

I. Overview

The HHD7-G forward-reverse rotation controller (hereinafter referred to as "the controller") adopts single-chip microcomputer control and LED digital display. It allows free setting of forward rotation, reverse rotation and stop time. It is applicable as a control device in control circuits with AC 50Hz and a working voltage of 380V or below, and controls the forward rotation, reverse rotation and stop of the motor according to the preset time.

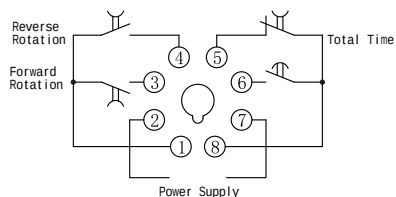
This controller complies with the relevant requirements of GB/T 14048.5.

II. Main Technical Data

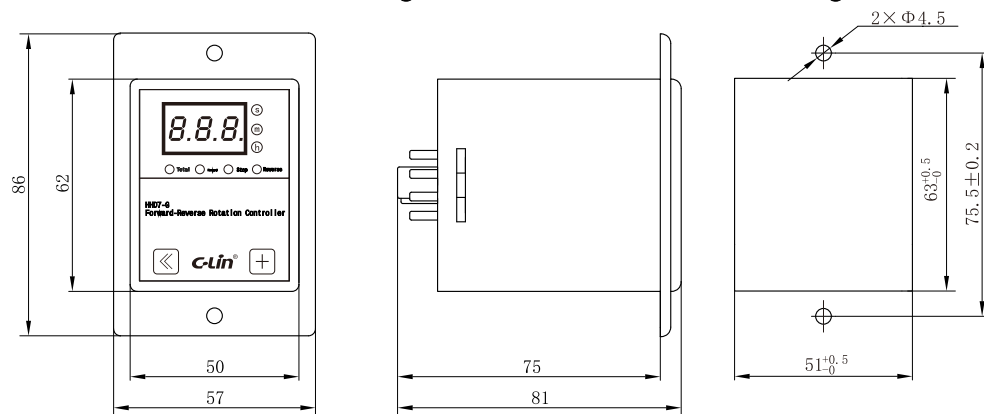
1. Working power supply (control power supply voltage): AC220V, 380V 50Hz;
2. Allowable voltage fluctuation range: (85%~110%)U_e;
3. Delay range: 1s~999h;
4. Power consumption: ≤2VA;
5. Pollution degree: Class 3;
6. Contact capacity: 3A AC250V (resistive load) (usage category AC-15);
7. Conventional heating current I_{th}: 5A;
8. Rated insulation voltage U_i: 250V;
9. Rated impulse withstand voltage U_{imp}: 4KV;
10. Ambient temperature: -5°C~40°C;
11. Altitude: ≤2000m;
12. Humidity: When the maximum temperature at the installation site is 40°C, the relative humidity of the air is ≤50%. Higher relative humidity is allowed at lower temperatures (e.g., up to 90% at 20°C). Special measures shall be taken for condensation occasionally caused by temperature changes;
13. Mounting method: Panel mounting, unit mounting, DIN rail mounting.

Note: The base required for installation shall be purchased separately by the user, and the base model is PF083A.

III.Wiring Diagram



IV.Outline and Mounting Hole Dimension Drawing



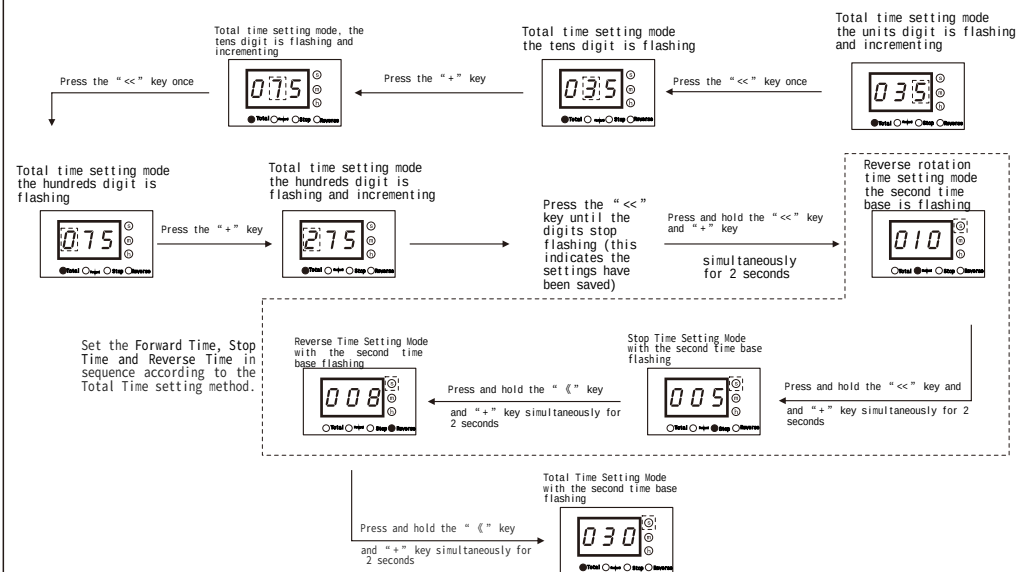
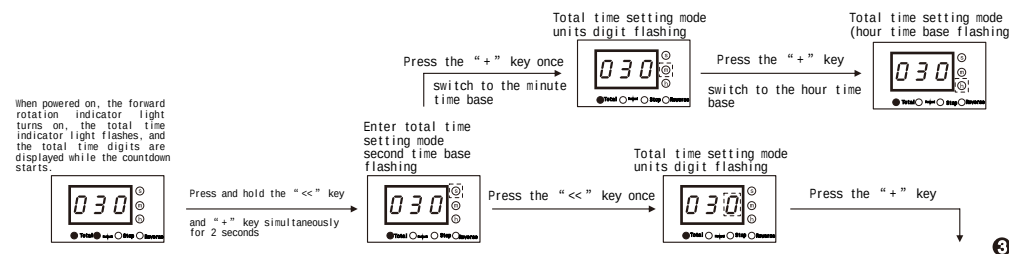
V. Operating Instructions

1.Key Instructions

- (1) In operating mode, press and hold the “<<” key and “+” key simultaneously for 2 seconds to enter setting mode; in setting mode, press and hold the “<<” key and “+” key simultaneously for 2 seconds to switch to the next setting parameter. If there is no key operation within 5 seconds, it will automatically return to operating mode.
- (2) “<<” key: In setting mode, press the “<<” key to select each parameter that needs adjustment and setting in various functions.
- (3) “+” key: In setting mode, press the “+” key to increment the selected parameter upward.

2.Parameter Setting

- (1) Follow the wiring diagram on the controller housing and refer to the circuit example in Section 8 to connect the product to the control circuit.
- (2) Take the scenario where the previously set parameters (total time: 30s, forward rotation time: 10s, stop time: 5s, reverse rotation time: 8s) need to be adjusted to new parameters (total time: 275s, forward rotation time: 12s, stop time: 5s, reverse rotation time: 15s) as an example.

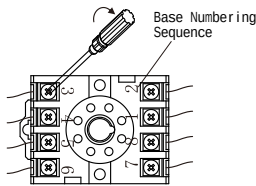


- (3) After finishing the parameter setting, press and hold the "<<" button and "+" button at the same time for 2 seconds to return to the operating state; or the system will automatically return to the operating state 5 seconds after you stop operating. Parameter changes will take effect in the next cycle, while changes to the total time require a power-off reset to take effect.

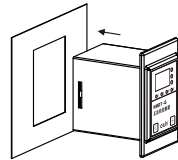
VI. Installation and Removal Methods

Note: The main circuit power supply must be turned off before installation or removal.

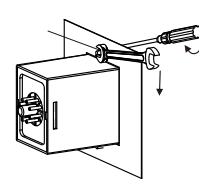
1. Panel-mounted installation: (1) → (2) → (3) → (4)
2. Device-mounted installation: (5) → (6) → (7)
3. DIN rail-mounted installation: (8) → (9) → (10)



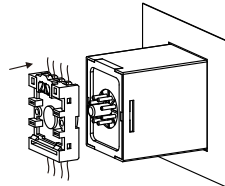
(1) Connect the wires according to the numbering sequence on the base, and tighten the terminal screws.



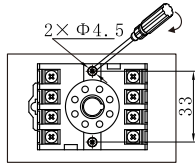
(2) Install the controller into the panel.



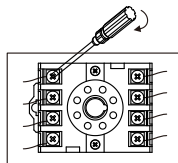
(3) Attach the mounting screws, then use a wrench to tighten the nuts.



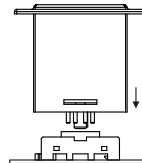
(4) Install the base, ensuring the boss on the plug aligns with the groove on the base.



(5) Tighten the mounting screws

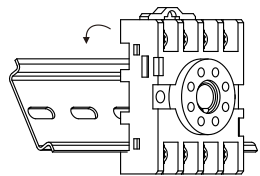


(6) Connect the wires according to the numbering sequence on the base and tighten the terminal screws

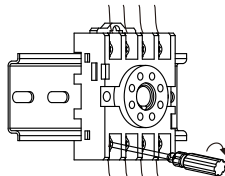


(7) Install the controller, ensuring the boss on the plug aligns with the groove on the base

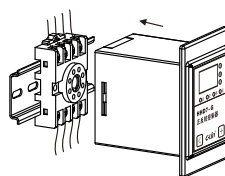
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(8) Snap the base onto the DIN rail.

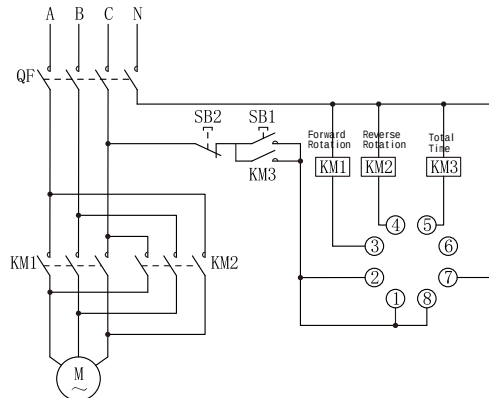


(9) Connect the wires according to the numbering sequence on the base and tighten the terminal screws.



(10) Install the controller, ensuring the boss on the plug aligns with the groove on the base.

VII. Application Circuit Example (Taking AC220V as the working power supply of the controller)



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Function of the controller in the example:

Close QF (Circuit Breaker) and press the start push button SB1: KM3 energizes and latches, the controller is powered on, and KM1 energizes simultaneously to start the motor forward. After the set forward operation time, KM1 de-energizes and the motor stops. After the set stop time, KM2 energizes to start the motor in reverse. After the set reverse operation time, KM2 de-energizes and the motor stops. After the set stop time, KM1 energizes again to start the motor forward... This cycle repeats. When the total operation time of the motor is reached, KM3 de-energizes, the controller loses power, and the motor stops running. During operation, when the stop push button SB2 is pressed, the controller loses power; KM1, KM2, and KM3 all de-energize, and the motor stops running.

Note: In this example, the controller voltage is AC220V; KM1, KM2, and KM3 are AC contactors with a rated voltage of AC220V.

VIII. Ordering Information

You need to specify the product model, voltage class, and quantity. If there are special requirements, they should be noted separately.

Example: HHD7-G AC220V 100 units

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产品合格证



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符合标准: GB/T 14048.5

检验员: 01

出厂日期: 见产品或包装

本产品经检验合格, 准予出厂。

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使用说明书
Products Instructions

HHD7-G
Forward-Reverse Controller

Thank you very much for using the Xinling Brand Forward-Reverse Controller! Please read the user manual before using the product!

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