Directory

Chapter 0 preface

0.1 preface

In order to fully play the function of the frequency conversion cabinet and ensure the safety of users, please read this operation manual. When you find difficult problems in the use process, please contact the dealer or technical staff of our company, our professional staff will be willing to serve you。

※Instructions for use

Frequency conversion cabinet is a precise electric power electronic product, in order to protect your life and property safety, this manual has the words " warning" " attention ", is to remind you in handling, installation, use, inspection of the frequency converter required attention safety precautions, please cooperate with。

Warning The operation was not at the time, and could cause serious personal injury。

Note The operation is not at that time, may cause the frequency converter or mechanical system to be damaged。

Warning
➢ Avoid electricity! The DC capacitor in the inverter cabinet can be discharged 5 minutes after the power supply is removed. please remove the power supply after 5 minutes, and then proceed to r & r or inspection。 ➢ The wiring shall not be implemented in the process of delivery. if the frequency conversion cabinet is in operation, do not check the circuit out of the box； ➢ Do not disassemble the internal connection or line and parts of the inverter cabinet automatically； ➢ Grounding terminal of frequency conversion cabinet, be sure to ground correctly：

Note
➢ Do not conduct voltage test on the components of the inverter cabinet, these semiconductor parts are liable to be damaged by high voltage； ➢ The inverter output terminals u, v, w can never be connected to AC power supply； ➢ Frequency conversion cabinet circuit board CMOS integrated circuit is vulnerable to electrostatic influence and damage, do not touch the circuit board。

Chapter 1 Safety precautions

1.1 Before Power On

Warning

- The main loop terminal must be correctly matched，3-phase(R、S、T)is power input terminal，Never mix with the motor output terminals (u, v, w)；When mixing, the power supply will cause damage to the inverter cabinet.

Attention

- The power supply voltage must be the same as the input voltage specification of the inverter cabinet。
- When handling the inverter, be sure to tie the hook with the fixed hole specified by the machine, and confirm the forklift or lifting truck that is in line with the tonnage to carry out handling, so as to prevent the shifting of the frequency conversion cabinet from falling, causing the loss of the frequency conversion cabinet to cause personnel injury or damage to the frequency conversion cabinet。
- Please install the Inverter on the metal such as non - combustible material, do not be installed on or near flammable material, in order to prevent fire. After the power supply is turned off, remove or load the operator, and operate the fixed operator according to the figure to avoid poor contact causing the operator to malfunction or not to display。
- In some circumstances, the use of this product may cause electromagnetic interference, so please do a proper test before use, and must do a good grounding work。

1.2 After Power On

Warry

- Do not open the cover after the product is power on, otherwise there is danger of electric shock! Do not touch any input / output terminals of the converter. Otherwise there is danger of electric shock.！ 。
- Touch the machine body, preferably wear shoes or gloves. Avoid wet hand contact with any part of the machine, and cause people to be injured

Attention

- If the product needs parameter modification, please pay attention to the danger of injury in the motor rotation. Otherwise it may cause an accident.。
- Do not touch the heat sink。

1.3 Wiring

Warry

- Before implementing any frequency conversion cabinet installed or wiring, please be sure to turn off the total power supply and avoid electric shock and fire。
- The wiring engineering personnel shall have relevant professional knowledge to avoid electric shock and fire。
- The personnel need relevant professional knowledge and certificates to avoid the danger of improper placement.。
- Confirm the grounding wire and the earth connection. (400 v level: the grounding impedance is less than 10 Ω)
- After the wiring is completed, confirm the emergency stop function is effective. (wiring responsibility belongs to the user)
- Do not directly touch the input / output power cord, and avoid any contact with the inverter cabinet enclosure and short circuit to the line。
- Do not carry out withstand voltage test of frequency conversion cabinet, it is easy to cause the damage of semiconductor component。

Attention

- Confirm that the main power supply is in line with the frequency conversion cabinet to avoid injury or fire。
- Please lock the terminal screws according to the specified torque to avoid the danger of fire。
- Water and external cooling equipment shall be installed in accordance with the provisions to avoid coolant spillage or pipe bursting。

- Do not connect the input power to the inverter output terminal。
- Do not connect the electromagnetic contactor, electromagnetic switch contact to the output terminal。
- Do not connect the phase capacitor or LC / RC filter to the output circuit。
- Ensure that the interference generated by the frequency conversion cabinet and motor does not affect the peripheral sensors or equipment。

1.4 Before running

Warry

- Before power on, please confirm that the capacity of the adapter of the inverter cabinet is the same as the motor power capacity of the motor。
- The length of the inverter and the motor is more than 25 meters, it is necessary to reduce the carrier frequency or add the output filter to reduce the overload or oscillation of the load end, and avoid the motor damage。
- Check the waterway equipment to ensure that the water pressure and flow of the external circulation water meet the cooling requirements。

1.5 Parameter setting

Attention

- When debugging parameters, you need to read the instruction manual of this machine。
- When modifying parameters, you need professional or qualified technical certification personnel to avoid the machine damage or personnel risk caused by the debugging process。

1.6 Revolve

Warning

- Please confirm that the front door closes and turn the knob to the closed position, and then turn on the power supply.
- In the operation, the motor unit can not be put into or cut off, otherwise it is easy to cause the frequency conversion cabinet over-current trip, serious time will cause the main circuit damage of the converter.
- When performing the reset function, do not come near to the machine. after the fault is cleared, the machine will start again.
- Do not operate the machine when your hands are wet.
- Provides an independent external hardware emergency switch that can turn off the inverter output when in danger.
- Please confirm that the operation command is closed before the reversion warning.
- If the recovery is selected after the automatic restart, the frequency converter will start automatically after the power supply.
- Operation process, please ensure the peripheral water system, avoid direct contact with electrical equipment, to ensure the safety of personnel.
- During operation, water cooling equipment shall not be disassembled or overhauled to avoid overflowing of internal hot circulating liquid.
- Whether the inverter is in operation or stop status, avoid touching the relevant terminals to prevent danger.
- After the power supply is cut, the fan may continue to rotate for a period of time.
- After the machine stops running, the cabinet body still maintains the temperature, the maintenance personnel should pay careful attention to prevent the scald.

Note

- The power cord, motor line, water cooling line and other heating components do not touch.
- Frequency conversion cabinet can easily make the motor from low speed to high-speed operation, please confirm the allowable range of motor and load.
- When the front end uses the circuit breaker or electromagnetic contactor, please pay attention to the specification and relevant settings.
- Do not check the signal on the circuit board when the frequency conversion cabinet operates.

Warning

- Avoid electricity! The DC capacitor in the inverter cabinet can be discharged 5 minutes after the power supply is removed. please remove it after 5 minutes after the power supply is removed.

1.7 Inspection, maintenance and replacement

Warning

- Before performing maintenance check, verify that the power supply is off and the power led is off (please confirm that the DC voltage is not more than 25 volts)
- There are high voltage terminals in the terminal of frequency conversion cabinet, do not touch freely.
- When the power supply is turned on, be sure to install the protective cover and when removing the cover, be sure to disconnect the power from the breaker.
- In addition to the specified professional personnel, do not conduct maintenance inspection or replace parts

Note

- The temperature of the frequency conversion cabinet should be used in 0 ℃ ~ + 40 ℃ 90 % RH not environment, but need to ensure no drop of water and metal dust in the surrounding environment.

Note on the scrapping of frequency converter cabinet

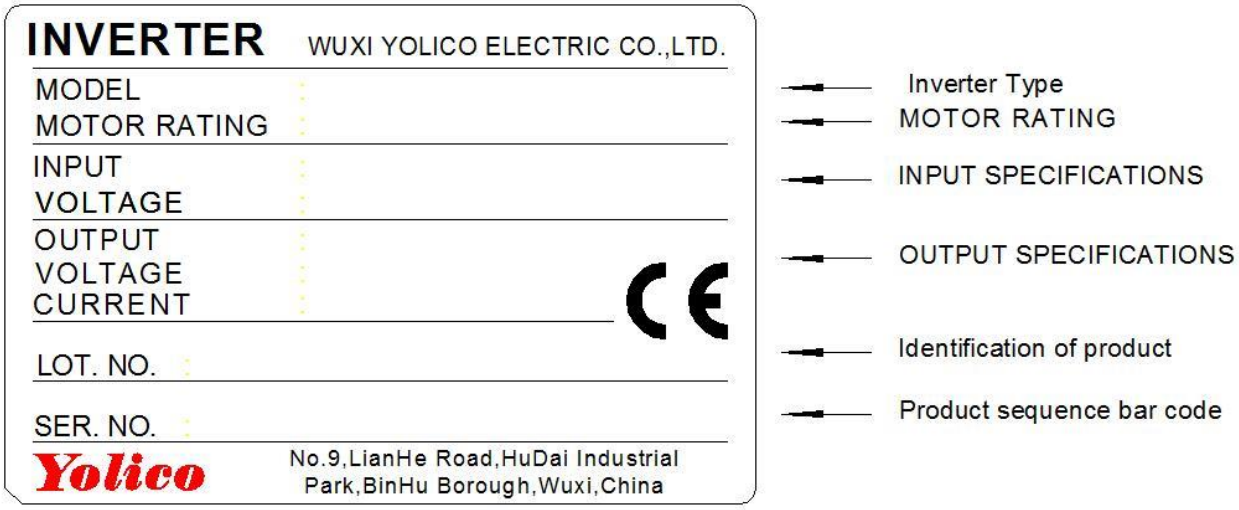
Note

Note on the scrapping of frequency converter cabinet:

- An explosion may occur when the electrolytic capacitance of the main circuit of the inverter cabinet and the electrolytic capacitor on the printed circuit board are burned;
- Toxic gas will be generated when plastic parts such as the inner wires and panels of the inverter cabinet are burned.

Chapter 2 Description Model Number

2.1 Inverter nameplate



2.2 type code description

YD1 132 T4 -LSPG A M 2S

① ② ③ ④ ⑤ ⑥ ⑦

Grade	Rules	explain
①	Series name	YD1
②	Rated power of suitable motor	132kW
③	Input voltage	T4:380V T6:660V
④	Allow maximum start current	LSPG：The starting current is maximum within 50 % of the rated current HSPG：The starting current is maximum within 100 % of the rated current
⑤	Customer name	Factory coding
⑥	Circuit breaker form	M：Molded case A：Framework
⑦	Configuration	X：Standard 2S：2 single head 2D：1 Platform head

Chapter 3

ambient environment and installation

3.1 Environment

3.1.1 Operating environment

The environment of frequency conversion cabinet installation has direct influence on the normal function of frequency conversion cabinet and its service life, so the installation environment of frequency conversion cabinet must meet the following conditions：

Protection	
IP Level	IP20
Applicable environment	
Ambient temperature	-10~40℃
Storage temperature	-40~60℃
Humidity	5 % to 90 % RH (compliance with iec 60068 - 2 - 78)
Vibration	Maximum acceleration: 1.2 g (12m / S2) from ntity to 150 Hz Displacement amplitude: 0.3 mm (peak), from 10 to ntity Hz (compliance with iec 60068 - 2 - 6)

3.1.2 Installation position

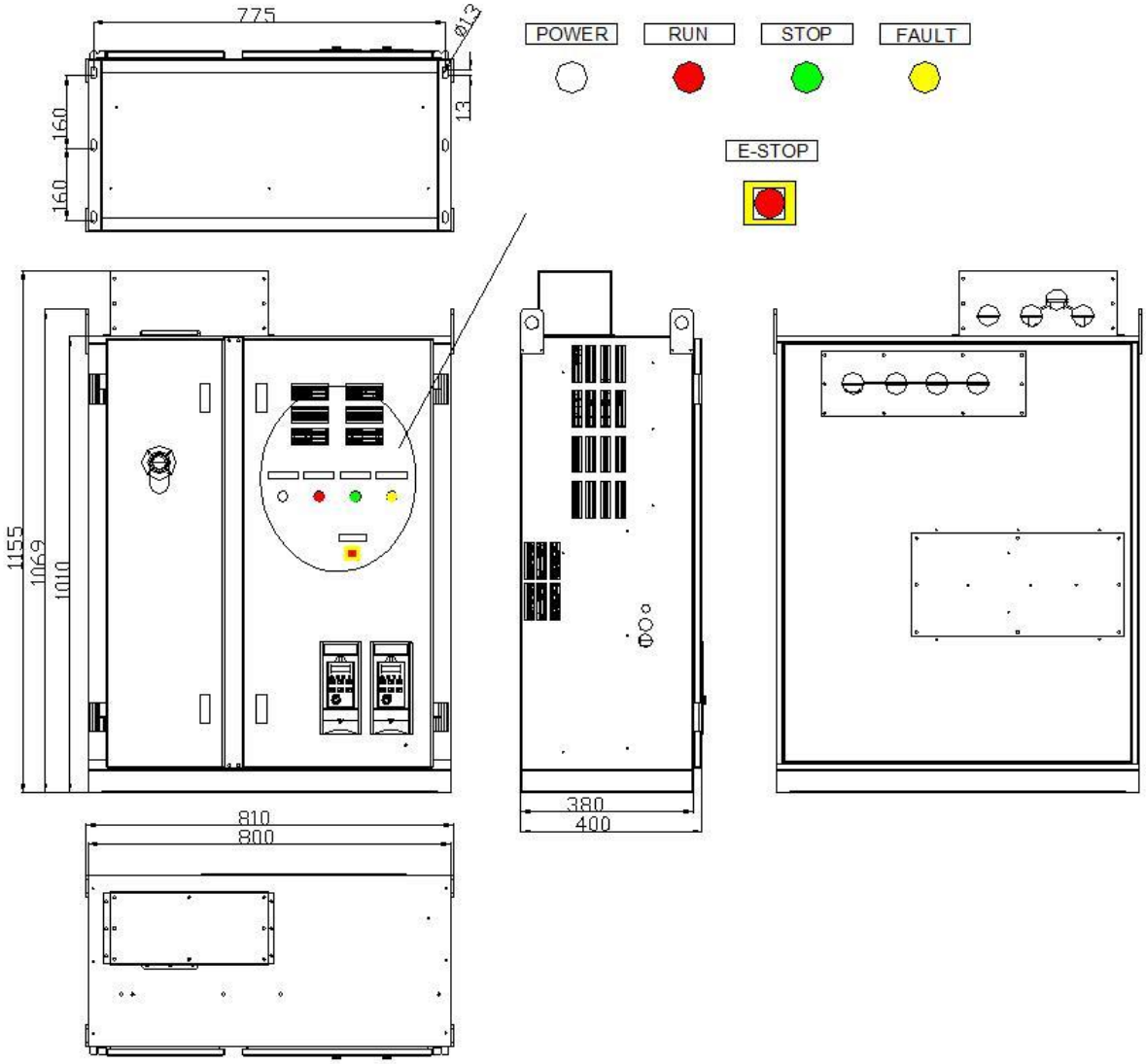
Products need to be installed in a yuyi environment and avoid exposure to the following environments：

- Avoid direct sunlight
- Prevention of rainwater dripping
- Prevention of oil mist and salt erosion
- Prevention of corrosive liquid, gas
- Prevention of dust, cotton batting and metal Fine intrusion
- Prevention of electromagnetic interference (welding machine, power machine)
- Away from radioactive materials and combustibles
- To prevent vibration, if can not avoid, please install the earthquake pad to reduce vibration

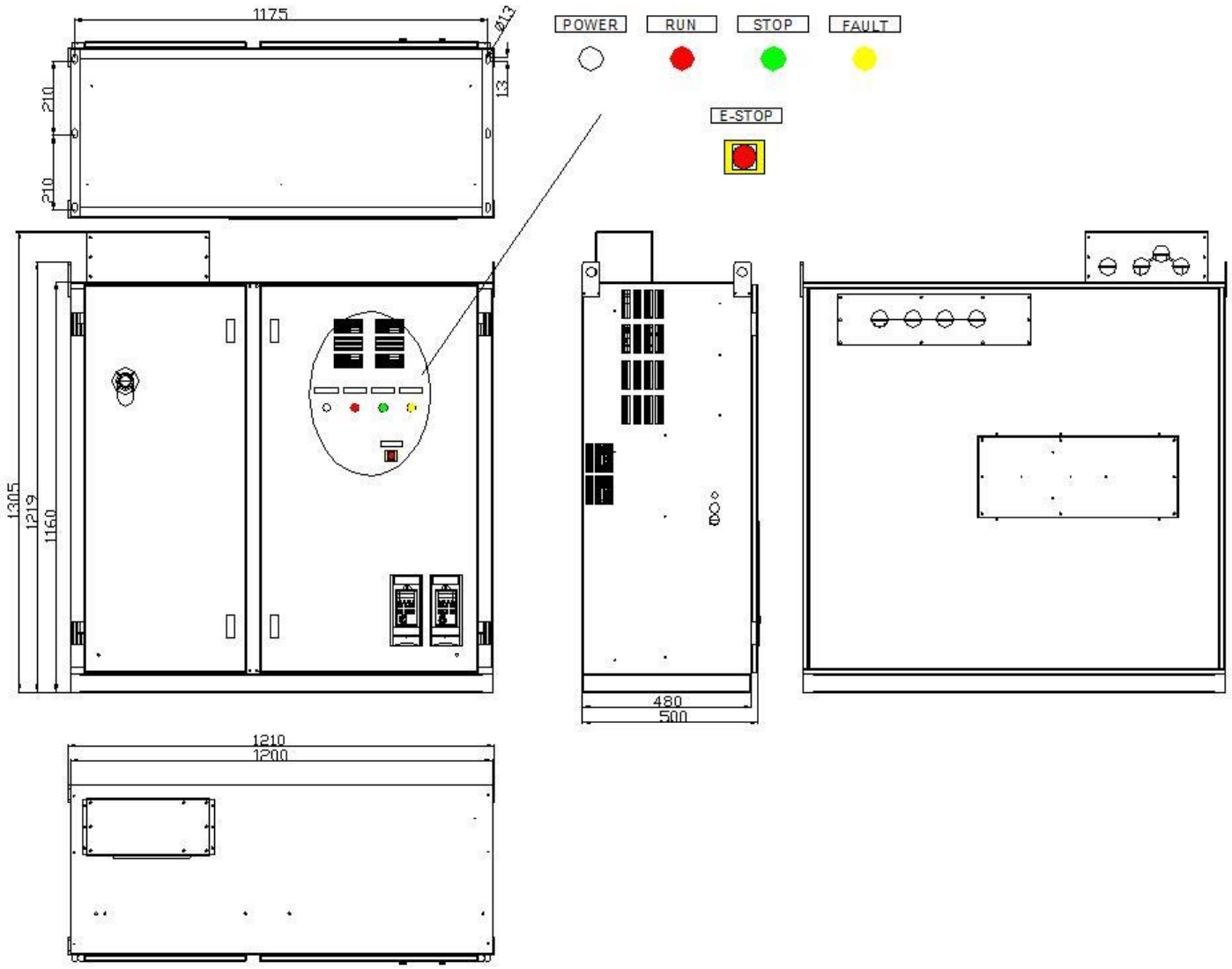
3.2 Appearance

3.2.1 Size and installation hole position

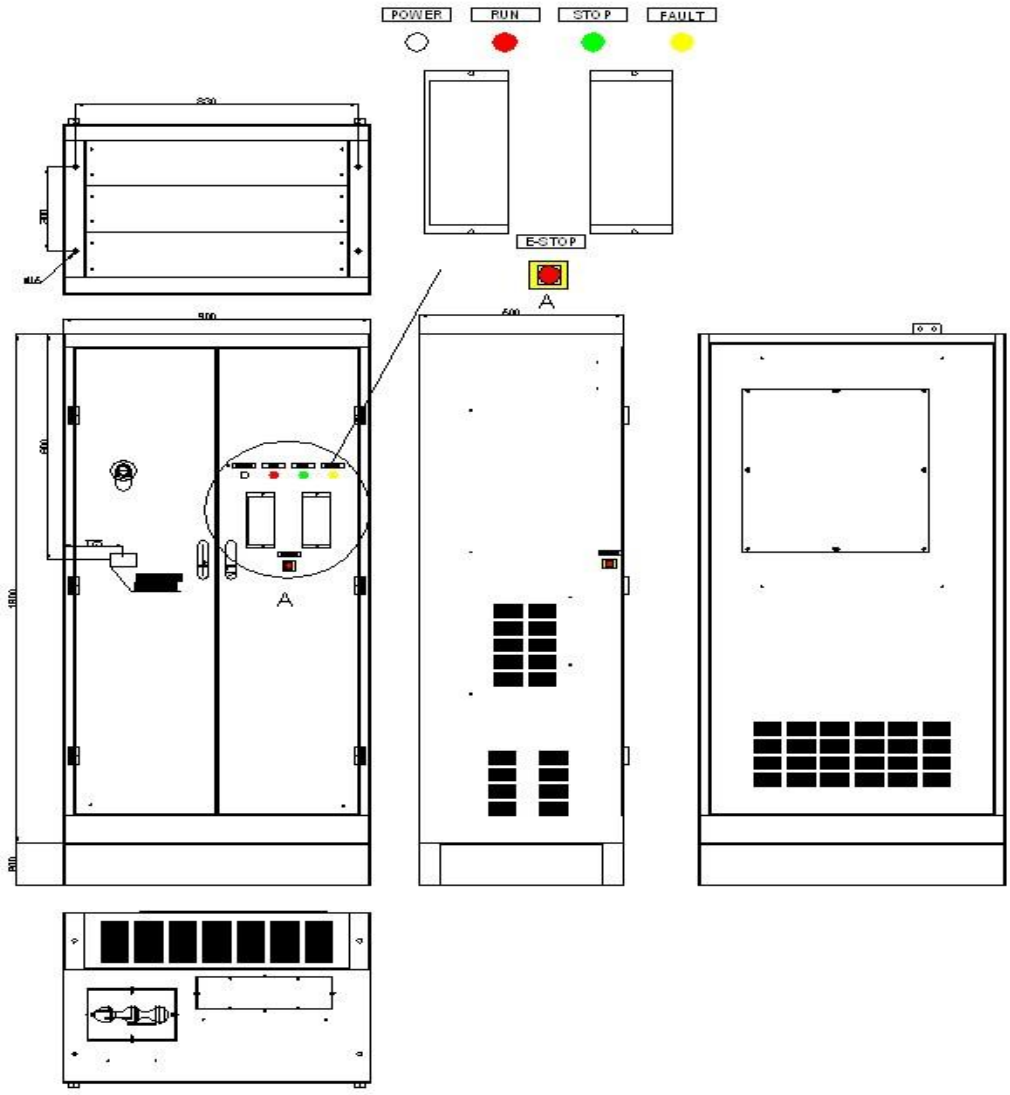
3.2.1.1 Scope of application：110KW-250KW



3.2.1.2 Scope of application：280KW-355KW



3.2.1.3 Scope of application：400KW-760KW



3.2.2 Peripheral equipment wiring and matters needing attention of frequency conversion cabinet

Be sure to confirm the warning message of the front outer cover of the frequency conversion cabinet，Refer to the following figure 3.3。

Fig 3.3 Warning label

Attention
1. Within 15 minutes of the input power supply, the main circuit may still have high voltage, and confirm that the DC bus voltage is lower than 36v before operation 2. The wiring or assembling and dismounting the internal connector of the inverter cabinet can not be implemented in the transmission。 3. The output end u, v and w of the inverter cabinet can never be connected to the AC power supply。 4. Grounding terminal E of frequency conversion cabinet must be grounded 。 5. Because the semiconductor components are vulnerable to high voltage damage, it is

not possible to test the pressure test of the internal components of the inverter cabinet。

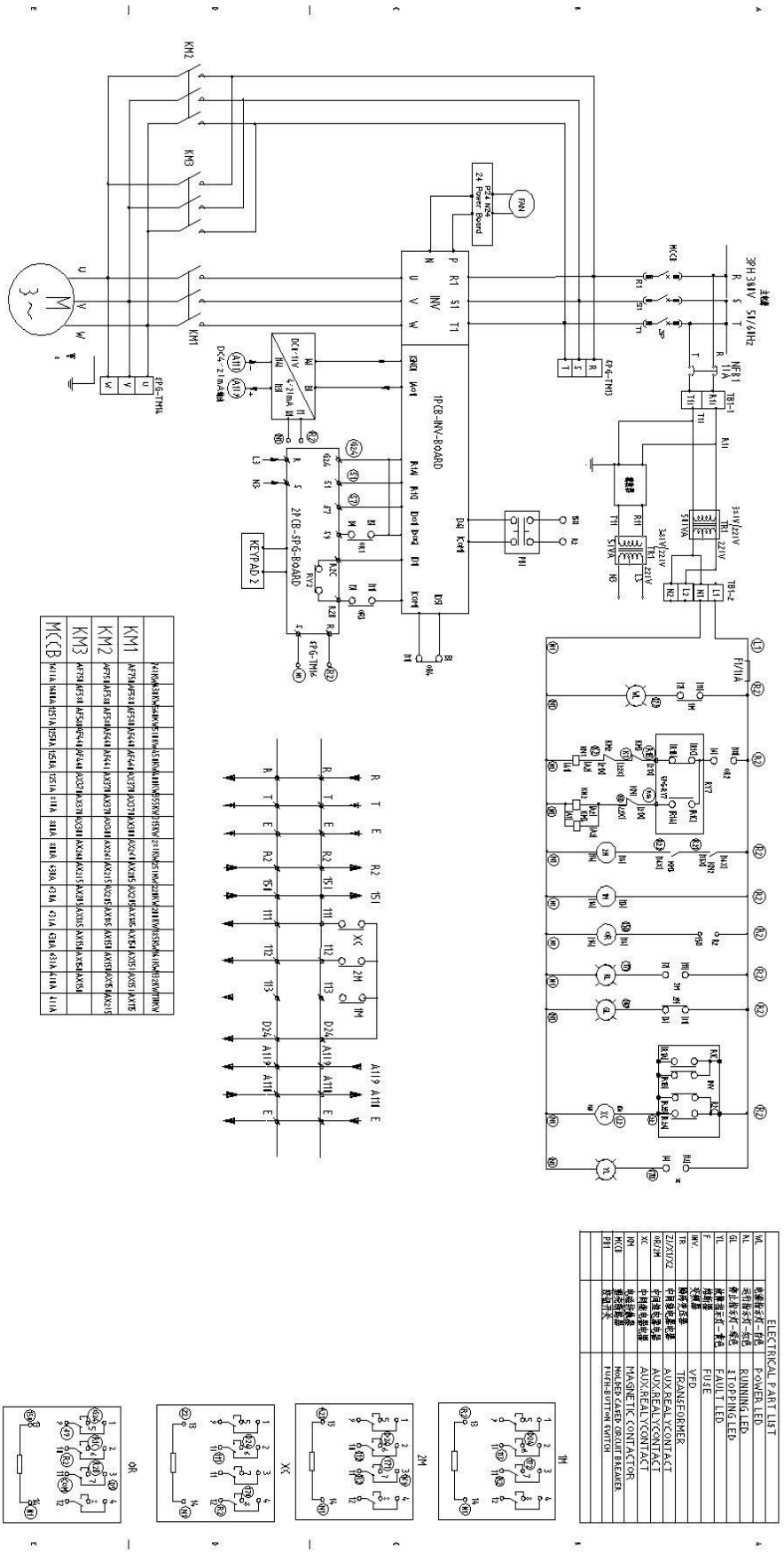
6. The CMOS IC of the inverter cabinet control board is vulnerable to electrostatic influence and destruction, do not touch the control substrate。

Note: the main power switch points to " off" position in the factory. do not transfer the main power switch to " on" position until after the wiring is complete and check and confirm

Chapter 4

Description of electrical wiring

4.1 Electric diagram of frequency converter cabinet



Note

1. For wiring, refer to the table, select the appropriate wire wire diameter, when the main circuit wiring is long, the voltage drop should not be considered more than 2 % of the rated voltage。

   Phase voltage drop △ v = × power line resistance (Ω / km) × distribution distance (m) × current current (a) × 10 - 3

2. When the wiring between the inverter and the motor is very long, please reduce the carrier frequency appropriately (parameter C6 - 01)。

4.2 Terminal function description

4.2.1 Main loop terminal description

PIN codes	Connection object	Matters needing attention
R	Ac power supply	380-420 VAC +10%~-10%
S		
T		
U	Load motor	The between impedance of the motor needs to be balanced and there is no short circuit phenomenon The motor line and the earth PE impedance need an open circuit
V		
W		
R0	Ac power supply	CPTR External power supply of machine type 380-420 VAC +10%~-10%
T0		

4.2.2 Control wiring diagram of variable frequency cabinet

Type	PIN codes	Wiring diagram	Matters needing attention
380V Power supply (single phase)	R	Ac 380v power supply To provide the use of control cabinet	Output
	T		
	E		
Start signal	R2	Ac 220v signal Control cabinet provides open contacts	Input
	150		
Fault signal	111	Inverter state switch signal relay often open contact 250VAC / 1A 30VDC / 1A	Output
Operative Condition	112		
Power On state	113		
COM	D24		
Motor current （4-20mA）	A109	Motor current analog output A109(+) / A110(-)	Output
	A110		
Screened ground	E	Shield layer ground terminal	

Chapter 5 software indices

5.1 There are two parameters setting。

There are 2 debug display panels on the device, with different functions. The following description:：

When we face the machine, the left panel, to start the special panel, function as the motor in stop, the inverter drag the motor。

In addition to the face of the machine, the right panel, to switch the special panel, the function of the motor running near the power frequency, switching to the power grid。

As shown in the following figure：

The panel on the left shows 50.10 as the frequency converter starts the special panel, hereinafter referred to as OP _ INV。

The panel on the right shows that the panel of 294A is the dedicated frequency conversion switching special panel, hereinafter referred to as OP _ SPG。

5.1.1 OP_INV User monitoring parameters group description

OP_INV User monitoring parameters group

5.1.1 General table of user monitoring parameters

Group	Para	Name	Content	explain	unit
State monitoring	U1-01	Frequency command	Monitoring setting of frequency	10V/Max Frequency	0.01Hz
	U1-02	Output frequency	Monitoring output of frequency	10V/ Max Frequency	0.01Hz
	U1-03	Output current	Monitoring Output current of inverter	10V/Rate Current I	0.1A
	U1-06	Output voltage	Monitoring Output voltage of inverter	10V/E1-13 Value	0.1V
	U1-07	Dc voltage	Monitoring DC voltage of inverter	10V/（E1-13 Value×$\sqrt{2}$）	--
	U1-10	Input terminal state	Monitoring Input terminal state	Non - output	--
	U1-11	Output terminal state	Monitoring Output terminal state	Non - output	--
	U1-14	Software number	Monitoring Software number	Non - output	--
	U1-15	Terminal AVI input	Monitoring AVI	0-10V/0-100%	0.1%
	U1-16	Terminal ACI input	Monitoring ACI	4-20mA/0-100%	0.1%
	U1-46	Igbt temperature	Monitoring Igbt temperature	Non - output	--
	U1-48	Working hours	Monitoring work of hours	Non - output	--
	U1-49	Working hours	Monitoring work of days	Non - output	--
	U3-01	Previous 1 failure	Fault 1 code	Non - output	--
	U3-02	Previous 2 failure	Fault 2 code	Non - output	--
	U3-03	Previous 3 failure	Fault 3 code	Non - output	--

5.1.2 OP_INV Programming parameter group description

OP_INV Programming parameter group

Group	Para	Name	Setting	Range	Unit	Explain
1	B1-02	Operating instruction source	1	0-2	----	No adjustment
2	C1-01	Acceleration time	20.0	0.1-3600.0	Sec	
3	C1-02	Deceleration time	20.0	0.1-3600.0	Sec	
4	D1-13	Step 1 frequency	★	0.00-650.00	Hz	Note★
5	D1-14	Step 2 frequency	★	0.00-650.00	Hz	Note★
6	H1-03	Terminal 3 function	3	0-89	---	No adjustment
7	H1-05	Terminal 5 function	30	0-89	---	No adjustment
8	H1-11	D1-D5 Node selection	00100	---	---	No adjustment
9	H2-01	RY1 function select	2	0-48	---	No adjustment
10	H2-02	RY2 function select	E	0-48	---	No adjustment
11	H4-01	AO1 function select	3	1-7	---	No adjustment
12	H4-02	AO1 Output gain	100	1-7	---	No adjustment
13	L3-02	Accelerated stall prevention	150	50-300	---	
14	L3-06	Running stall prevention	150	50-300	---	
15	L3-07	Retardation of stalling	150	50-300		
16	L4-02	Frequency detection range	0.00	0.00-30.00	Hz	
17	E1-04	Upper frequency limit output	51.00	40.00-650.00	Hz	
18	E2-01	Rated current of motor	★★			Note★★

Note：

★ Speed 1 frequency / segment speed 2 frequency: according to different power and operating conditions have different settings。

★★ Rated current of motor: set according to customer order demand. if the order is not required, the rated current of SPG frequency conversion cabinet is set.。

5.1.3 OP_SPG Programming parameter group description

OP_SPG Programming parameter group

item	Para	Explain	Setting	Range	Unit	Reamak
1	C1-01	Switching angle up limit	20.0	0.1-3600.0	Sec	Note★★★
2	C1-02	Switching angle lower limits	20.0	0.1-3600.0	Sec	Note★★★
3	C1-03	Switching delay time	2.5	0.0-100.0	ms	Note★★★

★★★ Switching angle and time: according to different power and operating conditions have different settings. The following are different power and load conditions,
Set parameters。

Centrifuge（OP_SPG Panel parameter）			
Models	Parameter	Setting	Explain
760KW	C1-01	48	Switching angle up limit
	C1-02	44	Switching angle lower limits
	C1-03	1.0	Switching delay time
400KW	C1-01	48	Switching angle up limit
	C1-02	44	Switching angle lower limits
	C1-03	1.0	Switching delay time

Screw extruder（OP_SPG Panel parameter）			
Models	Parameter	Setting	Explain
132KW—280KW	C1-01	4	Switching angle up limit
	C1-02	1	Switching angle lower limits
	C1-03	1.0	Switching delay time

Chapter 6
diagnosis and elimination of anomalies

6.1 General

Fault detection and early warning / self - diagnosis function of frequency conversion cabinet. When the frequency conversion cabinet detects that the fault code is displayed in the led operator, the fault contact output action, cut off the output of the inverter cabinet, so that the motor is free to run (in some fault, the method of stopping is optional)。
The following faults may be encountered during the use of the frequency converter. please refer to the following methods for simple fault analysis：

6.1.1 OP_INV Fault message and exclusion Description

OP_INV Fault message and exclusion				
Item	LED Display	Fault Description	Possible causes	Exclude
1	OC	1.overcurrent The output current of the converter exceeds the flow detection value (200 % of the rated current). The converter output or load is short circuit	1. acceleration / deceleration time is too short. 2. start the motor that is rotating 3. short circuit or ground fault occurs 4. contact, short circuit to ground caused by motor damage, insulation deterioration, cable breakage. 5. low voltage 6. the selection of frequency converter is too small	1. extended acceleration / deceleration time, C1 - 01 / 02 2. select rotate speed tracking, start or stop after the motor stops 3. confirm whether the load connection is short circuit 4. remove the motor and try running the inverter 5. adjust the voltage to normal range 6. choose the frequency converter with higher power grade
2	GF	Ground fault The short circuit current of the output side exceeds the rated output current of 50 % converter And l8 - 10 = 1 (gf function startup).	1. the defect of the motor ground or dcct current sensor	1. check motor wiring and wiring impedance
3	OV	1.The main circuit voltage is too high: The DC voltage has exceeded the vervoltage detection value About 820 v DC	1. the deceleration time is too short, leading to the high energy recovery. 2. high voltage supply voltage 3. existence of external force drive motor running 4. no brake unit and brake resistance are added	1. extended deceleration time C1 – 02 2. check the input circuit and reduce the input voltage Meet the specification requirements. 3. cancel the power or add the brake resistance 4. installation of braking unit and resistance
4	SC	Short circuit to output or load of converter	The motor 3 is short circuited or broken skin contact to the housing	Detection of motor and motor lines
5	PF	1.Input owed phase: The variable input side owes or has a large voltage imbalance.	1. the three-phase input power supply is not normal 2. abnormity of	1. check and troubleshoot problems in the peripheral circuits 2. seeking technical support

		2.L8 - 05 = 1, start this fault detection.	lightning protection board 3. abnormality of the main control board	3. seeking technical support
6	LF	Output due phase: The output of the converter is backward. L8 - 07 = 1, start this fault detection.	1. the lead of the converter to the motor is not normal 2. the three-phase output of inverter is unbalanced when the motor is running 3. drive plate anomaly 4. module anomaly	1. troubleshooting peripheral faults 2. check whether the three-phase winding of the motor is normal side by side Fault removal 3. seeking technical support 4. seeking technical support
7	OH	IGBT overheated.	1. the temperature of the surrounding environment is too high 2. cooling fan has stopped 3. problems of water cooling 4, carrier frequency setting too high 5. the setting of IGBT alarm temperature parameter is too low	1. check the temperature around the environment of the frequency conversion cabinet 2. check dust and dirt of fan or radiator 3. check whether the water flow is low or blocked 4. check the setting of carrier frequency (C6 - 01) 5. check the setting of IGBT alarm temperature (l8 - 01)
8	OH1	The CPU temperature is too high.	1. the temperature of the surrounding environment is too high. 2. the cooling fan has been stopped. 3. the alarm temperature parameter setting of the reactor is too low.	1. check the temperature around the inverter environment. 2. check dust scale of fan or heat sink. 3. check the setting of alarm temperature (L8 - 02).
9	OL1	Motor overload:	1. the voltage setting of the v / f mode is too high, causing the motor to overreact. 2. the motor rated current setting (E2 - 01) is incorrect. 3, the motor load is too large.	1. check the v / f mode. 2. check the rated current of the motor. 3. check the load size and cycle time.
10	Ol2	Variable frequency cabinet overload:	1. the voltage of the v / f mode is set too high. 2. the capacity of inverter cabinet is too small. 3, the motor load is too large. 4. the acceleration time is set too short.	1. check the v / f mode. 2. replace to a higher capacity frequency conversion cabinet. 3. check the load size and cycle time. 4. extend the acceleration time C1 - 01.
11	UV1	The main circuit voltage is too low: The DC bus voltage is lower than the low voltage detection value or DC bus electromagnetic	1. the input power supply voltage is too low. 2. the input power supply is backward.	1. check the power supply system. 2. check whether the terminal is loose or power system. 3, extend the acceleration time.

		contactor is not input, and the converter is running. Approx. 380 VDC (the detection value can be adjusted by l5 - 09).	3. the acceleration time setting is too short. 4. the voltage fluctuation of the input power supply is too large. 5. the DC bus electromagnetic contactor is not invested.	4. check the power system capacity. 5. check the electromagnetic contactor.
12	UV3	Exception of main contactor: Detection circuit or line fault. Cpu board failure	1. the auxiliary contact joint of the contactor is loose 2. line to the main board, terminal block loose 3. fault of control board 4. contactor failure	1. joint Again tight 2, terminal Again tight 3. replace the control panel. 4. replace contactor.
13	CPF03	Abnormal operation of CPU board EEPROM	1. the CPU board EEPROM fault.	1. replace the control panel.
14	CTER	Current loop detection anomaly	1. fault of current sensor.	1. replace the sensor.
15	UV	Main circuit voltage: The DC bus voltage is lower than the low voltage detection, and the converter is down. 380 VDC: (l5 - 09 may be set for detection)	1. the power supply voltage is too low. 2. loss of instantaneous power.	1. check the input voltage. 2. check the main loop MC.
16	OE	The frequency converter starts the timeout; (l5 - 04 may set the timeout)	1. the angle range of switching plate switching is set too small (C1 - 01 / C1 - 02) 2. the acceleration time of the converter does not match the timeout setting 3. phase sequence detection hardware fault 4. low switching frequency setting of frequency converter	1. increase the range of switching angle 2. set the acceleration time and time out of match 3. check the phase sequence detection circuit 4. set the correct switching frequency
17	LOC	A1 - 04 after setting the password, attempt to modify the parameter	In the password setting, an attempt to modify the parameter cannot be modified	Enter the correct password in parameter A1 - 04
18	OPE01	Abnormal power setting of frequency converter	Set the wrong power	Please notify the original manufacturer
19	OPE02	Parameter setting range is not good	Non - professionals debugging	Check the manual or notify the original customer service
20	OPE12	In operation, try to modify the parameter of modifying	Non - professionals	Check the manual or notify the

		attribute in not	debugging	original customer service
21	OPE15	Parameter setting error 1. attempt to modify O2 - 04 2. the change of parameter value in communication is Overrun	Non - professionals debugging	Check the manual or notify the original customer service
22	STP0	Zero speed stop	When a running instruction is issued, but the frequency instruction < 0.1 Hz	1. 1. detect the operation instruction terminal normal or not? 2. 2. detect the frequency command terminal normal or not?
23	STP1	Direct startup failure	When the converter sets the external operation (B1 - 02 = 1) and the direct start function is invalid (l5 - 06 = 1), if the operation switch is placed in the conduction position when the power supply is in, the frequency converter cannot start, and the blink is flashing.	1.detect the operation instruction terminal, no 3.set l5 - 06 = 0, but be careful.
24	STP2	Keyboard emergency stop	1. start the running process, press the stop key on the op _ inv panel to cause the machine to stop and display the STP2 fault code.	1. open the power cut and restart it again 2. notify the original customer service

The following malfunctions may be encountered during the spg power frequency switching process, please refer to the following methods for simple fault analysis

6.1.2 OP_SPG Fault message and exclusion Description

OP_SPG Fault message and exclusion				
Item	LED Display	Fault Description	Possible causes	Exclude
1	PSE2	1. the frequency of power grid does not match frequency of frequency converter 2. frequency and frequency conversion error	1. improper setting of frequency converter frequency 2. the power frequency and frequency conversion phase sequence do not match	1. set frequency converter frequency matching with grid frequency 2. adjusting input frequency phase sequence
2	PSE3	1. switch the trigger head 1 switch signal before starting the start signal 2. after the switch plate head 1 completes the switching action, the switch signal is revoked prior to the start signal	1. switch cabinet internal fault	1. try to restart the power off, if the fault persists, repair
3	PSE4	1. switch the trigger head 2 switch signal before starting the start signal 2. after the switch plate head 2 completes the switching action, the switch signal is revoked prior to the start signal	1. switch cabinet internal fault	1. try to restart the power off, if the fault persists, repair

6.1.3 Other faults message and exclusion Description

Other faults			
Item	Failure phenomenon	Possible causes	Solution
1	No display on power	1. power grid voltage is not or too low 2. the switch power supply fault of the inverter drive plate 3. bridge bridge damage 4. the converter buffer resistance is damaged. 5, control board, keyboard fault 6. the connection between the control panel and the driving board and the keyboard	1. check the input power supply 2. check bus voltage 3. hand device 4 ~ 6, seek factory service
2	The motor does not rotate after the frequency converter is running	1. motor and motor line 2. error of converter parameter setting (motor parameter) 3. the driving plate is in bad contact with the control panel 4. drive plate fault	1. reconfirm the connection between the inverter and the motor 2. replace motor or remove mechanical fault 3. check and reset the motor parameters 4. seeking service of manufacturer
3	Input terminal inoperative	1. parameter setting error 2. external signal error 3. fault of control board	1. check and reset the H1 group related parameters 2. reconnect external signal wire 3. seek service from manufacturer
4	The frequency converter frequently reports the flow and overvoltage fault	1. motor parameter setting is incorrect 2 .acceleration / deceleration time is not appropriate 3. load fluctuation	1. reset the motor parameters or make motor tuning 2. set appropriate deceleration time 3. seek service from manufacturer
11	Start motor dithering	1. motor and motor line 2. error of inverter parameter setting (motor parameter) 3. error internal drive (drive failure)	1. check whether the grid is balanced; 2. check the setting of frequency converter parameter 3. measuring the output voltage balance of the converter