

I. Overview

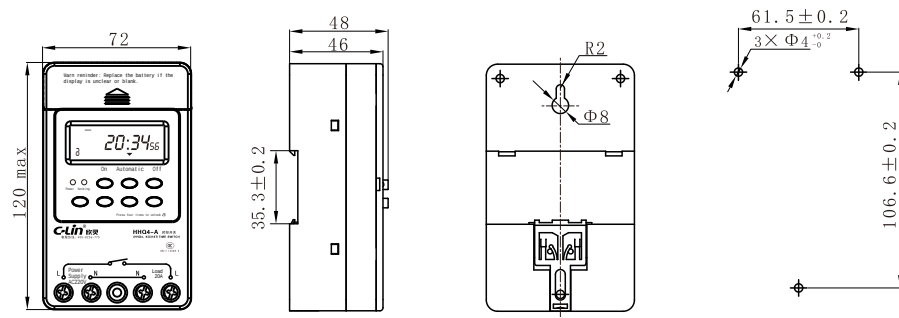
The HHQ4 - A time - control switch (hereinafter referred to as the time - control switch) adopts a dedicated timing chip and LCD display, and has advantages such as high timing accuracy and a wide time - control range. It is widely applied in places where electrical equipment and household appliances need to be turned on and off regularly, such as street lamps, neon lights, advertising sign lights, production equipment, and radio and television equipment.
This time - control switch complies with the relevant requirements of GB/T 14048.5.

II. Main Technical Data

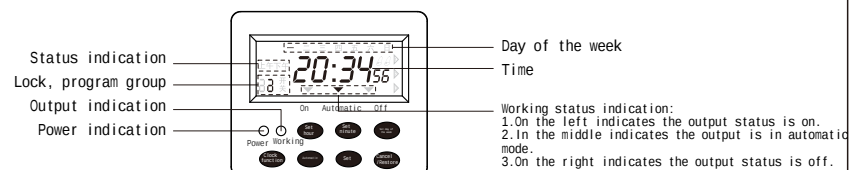
1. Working power supply (control power supply voltage): AC220V 50Hz; 2. Allowable voltage fluctuation range: 85% - 110% Ue;
3. Time - control range: 1m - 168h;
4. Number of timing groups: 16 groups, both automatic and manual available;
5. Timing error: $\leq \pm 1s/d$;
6. Power consumption: $< 5W$;
7. Ambient temperature: $-10^{\circ}C - 40^{\circ}C$;
8. Contact capacity: 20A AC250V (resistive);
9. Altitude: $\leq 2000m$;
10. Humidity: When the maximum temperature at the installation site is $40^{\circ}C$, the relative humidity of air $\leq 50\%$; at lower temperatures, a relatively higher humidity is allowed, for example, 90% at $20^{\circ}C$. Special measures should be taken for occasional condensation caused by temperature changes;
11. Pollution degree: 3;
12. Installation methods: panel - mounted, 35mm DIN - rail - mounted, wall - mounted;
13. Conventional heating current Ith: 20A;
14. Rated insulation voltage Ui: 250V;
15. Rated impulse withstand voltage Uimp: 4kV;
16. Ue/Ie: Under the use category, each rated working voltage Ue/rated working current Ie: AC - 15 Ue: AC250V, Ie: 20A.

①

III. Outline and Cut - out Dimension Diagram



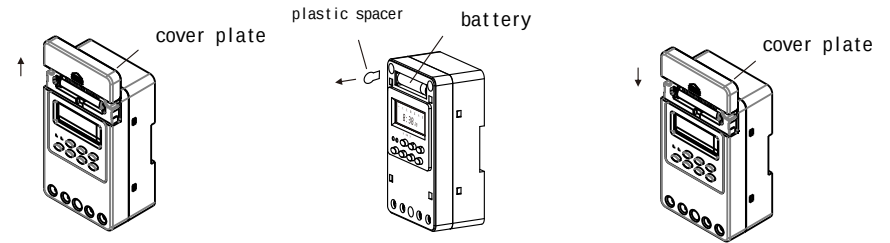
IV. Panel Explanation



②

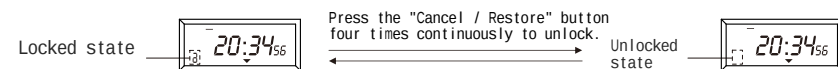
V. Usage Instructions

1. Battery Installation

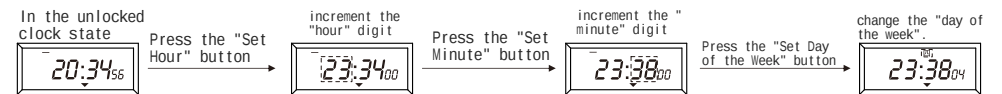


- (1) Push the cover plate upward. (2) Pull out the plastic spacer. (3) Snap the cover plate back.

2. Use of Keyboard Lock: The keyboard will automatically lock to prevent misoperation if there is no operation within 30 seconds.

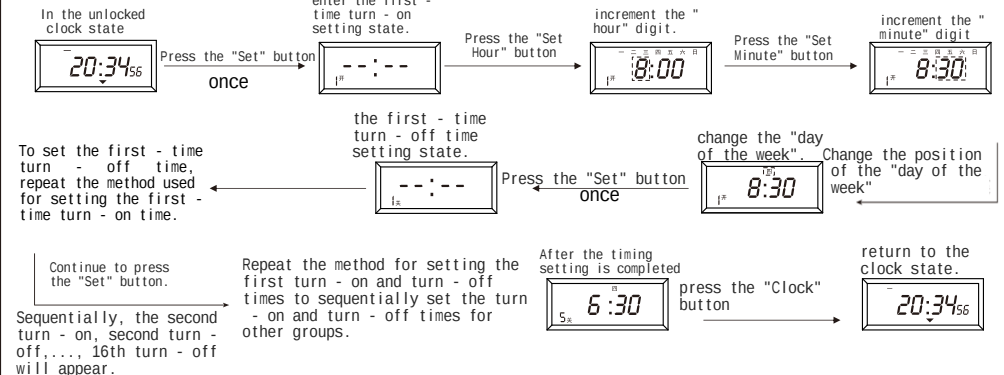


3. Clock Calibration

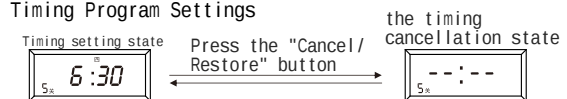


③

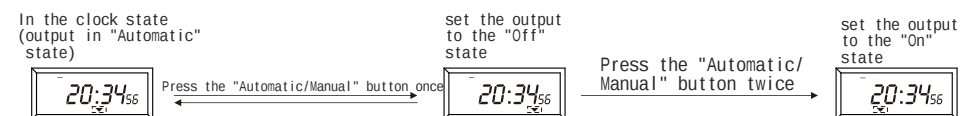
4. Timing Program Setting



5. Cancel/Restore Timing Program Settings



6. Manual Operation



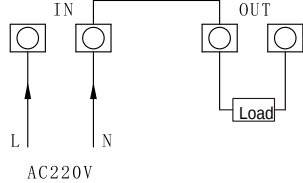
④

7. If the set turn - on time is before the current clock time (for example, the current clock time is 9:00 and the set turn - on time is 8:00), the system defaults that it will not turn on this time and will turn on automatically next time.

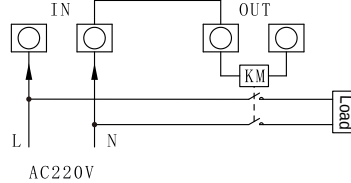
If you want to turn it on, you need to press the "Automatic/Manual" button to adjust to the "On" state, manually turn it on this time, then adjust the state back to "Automatic" and execute automatic control.

VI. Application Circuit Examples (Taking the product power supply of AC220V as an example)

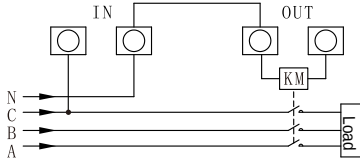
Example 1:



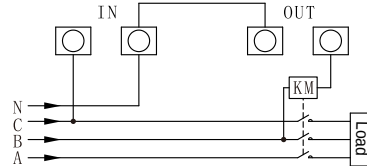
Example 2:



Example 3:



Example 4:



⑤

1. Wiring for Direct Control Mode: If the controlled load is single - phase powered and its power consumption does not exceed the rated capacity of this time - control switch, the direct control mode can be adopted. The wiring method is as shown in Example 1.

2. Wiring for Single - phase Capacity Expansion Mode: If the controlled load is single - phase powered but its power consumption exceeds the rated capacity of this time - control switch (resistive load exceeds 20A, inductive load exceeds 5A), an AC contactor with a capacity exceeding the load's power consumption is required for capacity expansion. The wiring method is as shown in Example 2 (the coil operating voltage of the AC contactor is AC220V).

3. Wiring for Three - phase Working Mode

a) If the controlled load is three - phase powered, an external AC contactor is required.

b) For a contactor with a coil voltage of AC220V 50Hz, the wiring method is as shown in Example 3.

c) For a contactor with a coil voltage of AC380V 50Hz, the wiring method is as shown in Example 4.

Note 1: The load can be street lamps, and the OUT (output) can be directly connected to the two wires of the lamp tube (as shown in Example 1).

Note 2: KM is an AC contactor, and the OUT (output) can be directly connected to the two ends A1 and A2 of the AC contactor (as shown in Example 2 and Example 3).

Note 3: The coil operating voltage of KM in Example 4 is AC380V.

VII. Troubleshooting

1. After power - on, if the product's power indicator does not light up, check whether the power input terminal is correctly connected to a power source that matches the product's working voltage.

2. After the product has been used normally for a period of time, if the display screen has no display or an abnormal display, it may be that the battery power has been exhausted. Remove the old battery, wait for the product to reset for 5 - 10 seconds, then install a new battery (pay attention to the battery polarity) and cover the battery cover.

3. If the product cannot turn on and off normally at the preset time, it may be due to the following reasons:

a) During "Timing Setting", the day - of - the - week mode is not set correctly. Please reset the correct day - of - the - week mode according to the method in "Timing Program Setting" as needed.

⑥

b) If redundant program groups are set during "Timing Program Setting", press the "Automatic/Manual" button to cancel the redundant program groups until "---" is displayed.

c) If the "Working Status" is set incorrectly, that is, when it is supposed to be in the automatic turn - on state at the current time, the "▼" at the bottom of the display screen should be in the "Automatic" position. If not, adjust it to the "Automatic" state according to whether it should be turned on or off at the current time.

4. In case of button failure or abnormal timekeeping (possibly due to severe electromagnetic interference, ambient temperature, or other reasons causing the product to freeze), reset the product for 5 - 10 seconds, then remove the battery. After that, install a new battery (pay attention to the battery polarity) and cover the battery cover.

5. If the above methods cannot eliminate the fault, please contact our company or local dealers for handling.

VIII. Precautions

1. If the product operates in a humid, corrosive environment or in a gas with high metal content, or if it gets contaminated with oil or water, its normal operation will be affected.

2. When installing the battery, be sure to pay attention to the battery polarity. Incorrect polarity installation may damage the product.

3. To prevent the contacts from heating up under high - current conditions, make sure to tighten the terminal screws when wiring.

4. After the product is put into use, it is advisable to lock the keyboard immediately to prevent misoperation.

5. Do not touch the live parts after the product is powered on.

IX. Ordering Information

Please indicate the product model, voltage level, and quantity. Special requirements should be noted separately.

For example: HHQ4 - A AC220V 100 pieces

⑦

1. Wiring for Direct Control Mode: If the controlled load is single - phase powered and its power consumption does not exceed the rated capacity of this time - control switch, the direct control mode can be adopted. The wiring method is as shown in Example 1.

2. Wiring for Single - phase Capacity Expansion Mode: If the controlled load is single - phase powered but its power consumption exceeds the rated capacity of this time - control switch (resistive load exceeds 20A, inductive load exceeds 5A), an AC contactor with a capacity exceeding the load's power consumption is required for capacity expansion. The wiring method is as shown in Example 2 (the coil operating voltage of the AC contactor is AC220V).

3. Wiring for Three - phase Working Mode

a) If the controlled load is three - phase powered, an external AC contactor is required.

b) For a contactor with a coil voltage of AC220V 50Hz, the wiring method is as shown in Example 3.

c) For a contactor with a coil voltage of AC380V 50Hz, the wiring method is as shown in Example 4.

Note 1: The load can be street lamps, and the OUT (output) can be directly connected to the two wires of the lamp tube (as shown in Example 1).

Note 2: KM is an AC contactor, and the OUT (output) can be directly connected to the two ends A1 and A2 of the AC contactor (as shown in Example 2 and Example 3).

Note 3: The coil operating voltage of KM in Example 4 is AC380V.

VII. Troubleshooting

1. After power - on, if the product's power indicator does not light up, check whether the power input terminal is correctly connected to a power source that matches the product's working voltage.

2. After the product has been used normally for a period of time, if the display screen has no display or an abnormal display, it may be that the battery power has been exhausted. Remove the old battery, wait for the product to reset for 5 - 10 seconds, then install a new battery (pay attention to the battery polarity) and cover the battery cover.

3. If the product cannot turn on and off normally at the preset time, it may be due to the following reasons:

a) During "Timing Setting", the day - of - the - week mode is not set correctly. Please reset the correct day - of - the - week mode according to the method in "Timing Program Setting" as needed.

⑥



C-Lin®
欣灵电气股份有限公司
XINLING ELECTRICAL CO., LTD.
地址: 浙江省乐清经济开发区纬十九路328号
电话: 0577-6273 5555 传真: 0577-6272 2963
官网: www.c-lin.cn E-mail: xl@xinning.com
技术咨询: 400-8236-775



国家高新技术企业 浙江驰名商标

使用说明
Products Instructions

HHQ4-A

Time - control Switch

Thank you very much for using the C-Lin brand time - control switch. Please read the instruction manual before using the product.

03A033Q1