

MUSM TOQ3-2P/63

MUSM TOQ3-2P/63 Dual Power Automatic Transfer Switch Instruction Manual

Model: TOQ3-2P/63

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1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the MUSM TOQ3-2P/63 Dual Power Automatic Transfer Switch (ATS). This device is designed to automatically switch between two power sources, ensuring continuous power supply to critical loads. Please read this manual thoroughly before installation and operation to ensure safe and efficient use.

2. SAFETY INFORMATION

WARNING: Electrical shock hazard. Installation and servicing must be performed by qualified personnel only. Failure to follow these instructions may result in serious injury or death.

- Always disconnect all power sources before working on the ATS.
- Ensure proper grounding of the device.
- Verify all wiring connections are secure and correct according to the wiring diagram.
- Do not operate the ATS if it appears damaged.
- Adhere to all local and national electrical codes.
- Wear appropriate personal protective equipment (PPE) when working with electrical systems.

3. PRODUCT OVERVIEW

The MUSM TOQ3-2P/63 is a 2-pole, 63A, 230V automatic transfer switch designed for reliable power source switching. It features both automatic and manual operation modes, providing flexibility in power management.



Figure 3.1: Front view of the MUSM TOQ3-2P/63 Automatic Transfer Switch. This image shows the main body of the switch, including the input/output terminals labeled 'N' and 'R', the 'Auto' and 'Manual' mode indicators, and the central rotary selector switch for manual operation.

Key Components:

- **Power Source 1 (Normal Power) Terminals:** Labeled 'N' or 'Un'.
- **Power Source 2 (Reserve Power) Terminals:** Labeled 'R' or 'Ron'.
- **Load Terminals:** Output connections for the electrical load.
- **Mode Selector Switch:** Allows selection between 'Auto' and 'Manual' operation.
- **Manual Operation Handle:** For manually switching between power sources.
- **Indicator Lights:** Show the active power source (e.g., 'Un' for Normal, 'Ron' for Reserve) and the operating mode.
- **Control Terminal Block:** For external control wiring (e.g., remote monitoring, generator start signals).



Figure 3.2: Back view of the MUSM TOQ3-2P/63 Automatic Transfer Switch. This image highlights the green control terminal block at the top, which is used for connecting external control signals.

4. SPECIFICATIONS

Feature	Value
Model Number	TOQ3-2P/63
Rated Current (Ie)	63 A
Rated Voltage (Ue)	AC 230V
Insulation Voltage (Ui)	AC 400V
Rated Impulse Withstand Voltage (Uimp)	4kV

Feature	Value
Standard	IEC/EN60947-6-1
Utilization Category	AC-33B
ATSE Class	CB
Frequency	50/60Hz
Rated Short-Circuit Breaking Capacity (Icm)	7.65kA
Rated Short-Circuit Making Capacity (Icn)	5kA
Number of Poles	2
Mounting Type	Bolt-On Mount
Package Dimensions	0.39 x 0.39 x 0.39 inches
Item Weight	1.76 ounces

5. SETUP & INSTALLATION

Proper installation is crucial for the safe and reliable operation of the ATS. This device should be installed in a dry, well-ventilated area, free from corrosive gases and excessive dust.

5.1 Mounting

1. Select a suitable mounting location within an electrical enclosure, ensuring adequate clearance for wiring and ventilation.
2. Secure the ATS to a stable surface using appropriate fasteners through the mounting holes on the base plate. The mounting type is Bolt-On Mount.



Figure 5.1: Angled view of the MUSM TOQ3-2P/63 Automatic Transfer Switch. This image provides a perspective that shows the mounting holes on the black base plate, essential for securing the unit during installation.

5.2 Wiring Connections

Refer to the wiring diagram provided with your unit for precise connections. The following is a general guide:

- **Input 1 (Normal Power):** Connect the main power source (e.g., utility grid) to the terminals labeled 'N' or 'Un'.
- **Input 2 (Reserve Power):** Connect the secondary power source (e.g., generator, inverter) to the terminals labeled 'R' or 'Ron'.
- **Output (Load):** Connect the electrical load to the output terminals of the ATS.
- **Control Wiring:** If external control or monitoring is required, connect appropriate wires to the control terminal block (refer to Figure 3.2).
- Ensure all connections are tight and that wire gauges are appropriate for the 63A current rating.

Note: Incorrect wiring can damage the unit and pose a safety risk. If you are unsure, consult a qualified electrician.

6. OPERATION

The TOQ3-2P/63 ATS supports both automatic and manual operation modes.

6.1 Automatic Mode

1. Ensure both power sources (Normal and Reserve) are connected and operational.
2. Set the mode selector switch to the 'Auto' position. The 'Auto' indicator light should illuminate.
3. The ATS will automatically monitor the Normal Power source.
4. If Normal Power fails, the ATS will automatically switch the load to the Reserve Power source. The 'Ron' indicator will illuminate.
5. When Normal Power is restored, the ATS will automatically switch the load back to the Normal Power source after a preset delay. The 'Un' indicator will illuminate.

6.2 Manual Mode

Manual operation allows you to switch between power sources manually, overriding the automatic function. This is typically used for testing or maintenance.

1. Set the mode selector switch to the 'Manual' position. The 'Manual' indicator light should illuminate.
2. Use the manual operation handle (rotary switch) to select the desired power source.
 - Rotate the handle towards 'N' to connect to Normal Power.
 - Rotate the handle towards 'R' to connect to Reserve Power.
3. Ensure the handle is fully engaged in the desired position.



Figure 6.1: Close-up view of the MUSM TOQ3-2P/63 selector switch and indicator lights. This image clearly shows the 'Auto' and 'Manual' positions for the mode selector, as well as the 'Un' (Normal) and 'Ron' (Reserve) indicator lights, and the manual rotary switch.

Important: Always ensure the ATS is in the correct mode ('Auto' or 'Manual') for your operational needs. Do not force the manual handle if it feels obstructed.

7. MAINTENANCE

The MUSM TOQ3-2P/63 ATS is designed for minimal maintenance. However, periodic checks are recommended to ensure optimal performance and longevity.

- **Visual Inspection (Quarterly):**

- Check for any signs of physical damage, discoloration, or overheating.
- Ensure all wiring connections are tight and free from corrosion.
- Verify that indicator lights are functioning correctly.

- **Cleaning (Annually):**

- With power disconnected, gently clean the exterior of the unit with a dry, soft cloth.
- Remove any dust or debris from ventilation openings.

• **Functional Test (Annually):**

- Test the automatic transfer function by simulating a failure of the Normal Power source (e.g., by temporarily disconnecting it). Observe if the ATS switches to Reserve Power and back when Normal Power is restored.
- Test the manual operation by switching between sources using the manual handle.

Caution: Always disconnect power before performing any maintenance that requires touching internal components.

8. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your ATS.

Problem	Possible Cause	Solution
ATS does not switch automatically.	• Mode selector not in 'Auto' position. • No power from either source. • Control wiring issue.	• Set selector to 'Auto'. • Check power supply to both inputs. • Inspect control wiring for loose connections or damage.
Load has no power.	• Both power sources are off. • ATS is stuck between positions. • Output wiring issue.	• Verify both power sources are active. • Manually switch the ATS to a source. • Check load wiring for continuity and secure connections.
Indicator lights are off.	• No power to the ATS. • Faulty indicator light.	• Check input power. • If power is present, the light may need replacement (contact support).
Manual switch is stiff or won't move.	• Mechanical obstruction. • Internal damage.	• Do not force. Disconnect power and inspect for obstructions. • Contact support if damage is suspected.

If the problem persists after attempting these solutions, please contact customer support.

9. WARRANTY & SUPPORT

For warranty information and customer support, please refer to the documentation included with your purchase or visit the official MUSM website. Keep your purchase receipt as proof of purchase.

Manufacturer: MUSM

Date First Available: September 13, 2025

For technical assistance or service inquiries, please contact MUSM customer service.

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