00

0.0

0.01Hz 0.00

0.01Hz 0.00

0.01Hz 0.00

0.01Hz 0.00

0.01Hz 0.00

0.01Hz 0.00

3330

0.01% 100.00% 0

0.01% 0.00%

0.01% 0.00%

0.01% 0.00%

0.01% 0.00%

0.00%

100.00%

100.00%

100.00%

100.00%

100.00%

0.00%

0.01% 100.00% 0

0.01% 0.00%

0.01% 0.00%

0.01% 0.00%

0.1S 20.0S o

0.00%

100.00% 0

100.00% 0

100.00% 0

0.01%

0.01%

0.01%

0.01%

0.01%

0.01%

0.01%

0.01%

0.01%

0.01%

0.01%

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Function	Name	Descriptions	Unit	Factory	Mod	Setting				
code				setting	if.	range				
A4.04	Dec time 3	0.0~6000.0	0.15	20.0S	0	0~60000				
A4.05	Acc time 4	0.0~6000.0	0.15	20.0S	0	0~60000				
A4.06	Dec time 4	0.0~6000.0	0.1S	20.0S	0	0~60000				
A4.07	S curve acceleration starting time	10.0%~50.0%(Acc time) A4.07+ A4.08≤90%	0.1%	20.0%	0	100~500				
A4.08	S curve acceleration ending time	10.0%~70.0%(Acc time) A4.07+ A4.08≤90%	0.1%	20.0%	0	100~800				
A4.09	S curve deceleration	10.0%~50.0%(Dec time) A4.09+ A4.10≤90%	0.1%	20.0%	0	100~500				
A4.10	starting time S curve deceleration	10.0%~70.0%(Dec time) A4.09+ A4.10≤90%	0.1%	20.0%	0	100~800				
A4.11	ending time Quick start-stop selector	0: Disable 1: Quick start, normal stop 2: Normal start, quick star	1	2	×	0~3				
		2: Normal start, quick stop 3: Quick start, quick stop								
A4.12	Start ACR-P	0.1~200.0	0.1	20.0	0	1~2000				
A4.13	Start ACR-I	0.000~10.000S	0.001S	0.200s	0	0~10000				
A4.14	Start AVR-P	0.1~200.0	0.1	20.0	0	1~2000				
A4.15	Start AVR-I	0.000~10.000S	0.001S	0.200s	0	0~10000				
A4.16	Stop ACR-P	0.1~200.0	0.1	20.0	0	1~2000				
A4.17	Stop ACR-I	0.000~10.000S	0.001S	0.200s	0	0~10000				
A4.18	Stop AVR-P	0.1~200.0	0.1	20.0	0	1~2000				
A4.19	Stop AVR-I	0.000~10.000S	0.001s	0.200s	0	0~10000				
A4.20	Over Commtatat	0: disable	1	0	x	0~1				
	ion Stop	1:enable								
A4.21	ACC/DEC time coefficient	0:ACC/DEC time × 1 1: ACC/DEC time × 0.1	1	0	x	0~1				
A4.22	ACC/DEC time 1/2 switch freq.	0.00~300.00Hz Select ACC/DEC time 2 when output freq. is less than A4.22	0.01Hz	0.00Hz	x	0~30000				
A4.23~A 4.40	Reserved	Reserved	1	0	0	0~65535				
	·	Group A5: reserved			<u> </u>					
		Group A6: Control terminals pa	arameters							
A6.00~A	Multi-function	0: No function1: Forward	1	0	×	0~54				
6.03	terminal X1~X4	2: Reverse								
		3: Forward jog operation								
		4: Reverse jog operation								
		5: 3-wire operation control								
		6: External RESET signal input								
		7: External fault signal input								
		8: External interrupt signal input								
		9: Drive operation prohibit								
		10: External stop command								
		11: DC injection braking								
		command								
		12: Coast to stop								
		13: Frequency ramp up (UP)								
		14: Frequency ramp down (DN)								
		15: Switch to panel control								
		16: Switch to terminal control								
		17: Switch to communication								
		control mode								
		18: Main reference frequency								
		via AI								
		27: Preset frequency 1								
		28: Preset frequency 2								
		29: Preset frequency 3								
		30: Preset frequency 4								
		31: Acc/Dec time 1								
		32: Acc/Dec time 2								
		33: Multiple close-loop								
		reference selection 1								
		34: Multiple close-loop								
		reference selection 2								
		35: Multiple close-loop								
		reference selection 3								
		36: Multiple close-loop								
		reference selection 4								
		37: Forward prohibit								
		38: Reverse prohibit								
		39: Acc/Dec prohibit								
		40: Process close-loop prohibit 42: Main frequency switch to								
		digital setting								
		43: PLC pause								
		44: PLC prohibit								
		45: PLC stop memory clear								
		46: Swing input								
		47: Swing reset								
		48~49:Reserved								
		50: Timer 1 start								
		51: Timer 2 start								
		53: Counter input								
		54: Counter clear								
A6.04	reserved	Others: Reserved								
A6.05		0.500		10		0.500				
A6.08	Terminal filter	0~500ms	1	10	0	0~500				
A6.09	Terminal control	0:2-wire operating mode 1	1	0	×	0~3				

		133							143							153						163				
Function code	Name	Descriptions	Unit	Factory setting	Mod if.	Setting range	Function code	Name	Descriptions	Unit	Factory N setting if		Setting ange	Function code	Name	Descriptions	Unit	Factory setting	Mod Setting if. range	Function	Name	Descriptions	Unit	Factory setting	Mod if.	Setting range
code	mode selection	1:2-wire operating mode 2 2:3-wire operating mode 1		Jotting		Tunge	A8.00	Protective action of relay	Unit's place of LED: Action selection for under-	1	0000 ×)~1111H	b0.13	Oscillation inhibition	0~255	1	10	• 0~255			2: 19200BPS Ten's place of LED:		setting		Tunge
		3:3-wire operation mode 2 4:2-wires operation mode 3							voltage fault indication. 0:Disable1: Enable						coefficient	Group b1:V/F paramete	rs			_		Data format 0:1-8-2-N format, RTU				
A6.10	reserved								Ten's place of LED:					b1.00	V/F curve setting	0: V/F curve is defined by user	1	0	× 0~3	-		1:1-8-1-E format, RTU				
A6.11 A6.12									Action selection for auto reset interval fault indication.							1: 2-order curve 2: 1.7-order curve						2:1-8-1-O format, RTU Hundred's place of LED:				
A6.13	Input terminal's	Binary setting	1	00	0	0~FFH			0:Disable1: Enable Hundred's place of LED:					11.01	ME Comment	3: 1.2-order curve	0.0111	0.0011		_		wiring mode 0:Direct connection via cable				
	positive and negative logic	0: Positive logic: Terminal Xi is enabled if it is connected to							Selection for fault locked					b1.01	V/F frequency value F3	B1.03~A0.08	0.01Hz	0.00Hz	× 0~30000			(RS232/485)				
		corresponding common terminal, and disabled if it is							function. 0:Disable1: Enable					b1.02	V/F voltage value	B1.04~100.0%	0.1%	0.0%	× 0~1000	b3.01	Local address	1: MODEM (RS232) 0~127, 0 is the broadcasting	1	5	×	0~127
		disconnected.							Thousand's place of LED:					b1.03	V/F frequency	B1.05~B1.01	0.01Hz	0.00Hz	× 0~3000	— <u> </u>		address		-		
		1: Negative logic: Terminal Xi is disabled if it is connected to					A8.01	Fault masking	Reserved Unit's place of LED:	1	2000 ×	0)~2222H	b1.04	value F2 V/F voltage value	B1.06~B1.02	0.1%	0.0%	× 0~1000	b3.02	Time threshold for judging the	0.0~1000.0S	0.1	0.0S	×	0~10000
		corresponding common						selection 1	Communication fault masking selection						V2					_	communication					
		terminal, and enabled is it is disconnected.							Ten's place of LED:					b1.05	V/F frequency value F1	0.00~B1.03	0.01Hz	0.00Hz	× 0~30000	b3.03	status Delay for	0~1000mS	1	5mS	×	0~1000
		Unit's place of LED:BIT0~BIT3: X1~X4							Relay fault masking selection Hundred's place of LED:					b1.06	V/F voltage value	0~B1.04	0.1%	0.0%	× 0~1000	—	responding to control PC					
A6.14 A6.15	reserved		1	0	×	0~50			EEPROM fault masking selection					b1.07	Cut-off point used for manual	0.0%~50.0% (Corresponding to A0.12)	0.1%	10.0%	• 0~500	b4.00	Key-lock	Group b4:Keyboard param	1	0	0	0~4
A6.16	Output functions	0: Running signal(RUN)	1	15	×	0~50			Thousand's place of LED: Reserved						torque boost	,				_	function selection	panel are not locked, and all the				
	of relay R1	1: frequency arriving signal(FAR)							0:Disable.Stop when fault					b1.08	AVR function	0: Disable 1: Enable all the time	1	2	× 0~2			keys are usable. 1: The keys on the operation				
		2: frequency detection threshold (FDT1)							happen 1:Disable.Continue operating							2: Disabled in Dec process				_		panel are locked, and all the keys are				
		3: frequency detection threshold							when fault happen 2:Enable					b1.09	VF Output voltage selection	0: no function 1: AI	1	0	× 0~3			unusable.				
		(FDT2) 4: overload signal(OL)					A8.02	Fault masking	Unit's place of LED:	1	00 ×	: 0)~22H	b1.10	VF Output	0: no function	1	0	× 0~3	-		2: All the keys except for the multi-functional key are				
		5: low voltage signal(LU) 6: external fault signal(EXT)						selection 2	Open phase fault masking selection for input						voltage offset selection	1: AI						unusable.				
		7: frequency high limit(FHL)							Ten's place of LED:					12.00	Constant of the	Group b2:Enhanced param	1		- 20.150	_		3: All the keys except for the SHIFT key are unusable.				
		8: frequency low limit(FLL) 9: zero-speed running							Open phase fault masking selection for output					b2.00	Carrier wave frequency	2.0~60KHz	0.1	6.0	• 20~150			4:All the keys except for the RUN AND STOP keys are				
		10: Reserved					A8.03	Motor overload	0: Disabled	1	1 ×	0)~2	b2.01	Auto adjusting of CWF	0: Disable 1: Enable	1	1	o 0~1			unusable.				
		11: Reserved 12: PLC running step complete						protection mode selection	1:Common mode (with low speed compensation)					b2.02	Voltage	Unit's place of LED:	1	001	× 0~111H	— b4.01	Multi-function key definition	Reserved	1	4	0	0~5
		signal 13: PLC running cycle complete							2: Variable frequency motor (without low speed						adjustment selection	Over-voltage at stall Selection 0: Disable(When install brake				b4.02	Parameter	0: All parameters are allowed	1	1	0	0~2
		signal							compensation)							resistor) 1: Enable					protection	modifying; 1: Only A0.03 and b4.02 can be				
		14: Swing limit 15: Drive ready (RDY)					A8.04	Auto reset times	0: No function 1~100: Auto reset times	1	0 ×	0	0~100			Ten's place of LED:						modified; 2: Only b4.02 can be modified.				
		16: Drive fault							Note: The IGBT protection							Not stop when instantaneous stop function selection				b4.03	Parameter	0: No operation	1	0	×	0~2
		17: Switching signal of host 19: Torque limiting							(E010) and external equipment fault (E015) cannot be reset							0: Disable					initialization	1: Clear fault information in memory				
		20: Drive running forward/reverse					A8.05	Reset interval	automatically. 2.0~20.0s/time	0.1s	5.0s ×	2	20~200			1: Enable(Low voltage compensation)				1404		2: Restore to factory settings		0		0.0
		21: Timer 1 reach					A8.05	Fault locking	0: Disable.	1	0 ×)~1			Hundred's place of LED:				b4.04	Parameter copy	0: No action 1: parameters upload	1	0	×	0~3
		22: Timer 2 reach 23: Preset counter reach						function selection.	1: Enable.							Over modulation selection 0: Disable1: Enable						2: parameters download				
		24: Intermediate counter reach						selection.	Group b0:Motor paramet	-				b2.03	Overvoltage point at stall	120.0%~150.0%Udce	0.1%	140.0%	× 1200~13	00		3: parameters download (except the parameters related				
A6.18	Output terminal's	Others: Reserved Binary setting:	1	0	0	0~1FH	b0.00 b0.01	Rated power Rated voltage	0.4~999.9KW 0~ rated voltage of drive	0.1	0 × 0 ×		1~9999)~999	b2.04	Droop control	0: Disable, 0.01~10.00Hz	0.01	0.00Hz	o 0~1000	_		to drive type) Note: Not to upload/download				
	positive and negative logic	0: Terminal is enabled if it is connected to					b0.02	Rated current	0.1~999.9A	0.1A	Depend ×		1~9999	b2.05	Auto current limiting threshold	20.0%~200.0%Ie	0.1%	150.0%	× 200~200			drive's parameters.		400877		0
	liegative logic	correspond common terminal,									on drive's			b2.06	Frequency	0.00~99.99Hz/s	0.01Hz/	10.00	• 0~9999	b4.05	Display parameters	Binary setting: BIT1:Operating	1	1007H	0	0~7FFFH
		and disabled if it is disconnected.					10.02	Datad from an an	1.00~1000.00Hz	0.0111-	model	. 1	100~30000		decrease rate when current		s	Hz/s			selection	0: No display1: Display Unit's place of LED:				
		1: Terminal is disabled if it is connected to					b0.03	Rated frequency	1.00~1000.00Hz	0.01Hz	Depend × on		100~30000	b2.07	limiting	O.Truelid et constant mar d	1	1	× 0~1	_		BIT0: Output frequency(No				
		corresponding common									drive's model			62.07	Auto current limiting	0:Invalid at constant speed 1:Valid at constant speed		1	× 0~1			display at stop.Display power frequency at energy feedback				
		terminal, and enable if it is disconnected.					b0.04	Number of	2~24	1	4 ×	2	2~24		selection	Note: It is valid all the time at Acc/Dec						mode)				
		Unit's place of LED:						polarities of motor						b2.08	Gain of Slip	0.0~300.0%	0.1%	100.0%	• 0~3000	-		BIT1:Setting frequency (Flicking.No display at energy				
		BIT2: R1 Ten's place of LED:					b0.05	Rated speed	0~60000RPM	1RPM	1440RP ×	0	0~60000	b2.09	compensation Slip	0.0~250.0%	0.1%	200.0%	0~2500	—		feedback mode) BIT2:Output current(No display				
A6.19	Frequency	Reserved 0.00~300.00Hz	0.0111-	2.50Hz		0~30000	b0.06	Resistance of	0.00%~50.00%	0.01%	141	: 0	0~5000		compensation							at stop.Display power frequency				
A0.19	Frequency arriving signal	0.00~000.00HZ	0.01HZ	2.30HZ		0~20000		stator %R1			on drive's			b2.10	limit Slip	0.1~25.0s	0.1s	2.0s	• 0~250	—		at energy feedback mode) BIT3:Output voltage(No display				
A6.20	(FAR) FDT1 level	0.00~300.00Hz	0.01Hz	50.00Hz	0	0~30000	10.07	T 1 -	0.000/_50.000/	0.0101	model		. 5000		compensation time constant							at stop.Display power frequency at energy feedback mode)				
A6.21	FDT1 lag	0.00~300.00Hz	0.01Hz	1.00Hz	0	0~30000	b0.07	Leakage inductance %Xl	0.00%~50.00%	0.01%	Depend × on	0	0~5000	b2.11	auto energy-	0: Disable	1	0	× 0~1	-		Ten's place of LED:				
A6.22 A6.23	FDT2 level FDT2 lag	0.00~300.00Hz 0.00~300.00Hz	0.01Hz 0.01Hz	25.00Hz 1.00Hz	0	0~30000 0~30000					drive's model			b2.12	saving function Frequency	1: Enable 0.00~99.99Hz/s	0.01Hz/	10.00	· 0~9999	—		BIT0: AI BIT3: DI terminal status				
A6.24	Virtual terminal	Binary setting	1	00	0	0~FFH	b0.08	Resistance of	0.00%~50.00%	0.01%		0	0~5000		decrease		S	Hz/s				Hundred's place of LED:				
	setting	0: Disable 1: Enable						rotor %R2			on drive's				rate at voltage compensation							BIT0:Output power(No display at stop and energy feedback				
		Unit's place of LED: BIT0~BIT3: X1~X4								<u> </u>	model			b2.13	Zero-frequency	0.00~300.00Hz	0.0114~	0.50Hz	· 0~3000	—		mode) BIT1:Output torque(No display				
		Ten's place of LED:					b0.09	Exciting inductance %Xm	0.0%~2000.0%	0.1%	Depend × on	0	0~20000	02.13	operation	0.00~500.00HZ	0.01HZ	0.50HZ	~ 0~30000			at stop and energy feedback				
A6 28~ A	reserved	Reserved			+						drive's			b2.14	threshold Zero-frequency	0.00~300.00Hz	0.01Hz	0.00Hz	· 0~3000	—		mode) BIT2:Analog close-loop				
6.43			<u> </u>				b0.10	Current without	0.1~999.9A	0.1A	model ×	: 1	1~9999	0	Hysteresis		0.01112					feedback				
A6.44	Setting value of timer 1	0.0~10.0s	0.1s	0.0	0	1~100		load I0			on drive's			b2.15	(Reserved) Fan control	0: Auto operation mode	1	0	× 0~1	-		(%)(No display at feedback mode)				
A6.45	Setting value of	0~100s	1s	0	0	1~100					model					1: Fan operate continuously						BIT3:Analog close-loop setting (%)(Flicking, no display at				
A6.46	timer 2 Target value of	0~65535	1	100	0	0~65535	b0.11	Auto-tuning	0: Auto-tuning is disabled 1: Stationary auto-tuning (Start	1	0 ×	0)~3			when power is on Note: 1.Continue to operate for						feedback mode)				
	counter		1	50					auto-tuning to a standstill motor)							3 minutes Group b3:Communication pa	rameter			—		Thousand's place of LED: BIT0:Bus voltage				
A6.47	Intermediate value of counter	0~65535	1	50	U	0~65535	b0.12	Motor's overload	2: Rotating auto-tuning 20.0%~110.0%	0.1%	100.0% ×	2	200~1100	b3.00	Communication	Unit's place of LED:	1	001	× 0~155H	-		BIT1:Speed(R/MIN)(No display				
A6.48~A	Reserved	Reserved	1	50	0	0~65535		protection							configuration	Baud rate selection 0: 4800BPS						at feedback mode) BIT2:Setting speed(R/MIN)				
0.00	1	Group A8: Fault parame	ters	1			L	coefficient	<u> </u>	<u> </u>						1: 9600BPS				_ L		(Flicking, no display at feedback				

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		134							144							154				
Function code	Name	Descriptions	Unit	Factory setting	Mod if.	Setting range	Function code	Name	Descriptions	Unit	Factory setting	Mod if.	Setting range	Function code	Name	Descriptions	Unit	Factory setting	Mod if	Setting range
code		mode) Note: If all the BITs are 0, the drive will display setting frequency at stop, display output frequency at operating and display bus voltage at energy feedback mode.		setting	11.	lange			2: Start from the step and frequency before stop(or alarm) Hundred's place of LED: Storage after power off 0: Disable 1: Save the segment frequency when power off		setting	11.		code		bit8: Over-current limiting bit9: DC over-voltage limiting bit10: Torque limiting bit11: Speed limiting bit12: Drive fault bit13: Speed control bit14: Torque control		setting		Tange
b4.06	Linear speed ratio	0.00~99.99	0.01	1.00	0	0~9999			Thousand's place of LED: Time unit selector for each step					d0.14	Input terminals status	0~FFH, 0: OFF; 1: ON	1	00	*	0~FFH
b4.07	Speed ratio	0.000~30.000	0.001	1.000	0	0~30000	C2 01	Sugar 1 anti-	0: Second1: Minute	1	000		0.22211	d0.15	Output terminals	0~1FH, 0: OFF; 1: ON	1	0	*	0~1FH
b4.08~b 4.09	Reserved	Reserved	1	0	0	0~65535	C2.01	Step 1 setting	Unit's of LED: 0:Multiple frequency	1	000	0	0~323H	d0.16	status AI input	-10.00~10.00V	0.01V	0.00	*	0~2000
b4.10	Customer parameter	0~65535 0:Not valid	1	0	×	0~65535			N(N:corresponding to current step)					d0.19	Percentage of AI after regulation	-100.00%~110.00%	0.01%	0.00	*	0~20000
b4.11~b4	initialization Reserved	Reserved	1	0	0	0~65535			1: Defined by A0.02 2: Multiple closed-loop reference N(N:corresponding to					d0.24	Process close- loop reference	-100.0~100.0% (Ratio of the full range)	0.1%	0.0%	*	0~2000
	Malti mand from	Group C0:Multi-section para		5.00Hz		0~30000			current step) 3: Defined by C1.01					d0.25	Process close- loop feedback	-100.0~100.0% (Ratio of the full range)	0.1%	0.05%	*	0~2000
C0.00~ C0.14	1~15	Lower limit of frequency~ upper limit of frequency		5.00HZ	0	0~30000			Ten's place of LED: 0: Forward1: Reverse					d0.26	Process close-	-100.0~100.0% (Ratio of the full	0.1%	0.0%	*	0~2000
C1.00	Close-loop	Group C1:Process PID paran 0: Disable1: Enable	1	0	×	0~1			2: Defined by operation command					d0.27	loop error Process close-	range) -100.0~100.0% (Ratio of the full	0.1%	0.0%	*	0~2000
C1.01	control function Reference	0: Digital input	1	1	0	0~3			Hundred's place of LED: 0: Acc/Dec time 1					d0.28	loop Temperature of	range) 0.0∼150.0℃	0.1°C	0.0	*	0~1500
C1.02	channel selection Feedback channel	1: AI 0: AI	1	0	0	0			1: Acc/Dec time 2 2: Acc/Dec time 3					d0.29	heatsink 1 Temperature of	0.0∼150.0°C	0.1°C	0.0	*	0~1500
C1.03	selection Digital setting of	-10.00V~10.00V	0.01	0.00	0	0~2000			3: Acc/Dec time 3					d0.30	heatsink 2 Total conduction	0~65535 hours	1 hours	0	*	0~65535
C1.05	reference Min reference	0.0%~(C1.07)(Ratio of Min	0.1%	0.0%	0	0~1000	C2.02	Step 1 operating time	0.0~6500.0	0.1	20.0	0	0~65000	d0.31	time Total operating	0~65535 hours	1 hours	0	*	0~65535
C1.05	Min reference	reference to base value	0.1%	0.0%	0	0~1000	C2.03~C 2.30	Step N setting and	Step N setting is same as C2.01 Step N operating time same as	1 0.1	000 20.0	0 0	0~323H 0~65000		time Total fan's	0~ 65535 hours		0		0~65535
C1.06	Feedback value corresponding to	of10V/20mA)) 0.0~100.0% (Ratio of Min reference to base	0.1%	0.0%	0	0~1000		Step N operating time	C2.02 Group C3: Swing paramet	ers				d0.32 d0.33	operating time ASR controller	-300.0~300.0% (Corresponding	1 hours 0.1%	0.0%	*	0~6000
C1.07	the Min reference Max reference	value of 10V/20mA) (C1.05)~100.0%(Ratio of Max	0.1%	100.0%	0	0~1000	C3.00	Swing function selector	0: Disable 1: Enable	1	0	×	0~1	d0.34~d	output Reserved	to drive's rated torque) Reserved	1	0	*	0~65535
		reference to base value of 10V/20mA)					C3.01	Swing Operation	Unit's place of LED: Startup	1	0000	×	0~1111H	0.56		Group d1:Fault record				
C1.08	Feedback value	0.0~100%(Ratio of Max	0.1%	100.0%	0	0~1000		mode	method 0: Auto mode1: By terminal					d1.00	Fault record 1	0~55	1	0	*	0~50
	corresponding to the Max reference	reference to base value of 10V/20mA)							Ten's place of LED: Swing control 0: Reference centre frequency					d1.01 d1.02	Bus voltage of the latest failure Actual current of	0~999V 0.0~999.9A	1V 0.1A	0V 0.0A	*	0~999
C1.09	Proportional gain KP		0.001	2.000	0	0~10000			1: Reference max. frequency Hundred's place of LED: Swing					d1.03	the latest failure Operation	0.00Hz~300.00Hz	0.01Hz	0.00Hz	*	0~30000
C1.10 C1.11	Integral gain Ki Differential gain	0.000~10.000 0.000~10.000	0.001 0.001	0.100	0	0~10000 0~10000			states storage 0: Save after stop						frequency of the latest failure					
C1.12	Kd Sampling cycle T	0.01~50.00s	0.01s	0.50s	0	1~5000			1: Not save after stop Thousand's place of LED:					d1.04	Operation status of the latest	0~FFFFH	1	0000	*	0~FFFFH
C1.13 C1.14	Output filter Error limit	0.01~10.00s 0.0~20.0%(Corresponding to	0.01s 0.1%	0.05	0	1~1000 0~200			Swing states storage after power failure					d1.05	failure Fault record 2	0~55	1	0	*	0~50
		close-loop reference)	1		×	0~1	C3.02	Devest suring	0: Save1: Not save	0.0111-	0.0011-		0.100000	d1.06	Fault record 3	0~55	1	0	*	0~50
C1.15	Close-loop regulation characteristic	0: Positive 1: Negative	1	0			C3.02 C3.03	Preset swing frequency Waiting time for	0.00Hz~Max. frequency 0.0~3600.0s	0.01Hz 0.1s	0.00Hz 0.0s	0	0~100000 0~36000	d2.00 d2.01	Serial number Software version	Group d2:Product Identity Par 0~FFFF 0.00~99.99	1 1 1	100 1.00	*	0~65535 0~9999
C1.16	Integral regulation	0: Stop integral regulation when the frequency reaches the upper	1	0	×	0~1		preset swing frequency						d2.02	number Custom-made	0~9999	1	0	*	0~9999
	selection	and lower limits 1: Continue the integral					C3.04 C3.05	Swing amplitude Jump frequency	0.0%~50.0%	0.1%	0.0%	0	0~500	d2.03	version number Rated capacity	Output power, 0~999.9KVA	0.1KVA	Factory	*	0~9999
		regulation when the frequency reaches the upper and lower					C3.06 C3.07	Swing cycle Triangle wave	0.1~999.9s 0.0%~100.0%(Swing cycle)	0.1s 0.1%	10.0s 50.0%	0	1~9999 0~1000			(Dependent on drive's model) 0~999V (Dependent on drive's	1V	setting	*	0~999
		limits					03.07	rising time			50.0%	0	0~1000	d2.04	Rated voltage	model)		Factory setting	ľ.,	
C1.17	Preset close-loop	0.00~300.00Hz	0.01Hz	0.00Hz	0	0~30000	d0.00	Main reference	Group d0:Status display -300.00~300.00Hz	0.01Hz	0.00	*	0~60000	d2.05	Rated current	0~999.9A (Dependent on drive's model)		Factory setting	*	0~9999
C1.18	frequency Holding time of preset close-loop	0.0~3600.0S	0.1S	0.08	×	0~36000	d0.01	frequency Auxiliary reference	-300.00~300.00Hz	0.01Hz	0.00	*	0~60000	U0.00	Factory password	Group U0:Factory parame	1	Factory setting	-	0~FFFF
C1.19~	frequency Preset close-loop	-10.00V ~10.00V	0.01V	0.00V	0	0~2000	d0.02	frequency Preset frequency	-300.00~300.00Hz	0.01Hz	0.00	*	0~60000			group can't display until entering the		_		
C1.33 C1.34	reference 1~15 Close-loop output	0: The close-loop output is	1	0	0	0~1	d0.03	Frequency after Acc/Dec	-300.00~300.00Hz	0.01Hz	0.00	*	0~60000			right password.				
	reversal selection	negative, the drive will operate at zero					d0.04	Output frequency	-300.00~300.00Hz	0.01Hz	0.00	*	0~60000	DO 00	Deserve 1	Group P0:Factory paramet	ters	East	*	0 (5525
		frequency. 1: The close-loop output is					d0.05 d0.06	Output voltage Output current	0~480V 0.0~3Ie	1V 0.1A	0 0.0	*	0~480 0~65535	P0.00	Reserved	Reserved	1	Factory setting		0~65535
		negative and the drive operate					d0.07 d0.08	Torque current Magnetic flux	-300.0~+300.0% 0~+100.0%	0.1%	0.0%	*	0~6000 0~1000		Can be modified du					
C1.35	Sleep function	o: Disable	1	0	0	0~1	d0.09	current Motor power	0.0~200.0% (Corresponding to	0.1%	0.0%	*	0~2000		Cannot be modified Actually detected a	nd cannot be revised;				
C1.36	selection Sleep level	1: Enable. 0.0~100.0%	0.1%	50.0%	0	0~1000			the motor's rated power)					-:	Defaulted by factor	y and cannot be modified.				
C1.37 C1.38	Sleep latency Wake-up level	0.0~6000.0s 0.0~100.0%	0.1s 0.1%	30.0s	0	$0 \sim 60000$ $0 \sim 1000$	d0.10	Motor estimated frequency	-300.00~300.00Hz	0.01	0.00	*	0~60000							
		C2: Simple PLC	1		1	·	d0.11	Motor actual frequency	-300.00~300.00Hz	0.01	0.00	*	0~60000							
C2.00	Simple PLC operation mode selector	Unit's place of LED: PLC operation mode 0: No function 1: Stop after single cycle 2: Keep final states after single cycle 3: Continuous cycle Ten's place of LED: Start mode 0: Start from first step 1: Start from the step before stop		0000	×	0~1123H	d0.12 d0.13	Bus voltage Drive operation status	0~800V 0~FFFH bit0: Run/Stop bit1: Reverse/Forward bit2: Operating at zero frequency bit3: Accelerating bit4: Decelerating bit5: Operating at constant speed bit6: Pre-commutation	1V 1	0	*	0~800 0~FFFFH							
		(or alarm).							bit7: Tuning				<u> </u>							

