

MUSM NLQ3-125

MUSM NLQ3-125 100A Dual Power Automatic Transfer Switch Instruction Manual

1. INTRODUCTION

This manual provides essential information for the safe installation, operation, and maintenance of the MUSM NLQ3-125 100A Dual Power Automatic Transfer Switch. Please read this manual thoroughly before installation or use to ensure proper function and safety.

2. SAFETY INFORMATION

WARNING: Electrical shock hazard. Installation and maintenance of this device should only be performed by qualified and licensed electrical personnel.

- Always ensure that all power sources are disconnected and locked out before performing any installation, wiring, or maintenance on the transfer switch.
- Follow all local and national electrical codes, regulations, and safety standards during installation and operation.
- Do not operate the switch if it appears damaged or if any components are missing.
- Ensure proper grounding to prevent electrical hazards.

3. PRODUCT OVERVIEW

The MUSM NLQ3-125 is a 2-pole automatic transfer switch designed to provide a reliable and seamless transition between two independent power sources, such as a primary utility grid and a backup generator. It supports both manual and automatic operation modes to suit various application requirements.



Figure 3.1: Front view of the MUSM NLQ3-125 Automatic Transfer Switch. This image shows the main components including the input terminals, output terminals, and the red selector switch for manual/auto operation.

Key Features:

- **Operation Modes:** Supports both manual (via handle/rocker) and electric (motor-driven) operation. Manual mode is suitable for low voltage and current applications, while electric mode is ideal for high voltage, high current, or remote control scenarios.
- **Simple and Durable Design:** Features a straightforward structure with minimal wearing parts, contributing to ease of maintenance and long-term reliability.
- **Optimized Contact System:** Designed with increased contact spacing and utilizes copper alloy silver plating on contacts to effectively reduce arcing during switching operations.
- **Flexible Wiring Options:** Accommodates various wiring configurations including upper entry/lower exit, left entry/right exit, and side wiring. Low-voltage models typically use screw crimp terminals, while high-voltage models connect with copper bar bolts.
- **Integrated Protection (Specific Models):** Certain knife fuse isolation switch types combine isolation and

overcurrent protection functions with built-in fuses, making them suitable for small distribution circuits.

4. SETUP AND INSTALLATION

Proper installation is crucial for the safe and efficient operation of the transfer switch.

4.1 Mounting

The NLQ3-125 is designed for easy installation on a standard 35mm DIN rail. Ensure the mounting surface is stable and capable of supporting the device's weight.

4.2 Wiring

Refer to the wiring diagram below for correct electrical connections. All wiring must comply with local electrical codes and be performed by a qualified electrician.

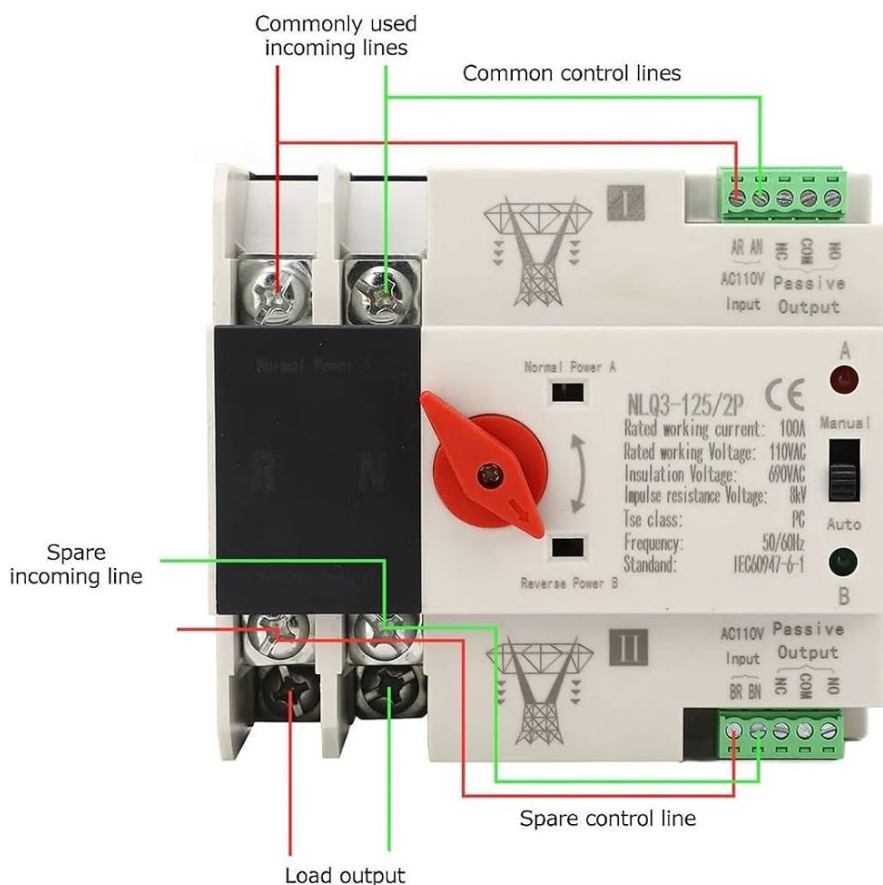


Figure 4.1: Wiring Diagram for the MUSM NLQ3-125 Automatic Transfer Switch. This diagram illustrates the connections for normal power

(A), reverse power (B), load output, and control lines.

- **Normal Power A:** Connect your primary power source (e.g., utility grid) to the terminals labeled 'Normal Power A'.
- **Reverse Power B:** Connect your secondary power source (e.g., generator) to the terminals labeled 'Reverse Power B'.
- **Load Output:** Connect the load (circuits to be powered) to the 'Load Output' terminals.
- **Control Lines:** Connect the common and spare control lines as indicated in the diagram for automatic operation and status signaling.
- Ensure all connections are tight, secure, and properly insulated. Double-check all wiring before restoring power.

5. OPERATING INSTRUCTIONS

The NLQ3-125 transfer switch offers both manual and automatic modes of operation.

5.1 Mode Selection

Use the red selector switch located on the front panel of the device to choose the desired operating mode:

- **Manual Mode:** When the selector is set to 'Manual', the power source must be selected manually using the red handle. This mode is typically used for testing or specific operational requirements.
- **Auto Mode:** When the selector is set to 'Auto', the switch will automatically detect the availability of the primary power source (Normal Power A) and transfer the load to the secondary source (Reverse Power B) if the primary fails. It will automatically switch back to the primary source once it is restored.

5.2 Manual Operation

To manually switch between power sources:

1. Ensure the mode selector switch is in the 'Manual' position.
2. Rotate the red handle to select the desired power source (Position A for Normal Power, Position B for Reverse Power).
3. Observe the indicator lights (if present) to confirm the active power source.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable performance of your transfer switch.

6.1 Routine Checks

- **Contact Inspection:** Periodically inspect the contacts for signs of oxidation or excessive wear. Clean contacts as necessary using appropriate electrical contact cleaner.
- **Insulation Cleaning:** Inspect and clean insulating parts to prevent dust accumulation, which can lead to tracking and flashover.
- **Connection Integrity:** Verify that all wiring connections remain tight and secure. Loose connections can cause overheating and intermittent operation.
- **Environmental Check:** Ensure the operating environment is within specified temperature and humidity ranges and free from excessive dust or corrosive agents.

CAUTION: Always disconnect all power to the transfer switch before performing any maintenance or cleaning

procedures.

7. TROUBLESHOOTING

If you encounter issues with your NLQ3-125 transfer switch, refer to the following common troubleshooting steps:

- **No Power Transfer:**
 - Check if both primary (A) and secondary (B) power sources are available and stable.
 - Verify that the control wiring connections are correct and secure.
 - Ensure the mode selector switch is in the 'Auto' position for automatic transfer.
- **Intermittent Operation:**
 - Inspect for any loose electrical connections or damaged wiring.
 - Confirm that the operating mode is correctly selected and stable.
- **Overheating:**
 - Ensure adequate ventilation around the unit.
 - Verify that the current draw on the load does not exceed the rated capacity of the switch.

If these steps do not resolve the issue, contact qualified service personnel or the manufacturer for further assistance.

8. SPECIFICATIONS

Technical specifications for the MUSM NLQ3-125 100A Dual Power Automatic Transfer Switch:

Parameter	Value
Brand	MUSM
Model	NLQ3-125
Operation Mode	OFF-NONE-ON
Current Rating	100 Amps
Operating Voltage	110V AC
Contact Type	Normally Closed
Connector Type	Clamp
Switch Type	Bipolar Transistor
Terminal	Blade
Item dimensions L x W x H	0.39 x 0.39 x 0.39 inches
Circuit Type	1-way
Mounting Type	DIN Rail Mount

Parameter	Value
Number of Positions	1
Lower Temperature Rating	1 Degrees Celsius
Upper Temperature Rating	1 Degrees Celsius
Color	One Color
Unit Count	1.0 Count
Number of Items	1
Contact Material	Alloy Steel
International Protection Rating	IP00
Specification Met	UL
Item Weight	300 Grams

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries regarding your MUSM NLQ3-125 Automatic Transfer Switch, please contact your original retailer or the manufacturer directly. Please retain your purchase receipt as proof of purchase for any warranty claims.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question