

## 1 General Introduction

HHQ4-A microcomputer time-control switch (hereinafter referred to as time-control switch) adopting specialized timing chip, LCD liquid crystal displaying, is characterized by the high timing precision, wide time-control range and so on.

The products are widely used in the places where turning on and off the electrical equipments and household appliances should be at a regular time, such as streetlights, neon lights, bells, broadcast&television equipments and so on.

This series time-control switches comply with relevant requirements of IEC 60730-2-7 GB14536.8

## 2 Main Technical Data

2.1 Working Power: AC220V 50Hz;

2.2 Allowable Voltage Fluctuation Range: (85%~110%)U<sub>e</sub>;

2.3 Time-control Range: 1min~168h;

2.4 Timing Times: 8 groups, dual choice: automatic&manual;

2.5 Timing Error: less than or equal to  $\pm 1$ s per day;

2.6 Consumption: less than 5W

2.7 Ambient Temperature: -10°C~40°C;

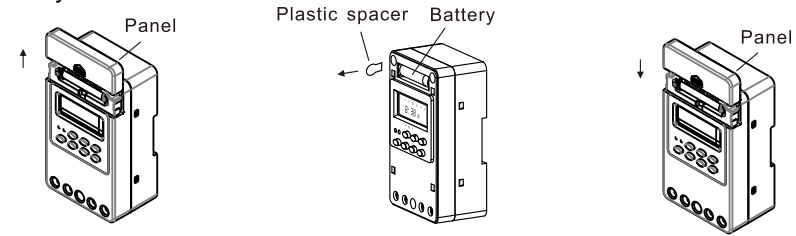
2.8 Contact Capacity: 20A AC220V(resistance)□

2.9 Electrical Life:  $1 \times 10^5$ ;

2.10 Installation Mode: fixed type, guide rail type, wall hanging type;

## 5 Operation Instruction

### 5.1 Battery Installation

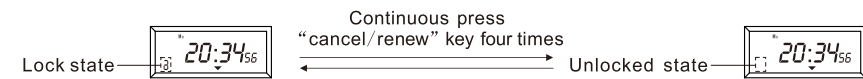


Open the panel

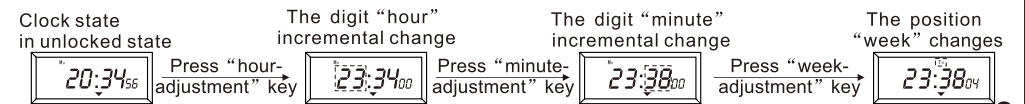
Take out the plastic spacer

Cover the panel

5.2 The use of key lock: if no operation of keyboard within 30 seconds, the time-control switch would lock automatically for fear of mis-operation.



### 5.3 Clock adjustment

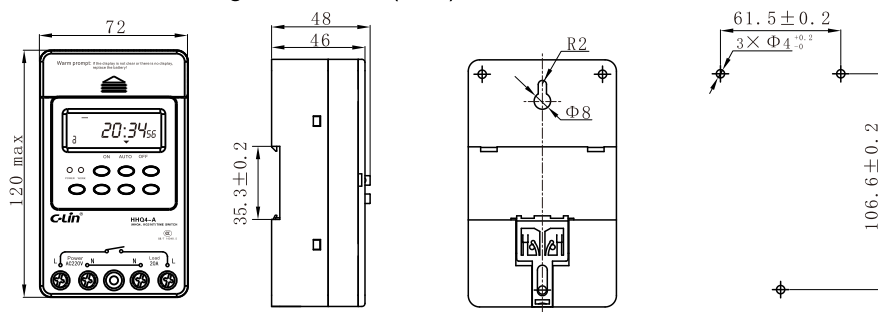


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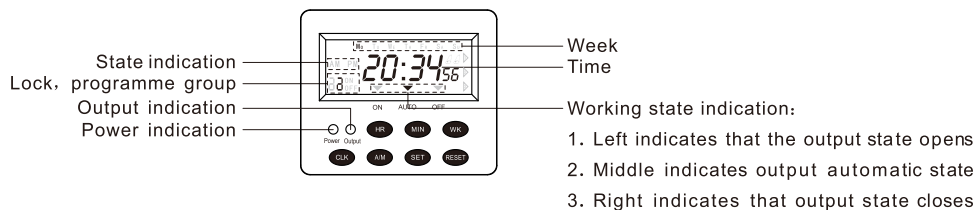
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2.11 Outline Dimension: (120×72×47.9)mm.

## 3 Outline and Mounting Dimension(mm)

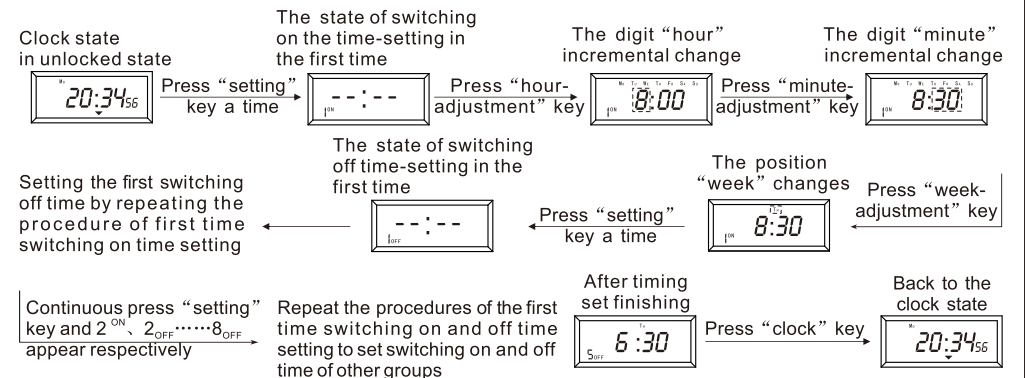


## 4 Panel Instruction

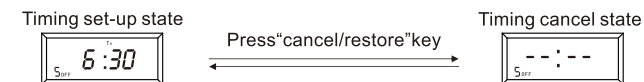


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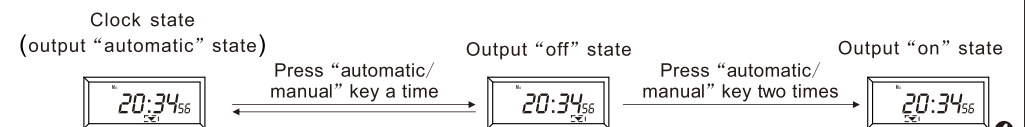
### 5.4 Timing set-up



### 5.5 Cancel/restore timing set up



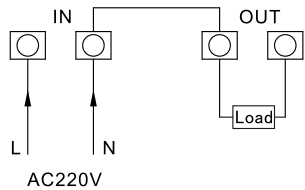
### 5.6 Manual operation



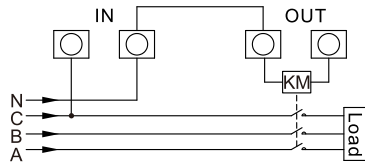
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## 6 Circuit Application Example (take product power AC220V as an example)

Example 1:



Example 3:

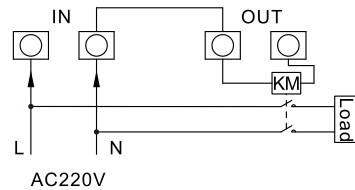


6.1 Direct control wiring: if the controlled load is supplied by the single-phase power, and the power consumption is less than rated capacity of time-control switch, direct control wiring can be adopted. Refer to example 1 for wiring.

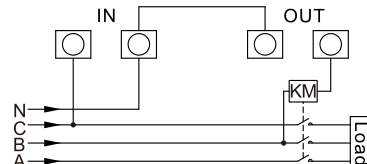
6.2 Single phase capacity expand wiring: if the controlled load is supplied by the single-phase power, but the power consumption is more than the rated capacity of time-control switch (load resistive is more than 20A; induced current is more than 15A), an

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Example 2:



Example 4:



AC contactor whose capacity is more than the load power consumption is needed to expand the capacity. Refer to example 2 for wiring (AC contactor coil working voltage is AC 220V).

6.3 Three phase wiring:

a) if the controlled load is supplied by the three-phase power, an external three phase AC contactor should be connected.

b) If the coil voltage of the contactor is AC220V, 50Hz, please refer to example 3 for wiring.

c) If the coil voltage of the contactor is AC380V, 50Hz, please refer to example 4 for wiring.

NOTE 1 the load can be streetlight; OUT (the output) can be directly connected to two wires at the terminal of the streetlight (shown as example 1).

NOTE 2 KM denotes AC contactor. AC contactor terminal A1, A2 can be directly connected in the OUT (output) (shown as example 2, 3).

NOTE 3 the coil working voltage in the example 4 is AC380V.

## 7 Trouble Shooting

7.1 The product indicator does not light when the power is switched on: check if the power input terminal connects with the matched power of product working voltage correctly.

7.2 After a normal service for a period of time, the product's screen cannot display or

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display abnormally. It may be because the battery is used up. Remove the old battery, waiting for the product to reset 5s~10s, and then re-install a new battery. (note the battery polarity), cover the battery panel.

7.3 The products cannot switch on and off according to the preset time. The reasons may be as follows:

a) if the week mode is not set correctly when "timing set-up", please re-adjust the required week mode according to the correct procedures of timing set-up.

b) if redundant program group is set when "timing set-up", cancel the excess programme by pressing "automatic/manual" key and the screen displays "--:--"

7.4 Keys do not work properly or do not go: the product is halted probably resulting from serious electromagnetic interference, ambient temperature or other reasons. Remove the battery, waiting for the product to reset 5s~10s. Then re-install the new battery and cover the panel. (note the polarity of the battery).

7.5 If the above methods cannot troubleshoot, please contact our company or the local agency.

## 8 Precautions

8.1 products in the humid, corrosive and high metal content gas or contaminated with oil, water will be affected to work properly.

8.2 Please note the polarity when installing the battery. Opposite battery polarity installation may result in product damage.

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8.3 After the timer is putting into use, the keyboard is advised to be locked for fear of mis-operation.

8.4 When the product is energized, the live parts are forbidden from being touched.

## 9 Notes for Placing Order

The customer shall specify model, voltage rating and quantity and any special requirement shall be remarked.

E.g: HHQ4-A AC220V 100pcs



**Xinling Electrical Co., Ltd. China**

Add: Zhiguang Industrial Zone, Lishui, Yueqing City, Zhejiang Province P.R.China 325604

Tel: 86-577-62735555 Fax: 86-577-62722963

Technical support: 86-577-62731208 www.xinling.com

Zhejiang Famous Trademark National Hi-tech Enterprise

**G-Lin**

Operation Instruction

**HHQ4-A**  
microcomputer time-control switch

Thank you for using our protective device, please carefully read the operation instruction!

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