

Edition No.: 2021 Rev 1

(CE, ISO9001)

# Hexagon Terminal Crimping Machine Operation Manual (FOR NTHC HX240)



## **Function Introduction**

**Summary:** NTHC HX240 is hexagon edge terminal crimping machine, industrial level control chip and high precise servo driving to ensure its high speed and stable running. The machine is easy to operate and maintenance, and it is special designed for the company with high production, low maintenance, which can save lots cost of waste that produced during the fault periods.

#### Introduction:

Hexagon edge terminal crimping machine, with high frequency technology, Electronic precise positioning; it doesn't need to change the cutter, and the cutter size could be changed instantly.

#### **Function:**

- 1. It is applied for terminal with nonstandard or terminal crimping with pressure type.
- 2. It doesn't need to change the applicator and with high precise.
- 3.Pressure joint can be completely open, and it is applied for terminal crimping with middle linked or big square.
- 4. Pressure force can be adjusted to the wire with actual square number.
- 5. Compacted structure, space-saving and with low working noise.

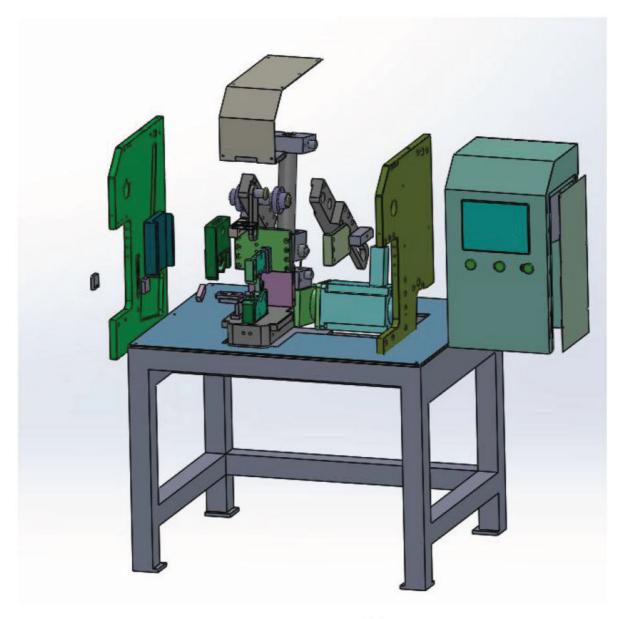
#### **Technical parameters:**

| ,                |                    |  |  |
|------------------|--------------------|--|--|
| Model            | NTHC HX240         |  |  |
| Cable range      | 10-240 mm2         |  |  |
| Max. width       | 38 mm              |  |  |
| Applicator width | 8 mm               |  |  |
| Crimping Force   | 200 KN             |  |  |
| Power            | 2300W              |  |  |
| Weight           | 160KG              |  |  |
| Dimension        | 700 x 860 x 1260mm |  |  |
| Voltage          | 220VAC, 50-60HZ    |  |  |
|                  |                    |  |  |

#### Using place:

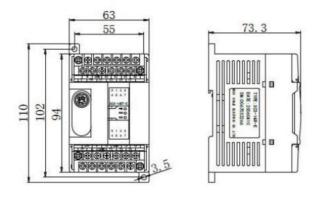
- 1. Indoor, the place where no corrosive or flammable or explosive gas is available;
  - 2. A well ventilated place where dust, loot, and moisture is low;
  - 3. Ambient temperature is between [0 and -50 degrees centigrade;
  - 4. Relative humidity in [20%-90%RH], no dew place;
  - 5. The place convenient for inspection, operation, and cleaning.

# **Product Structure**

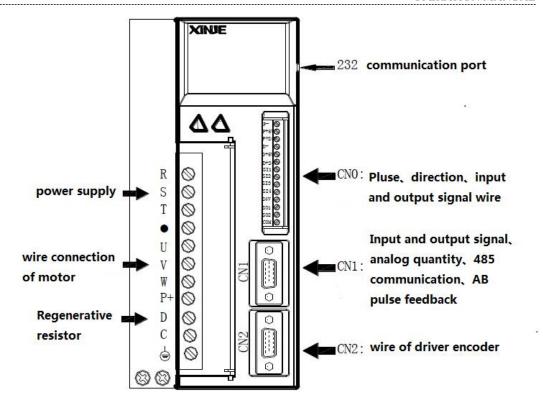


1-1

# Structure picture

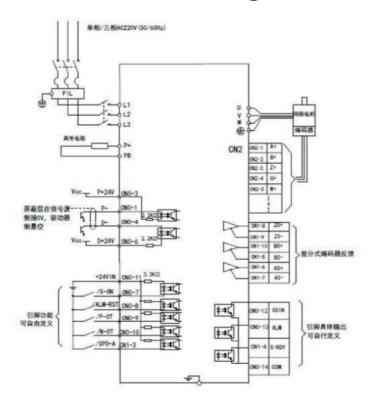


The programmable controller

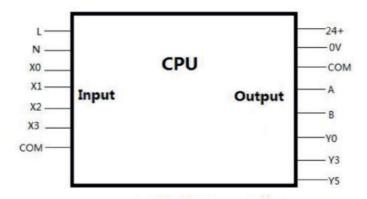


Servo drive motor

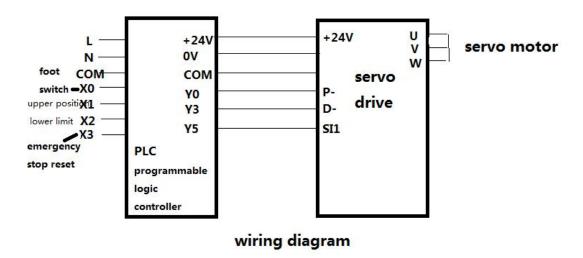
# Electrical schematic diagram



Servo drive schematic diagram



Programmable logic controller PLC



## Operating instruction

1. Press power button, and the operate panel will display as the follows picture 1-1, when the machine reset, click anywhere to enter the Chinese main interface as the diagram 1-2 shows, click "English" to enter into English interface.



1-1



1-2

2. Select the button according to the terminal type and click the appropriate button, the crimp position will automatically open to the set size.

In the diagram 1-2, the upper left corner showed the current selection and specification number. The real-time pressure display is the real time torque of the motor, Zero cleaning is the current output cleared. Click the parameter settings to enter figure 1-3, press the emergency stop button when modifying parameters. The parameter setting button has a password, password is 331122, users are not allowed to change the password.



## 3.Parameter setting

|              | Function description                   | Unit | Setting range |
|--------------|--|------|---------------|
| No           | Number of specification button in      |      | 0~7           |
|              | specification selection                |      |               |
| Crimp        | In origin 2, the distance at which the |      | 1~200         |
| position     | crimp interface runs forward, when     |      |               |
|              | change the value of origin two, you    |      |               |
|              | need to readjust the parameter. The    |      |               |
|              | tightness of the terminal is adjusted  |      |               |
|              | by this value. The greater the value,  |      |               |
|              | the tighter the crimping, one value is |      |               |
|              | about 0.1mm.                           |      |               |
| Origin 2     | The opening size of the crimping       |      | 1~40          |
|              | interface, the greater the value, the  |      |               |
|              | smaller the opening of the interface.  |      |               |
|              | (The terminal is just right enough to  |      |               |
|              | pass)                                  |      |               |
| Crimp speed  | The speed when terminal crimping       | KHz  | 1~9.5         |
| Origin speed | The speed at which the machine         | KHz  | 1~9.5         |
|              | returns to its origin                  |      |               |
| Start speed  | The speed of the machine from the      | KHz  | 1~9.5         |
|              | origin to the origin 2                 |      |               |
| Shielding    | The time of torque is not detected     | s    | 0~2           |
| time         | when the crimping is started           |      |               |
| Acceleration | Acceleration deceleration time when    | ms   | 0∼500         |
| and          | start and stop                         |      |               |
| deceleration |  |      |               |

Note: The origin speed, starting speed, shielding time, acceleration and deceleration are all the same.

### 4. Specification reference table

| Specifica  | No | Crimp   | Origin | Crimp | Origin | Start | Shieldi | Acc |
|------------|----|---------|--------|-------|--------|-------|---------|-----|
| tions      |    | positio | 2      | speed | speed  | speed | ng time | and |
|            |    | n       |        |       |        |       |         | dec |
| 10mm²      | 0  | 47      | 30     | 6     | 6      | 8     | 0.8     | 100 |
| 16mm²      | 1  | 52      | 28     | 6     | 6      | 8     | 0.8     | 100 |
| 25mm²      | 2  | 54      | 25     | 6     | 6      | 8     | 0.8     | 100 |
| 35mm²      | 3  | 50      | 23     | 6     | 6      | 8     | 0.8     | 100 |
| 50mm²      | 4  | 54      | 21     | 6     | 6      | 8     | 0.8     | 100 |
| 70mm²      | 5  | 67      | 15     | 6     | 6      | 8     | 0.8     | 100 |
| 95mm²      | 6  | 80      | 10     | 5     | 6      | 8     | 0.8     | 100 |
| 120mm²     | 7  | 95      | 6      | 5     | 6      | 8     | 0.8     | 100 |
| 150-240    |    |         |        |       |        |       |         |     |
| mm²        |    |         |        |       |        |       |         |     |
| Reserve    |    |         |        |       |        |       |         |     |
| d          |    |         |        |       |        |       |         |     |
| specificat |    |         |        |       |        |       |         |     |
| ions       |    |         |        |       |        |       |         |     |

Note: the parameter table is for reference only

## **Attention**

- 1.Insure the ground wire is grounding reliable;
- 2. The encoder can not be striking;
- 3. Avoid repeated crimping of the same terminal in the same location;
- 4. No sundries on the equipment;
- 5. Parameter setting need to press the emergency stop button.

## Trouble removal and maintenance

- 1. Foot switch contact unwell will be change a new one;
- 2. The foot switch will be checked when terminal is linked crimping;
- 3. The fuse will be changed a new one when it is fusing;
- 4. The cutter and the spring will be checked when the cutter can not be reset;
- 5. Operation unresponsive, power off to restart the machine.

## Service commitment

- 1. The machine purchased from our company or our agent can not be used in other usage beyond the normal usage, or our company wont undertake the responsibility.
- 2. Warranty: 1 year. It is subject to the invoice date, it is just suit for the buyer, not suit to the second handed buyer.
- 3. The change and repair of the component is free in the warranty. the changed old component id belong to our company.
- 4. The warranty is no use to the machine which is not purchased from our company or agency, and it take no responsibility as follows:
- (a). Accident ,misuse and abuse
- (b). Start without the record of the instruction;
- (c). The component is not sold and manufactured by our company;
- (d). Alteration of the machine;
- (e). Accepted the third party service which is not approved by our company.