

I . Overview

The HHS3(AH2) series time relay (hereinafter referred to as the relay) is suitable for use as a time - delay element in control circuits with AC 50Hz, rated voltage 380V and below, or DC working voltage 24V, to connect or disconnect the circuit according to the preset time.
This series of relays complies with the relevant requirements of GB/T 14048.5.

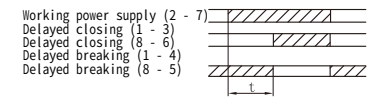
II . Main Technical Data

Table

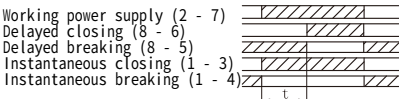
Product Model	HHS3	HHS3G	HHS3C (AH2-N)
Product Name	Time Relay		
Working Power Supply (Control Power Supply Voltage)	AC380V, 220V, 110V, 36V, 24V 50Hz; DC24V, allowing a voltage fluctuation range of (85% - 110%) Ue		
Working Mode	On - power delay	Release delay	On - power delay with instantaneous contact
Delay Range	1s, 3s, 5s, 10s, 30s, 60s, 3m, 5m, 10m, 30m, 60m, 3h, 5h, 10h		
Repeat Error	Er≤1%		
Number of Contacts	2 sets of delay conversion		1 set of delay conversion, 1 set of instantaneous conversion
Contact Capacity	3A AC250V (resistive)		
Ambient Temperature	-5℃~40℃		
Altitude	≤2000m		
Humidity	When the maximum temperature at the installation site is 40℃, the relative humidity of the air is ≤ 50%. At lower temperatures, a higher relative humidity is allowed, for example, up to 90% at 20℃. Special measures should be taken for occasional condensation caused by temperature changes.		

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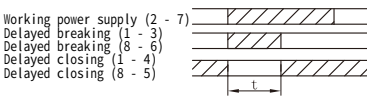
IV. Working Timing Diagram



HHS3、HHS3-M

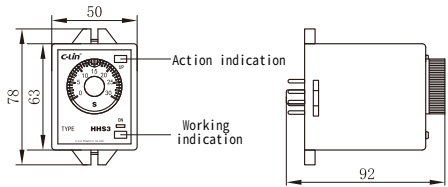


HHS3C (AH2-N) 、HHS3C-M (AH2-Y)

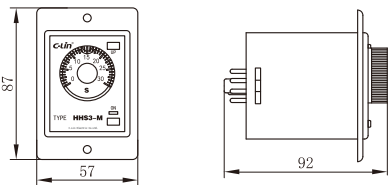


HHS3G、HHS3G-M

V. Outline and Installation Dimensions (mm)



HHS3、HHS3C (AH2-N)



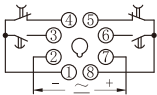
HHS3-M、HHS3C-M (AH2-Y) 、HHS3G-M

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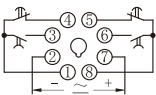
Table (continued)

Product Model	HHS3	HHS3G	HHS3C (AH2-N)
Pollution degree	Grade 3		
Conventional heating current Ith	5A		
Rated insulation voltage Ui	400V		
Rated impulse withstand voltage Uimp	2.5KV		
Ue/Ie	Under the usage category, each rated working voltage Ue / rated working current Ie: AC - 15 Ue: AC250V, Ie: 3A		
Mounting method	HHS3, HHS3G: Panel - mounting; HHS3 - M, HHS3G - M: Front - panel mounting		HHS3C(AH2 - N): Panel - mounting; HHS3C - M(AH2Y): Front - panel mounting
Remarks	The base required for panel - mounting and DIN - rail mounting needs to be purchased separately by the user, and the base model is 8PFA		

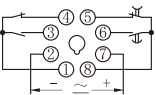
III. Wiring Diagram



HHS3、HHS3-M



HHS3G、HHS3G-M



HHS3C (AH2-N) 、
HHS3C-M (AH2-Y)

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VI. Instructions for Use

1. According to the wiring diagram on the relay cover label, refer to the circuit examples in Article VIII to connect the product to the control circuit.
2. Adjust the potentiometer, preset the delay time, power on, and the relay starts to operate according to the corresponding working timing in Article IV.
3. Since the product setting time is set by the potentiometer, when selecting the delay specification, the user should choose within the range from 2/3 of the nominal value to the maximum value, to avoid using a large delay specification to set a small delay time, which causes a large time deviation.
4. HHS3F power - on time should be $\geq 2s$.
5. The repeated start - up interval of the relay should be $\geq 0.5s$.

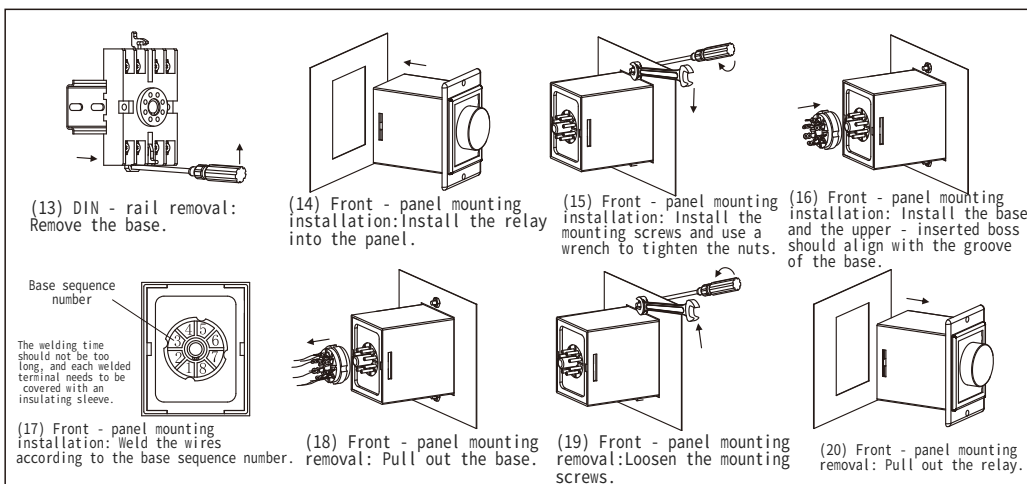
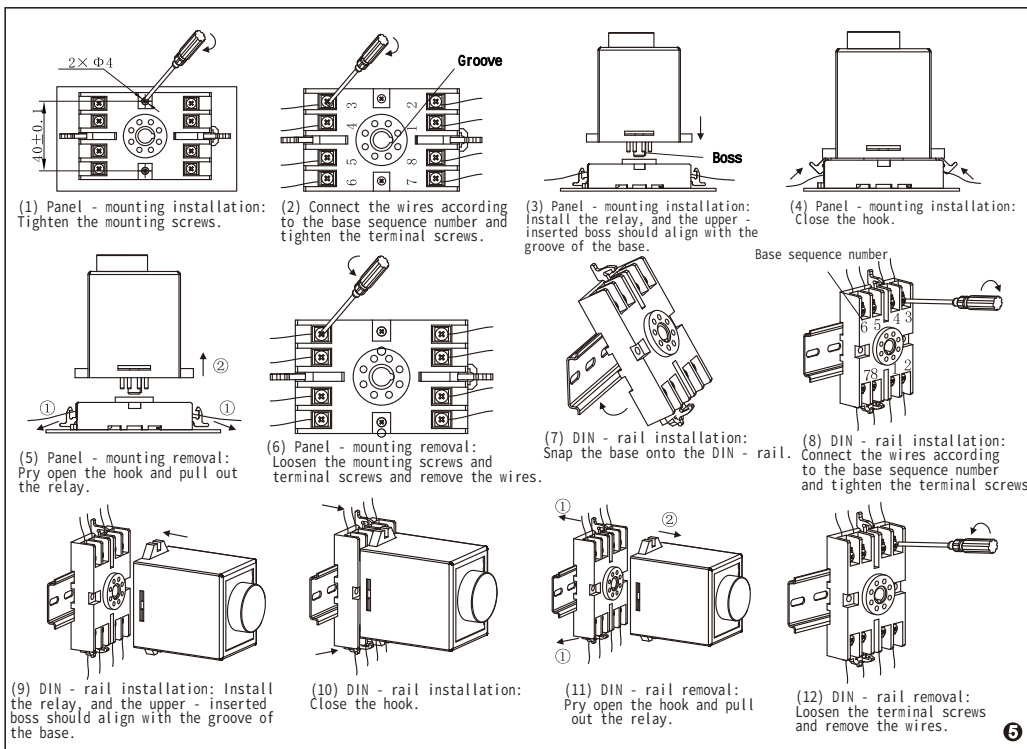
VII. Installation and Removal Methods

Caution: The main circuit power supply must be cut off before installation or removal.

1. Panel - mounting installation sequence: (1) → (2) → (3) → (4)
2. Panel - mounting removal sequence: (5) → (6)
3. DIN - rail installation sequence: (7) → (8) → (9) → (10)
4. DIN - rail removal sequence: (11) → (12) → (13)
5. Front - panel mounting installation sequence: (14) → (15) → (16) → (17)
6. Front - panel mounting removal sequence: (18) → (19) → (20)

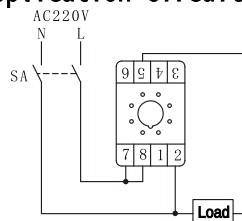
Note: For panel - mounting and DIN - rail mounting, take HHS3C (AH2 - N) as an example, and for front - panel mounting, take HHS3C - M (AH2 - Y) as an example.

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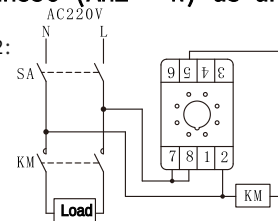


VIII. Application Circuit Examples (Taking HHS3C (AH2 - N) as an Example)

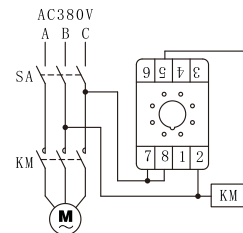
Example 1:



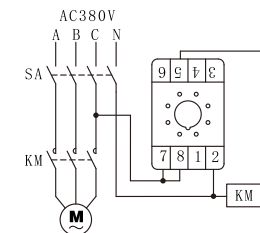
Example 2:



Example 3:



Example 4:



1. For single - phase load, if the resistive current of the load $\leq 3A$ or the inductive current $\leq 0.5A$, the relay controls directly, and the wiring refers to Example 1. If the resistive current of the load $> 3A$ or the inductive current $> 0.5A$, the relay expands the capacity through an AC contactor, and the wiring refers to Example 2. For three - phase load, when the power supply of the AC contactor and the relay is AC220V, the wiring refers to Example 3. When the power supply of the AC contactor and the relay is AC380V, the wiring refers to Example 4.
2. The function of the relay in the examples is: when the power supply is connected, the load or KM (AC contactor) is energized. After a delay to the preset value, the load or KM (AC contactor) is de - energized.
- Note 1: The load can be a street lamp or a bulb, which can be directly connected to the two wires at the port of the street lamp or bulb (as shown in Example 1).
- Note 2: KM is the coil of the AC contactor, and the two ends A1 and A2 can be wired according to Example 2, Example 3, and Example 4.
- Note 3: The working power supply of the relay and KM in Example 3 is AC380V. Attention should be paid to the voltage rating of the selected product.

IX. Ordering Information

The product model, voltage rating, delay range, and quantity should be specified. If there are special requirements, they should be noted separately.
For example: HHS3 AC220V 60s 100 pieces.



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C-Lin 欣灵

使用说明书
Products Instructions

HHS3 (AH2) Series
Time Relay

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

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