

NPC Cabinet Dryer Manual



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1.Overview

Welcome to use our products, we'll sincerely serve you. For your better usage, please read our manual carefully before you usage to avoid the Personal injury or damage to the machine

Note: Forbid to treatment of toxic and flammable materials

This product is widely used in all kinds of plastic raw materials. It can dry different materials with different colors. It is particularly suitable for high precision temperature drying, less quantity and various kinds. At the same time also applies to food, pharmaceutical, electronics, electroplating and other industries dealing with warm or dry use.

Feature

- 1) Adopted P.ID temperature control, precisely control drying temperature.
- 2) High Temperature and seal door can keep the uniform Temperature and reduce thermal losses
- 3) Stainless steel ovenware and liner can prevent the pollution of the raw material
- 4) Good design and convenient maintenance
- 5) Air inlet and outlet with adjustable design and convenient to adjust air volume
- 6) Match Over temperature protection device
- 7) The motor with over load protection.
- 8) 24 hours timing device
- 9) warning light

2.Specification

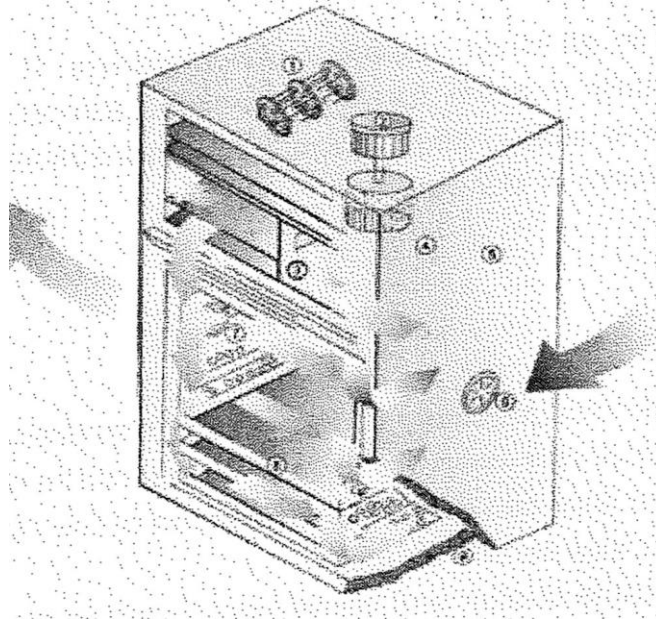
Item No	Out Size (mm)	Inner Size (mm)	Motor Power (kw)	Heating Power (kw)	Temperature (°C)	Oven ware	Capacity (kg)	Weight (kg)
OV-5	1200*800*620	660*600*550	0.37	4	250	5	50	148
OV-9	1400*800*620	900*600*550	0.37	4.5	250	9	90	178
OV-12	1600*800*620	1100*600*550	0.75	6	200	12	120	285
OV-20	1700*1210*870	1000*990*800	1.5	9	200	20	200	415

Note: Voltage 3ø380V, 50Hz

We reserve right to make change without notice.

3.Function Description

There are tray in the Cabinet dryer. It need to put the material into the tray. When the machine work, the wind mill will make the air blow into the raw material trough the heating coil and wind screen. After drying, the moist air will be out from other side.



- 1.Heating Coil
- 2.Motor air inlet
- 3.Wind Chamber

- 4.Scirocco Fan
- 5.Coating outer plate
- 6.Air inlet

- 7.Air outlet
- 8.SS tray
- 9.High Temperature insulated cotton

4.Safety Regulations

For avoiding the Personal injury or damage to the machine, please operate the machines according to the safety guide of the instruction. The safety guid is as below,

Note: Install the electrical is finished by the professional electrician.

It must close the main power switch and control switch.

Machines transportation and Stock.

Transportation

- 1) Cabinet Dryer is packed by wooden package.
- 2) During transportation, please don't turn the machine to avoid crashing with other things.

Stock

- 1) Cabinet Dryer should stock in indoor.
- 2) The ambient temperature should be in 5°C- 40°C. The humidity is lower than 80%.
- 3) Turn off all power and close the main power switch and Control Switch
- 4) For avoiding the potential malfunction because of moisture. Please isolate the water and machine
- 5) Use the plastic to pack the machines to avoid the dust and rainwater

Work Environment

Indoor, Dry Condition, The highest Temperature should be lower than +45°C and Moisture should be lower than 80%

Forbid to use the machines under the environment.

- 1) Don't run machines after Machine damage.
- 2) Don't run the machines on Wet floor or get wet in the rain
- 3) If machines Damage or disassembly, need to maintain by professional workers.
- 4) During running, it needs 1M space. And there is no inflammable within the scope of 2 M.
- 5) Avoid shaking and magnetic force

Scrapped Parts treatment.

When the machines get to their working life and can't work again, please turn off the power and disposed of properly according to your local rules.

5.Installation

5.1 Installation Notice.

- 1) Making sure the voltage and frequency correspondence with machines plate mark.
- 2) Connect the cable and ground wire according to local rules.
- 3) Use independent cable and power switch. And the diameter of the cable can't be smaller than applied cable of the control box.
- 4) Cable terminal should be safe and fastness
- 5) The series power adopt 3phase, 4 lines. And Power (L1, L2, L3) connect power fire-wire and ground wire (PE) .
- 6) Power distribution demands:
Main Power Voltage: $\pm 5\%$
Main Power Frequency: $\pm 2\%$

5.2 Installed in the Horizontal plane



6) Notice: Put the machines in the horizontal plane and forbid to put the inflammable within the machines scope of 2 M.

5.3 Checking Motor direction.

- 1) Check the wind direction of air inlet and out let on the two sides of the dryer
- 2) If the diversion is not correct,
 - a) Stop machines
 - b) Close the main switch
 - c) Change optional 2 cables of the 3 main power lines.
 - d) Open the machines and check again.

6. Operation Instruction.

Connect the power according to wiring drawing and making sure the voltage correspondence with machines.

Note: Must close the main power switch and heating power switch before switch on power.

6.1 Test

When making sure all cable connection is ok, turn the power switch to "ON" position. Turn the blower switch to "ON" position, and turn the heating switch to "ON" position, At that time, the indicator light is bright. Look into if the windmill diversion is correspondence with direction of arrow. If direction is different, change optional 2 cables of the 3 windmill lines

6.2 Temperature setting

The temperature had been set to 120C in factory, so no need to set or fix it again. If you indeed need to change the temperature, please operate as following.:

Switch ▲ Rise the temperature

Switch ▼ Lower the temperature

Note: When you set the temperature, must refer to the following reference to set temperature according to the actual experience.

Material	Drying Temp(°C)	Drying Time(hr)
ABS	80	2~3
POM	100	2
PMMA	80	3
IONOMER	90	3~4
PA6/6.6/6.10	75	4~6
PA11	75	4~5
PA12	75	4~5
PC	120	2~3
PU	90	2~3
PBT	130	3~4
PE	90	1
PET	160	4~5
PPO	110	1~2
PI	120	2
PP	90	1
PS(GP)	80	1
PSU	120	3~4
PVC	70	1~2
SAN(AS)	80	1~2

6.3 Air regulation

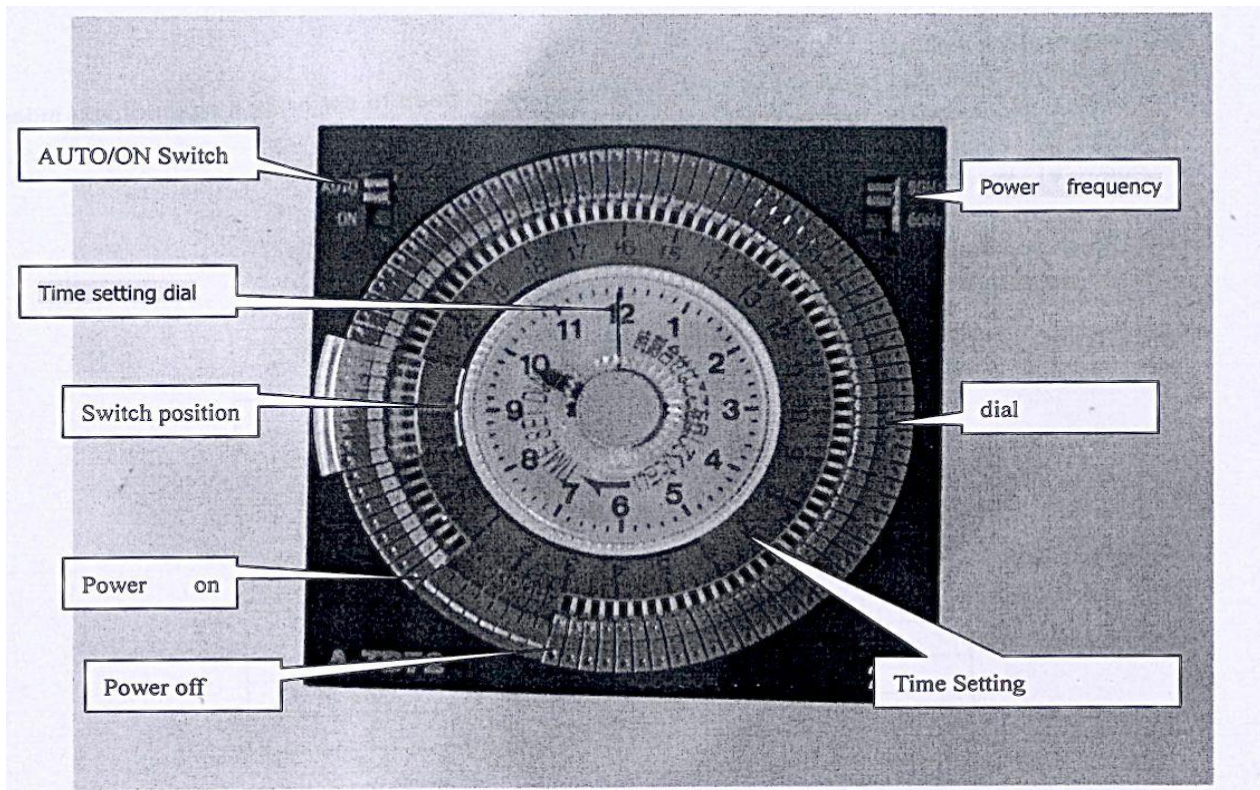
The adjustment of air volume will greatly influence the drying effect. For different materials, the air inlet and outlet should adjust accordingly, and then it can make the best drying effect.

Example:

- 1) For electronic, electroplating, paint, etc, you should turn off all air inlet and outlet when drying.
- 2) For plastics and other wet material, you should turn on the air inlet and outlet when drying.

6.4 Automatic timing settings

Based on all the switches turn on, you turn on the timing setting switch, take off the timing setting cover, switch the AUTO/ON switch to "AUTO", then set the current time and then set the drying time as you need. Cover the timing setting cover, the dryer will automatic stop working when time is over.



Output setup

Open setup: To turn the dial setting parts inward, you will see the red mark, like that picture show. First, to set the current time, if the current time is 20:00, and need to open machines time at 1:00 and working hour is 2 hours, then press 8 pcs scales. Note: every scale is 15min.

Close setup: To turn the dial setting parts outward, the red mark will disappear. Then turn the time setting dial to switch position.

6.5 Over-temperature protection Setting.

Over-temperature is used to protect the motor and heater when the heating Temperature is higher the setting temperature, its setting Temperature is higher than the Temperature controller.

7. Routine maintenance

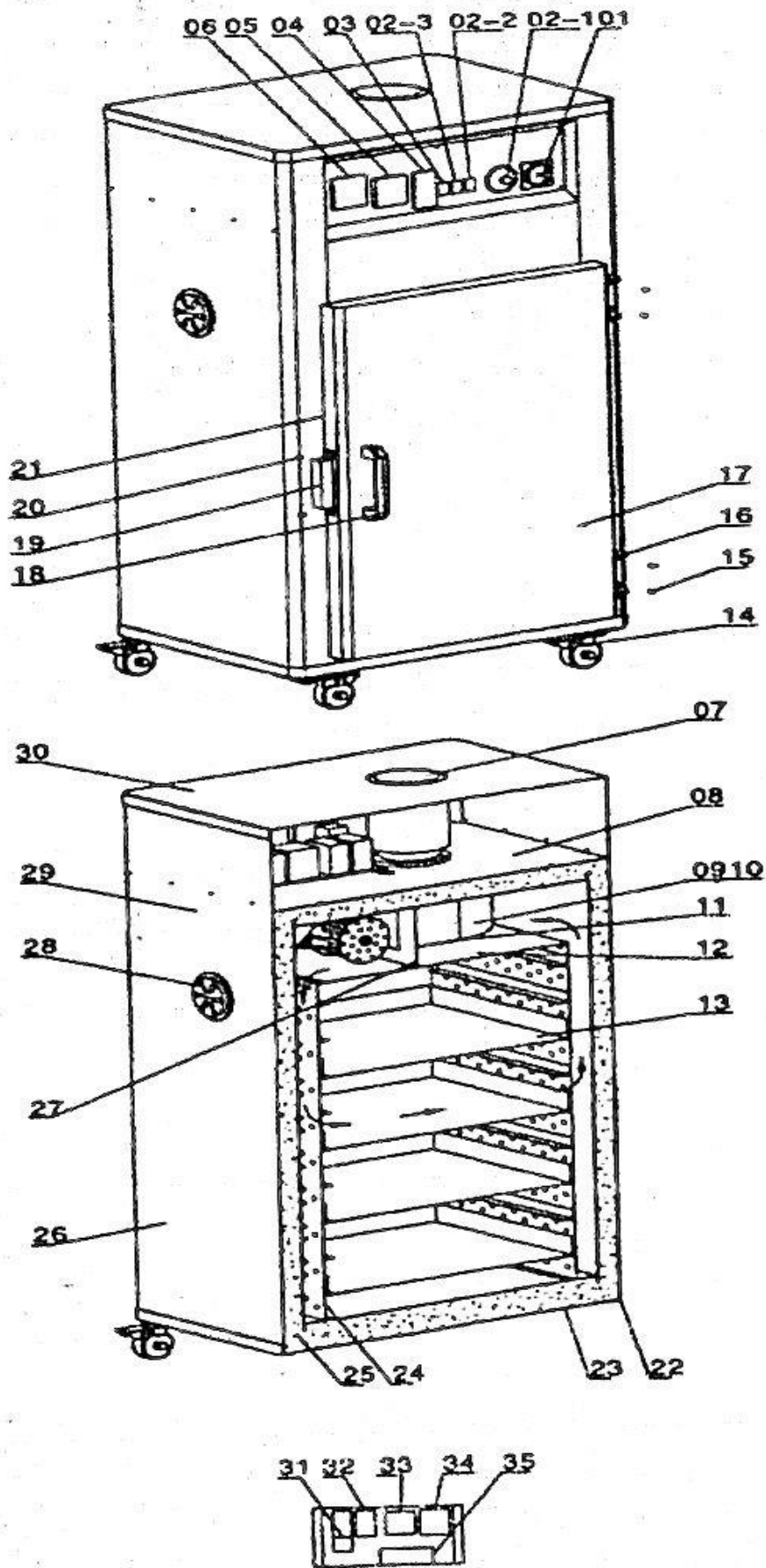
Please clean up the fan blade regularly.

8.Trouble removal

<p>No signal power on</p>	<ol style="list-style-type: none"> 1. Power unreasonable, check the air switch 2. Check the power to introduce line of Office, whether the terminal is loose off 3. Check whether the micro-computer controller power is good, need to check the phase sequence controller and base for damage
<p>No signal power on But Buzzer sound</p>	<ol style="list-style-type: none"> 1. Check whether the lack of power supply phase, dropped calls, the zero line connected the wrong wire, guillotine inside the fuse is blown 2. Check whether the reversed-phase three-phase power, arbitrary two-phase line can exchange
<p>Showed normally, blower does not turn, not heat buzzer sound</p>	<p>Blower protection thermal relay, thermal relay by pressing the blue reset button, and check the blower is normal, and then power on</p>
<p>Showed abnormal buzzer sound</p>	<ol style="list-style-type: none"> 1. Thermocouples short-term instructions, Thermocouple damaged, in need of replacement 2. Thermocouple terminal loose, tighten terminal screws 3. Thermocouples "*" anti-polarity, adjusting positive polarity 4. Alarm when the temperature inside the machine is too high, check the temperature 5. AC contactor is damaged, contact fusion, in need of replacement

9. Parts drawing

9.1 Assembly chart

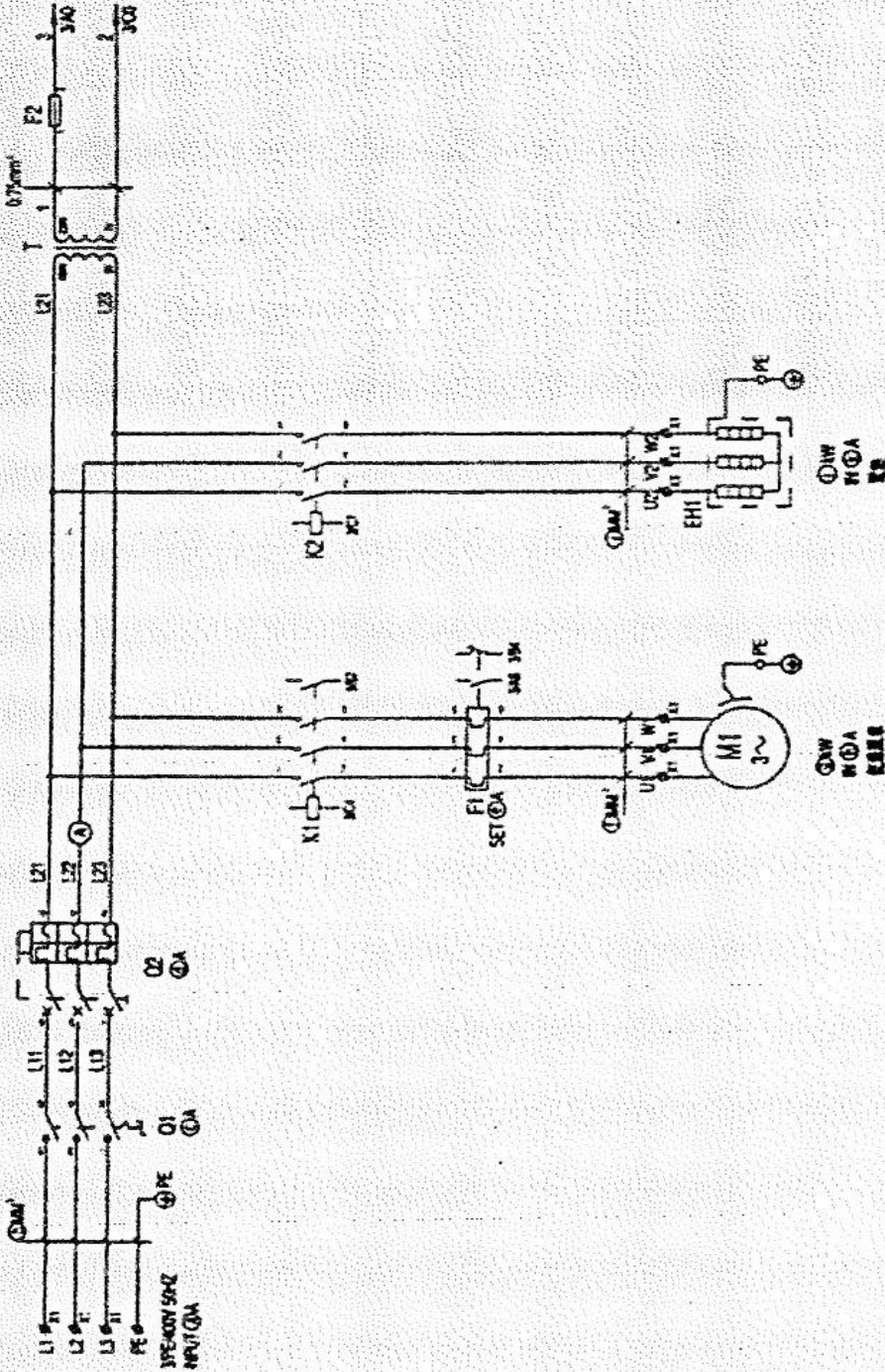


9.2 Parts list

Item	Name	Item	Name
01	Main power switch	18	Door lock
02-1	Over temperature protector	19	Door lock buckle
02-2	Motor switch	20	Screw
02-3	Heater switch	21	Rubber gasket**
03	Timer switch	22	Base
04	Temperature controller	23	Base plate
05	Timer	24	Porous aeration plate
06	Ampere meter	25	Heat insulation asbestos
07	Motor	26	Side panel
08	Motor support	27	Dummy plate
09	More-vane rotor	28	Exhaust hood
10	Fan belt	29	Thermal fuse*
11	Fan support	30	Cover board
12	Supporting plate	31	Over temperature protection device
13	Material salver	32	Magnetic switch
14	Trundle	33	Transformer
15	Screw	34	Fuse cutout
16	Leaflet	35	Terminal
17	Door		

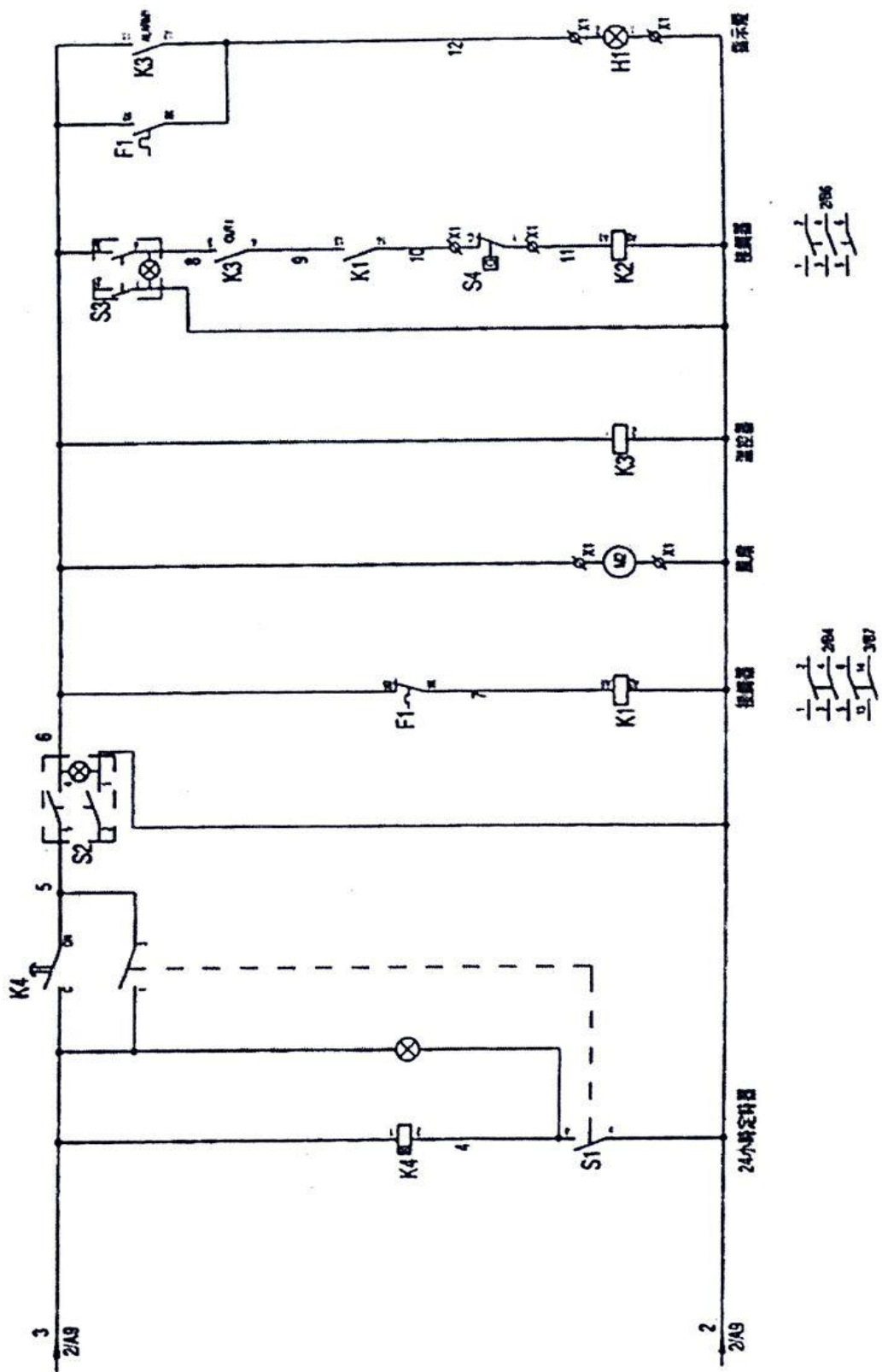
10. Circuit diagram

10.1 Main circuit diagram



電機 仕様	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
OV-5	7.5	1.5	16	10	15	1.5	0.37	1.4	1.5	4.0	6.1
OV-9	8.2	1.5	16	16	15	1.5	0.37	1.4	1.5	4.5	6.8
OV-20	16.9	2.5	25	25	3.5	1.5	1.5	3.2	2.5	9.0	13.7
OV-20L	30.5	6.0	63	40	3.5	1.5	1.5	3.2	4.0	18.0	27.3

10.2 Control circuit diagram



10.3 Electrical component

Symbol	Name	Symbol	Name
Q1	Main power switch	K4	24 hours timer
Q2	Circuit interrupter	A	Ampere meter
K1 K2	Contactor	S4	Over temperature protection device
F1	Thermal overload relay	H1	Warning light
T	Transformer	M2	Fan
F2	Fuse cutout	X1	Terminal strip
S2 S3	Switch	M1	Motor
S1	Switch	EH1	Electric heating
K3	Temperature controller		