

## ATO ATO-GS-132-02

# ATO 180 hp (132 kW) 3-Phase 220V Motor Soft Starter with RS485 Communication Instruction Manual

Model: ATO-GS-132-02

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient operation of your ATO 180 hp (132 kW) 3-Phase 220V Motor Soft Starter. This device is designed to provide soft start and soft stop functionality for three-phase AC motors, reducing mechanical stress and electrical surges during motor operation. It also includes various protective functions to ensure motor longevity and system stability.

## 2. SAFETY INFORMATION

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**WARNING:** Electrical shock hazard. Installation and maintenance should only be performed by qualified personnel. Disconnect all power before servicing. Failure to follow these instructions may result in serious injury or death.

- Ensure the power supply voltage matches the soft starter's rated voltage.
- Proper grounding is essential to prevent electrical shock.
- Do not operate the soft starter with damaged wiring or components.
- Always use appropriate personal protective equipment (PPE) when working with electrical systems.
- A bypass contactor is required for proper operation and protection.

## 3. PRODUCT OVERVIEW

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The ATO Motor Soft Starter is a robust device designed for industrial applications. It features an intuitive control panel and clearly labeled terminals for easy installation.



Figure 3.1: Front view of the ATO 180 hp Motor Soft Starter.

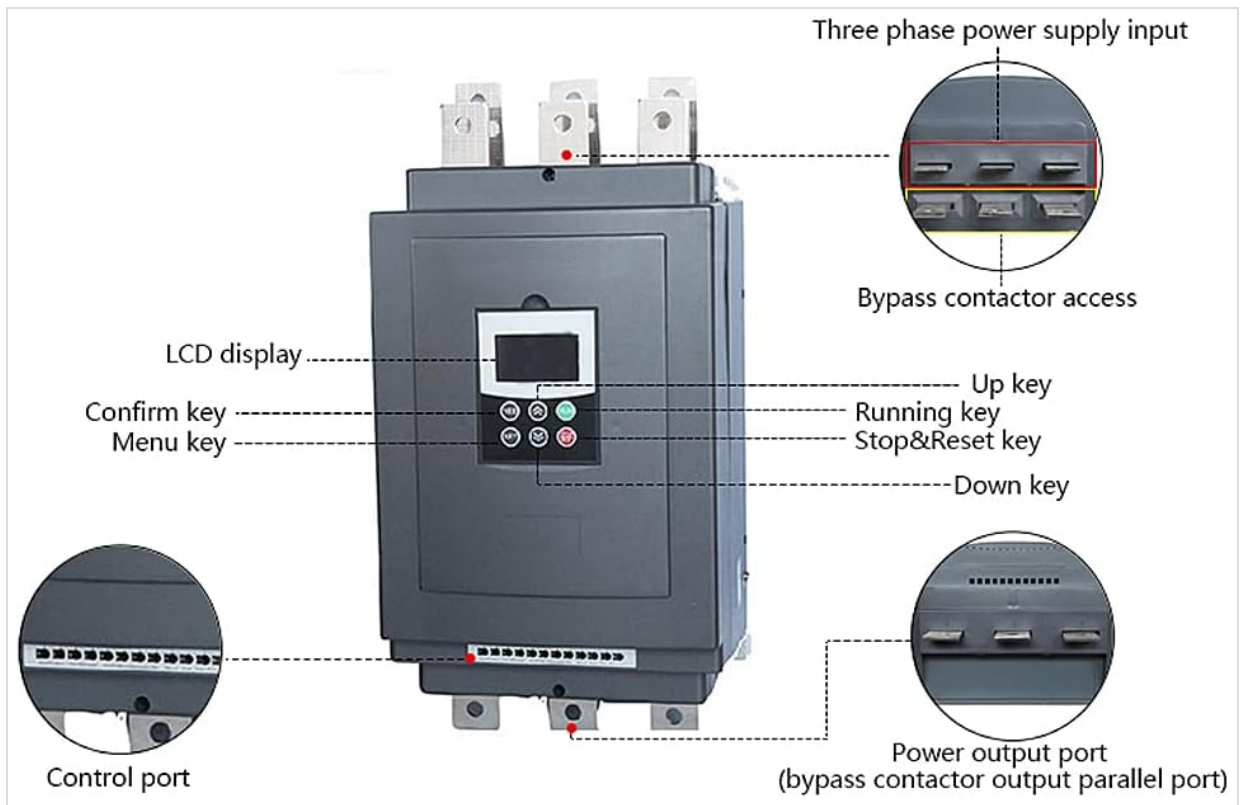


Figure 3.2: Detailed view of the control panel and terminal connections on the ATO Motor Soft Starter.

## 4. SPECIFICATIONS

Feature	Specification
Brand	ATO
Model Number	ATO-GS-132-02
Power Capacity	180 hp (132 kW)
Input Voltage	Three-phase 220V AC (also compatible with 208V/230V/240V systems)
Amperage	560 Amps at 220V
Communication	RS485 Communication (DB9 interface)
Phase Type	3 phase, three phase
Included Components	1*Motor Soft Starter, 1*User Manual

## 5. SETUP AND WIRING

Proper wiring is crucial for the safe and correct operation of the soft starter. Always ensure power is disconnected before making any connections.

**Friendly Reminder:** The ATO soft starter requires a bypass contactor for optimal performance and protection. Ensure the rated current of the bypass contactor slightly exceeds that of the soft starter.

### 5.1 Basic Wiring Diagram and Connection

The following video demonstrates the wiring process for connecting the soft starter with a bypass contactor and a motor. It covers the input power supply, soft start input/output, and bypass contactor connections.

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Video 5.1: Demonstration of connecting the ATO soft starter with a bypass contactor to a motor.

## 5.2 On-Delay Soft Start Setup with AC Contactor

This video illustrates a complete setup for an on-delay soft start of a motor using the soft starter and an AC contactor, including programmable relay output configuration.

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Video 5.2: Full setup and test run for on-delay soft start with a soft starter and AC contactor.

## 6. OPERATING INSTRUCTIONS

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The soft starter's operation involves setting parameters via the control panel and initiating start/stop sequences. The following videos provide guidance on parameter settings and current range adjustments.

### 6.1 Parameter Setting and Fault Output

Learn how to navigate the soft starter's menu to set various parameters and understand the fault output signals.

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Video 6.1: Guide to setting parameters and understanding fault outputs on the ATO soft starter.

### 6.2 Adjusting Rated Current

This video demonstrates the procedure for changing the rated current of the ATO motor soft starter to match your motor's requirements.

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Video 6.2: Instructions on how to change the rated current of the ATO motor soft starter.

## 7. MAINTENANCE

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Regular maintenance helps ensure the longevity and reliable operation of your soft starter. Always disconnect power before performing any maintenance.

- Keep the soft starter clean and free from dust and debris.
- Ensure proper ventilation to prevent overheating.
- Periodically check all electrical connections for tightness.
- Inspect wiring for any signs of wear or damage.

## 8. TROUBLESHOOTING

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The soft starter is equipped with protective functions that display error codes on the LCD panel in case of abnormal conditions. Refer to the parameter setting and fault output video (Video 6.1) for detailed information on fault codes and their meanings.

- **Input Open Phase Protection:** The soft starter will detect if an input phase is missing.
- **Output Open Phase Protection:** Detects if an output phase to the motor is disconnected.
- **Running Overload Protection:** Protects the motor from excessive current draw during operation.
- **Unbalanced Three-Phase Protection:** Monitors for imbalances in the three-phase supply.

If a fault occurs, the fault output port (terminals 5 and 6) will close, and a fault code will be displayed on the LCD. After resolving the issue, press the reset button to clear the fault and resume normal operation.

## 9. SUPPORT

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For any questions or issues with your ATO Motor Soft Starter, please contact ATO customer support. We are committed to providing quality products and reliable assistance.

Due to the wide selection of soft starter specifications, production time for some models may vary. We strive to ship

products as soon as production is complete. If you have urgent needs, please communicate with us regarding specific handling times.