Mersen ATM30

Mersen ATM30 Midget Fuse Instruction Manual

1. Introduction

This instruction manual provides essential information for the safe and effective use of the Mersen ATM30 Midget Fuse. The Mersen ATM30 is a fast-acting, current-limiting fuse designed to protect electrical circuits from overcurrent conditions. It is rated for 600 Vac/500 Vdc and 30 Ampere applications, featuring a 100 Kiloampere interrupting rating.

Please read this manual thoroughly before installation or operation to ensure proper application and safety.

2. Product Features

- **Fast Acting Characteristics:** Designed to open quickly under overcurrent conditions, minimizing damage to protected equipment.
- **Voltage Rating:** Suitable for circuits up to 600 Vac and 500 Vdc.
- **Current Rating:** 30 Ampere.
- **Interrupting Rating:** 100 Kiloampere, indicating its ability to safely interrupt high fault currents.
- **Terminal Type:** Ferrule Terminal for secure connection.
- **Approvals:** UL 198L, UL 248-14, CSA C22.2 compliant.

3. Safety Information

WARNING: Electrical shock hazard. Improper installation or use of this product can result in serious injury or death. Always follow local electrical codes and safety regulations.

- Ensure power is disconnected at the main circuit breaker or switch before installing, inspecting, or replacing fuses.
- Only qualified personnel should perform electrical work.
- Always use fuses with the correct voltage and ampere ratings for the circuit being protected.
- Never bypass or substitute a fuse with a different rating or material.
- Wear appropriate personal protective equipment (PPE), such as insulated gloves and safety glasses,

when working with electrical systems.

4. Specifications

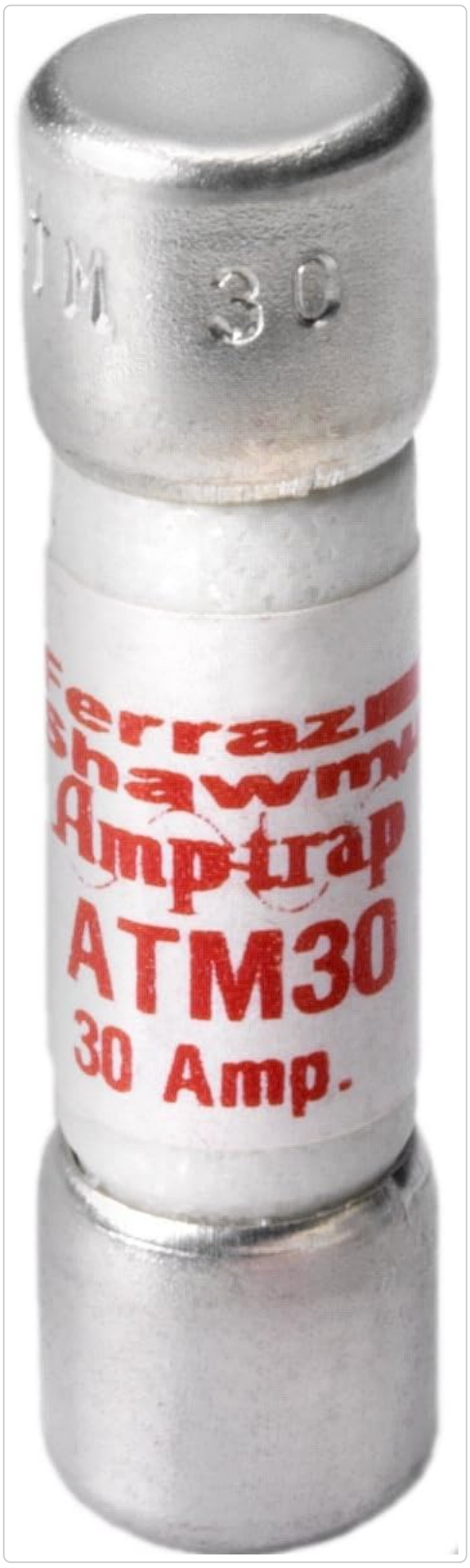

Figure 1: Mersen ATM30 30 Amp Midget Fuse. This image displays a single Mersen ATM30 fuse, highlighting its cylindrical body, metallic end caps, and the "Ferraz Shawmut Amp-trap ATM30 30 Amp." labeling in red text on a white ceramic body.

Specification	Value

Specification	Value
Brand	Mersen
Model Number	ATM30
Current Rating	30 Amps
Voltage Rating	600 Volts AC / 500 Volts DC
Interrupting Rating	100 Kiloampere
Characteristics	Fast Acting
Terminal Type	Ferrule
Material	Copper
Diameter	13/32 Inch
Length	1-1/2 Inch
Approvals	UL 198L, UL 248-14, CSA C22.2
Item Weight	0.32 ounces (per fuse)
Package Dimensions	2.1 x 1.7 x 0.9 inches (for 10-pack)

5. Installation and Setup

The Mersen ATM30 fuse is designed for use in appropriate fuse holders or blocks. Follow these general steps for installation:

1. **De-energize Circuit:** Before beginning any work, ensure the electrical circuit is completely de-energized by turning off the main power supply at the breaker panel. Verify with a voltage tester.
2. **Identify Fuse Holder:** Locate the fuse holder or block where the ATM30 fuse is to be installed or replaced.
3. **Remove Old Fuse (if applicable):** If replacing a blown fuse, carefully remove the old fuse using a fuse puller or insulated pliers.
4. **Inspect Fuse Holder:** Check the fuse holder for any signs of damage, corrosion, or loose connections. Ensure it is clean and in good working order.
5. **Insert New Fuse:** Insert the Mersen ATM30 fuse firmly into the fuse holder, ensuring good contact with both terminals. Do not force the fuse.
6. **Re-energize Circuit:** Once the fuse is securely in place and all connections are verified, restore power to the circuit.

Always ensure the fuse rating matches the circuit requirements to prevent damage to equipment or fire hazards.

6. Operation

The Mersen ATM30 fuse operates automatically to protect electrical circuits. Under normal operating conditions, the fuse allows current to flow through the circuit without interruption. If an overcurrent condition occurs (e.g., a short circuit or overload), the fuse's internal element will melt, opening the circuit and

preventing damage to downstream components or wiring.

This is a single-use protective device. Once the fuse has opened due to an overcurrent, it must be replaced.

7. Maintenance

Fuses generally require minimal maintenance. Regular inspection is recommended to ensure proper circuit protection.

- **Visual Inspection:** Periodically inspect fuses and fuse holders for signs of overheating, discoloration, or physical damage.
- **Replacement:** If a fuse has blown (indicated by a break in the internal element or a visual indicator on some fuse types), it must be replaced with an identical Mersen ATM30 fuse.
- **Cleaning:** Ensure fuse holders are free from dust, dirt, and debris to maintain good electrical contact.

Always de-energize the circuit before performing any inspection or maintenance.

8. Troubleshooting

If a circuit protected by a Mersen ATM30 fuse loses power, the fuse may have blown. Follow these steps to troubleshoot:

1. **De-energize Circuit:** Turn off power to the affected circuit at the main breaker or switch.
2. **Locate Fuse:** Identify the ATM30 fuse protecting the circuit.
3. **Inspect Fuse:** Carefully remove the fuse and visually inspect it. A blown fuse will typically show a broken internal element. If a multimeter is available, check for continuity across the fuse terminals. A good fuse will show continuity (low resistance), while a blown fuse will show an open circuit (infinite resistance).
4. **Identify Cause:** Before replacing a blown fuse, investigate the cause of the overcurrent. Common causes include:
    - Overloaded circuit (too many devices connected).
    - Short circuit in wiring or an appliance.
    - Faulty equipment.

    Address the underlying issue before replacing the fuse to prevent immediate re-blowing.
5. **Replace Fuse:** Replace the blown fuse with a new Mersen ATM30 fuse of the identical rating. Never use a fuse with a higher rating, as this can lead to severe damage or fire.
6. **Restore Power:** Once the cause is resolved and the new fuse is installed, restore power to the circuit.

If fuses continue to blow after replacement and troubleshooting, consult a qualified electrician.

9. Warranty and Support

For specific warranty information regarding Mersen products, please refer to the official Mersen website or contact Mersen customer support directly. Fuses are consumable protective devices and are typically not covered under warranty once installed and subjected to an overcurrent event.

For technical support or further inquiries, please visit theMersen official website or contact their authorized distributors.