

## Hilitand LC1D95

# Hilitand LC1D95 AC Contactor User Manual

Model: LC1D95

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## 1. INTRODUCTION

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This manual provides essential information for the safe and effective use of the Hilitand LC1D95 AC Contactor. Please read these instructions thoroughly before installation, operation, or maintenance to ensure proper function and prevent potential hazards. This AC contactor is designed for industrial electrical applications, specifically for controlling circuits in power, distribution, and motor control systems.

## 2. PRODUCT OVERVIEW

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The Hilitand LC1D95 AC Contactor is an industrial electrical device used to switch an electrical power circuit. It operates by using a coil to generate a magnetic field, which closes contacts to control the load on an electrical device. It is characterized by high sensitivity, good load carrying capacity, stable connection, and strong electrical conductivity.

### Key Features:

- **Operating Parameters:** Suitable for AC 50Hz / 60Hz, AC voltage 380V, rated current 95A.
- **Application:** Designed for long-distance connection and segmentation circuits, and frequent starting of motors or other electrical loads.
- **Performance:** Offers stable connection and strong electrical conductivity for reliable operation.
- **Construction:** Features a 3-pole design for robust power control.

### Product Views:



Figure 2.1: Front-right view of the LC1D95 AC Contactor, showing main terminals and model number.



Figure 2.2: Side view of the LC1D95 AC Contactor, displaying the product specification label.

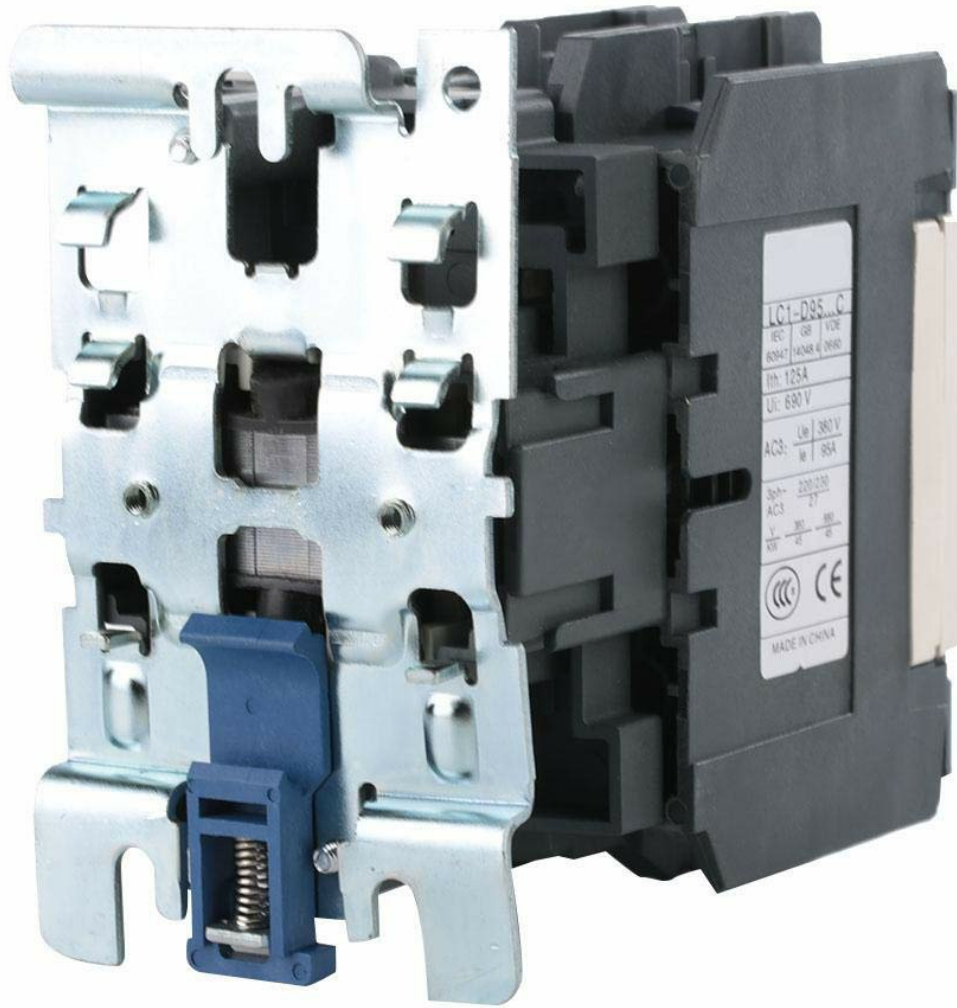


Figure 2.3: Rear view of the LC1D95 AC Contactor, showing the mounting bracket and coil connections.



Figure 2.4: The LC1D95 AC Contactor integrated into an industrial control panel environment.

### 3. SPECIFICATIONS

The following table details the technical specifications for the Hilitand LC1D95 AC Contactor:

Parameter	Value
Model	LC1D95
Rated AC Voltage	380V
Rated Current (Ie)	95A
Number of Poles	3
Frequency	50Hz / 60Hz
Insulation Voltage (Ui)	690V
Thermal Current (Ith)	125A
Product Dimensions	4.92 x 5 x 3.35 inches

Parameter	Value
Product Weight	3.26 Pounds
Manufacturer	Hilitand

## 4. SETUP AND INSTALLATION

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**WARNING: Installation should only be performed by qualified personnel. Ensure all power is disconnected before beginning installation to prevent electric shock or equipment damage.**

### 4.1 Safety Precautions

- Always disconnect power at the main circuit breaker before working on electrical systems.
- Use appropriate personal protective equipment (PPE), including insulated gloves and safety glasses.
- Verify voltage and current ratings match your application requirements.
- Ensure proper grounding according to local electrical codes.

### 4.2 Mounting

1. Select a suitable mounting location within an electrical enclosure, ensuring adequate ventilation and clearance.
2. The LC1D95 contactor can be mounted using screws through the designated mounting holes or by snapping onto a DIN rail (if applicable to the specific model variant).
3. Securely fasten the contactor to prevent movement or vibration during operation.

### 4.3 Wiring

1. Identify the main power terminals (L1, L2, L3) for incoming power and load terminals (T1, T2, T3) for outgoing power.
2. Connect the main power supply to the L1, L2, L3 terminals.
3. Connect the load (e.g., motor) to the T1, T2, T3 terminals.
4. Connect the control circuit wiring to the coil terminals (typically A1 and A2). Ensure the control voltage matches the coil voltage rating of the contactor.
5. If auxiliary contacts are used, connect them according to your control circuit diagram.
6. Ensure all connections are tight and secure to prevent loose contacts, which can cause overheating or arcing.

## 5. OPERATING INSTRUCTIONS

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The Hilitand LC1D95 AC Contactor operates by energizing its coil, which creates a magnetic field that pulls the armature, closing the main power contacts. When the coil is de-energized, the contacts open, disconnecting the power to the load.

### 5.1 Basic Operation

1. Once properly installed and wired, apply the specified control voltage to the contactor's coil terminals (A1/A2).
2. The contactor will energize, and its main contacts will close, allowing power to flow from the L terminals

to the T terminals, thereby powering the connected load.

3. To de-energize the contactor and disconnect power to the load, remove the control voltage from the coil terminals. The main contacts will open.

## 5.2 Typical Applications

- **Motor Control:** Starting and stopping electric motors.
- **Lighting Control:** Switching large banks of lights.
- **Heating Systems:** Controlling heating elements in industrial processes.
- **Power Distribution:** Remotely switching power to various sections of an electrical system.

## 6. MAINTENANCE

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**CAUTION: Always disconnect all power to the contactor and associated circuits before performing any maintenance.**

### 6.1 Routine Inspection

- Periodically inspect the contactor for signs of wear, damage, or overheating (discoloration, melting).
- Check all terminal connections for tightness. Loose connections can lead to arcing and premature failure.
- Ensure the contactor's moving parts operate smoothly and are free from obstructions.
- Clean any dust or debris from the contactor and its enclosure using a dry, non-conductive brush or compressed air.

### 6.2 Contact Replacement

The main contacts are subject to wear over time, especially in applications with frequent switching. If excessive pitting or erosion of the contacts is observed, the contactor should be replaced by a qualified technician.

## 7. TROUBLESHOOTING

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This section provides guidance for common issues encountered with AC contactors. For complex problems, consult a qualified electrician.

Problem	Possible Cause	Solution
Contactor does not energize when control voltage is applied.	No control voltage; incorrect control voltage; faulty coil; loose wiring.	Check control circuit power supply; verify coil voltage matches supply; test coil resistance; inspect control wiring connections.
Contactor hums loudly or chatters.	Low control voltage; mechanical obstruction; damaged shading coil; foreign material on pole faces.	Verify control voltage; inspect for obstructions; clean pole faces; replace contactor if shading coil is damaged.
Contactor energizes but load does not receive power.	Open circuit in load wiring; faulty main contacts; tripped overload relay.	Check load wiring continuity; inspect main contacts for severe wear; reset or check overload relay.

Problem	Possible Cause	Solution
Contactors overheat.	Overcurrent condition; loose connections; inadequate ventilation; frequent switching.	Check load current against contactor rating; tighten all connections; ensure proper airflow; consider a higher-rated contactor or reducing switching frequency.

## 8. WARRANTY AND SUPPORT

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Hilitand is committed to providing quality products and excellent after-sales service. While specific warranty details are not provided in this manual, customers are encouraged to contact Hilitand customer support for any product-related inquiries, technical assistance, or warranty claims.

### Contact Information:

For support, please refer to the contact information provided with your purchase or visit the official Hilitand store on Amazon:

[Visit the Hilitand Store on Amazon](#)

When contacting support, please have your product model (LC1D95) and purchase details readily available.