MICROTEC

APEX QUICK GUIDE

X6-Preheat | X6-Standard

# APEX X6 6-Station Fully Automatic Rotary Heat Press

One picture per step. Follow the steps in order.



## ! Safety first

**The heat plates get very hot**
Up to 450°F. Never touch them. Keep children and pets away.

**This machine moves by itself**
The table turns and the heads press down on their own. Stay outside the steel rail. Keep hands, hair and loose clothes away.

**Reaching in? Stop the machine first**
Press an EMERGENCY STOP button before you clear a jam or touch a station.

**220V 3-phase power — electrician only**
Must be grounded: less than 4 ohms, ground wire thicker than 4 mm², no longer than 65 ft (20 m).

**Indoors, dry, level floor**
32–104°F, humidity 80% or less. Away from water, heavy dust and anything that can burn.

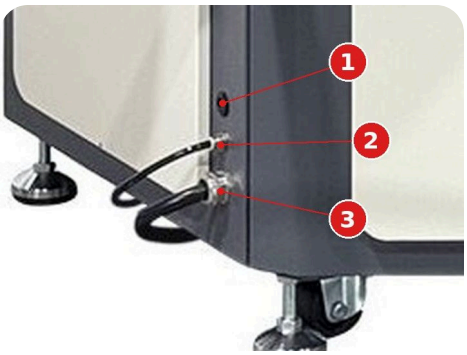
**Emergency?** Press a red **EMERGENCY STOP** button — on the control panel or on a press head. Heat and pressing stop at once and the light turns red. When it is safe: twist the button to release it, tap **Homing** on the screen, then press the green **START** button.

## 1 Set up



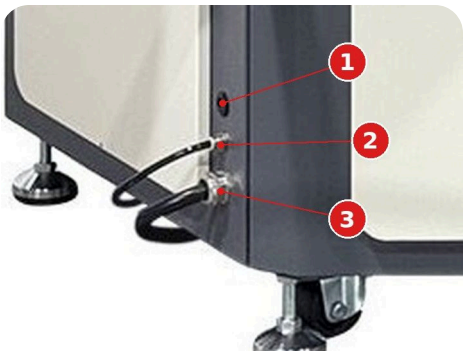
### 1. Pick a level, open floor area

The machine is about 100″ (2546 mm) across. Leave walking room all the way around.



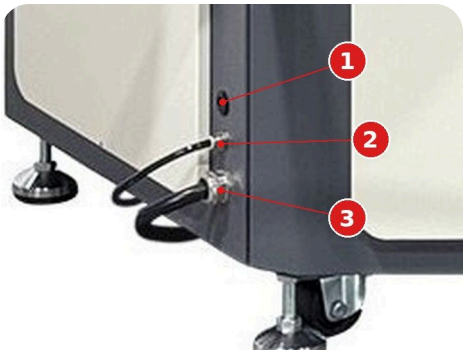

### 2. Have an electrician connect the power cord (3)

The connections are low on the machine base (photo). The thick cable (3) is the power cord. It needs 220V 3-phase, 23 A, 60 Hz and a good ground. It does not plug into a regular wall outlet — only an electrician should wire it.




### 3. Connect clean, dry compressed air (2)

Connect the air hose from your compressor to the air inlet (2), just above the power cord. Without air the heads cannot press.




### 4. Network port (1) — only for SSE film units

If you bought the optional SSE-01 / SSE-02 film units, plug their cable into this port. Note which way the plug goes in. No SSE units? Leave it empty.




### 5. Turn the POWER switch on

Check first: power cord wired (3) and air hose connected (2). The POWER switch is on the control panel. The home screen comes up.




### 6. Tap Homing

Do this every day after start-up. The table turns back so each head lines up with its platen.



### 7. Set the pressure for each head

Each head has its own air regulator. Clockwise ↻ = more pressure, counter-clockwise ↺ = less. If the knob won't turn, pull it up first; push it down to lock. Turn a little at a time and watch the gauge.

**Optional film units:** SSE-01 / SSE-02 film feeding and peeling units plug into the network port. When they are connected, their labels show on the screen.

# 2 Know your machine




**1 Status light**
Green = running in Auto. Yellow = standby. Red = emergency stop or alarm.

**2 Touch screen**
Set time and temperature, run and test the machine.

**3 POWER · START · STOP · EMERGENCY STOP**
The four buttons under the screen.

**4 Red laser aligners**
Show lines on the platen so you can place the garment fast.

**5 Air pressure regulator**
One per head. Sets that head's pressing pressure. Clockwise ↻ = more pressure, counter-clockwise ↺ = less.

**6 Heat plate (HOT)**
Do not touch.

**7 Platen (6 stations)**
Lay the garment here. The table turns it from head to head.

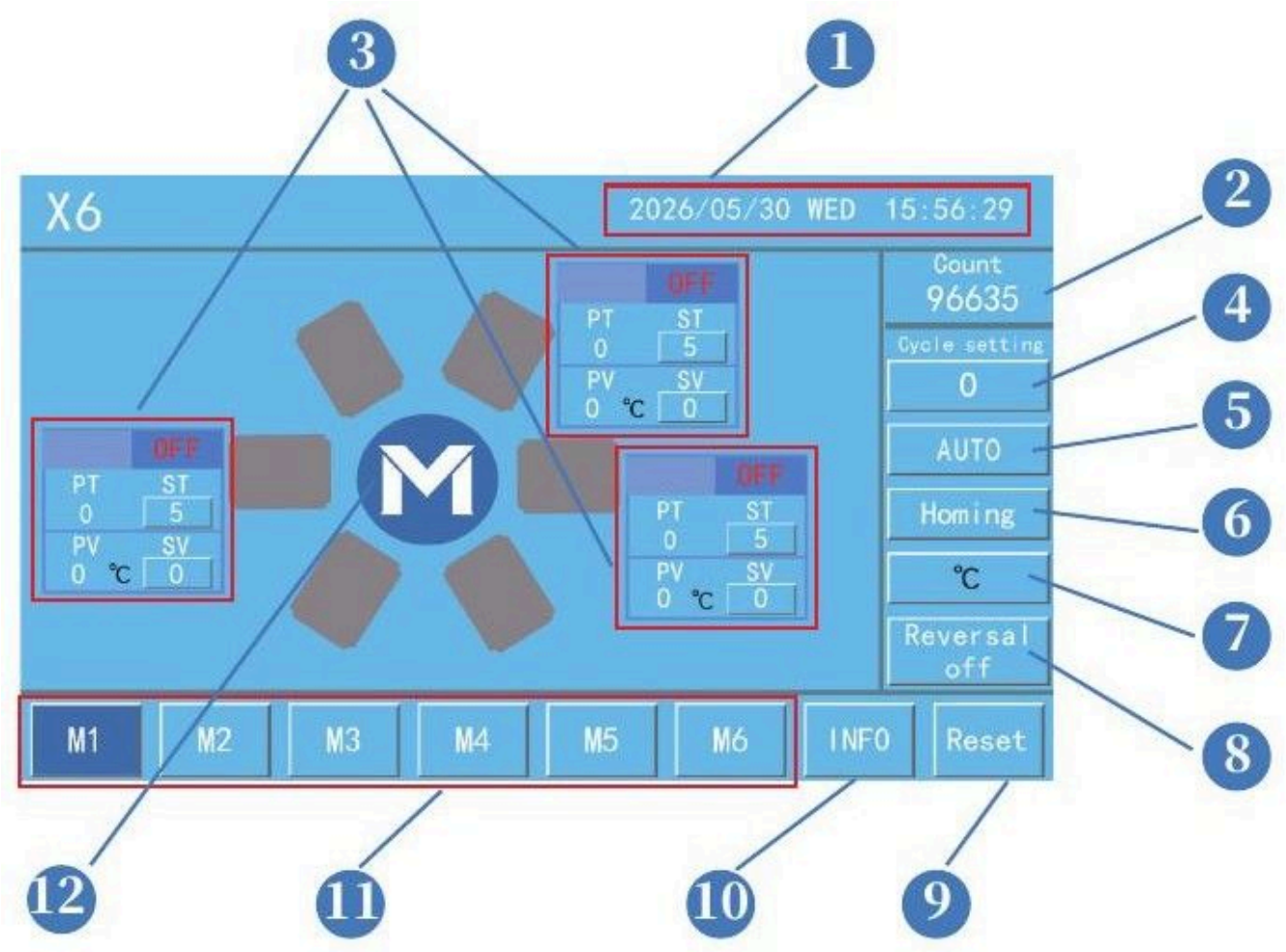
**8 TEST button + emergency stop**
On the head. In Manual mode, TEST presses this head down once.

**9** **Safety rail**
Stay outside it while the machine runs.

**10** **Air inlet · power cord · network port**
At the base of the machine.

⚠ **Light turns red?** An emergency stop is pressed or there is an alarm. Read the message on the screen (tap **INFO**).

## 3 Touch screen




**1** **Date and time**
Hold to set the date and time.

**2** **Count**
Adds 1 each finished cycle. Hold to reset to 0.

**3** **Head boxes (one per heat plate)**
ST = time, SV = temperature, PT / PV = actual time and temperature. Tap the top of the box to turn heat ON / OFF.

**4** **Cycle setting**
Wait time after a press before the table turns.

**5** **AUTO / Manual**
Tap to switch modes.

**6** **Homing**
Lines the heads up with the platens. Use after start-up and after an emergency stop.

**7** **°C / °F**
Switch temperature units.

**8** **Reversal off**
Lets the table turn the other way. Only without SSE units.

**9** **Reset**
Clears the old job data.

**10** **INFO**
Shows alarm and fault messages.

**11** **M1 – M6 recipes**
6 saved groups of times and temperatures.

**12** **Center M**
Manual mode: hold 2 sec to turn the table one station.

## Common jobs




### 1. Set time and temperature

In a head box, tap **ST** and enter the seconds. Tap **SV** and enter the temperature. Tap the top-left of the box to turn heat ON.




### 2. Save a recipe

Hold **M1** – **M6** for 2 sec, then change the times and temperatures. They save by themselves.




### 3. Test one head (Manual)

Tap **AUTO** so it shows Manual. Tap a green **TEST** button to press that head down once. Hold the center **M** 2 sec to turn the table one station.



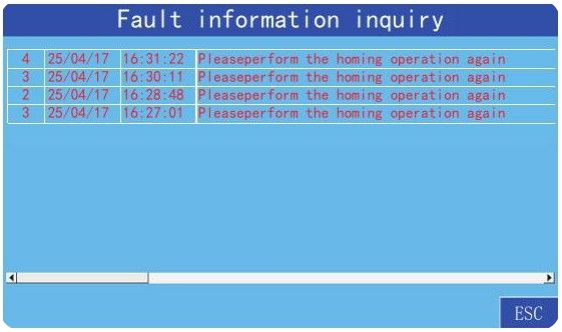

### 4. Home the machine

In Manual mode tap **Homing**. Wait until the table stops.




### 5. Clear old job data

All platens empty? Tap **Reset**, then **YES**.




### 6. Read an alarm

Tap **INFO**. Do what the message says, then tap **ESC**.

⚠ Always tap **Homing** after the daily start-up and after releasing an emergency stop. Otherwise the heads may not line up with the platens.

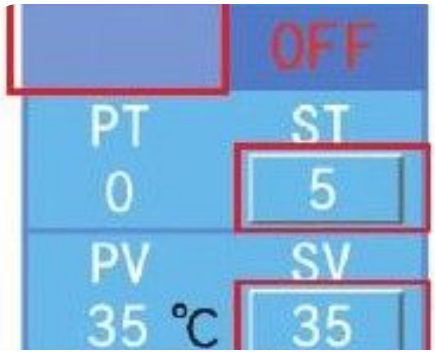
### Quick reference

| I WANT TO… | DO THIS |
|---|---|
| Start automatic running | Screen on **AUTO** → green **START** → **YES** |
| Stop at the end of work | Hold red **STOP** 2 sec |
| Reset the counter | Hold **Count** |
| Change °F / °C | Tap **°C/°F** |
| Set date and time | Hold the date at the top |

Ranges: temperature 0–450°F · time 0–999 sec.

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## 4 Run automatic production




**1. Turn on heat, set time and temperature**

Use your transfer supplier's settings. Wait until PV (actual) reaches SV (set).




**2. Switch the screen to AUTO**

The mode key must show AUTO.



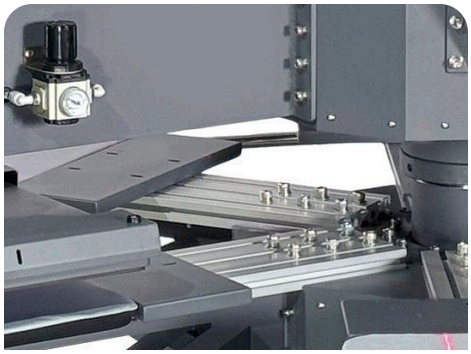

**3. All platens empty? Tap Reset → YES**

This clears the old job data before a new start.



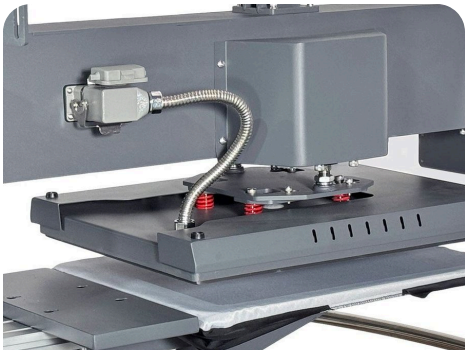

### 4. Press the green START button

Check that nobody is inside the rail. Then tap YES on the screen. (NO = cancel.)



### 5. Load the garment on the platen in front of you

Line it up with the red laser lines. Keep your hands off once the table starts to turn.



### 6. The machine turns and presses by itself

Each head presses with its own time and temperature. The counter adds 1 each cycle.




### 7. To finish: hold the red STOP button 2 sec

The light inside the button flashes. The machine finishes the pieces already loaded, then stops.

⚠ STOP is the normal way to finish. EMERGENCY STOP is only for danger — it cuts heat and pressing on all stations at once.

## 5 If something is wrong

### Light is red / alarm

1. Check that no EMERGENCY STOP button is pressed in.
2. Tap INFO and read the message.
3. Fix what it says, then tap ESC.

### "Please perform the homing operation again"

1. Tap AUTO so it shows Manual.
2. Tap Homing and wait for the table to stop.

### Won't start in Auto

1. Release any EMERGENCY STOP button.
2. Tap Homing (Manual mode).
3. Switch to AUTO. Platens empty? Reset → YES.
4. Press START, then YES.

### A head doesn't heat

1. Look at its box on the screen. OFF? Tap it to turn heat ON.
2. Check SV (set temperature).

### Heads don't line up with platens

1. Switch to Manual.
2. Tap Homing.

### Won't turn on

1. Check the 220V 3-phase supply and the breaker.
2. Turn the POWER switch on.
3. Still nothing? Call us.

## Specifications

| | X6 |
|---|---|
| **Stations** | 6 |
| **Platen size** | 15.7″ × 19.6″ |
| **Power** | 220V 3-phase · 8.5 kW · 23 A · 60 Hz |
| **Temperature** | 0–450°F |
| **Timer** | 0–999 s |
| **Controller** | PLC (MX310-32 + MT8106iQ) |
| **Size (width × height)** | 2546 × 1889 mm |
| **Working room** | 32–104°F · ≤80% RH |

### Still stuck? Call us.

Phone

**(714) 261-9498**

Mon–Fri · 7:30 am – 5:00 pm Pacific

Email

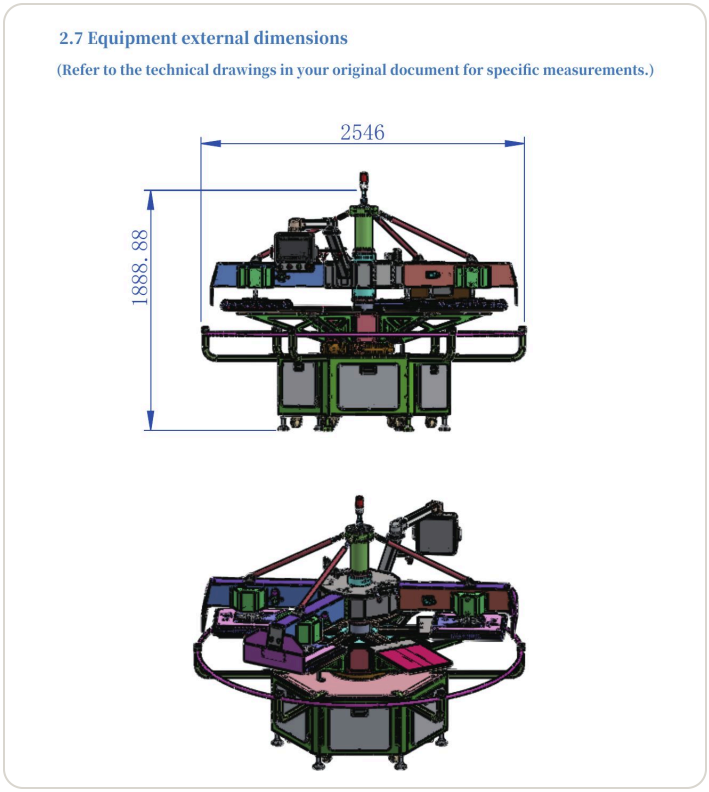
**sales@microtecusa.com**

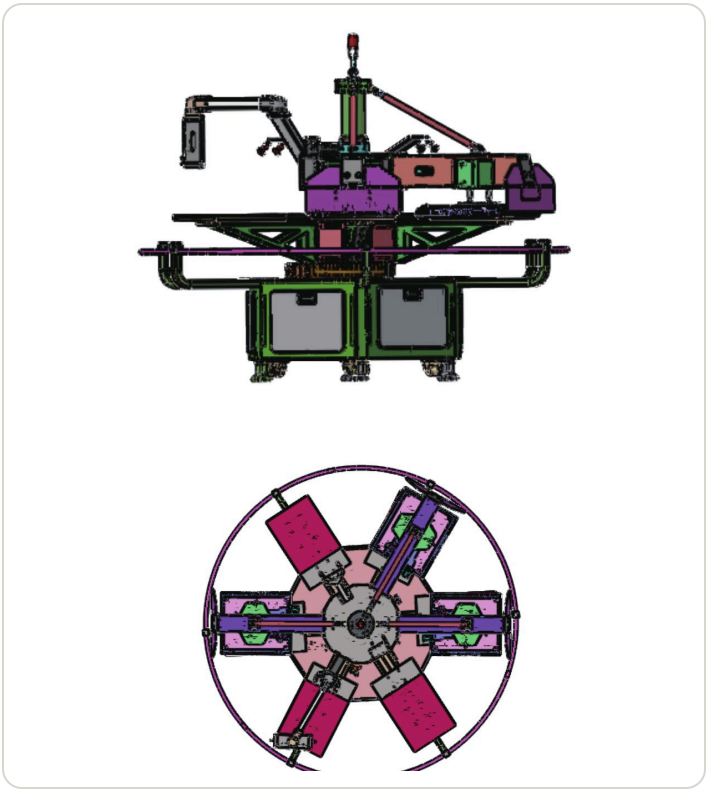
Free lifetime tech support

# Dimensions & diagrams

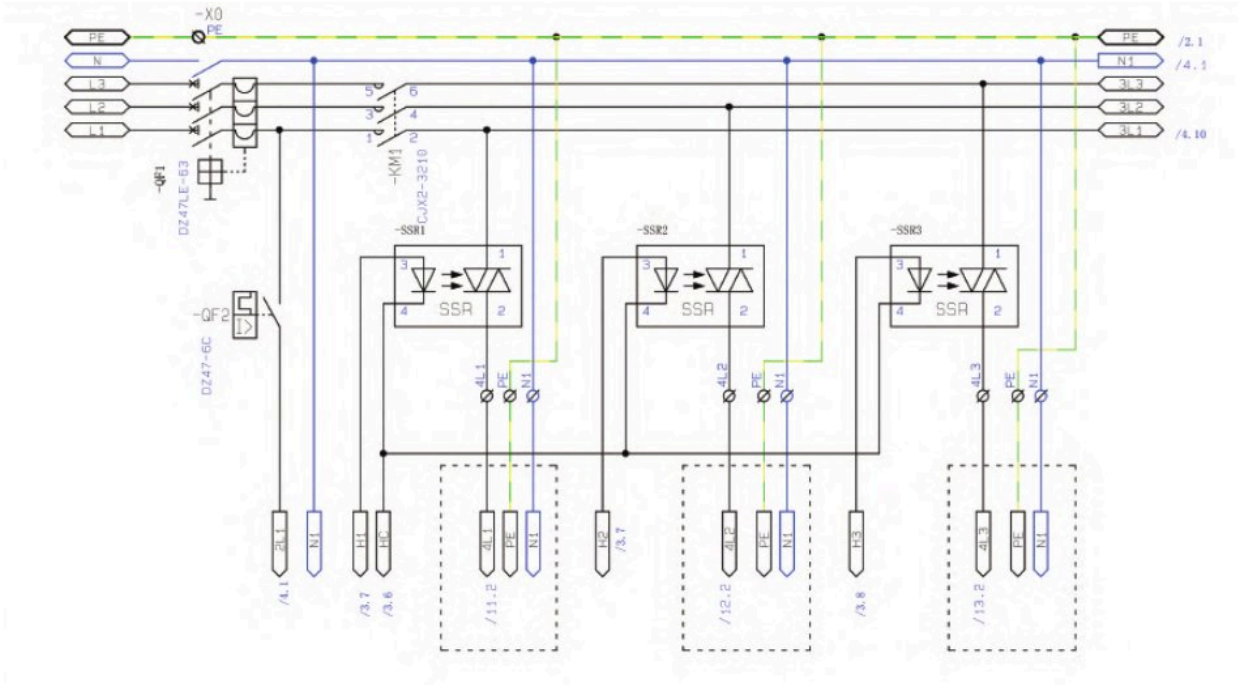
For service technicians. **Unplug the machine** and **disconnect the air** before opening any cover.

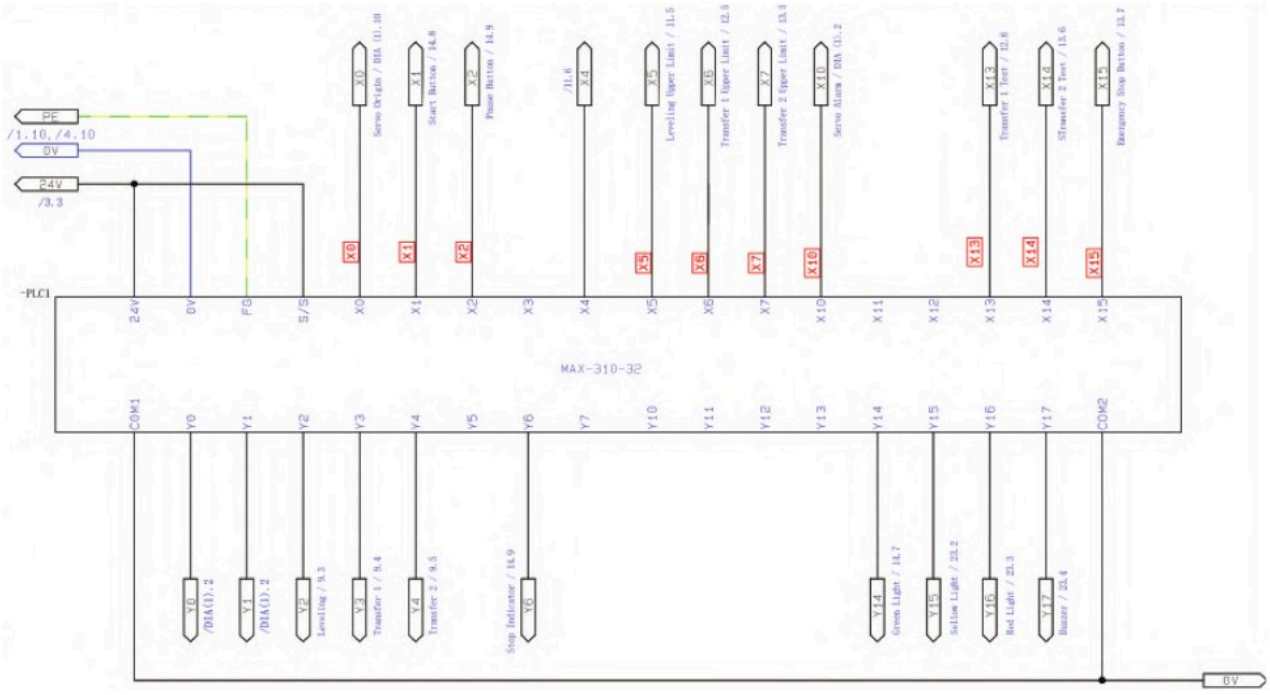
## Dimensions (mm)

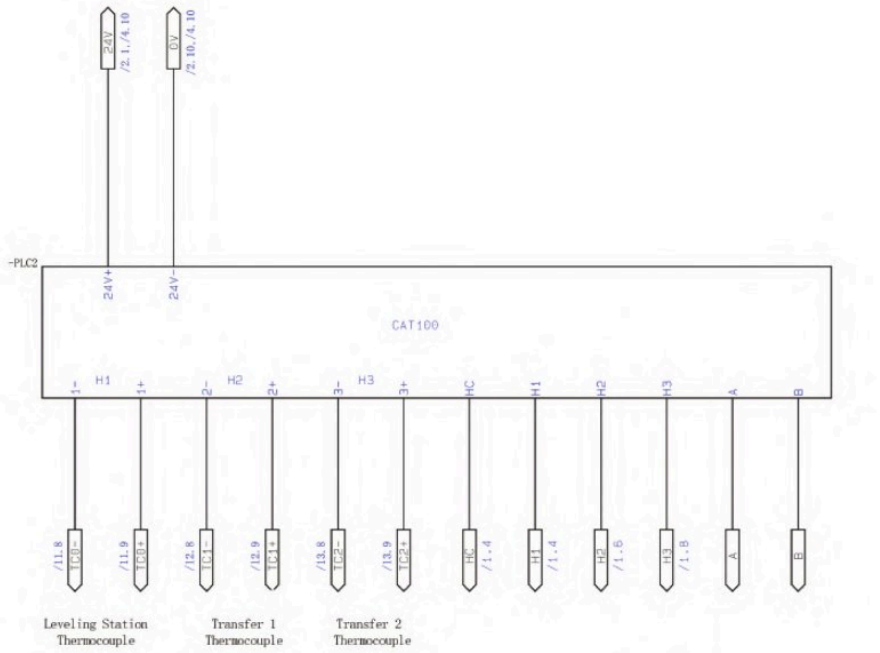


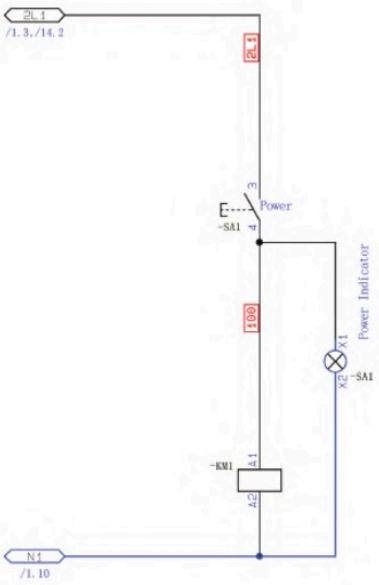



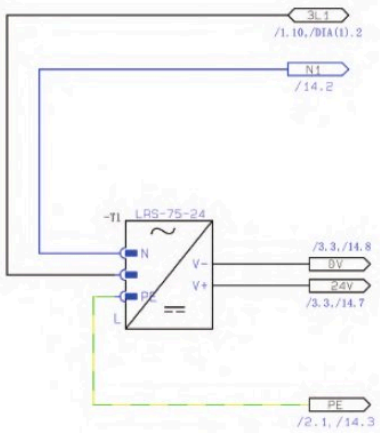
# Wiring diagram

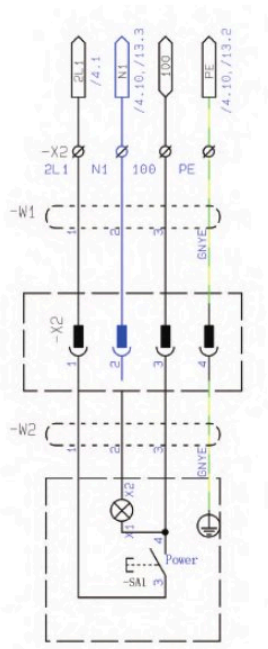


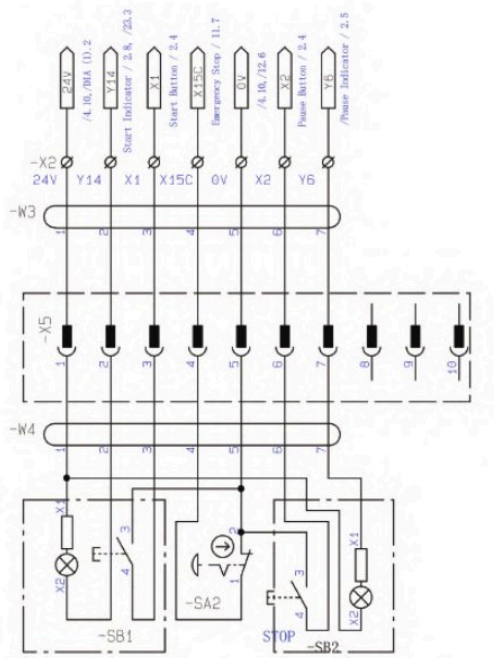



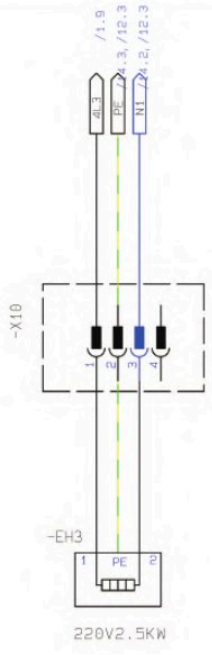

24V
/2.1./4.10
0V
/2.10./4.10
-PLC2
24V+
24V-
CAT100
1- H1
1+
2- H2
2+
3- H3
3+
HC
H1
H2
H3
A
B
/11.8 TC0-
/11.9 TC0+
/12.8 TC1-
/12.9 TC1+
/13.8 TC2-
/13.9 TC2+
HC /1.4
H1 /1.4
H2 /1.6
H3 /1.8
A
B
Leveling Station Thermocouple
Transfer 1 Thermocouple
Transfer 2 Thermocouple

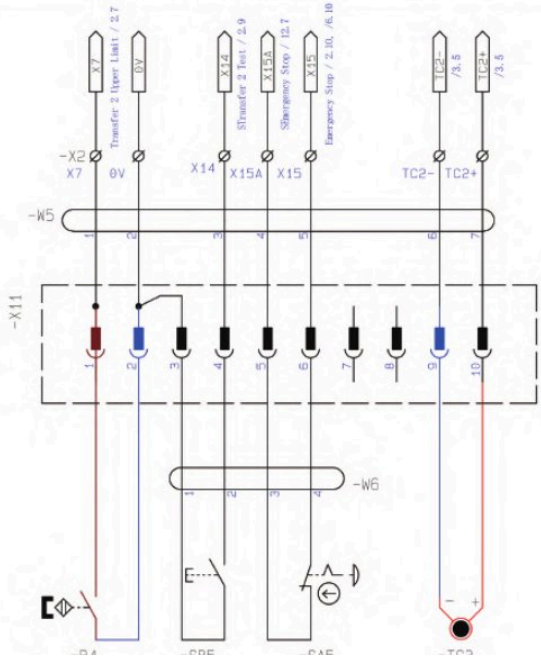

2L1
/1.3,/14.2
2.1
3
Power
-SA1
4
100
X1
Power Indicator
X2
-SA1
-KM1
A1
A2
N1
/1.10

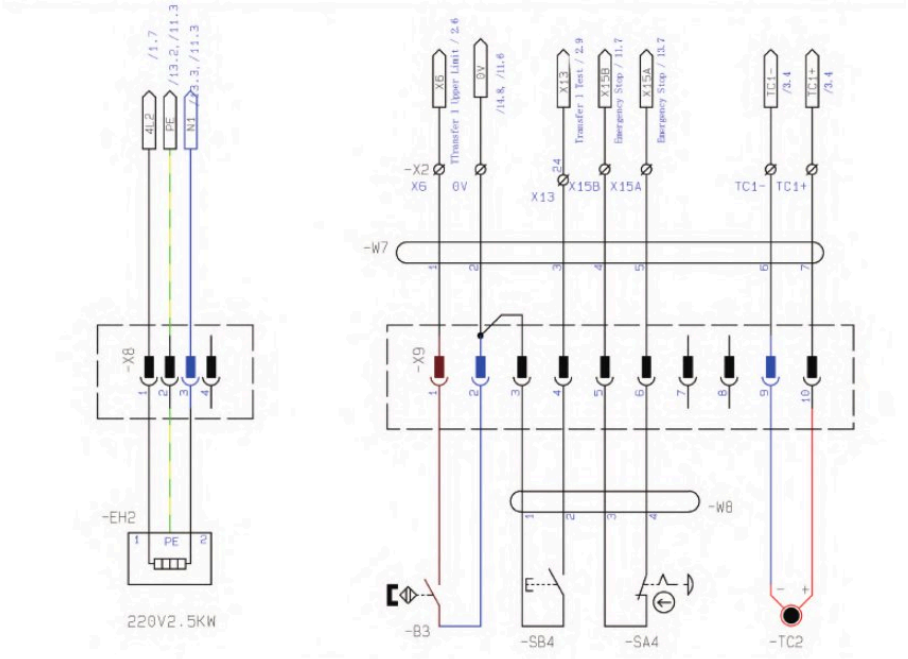

3L1
/1.10,/DIA(1).2
N1
/14.2
-T1
LRS-75-24
N
PE
L
V-
V+
0V
24V
/3.3,/14.8
/3.3,/14.7
PE
/2.1,/14.3

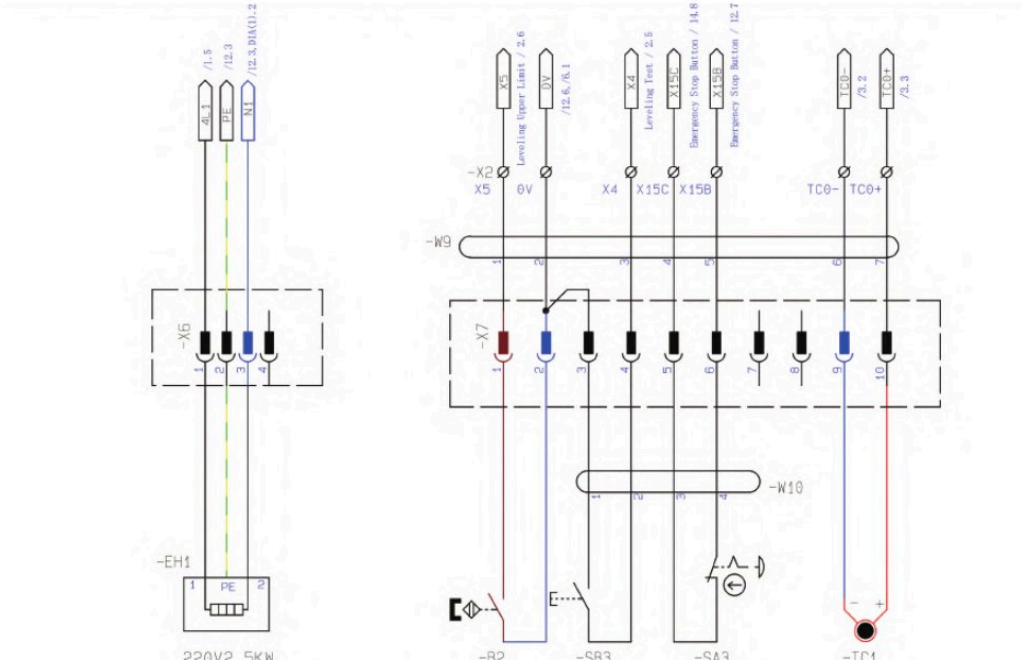

-X2
2L1
N1
100
PE
-W1
-X2
-W2
-X2
Power
-SA1


-X2
24V
Y14
X1
X15C
0V
X2
Y6
-W3
-X5
-W4
-SA2
-SB1
STOP
-SB2

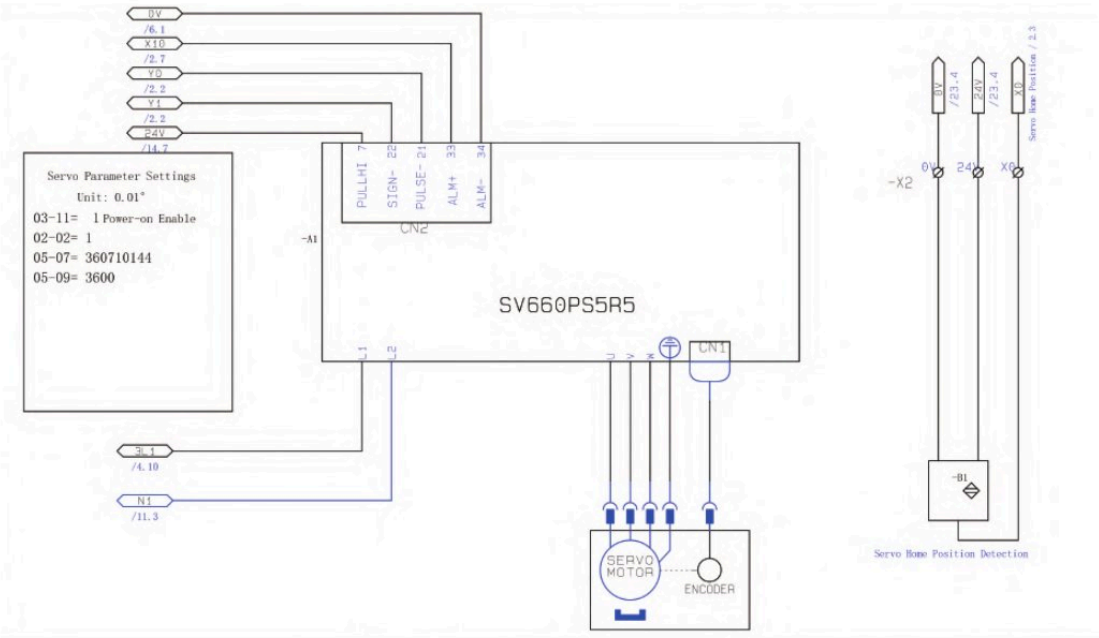

-X10
-EH3
PE
220V2.5KW

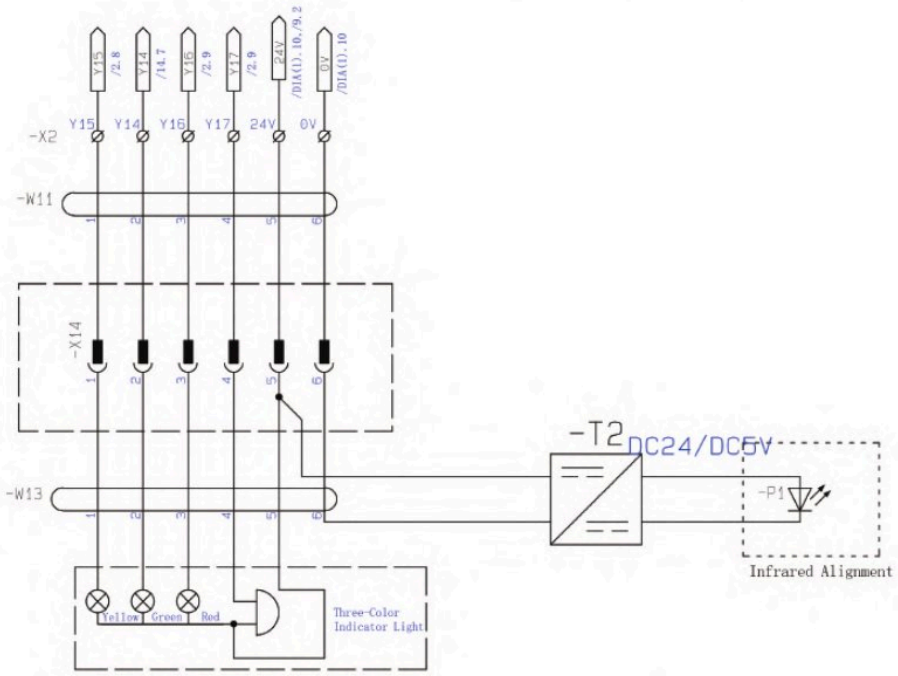

-X2
X7
0V
X14
X15A
X15
TC2-
TC2+
-W5
-X11
-W6

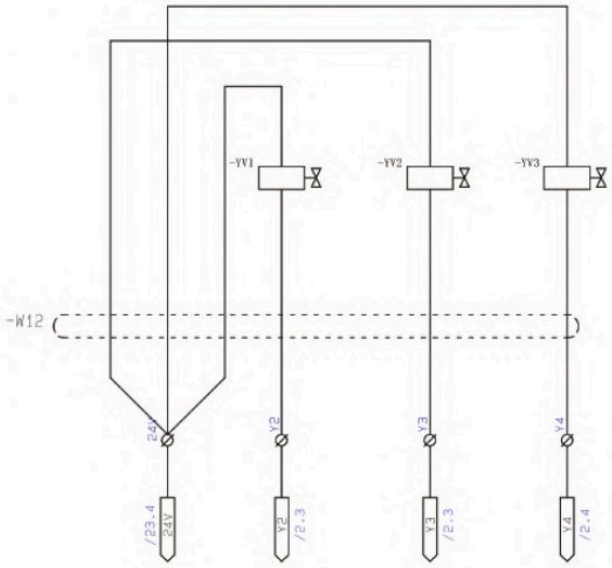

-X8
-EH2
PE
220V2.5KW
-X2
X6
0V
X13
X15B
X15A
TC1-
TC1+
-W7
-X9
-W8
-B3
-SB4
-SA4
-TC2

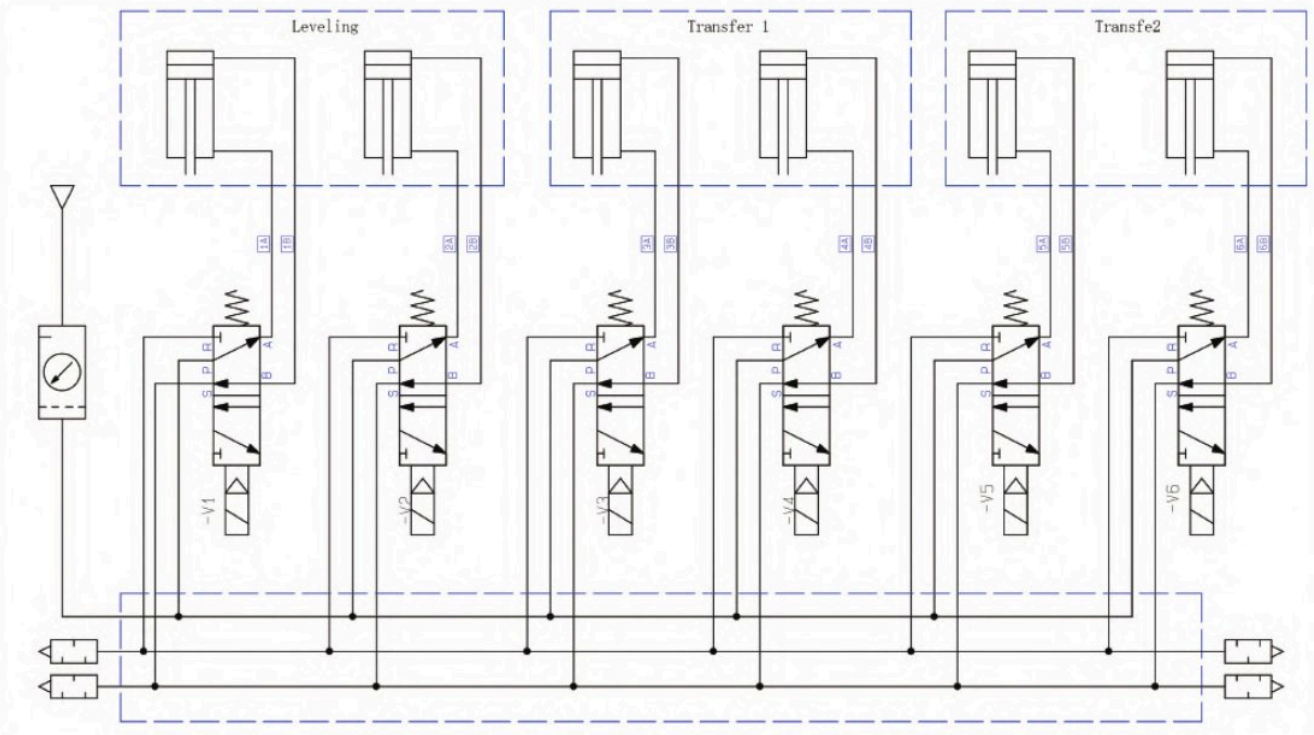

-X6
-EH1
PE
-X2
X5
0V
X4
X15C
X15B
TC0-
TC0+
-W9
-X7
-W10

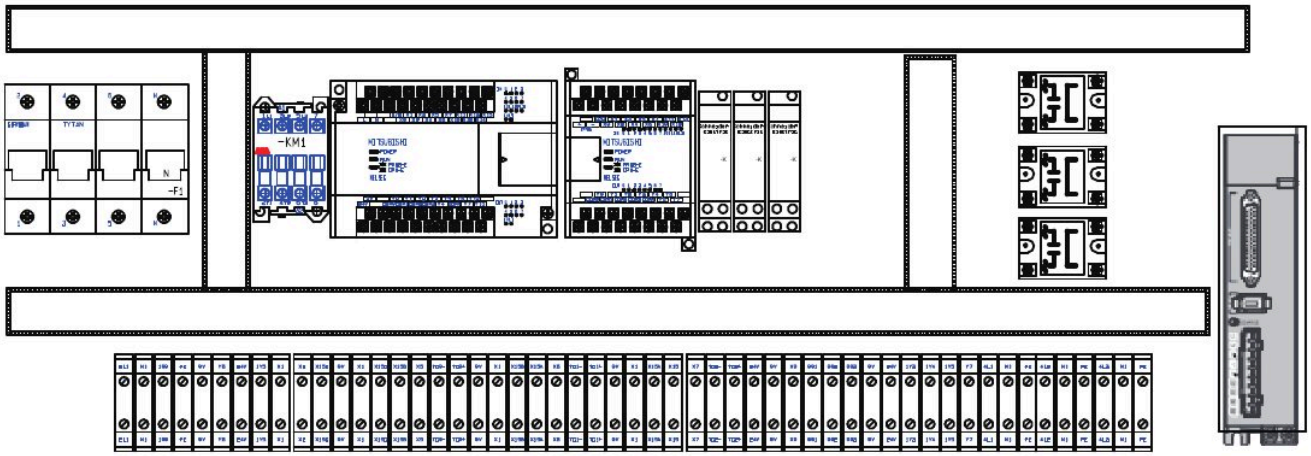

0V
/11.6,/DIA(1).2
-SA2
Emergency Stop 1
X15C
-SA3
Emergency Stop 2
X15B
-SA4
Emergency Stop 3
X15A
-SA5
Emergency Stop 4
X15
X15
/13.7


0V
/6.1
X10
/2.7
Y0
/2.2
Y1
/2.2
24V
/14.7
Servo Parameter Settings
Unit: 0.01°
03-11= 1 Power-on Enable
02-02= 1
05-07= 360710144
05-09= 3600
-A1
PULLHI 7
SIGN- 22
PULSE- 21
ALM+ 33
ALM- 34
CN2
SV660PS5R5
L1
L2
U
V
W
CN1
3L.1
/4.10
N1
/11.3
SERVO MOTOR
ENCODER
0V /23.4
24V /23.4
X0
Servo Home Position / 2.3
-X2
0V
24V
X0
-B1
Servo Home Position Detection

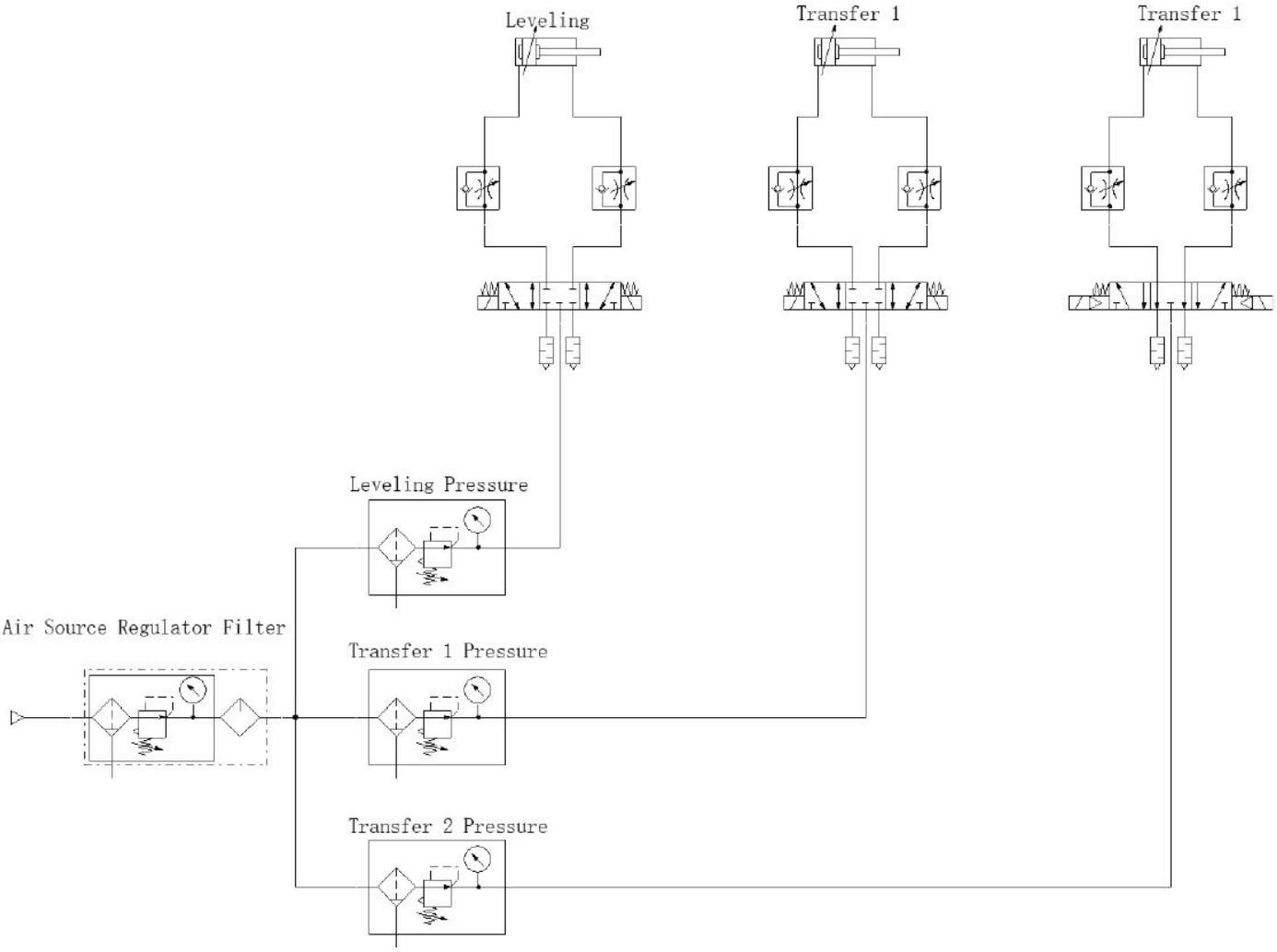

Y15
/2.8
Y14
/14.7
Y16
/2.9
Y17
/2.9
24V
/DIA(1).10,/9.2
0V
/DIA(1).10
-X2
-W11
-X14
-T2
DC24/DC5V
-W13
-P1
Infrared Alignment
Yellow
Green
Red
Three-Color
Indicator Light


-YV1
-YV2
-YV3
-W12
24V
Y2
Y3
Y4
/23.4
24V
Y2
/2.3
Y3
/2.3
Y4
/2.4


Leveling
Transfer 1
Transfe2
-V1
-V2
-V3
-V4
-V5
-V6


-KM1
-F1

# Air diagram


Leveling
Transfer 1
Transfer 1
Leveling Pressure
Air Source Regulator Filter
Transfer 1 Pressure
Transfer 2 Pressure