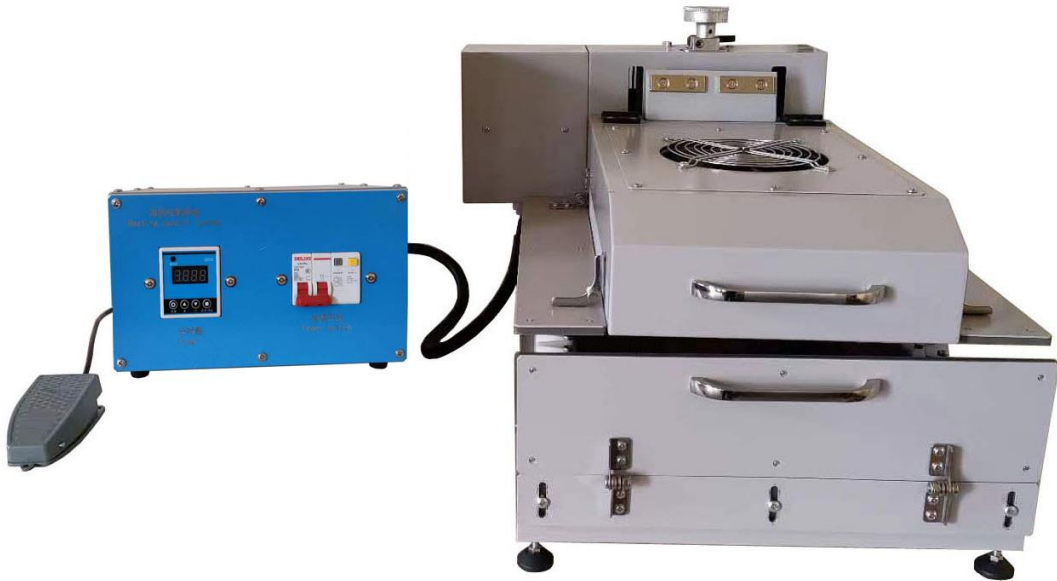


(CE, ISO9001)

Heat shrink tube heating machine

(FOR EW-19C)



1. Disclaimer

Please read this operation manual carefully before using this equipment, and operate, maintain and maintain it according to the instructions of this manual. The equipment user shall be responsible for equipment damage and personnel injury accidents caused by illegal operation, maintenance and service.

2. Safety Guide

Warning! Only professional technicians are allowed to install and debug the equipment!

Warning! Even if the equipment stops running, the temperature in the heating zone may still be very high!

Warning! When the equipment is working properly, there will be high temperature on the surface of the box body. Please do not contact directly with the skin to avoid scalding.

Warning! The PE line of this equipment must be connected with the PE line in the factory.

Warning! The equipment should not be too close to the wall to keep the heat dissipation of the machine smooth.

3. Equipment Overview

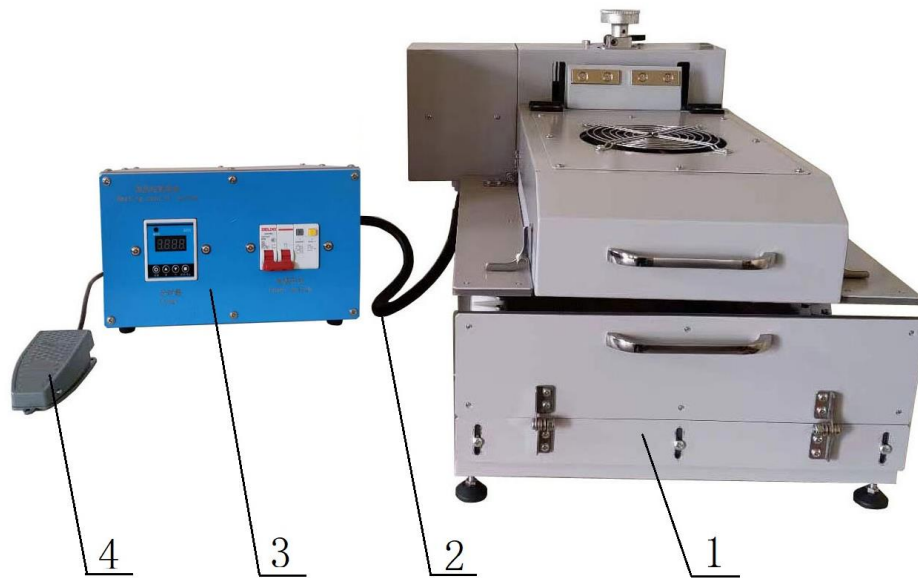
3.1 Product overview

WLRS1826-LEelectric heating air heater is mainly applicable to the heating of heat-shrinkable tubes. It can adopt various control methods, and can freely adjust the heating time and stop time according to the actual needs. The heating can be started by manual triggering, or the heating can be started and stopped by automatic circulation.

This machine is suitable for heating and shrinking of heat-shrinkable tubes in wire harness processing enterprises. The operation time, working time and heating zone width can be adjusted arbitrarily according to the production process requirements. It can work continuously for 24 hours.

3.2. Equipment composition

The equipment is composed of control box, heater, online harness and timing signal trigger (foot switch)



1—heater 2—Connecting wiring harness 3—Controller 4—Foot switch

3.3 Equipment characteristics

Multiple control methods can be selected according to needs:

Place the product properly, trigger the foot switch, and heat it up. (Setting: Remote P37)

Cycle automatic start stop heating mode. (Setting: Remote P33)

Heating method:

Using infrared radiation heating, there are 6 infrared tubes at the top and bottom, and the corresponding 2 heating tubes at the top and bottom are 1 group, totaling 6 groups. Among them, 4 groups can be individually switched on and off, and suitable infrared tubes can be selected according to different heating widths.

Heating zone insulation design:

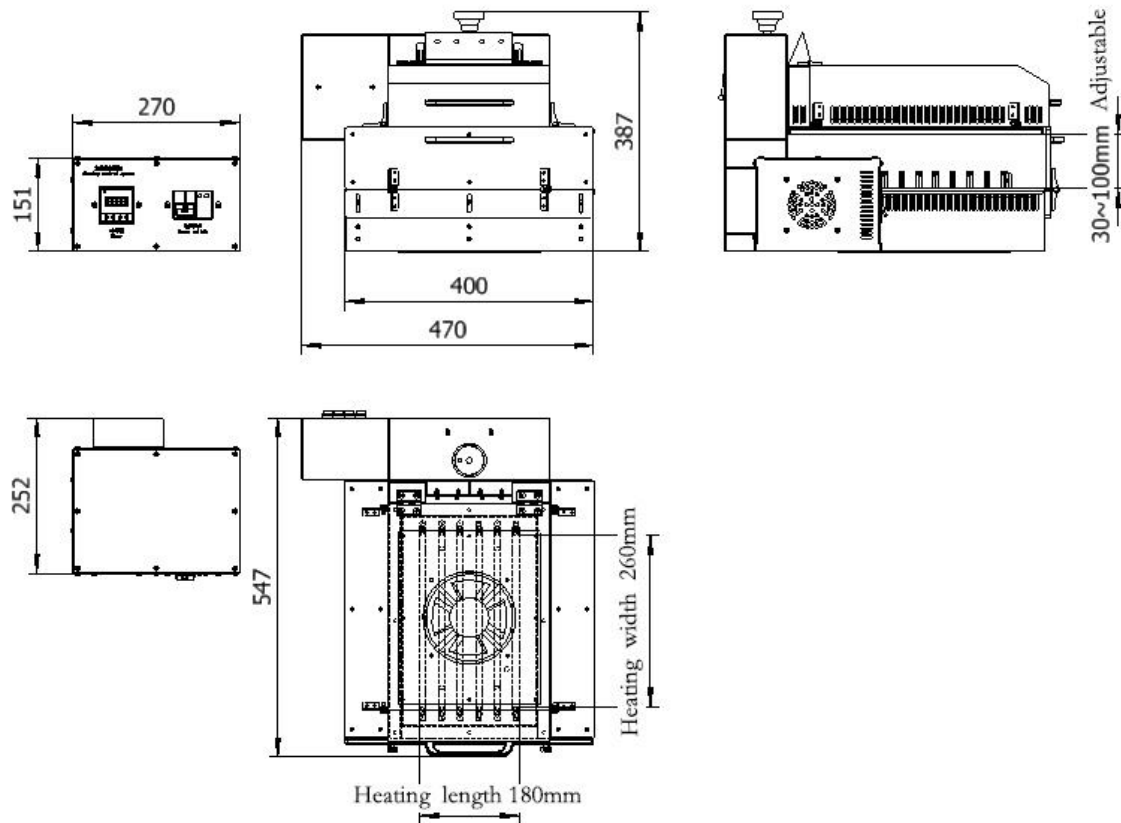
The shell of the upper and lower heating zones adopts a double-layer design and is equipped with cooling fans, which can reduce the temperature of the shell, prevent scalding accidents, and cool the internal circuits to prevent high-temperature scalding of wires.

4.Main technical parameters

category	project	parameter
size	Heating zone width	$\leq 260\text{mm}$
	Length of heating zone	$\leq 180\text{mm}$ (Adjustable)
Heating pipe	Heating pipe name	Infrared radiation tube
	Heating tube power	300W*12 (Standard configuration)
	heating temperature	$\leq 260^{\circ}\text{C}$
Power	Power specification	AC 220V
Supply	Overall power	4000W (Standard configuration)
security	safety protection	PE

5、 Installation and debugging

5.1 Equipment size




5.2 equipment installation

This equipment adopts a split design, with a high degree of automation and no need for customer assembly. Start and run. The back of the machine should not be too close to the wall surface to maintain good heat dissipation.

5.3 Power specifications and connecting wires

The power specification is AC220V+PE wire. Output power 4.5KW

Power terminal	本设备对应线号
Any phase (live wire) of a three-phase power supply	L
Neutral wire (zero line)	N
	PE

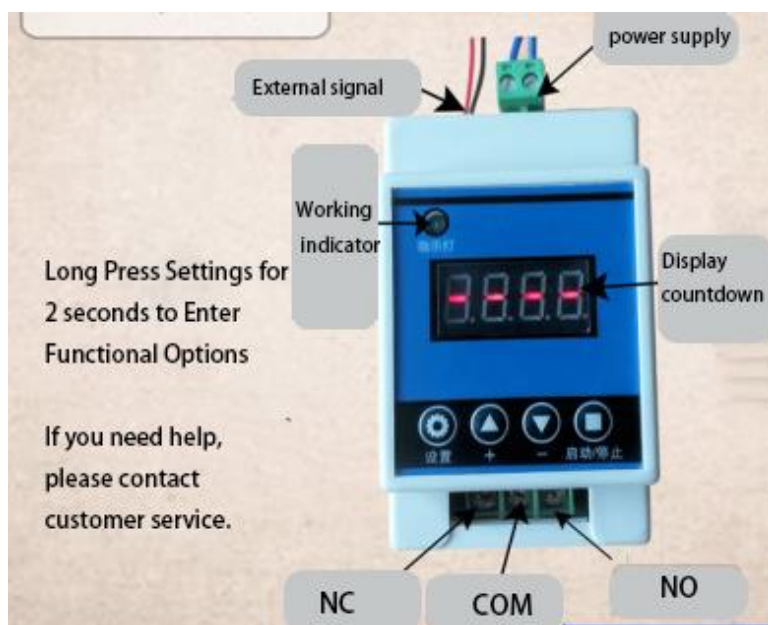
5.4 Control box operation panel



1——power switch

2——timer

5.5 Setting controller parameters



(1) Interface Description:

- A、 L (Power Supply): Single-phase Line of Input AC Power Supply
- B、 N (Power Supply): Neutral Line of Input AC Power Supply
- C、 NO (Normally Opened): Relays often open interfaces. Relays are suspended before suction and are short-connected with COM after suction.
- D、 COM (Public): Relay Public Interface
- E、 NC (Normally Closed): Normally Closed Interface of Relay, Short Connection with COM before Relay Suction, Suspension after Suction

(2) Key Setting Instructions:

When the power is switched on, the display of "----" indicates that it is in standby state.

Press "Settings" for the first time (it takes more than 1 second to be effective to prevent false triggering), and display: P-11:"+"-"-"Start/Stop" adjustment function mode. For example, you need to run P-13 mode, press the "+"-"-" button, and adjust the display to P-13.

Press "Settings" for the second time, and the screen shows: A001:"+"-"-"Start/Stop"to adjust the first time A.

Press "Settings" for the third time, and the screen shows: B001:"+"-"-"Start/Stop"to adjust the second time B

Press "Settings" for the fourth time, Displaying "----" indicates entering standby state

Start/Stop as Start/Stop Signal for All Functions in Standby State

(3) Function List

P-11: Follow mode (If the signal is ON, relay suction, otherwise, not suction) P-12: Self-locking

(Provides a signal relay to suck in and a signal relay to stop)

P-13: Give the signal, the relay will stop automatically after pulling in A seconds; Invalid trigger during delay.

P-14: Give the signal, the relay will stop automatically after pulling in A seconds; triggers a recount during the delay period

P-15: Give the signal, the relay will stop automatically after pulling in A seconds; trigger the overlay timing during the delay time.

P-16: Give the signal, the relay will stop automatically after pulling in A seconds; triggers reset during the delay period

P-17: Give the signal, relay suction, input signal disconnection, start timing A seconds later power off, give the signal in the delay period to maintain output again, stop timing.

P-18: After power-on, the relay immediately sucks in, delays A seconds and then cuts off; until the next power-on.

P-21: Give signal, delay A seconds, relay suction

P-22: Give the signal, after more than A seconds, the relay sucks in, the signal disappears and the relay stops.

P-23: After the signal disappears for more than A seconds, the relay closes, the signal disappears and the relay stops.

P-24: When the signal exceeds A seconds, the relay closes and the signal disappears beyond A seconds, the relay stops.

P-25: When the signal exceeds A seconds, the relay sucks in, and when the signal exceeds A seconds again, the relay stops.

P-26: With signal, the relay stops after A seconds, the signal disappears and the relay stops after A seconds again.

P-27: Pulse signal detected, relay stop; no pulse signal, delay A seconds, relay suction; (signal persistence or signal disappearance are considered as no pulse signal)

P-28: After power-on, delay A seconds, relay suction, until power failure

P-31: After power-on, the relay sucks in A seconds, disconnects B seconds, infinite cycle; power off stops

P-32: With signal, start P-31 infinite cycle; signal disappears, stop cycle.

P-33: Give a signal, start P-31 infinite cycle; give another signal to stop cycle

P-34: After power-on, delay A seconds, relay suction, suction B seconds, stop

P-35: Signal, delay A seconds, relay suction, suction B seconds, stop

P-36: There is a signal, after more than A seconds, the relay will suck in, stop after B seconds, the signal disappear, and the time will be cleared and stopped.

P-37: With signal, the relay automatically stops in seconds A and then counts in seconds B after stopping. The signal trigger is invalid in A+B time.

P-38: When the signal is given more than A times, the relay closes in B seconds and stops.

5.6 Controller connection harness terminal wiring diagram



The terminals from left to right are:

1#: OUT 2#: GND 3#: V Timer input signal terminal

(Foot switch connection OUT/GND)

4#: L22 5#: N22 Cooling fan wiring terminal

6#: PE ground wire

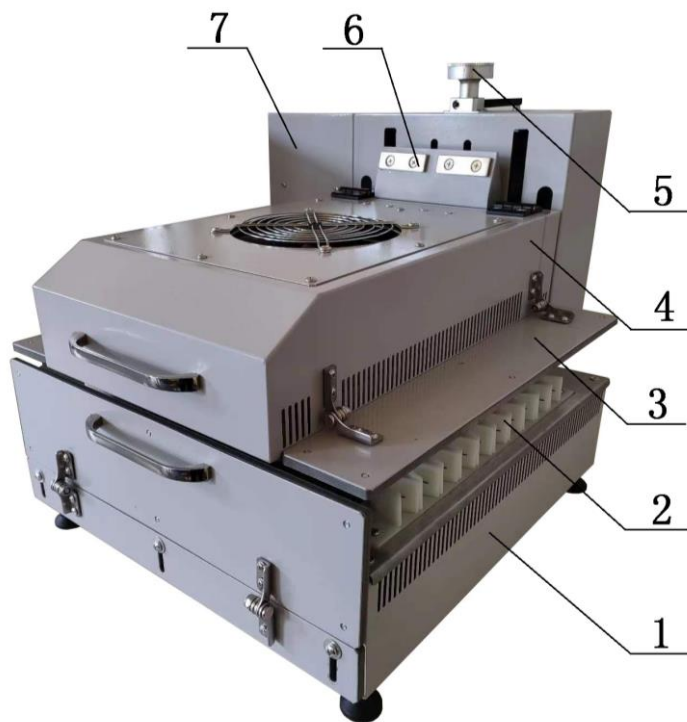
7#、8#: empty

L11、N11: Heater terminal blocks

5.7 Heater

5.7.1 Heater composition

It mainly consists of an upper heater, a lower heater, fixed line tooling, a sunshade flap, a lifting device, a strong magnet, a heating tube control switch box, etc.



- | | | |
|------------------------------------|-----------------------|------------------|
| 1——Lower heater | 2——Fixed line tooling | 3——Blackout flap |
| 4——upper heater | 5——lifter | 6——Strong magnet |
| 7——Heating tube control switch box | | |

There are 6 infrared tubes installed in each of the upper and lower heaters. The corresponding 2 infrared tubes are 1 group, totaling 6 groups. Among them, 2 groups are normally open, and the other 4 groups are independently controlled by the switches in the heating tube control switch box. Each group can be opened and closed separately.

The upper heater is installed on the lifting frame and can be adjusted for height through the lifting device.

A powerful magnet is used to adsorb when the upper heater is turned on, preventing it

from falling off.

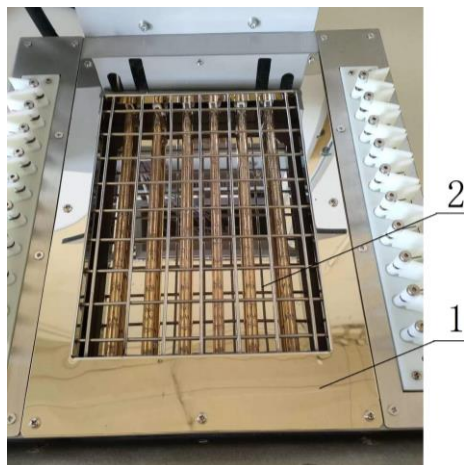
5.7.2 Heating width adjustment

There are four air switches installed at the rear of the heater, which control four sets of infrared tube switches. The corresponding number of infrared tube switches can be selected based on the width of the heating area.



5.7.3 Replace the infrared tube (the replacement method for the upper and lower heaters is the same)

The replacement of the lamp tube must be carried out in a fully powered off and fully cooled state of the equipment.



1——Heating lamp tube protective net 2——Heating lamp tube installation box

When replacing the infrared tube, first remove the screws that secure the tube guard and remove the tube guard.

Remove and flip the lamp installation box, remove the wires of the damaged infrared tube from the wiring terminal, and then remove the infrared tube.

Install a new infrared tube and fix the wires of the infrared tube to the wiring terminals in their original positions.

Re fix the lamp installation box and lamp protective net.

Attention: Suitable Teflon tubes need to be installed outside the new infrared tube wires to prevent high temperature burns to the wires and electric leakage accidents.

6. Equipment operation and startup/shutdown

6.1 start-up

Turn on the power switch of the control box and power on the equipment.

6.2 Equipment operation

(1) Select the appropriate timer function and set the heating time in seconds. The initial factory setting for this device is P-37.

(2) Place the product properly, trigger the foot switch, and heat it up.

(3) When the equipment time is reached, the heating stops.

6.3 Shutdown

After the equipment is working, there is high temperature inside the heater. In order to improve the service life of the equipment and prevent scalding accidents,

After the heater stops working, keep the cooling fan running for 2-3 minutes. After confirming the internal cooling of the heater, turn off the power switch.

7.Common faults and solutions

Fault display	reason	terms of settlement
Fan does not	Controller failure	Repair or replace the controller
	Fan damage	Replacing the fan
Heater does not work	Controller failure	Repair or replace the
	Heater circuit issue	Check the wiring
	Damaged lamp tube	Replace the lamp tube
	Timer damaged	Replace timer
Abnormal operation of heater	Timer mode selection error	Choose the correct mode
	Timer damaged	Replace timer

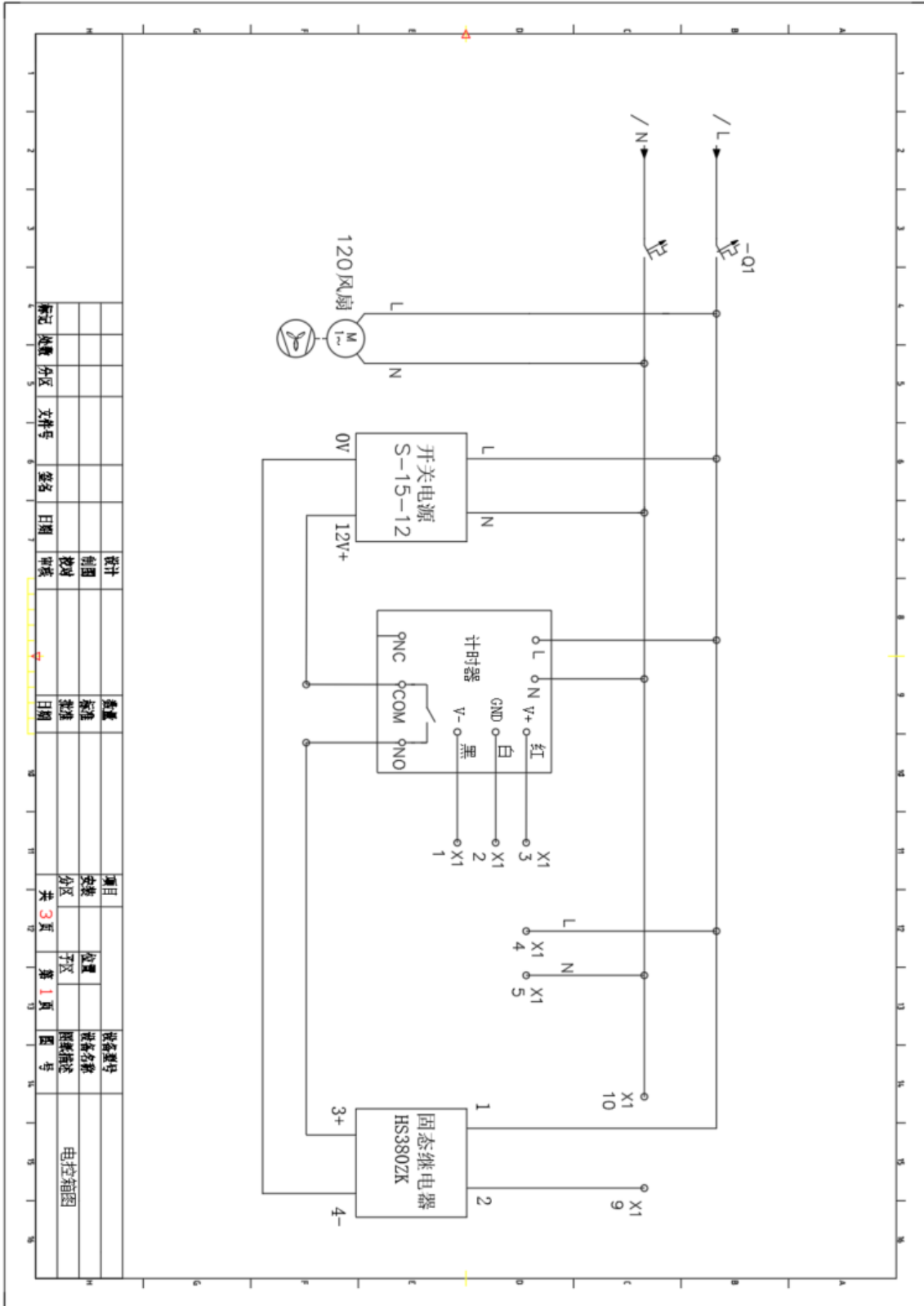
8.Regular maintenance

Serial Number	Maintenance content	Inspection cycle
1	Check if the cooling fans in the upper and lower heating zones are running	Run for 100 hours
2	Check if the equipment grounding is normal	Every 6 months
3	Press the leakage circuit breaker test button to check if the circuit breaker operates normally	Every 6 months
4	Check if the heating area circuit is normal and if there is any aging phenomenon	Every 6 months

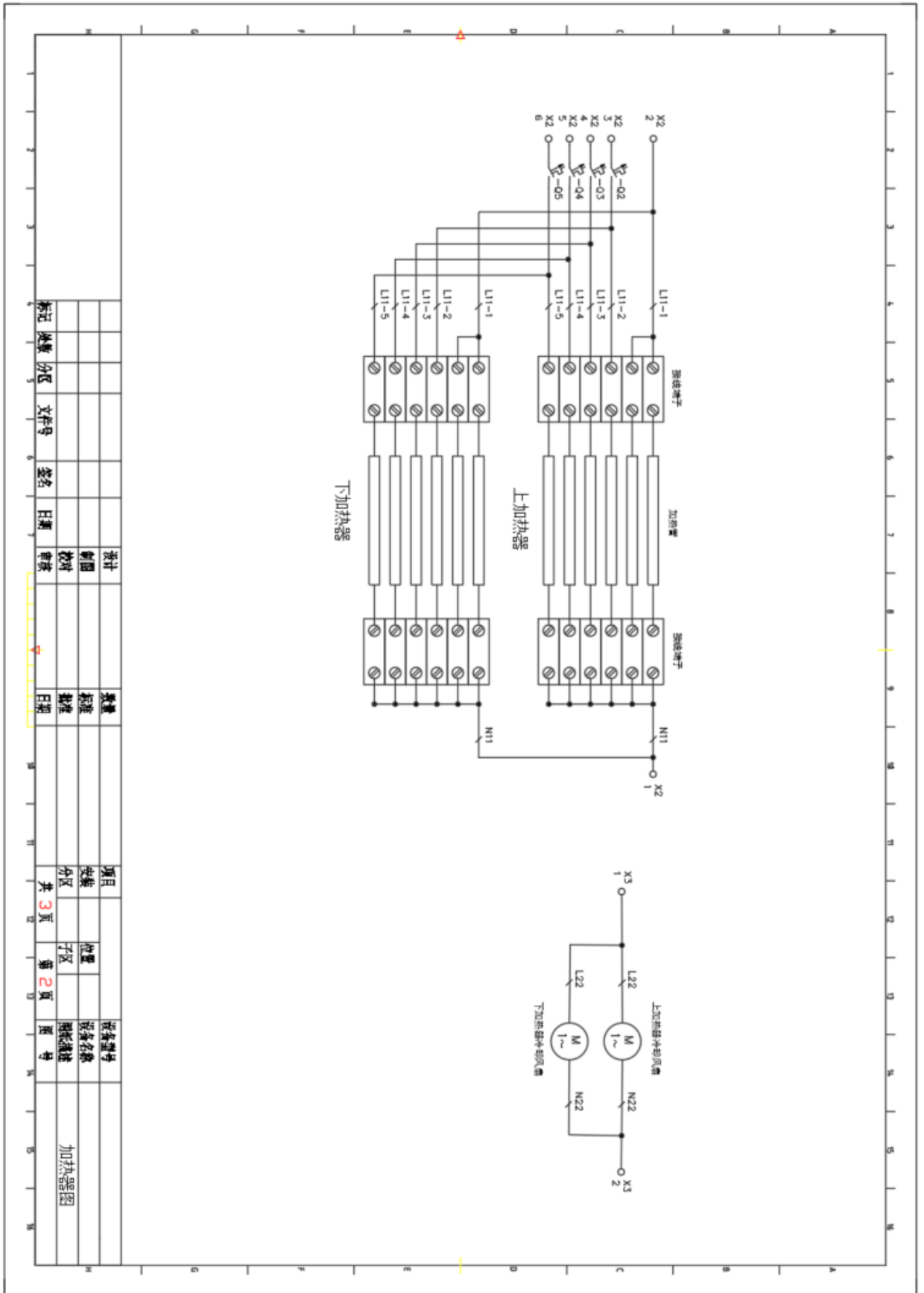
9.List of Vulnerable Parts

Serial	name	Specification and model	number
1	Infrared tube	AC220V 300W L=320mm	12
2	Fan	FP-108EX S1-B AC220V 50Hz	2
3	timer		1
4	Foot switch	E3F-DS30C4	1
5	Connecting	1826LP220V4PE1000L	1

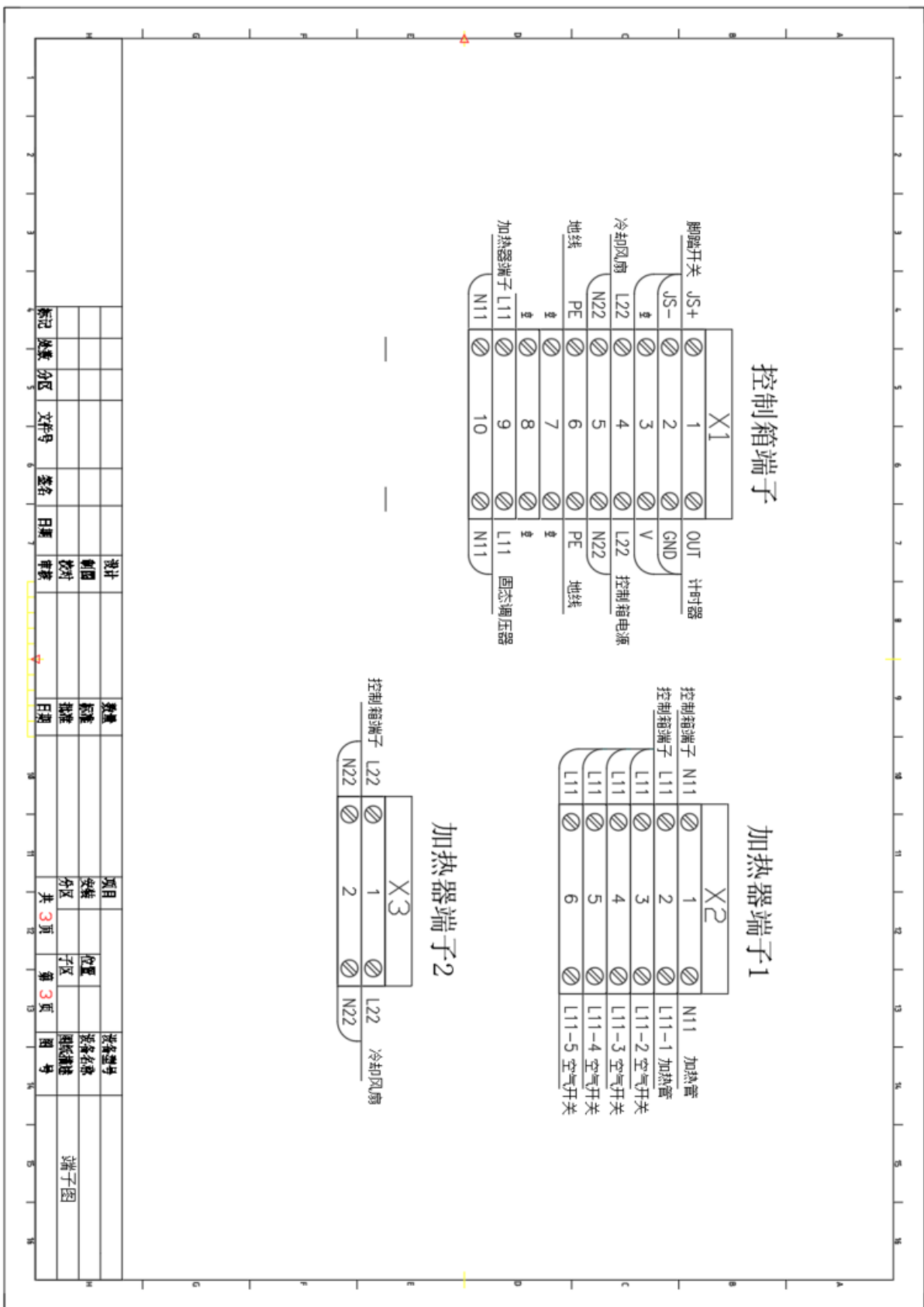
10.circuit diagram



设计	制图	审核	数量	项目	设备型号
校核	标准	批准	日期	安装	设备名称
审核	日期	日期	共 3 页	分区	规格描述
文件号	签名	日期	第 1 页	子区	图号
分区	日期	日期			
数量	日期	日期			
标记	日期	日期			



设计	制图	校对	审核	日期	标准	批准	日期	项目	安装	位置	设备型号	设备名称	规格/描述
								共 3 页	分区	子区			
标志	数量	分区	文件号	签名	日期	日期	日期	第 2 页	图号	图号			加热器图



设计	制图	审核	数量	标准	批准	日期	项目	位置	设备编号	端子图
							共 3 页	第 3 页	图号	
标记	处数	分区	文件号	签名	日期					