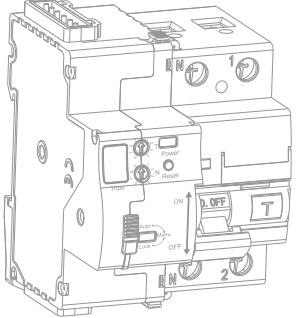


1. MT51AS/MT51AI Series Automatic Reclosing Device



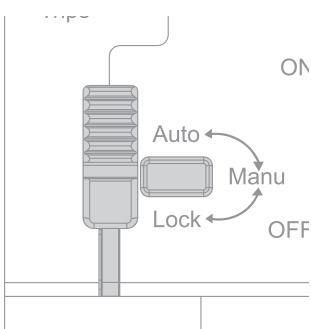
The MT51AS/MT51AI series is an automatic reclosing device that supports RS485 (Modbus RTU) / IO (dry contact) control, suitable for low-voltage terminal distribution circuits of 63A and below.

- Custom Reclose Time
- Custom Reclose Counts
- Automatic reclosing
- RS485 (MT51AS)
- Status output
- IO control (MT51AI)

It can be used with circuit breakers such as MCB, RCCB, and RCBO, and is suitable for power distribution automation systems, energy management systems, and remote operation and maintenance scenarios.

	MCB		RCD		RCBO				
	1P/2P	3P/4P	2P	4P	1P	2P	3P	3P+N	4P
MT51AI-1	✓		✓	✓	✓	✓			
MT51AI-2		✓					✓	✓	✓
MT51AS-1	✓		✓	✓	✓	✓			
MT51AS-2		✓				✓	✓	✓	✓

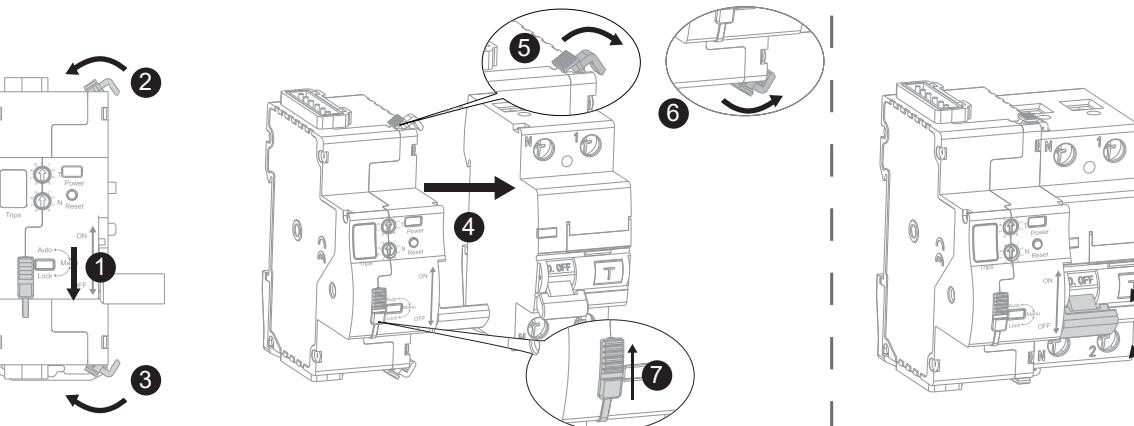
3. Auto / Manu / Lock Switch Instructions



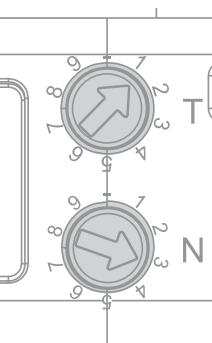
Auto / Manu / Lock Switch Instructions

Position	Function
Auto	Automatic reclosing enabled; supports RS485/remote control; suitable for normal operation.
Manu	Prohibits auto-reclosing and remote control; allows manual operation of the circuit breaker.
Lock	Prohibits all automatic and remote operations; supports mechanical padlocking for safety during maintenance.

2. Product Installation



4. Knob Functions & Settings(T&N)



Knob 1 (T): Reclosing delay setting Knob 2 (N): Reclosing attempts setting.

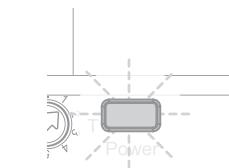
The automatic reclosing delay time and number of attempts after tripping can be customized by turning the knobs.

N/Attempts	T/Delay
-	0
1	10s
2	20s
3	30s
4	45s
5	60s
6	90s
7	120s
8	150s
9	180s

5. Indicators & Reset

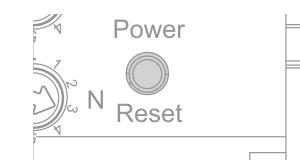
LED Indicators

Color	Status	Description
Green	Solid	Closing in Auto mode or auto-reclosing mode
Red	Solid	In manual or lock mode
Red	Flashing	Executing the auto-reclosing program



Reset Instructions

1. Long press the RESET button for $\geq 3s$: Clear the logic self-locking state caused by auto-reclosing failure.
2. Switch the mode selector from Auto to Manu, then back to Auto: Complete mode reset to put the device back into automatic ready state.
3. Manually close the circuit breaker: Manually operate the breaker to close, and the equipment will resume normal operation.



DANGER: Risk of electric shock.

There is a potential risk of electric shock.

- This equipment must be installed by a qualified professional electrician.
- Power must be cut off before installation, wiring or maintenance.
- Live operation is prohibited.

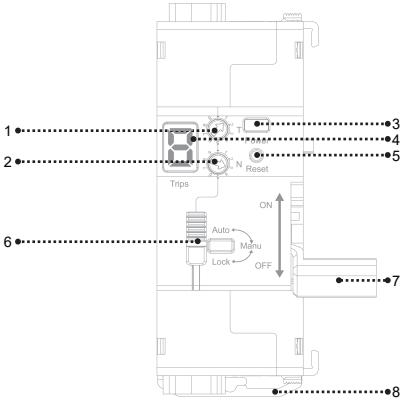
Failure to follow the above instructions may result in personal injury, death, or equipment damage.

WARNING

- Please follow this manual strictly for wiring and usage.
- Do not disassemble, modify, or repair the equipment without authorization.

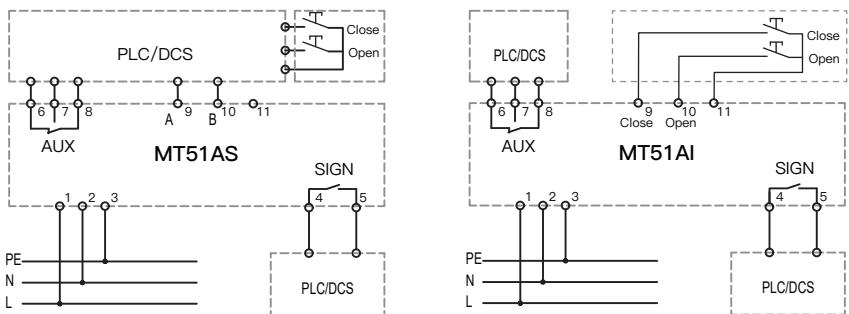
*Matis Electric assumes no responsibility for any consequences arising from failure to follow the instructions in this installation manual.

6. Product Structure & Component Description



- 1: Reclosing Time Delay Setting Knob
- 2: Reclosing Number Setting Knob
- 3: Status indicator LED
- 4: Reclosing Number Display Window
- 5: RESET button
- 6: Manual / Auto / Lock Switch
(Supports mechanical padlock)
- 7: Open/Close Operating Handle
- 8: DIN Rail Mounting Clip

9. Wiring Instructions



7. Main Functions

Automatic Reclosing

- Attempts to reclose according to the set program after a non-command trip occurs.
- Supports configurable reclosing time and number of attempts.

Adjustable Reclosing Settings

- Reclosing time and number of attempts can be customized.
- The reclosing time can be selected. Please refer to the "4. Knob Functions" section for details.
- Adjustable from 0 to 9 attempts.

IO Control (MT51AI)

- Close signal.
- Open signal.

RS485 Remote Control (MT51AS)

- Open / Close.
- Status reading.

Electrical Lockout

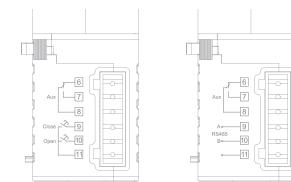
- The device will be locked if the automatic reclosing attempts exceed the set number.
- When the lockout input is active: automatic reclosing is prohibited.

Status Output

- Open/Close status.
- Reclosing failure (End of Cycle).

8. Terminal Wiring Overview

Upper Terminals (IO/RS485 Input, AUX Output)



1: L (AC 220V Live)

2: N (AC 220V Neutral)

3: Protective Earth (PE)

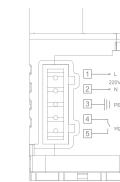
4&5: Reclosing Status

6&7&8: Open/Close Status

MT51AI

MT51AS

Lower Terminals (Power and Alarm Output)



9: Dry-contact Close Input (MT51AI)

10: RS485 Communication Port A (MT51AS)

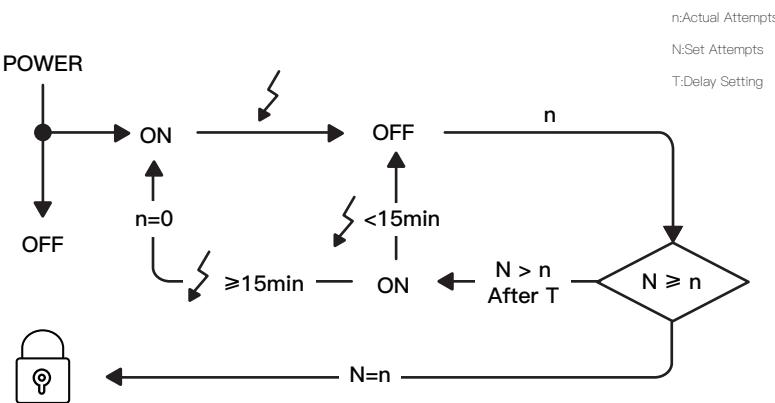
11: Dry-contact Open Input (MT51AI)

12: RS485 Communication Port B (MT51AS)

13: Dry-contact Common Point (MT51AI)

14: Not Connected (MT51AS)

10. Reclosing Logic



11. Automatic Reclosing Workflow

1. Trigger Condition

When a non-command trip occurs on the circuit breaker, the MT51AS/MT51AI automatically enters the reclosing process.

Automatic reclosing is NOT triggered under the following conditions:

- RS485 remote open command / IO remote open command.
- The device is in Manu or Lock mode.

2. Reclosing Process

- Circuit breaker trips.
- Waits for the set reclosing delay time.
- Executes the closing action.
- If closing fails, continues attempts according to the set number.

- If it still fails after reaching the maximum number of reclosing attempts, the device enters a lockout state.

3. Reclosing Failure and Lockout

- After the number of reclosing attempts reaches the limit, the device enters a logical lockout state.

- Automatic and remote closing are prohibited in the lockout state.

- Must be cleared via RESET or remote reset.