

(5) Overall and installation dimensions of HDS3-95:

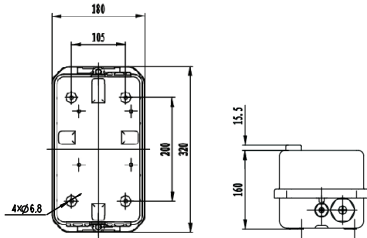


Fig.10

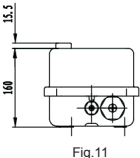


Fig.11

Installation and Removal Procedures

- Check the requirements for operating voltage, rated voltage and control voltage before installation;
- When connecting or removing wires, separate the connectors of flexible circuit conductor and remove the housing for easy wiring;
- Before installation, wiring holes in the housing shall be punched through for easy wiring, as shown in Fig.12;

- To improve protection class, waterproof plug may be installed at wiring holes; the size of waterproof plug shall be selected according to wire diameter.

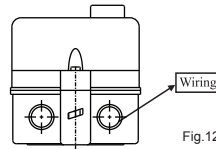


Fig.12

Debug and Operation

- (1) Check whether rated voltage (nameplate rating Us) and frequency of the starter are in conformity with power supply.
 - (2) Check whether setting current range of the starter is in conformity with rated working current of the motor, if it is not in conformity, replacement must be done.
 - (3) Flexible Check for Thermal Relay Operation: Open transparent cover of the Thermal Relay within the shell, vertically press red test button (TEST), and hear the sound of contact operation, and then release it and hear the sound of contact reset (universal meter can also be used). Otherwise, repair must be done.
 - (4) It is recommended to adopt single-core PVC insulated copper wire for connecting conductor, and the conductor section can refer to Table 1
- | Rated Working Current of Motor (A) | 0 < Ie ≤ 8 | 8 < Ie ≤ 12 | 12 < Ie ≤ 20 | 20 < Ie ≤ 25 | 25 < Ie ≤ 32 |
|---|------------|-------------|--------------|--------------|--------------|
| Connecting Conductor (mm ²) | 1.0 | 1.5 | 2.5 | 4.0 | 6.0 |
-
- | Rated Working Current of Motor (A) | 32 < Ie ≤ 50 | 50 < Ie ≤ 65 | 65 < Ie ≤ 85 | 85 < Ie ≤ 115 |
|---|--------------|--------------|--------------|---------------|
| Connecting Conductor (mm ²) | 10 | 16 | 25 | 35 |
- (5) Press through power supply of control circuit and subsequently start and stop the button so as to check the internal wiring of starter for correctness.
 - (6) When the starter leaves the plant, the circuit of the control power

has been connected to main loop, so additional wiring is not required (with wiring diagram in the cover).

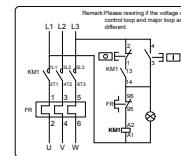
- (7) When controlling single-phase motor, any two main circuits in the starter can be used after changing them into series circuits.
- (8) When the voltage of control circuit is different from main circuits, dismantle the two pieces of conductor connected to main circuit, and install them to corresponding control circuit.
- (9) When the conductor leaves the plant, the setting current value of thermal relay has been set to the minimum value. Before use, the setting current value of overload relay should be adjusted to the scale same with rated working current of the motor.

(10) In the process of starting, if the relay operates, the setting of current value can be amplified until the starter begins to work normally.

Repair and Maintenance

- (1) Periodically implement the maintenance and timely remove the dust deposited in the starter;
- (2) Periodically fasten the screws between the contactor and thermal relay;
- (3) In the process of using, it is to periodically check whether the operation of thermal relay is reliable (it is better for one time every month), the method is that: reeling set current adjustment button and reduce the setting current until the operation of the relay stops, and then adjust the button to original position;
- (4) When the failures occur in the products, please contact customer service to deal with them or stop to use these products.

Wiring Diagram



HIMEL

www.himel-electric.com
Copyright © himel-electric Co., Ltd. Paper can be recycled
Jun-2019

HDS3 Magnetic Starter

User Manual



Applicable standards: IEC60988-1
● Read carefully this user manual before installation and usage of the product.
The user manual must be well kept for future use.

Safety Notice

Make sure to read this manual carefully before installation, operation, maintenance and inspection and correctly install and use this product according to the manual.

Danger:

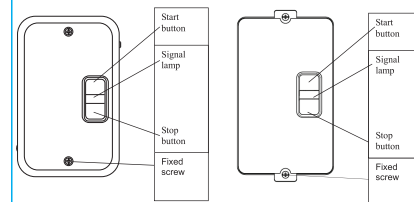
- Don't touch electric parts (conductor and terminals) in the process of using;
- Must cut off the power when maintaining or checking this product; make sure the inlet terminal without the electricity.

Attention:

- The installation, repair and maintenance shall be implemented by qualified persons;
- The starter must be operated and used as per the instruction, don't dismantle and change interior contactor and thermal relay without authorization;
- Please regularly open front cover to tighten thermal relay terminals;
- Please deal with the wastes well when the products are scrapped;
- Please note that the voltage of the main circuit and the control circuit are different, should be connected separately;
- Please remove the protective pearl cotton before wiring.

Know HDS3

● Panel Introduction



Statement:

- Start Button - green button used for the start of the motor;
- Stop button - red button used for suspending and stopping the operation of the motor;
- Signal lamp - Flashes when in circuit switched state; goes out when in circuit disconnected state;
- Fixed screw - fix the joint (covered) of upper and bottom cover and unscrew the cover when opening.

Conditions of Normal Use, Installation and Transportation

● Conditions of Normal Use and Installation

- (1) Altitude: ≤ 2000m;
- (2) Ambient temperature: -5°C - 40°C, The average temperature within 24h does not exceed +35°C;
- (3) Humidity: Maximum temperature is +40°C, air relative humidity of not more than 50%; it is allowed to have relative higher humidity under lower temperature, e.g. up to 90% for +20°C;
- (4) The inclination between the installation surface and vertical surface is not more than 5°;

- (5) It shall be installed in places where there is no obvious shock and vibration, or rain and snow;
- (6) Pollution class: III;
- (7) Protection class: IP54.

● Conditions of Normal Storage and Transportation

- (1) Temperature: -25°C + 55°C;
- (2) Relative humidity: ≤ 95%;
- (3) The product shall be transported gently without upside down and strong collision.

Overall and Installation Dimensions

- (1) Direction of Installation: take the words direction in label as the benchmark, vertically install it on vertical surface and the inclination is not more than 5°;
- (2) Overall and installation dimensions of HDS3-38(Plastic):

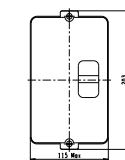


Fig.1

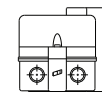


Fig.2

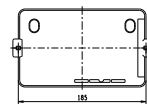


Fig.3

(3) Overall and installation dimensions of HDS3-18(Metallic):

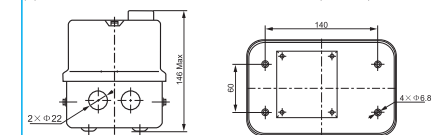


Fig.4

Fig.5

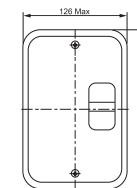


Fig.6

(4) Overall and installation dimensions of HDS3-38(Metallic):

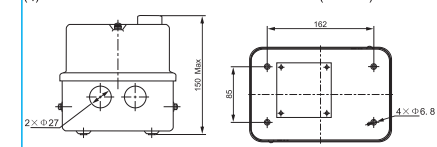


Fig.7

Fig.8