Instruction Leaflet **IL0131213EN** Effective March 2023

IZM61 mechanical interlock

WARNING

(1) ONLY QUALIFIED ELECTRICAL PERSONNEL SHOULD BE PERMITTED TO WORK ON THE EQUIPMENT.
(2) ALWAYS DE-ENERGIZE PRIMARY AND SECONDARY CIRCUITS IF A CIRCUIT BREAKER CANNOT BE REMOVED TO A SAFE WORK LOCATION.
(3) DRAWOUT CIRCUIT BREAKERS SHOULD BE LEVERED (RACKED) OUT TO THE DISCONNECT POSITION.
(4) ALL CIRCUIT BREAKERS SHOULD BE SWITCHED TO THE OFF POSITION AND MECHANISM SPRINGS DISCHARGED.

FAILURE TO FOLLOW THESE STEPS FOR ALL PROCEDURES DESCRIBED IN THIS INSTRUCTION LEAFLET COULD RESULT IN DEATH, BODILY INJURY, OR PROPERTY DAMAGE.

Section 1: General information

The mechanical interlock is used to interlock between two or three circuit breakers. A mechanical interlock enables one or more circuit breakers to remain in the tripped state (to prevent from being closed).

Tools required

- Phillips screwdriver
- Knife

Mechanical interlock for drawout type

Kit parts identification

- Mechanical interlock (1)
- Screw M4×12 (1)
- Screws M4×8 (3)

Section 2: Installing the mechanical interlock

Follow below steps for installation:

Step 1: Lever out the basic device for removal, then remove the cover. Mount the pressing plate on the right side of the operating mechanism and secure it with the M4×12 screw.

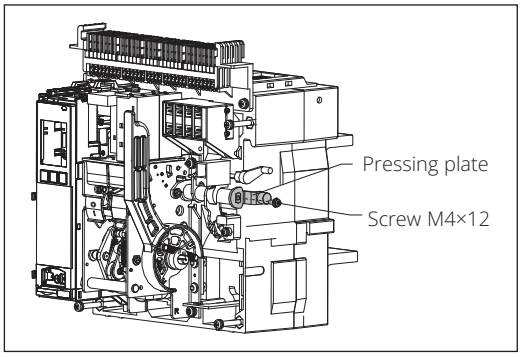

Figure 1. Step 1

Step 2: Remove the small square groove, as indicated in the figure, in the cover with the knife, then put the cover back.

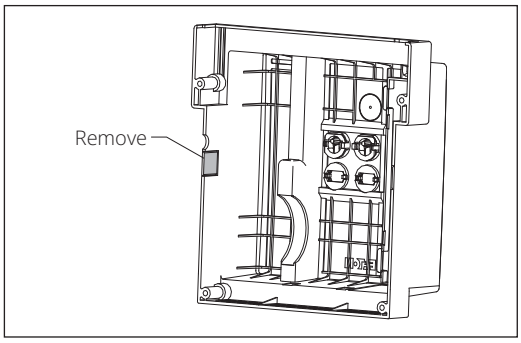

Figure 2. Step 2

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Step 3: Mount the mechanical interlock onto the right panel and secure it with 3 screws (M4×8). Then, lever the basic device to the Connected position.

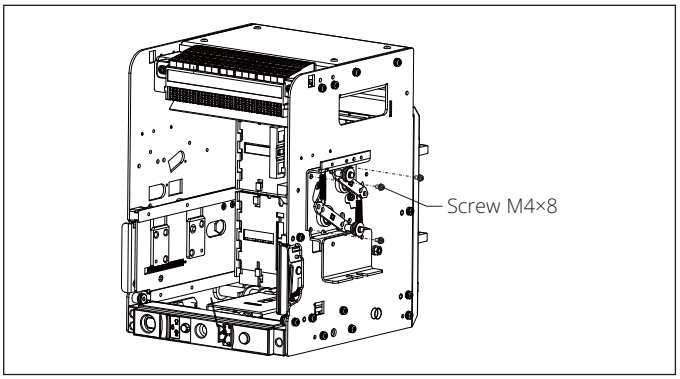

Figure 3. Step 3

Step 4: Mount the other one or two interlocks in the same manner.

Mechanical interlock for fixed type

Kit parts identification

- Mechanical interlock (1)
- Mounting panel (1)
- Screws M4×20 (2)
- Screws M4×8 (3)
- Screw M4×12 (1)

Section 2: Installing the mechanical interlock

Follow below steps for installation:

Step 1: Remove the cover, mount the pressing plate on the right side of the operating mechanism, and secure it with the M4×12 screw.

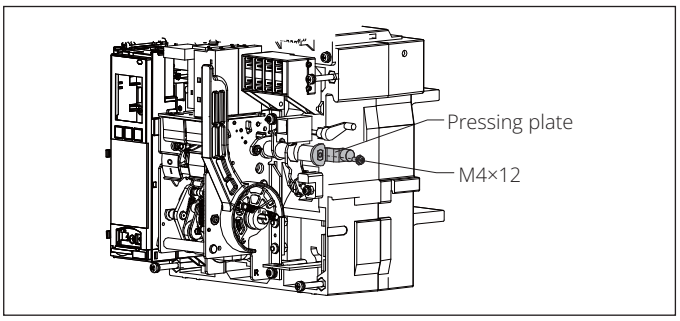

Figure 4. Step 1

Step 2: Remove the small square groove, as indicated in the figure, in the cover with the knife, then put the cover back.

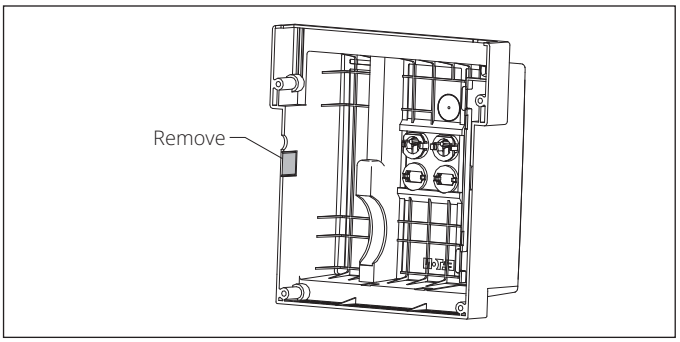

Figure 5. Step 2

Step 3: Remove the screw on the right side of the arc extinguishing cover, and secure the mounting panel to the right panel with 2 M4×20 screws and the arc extinguishing cover screw.

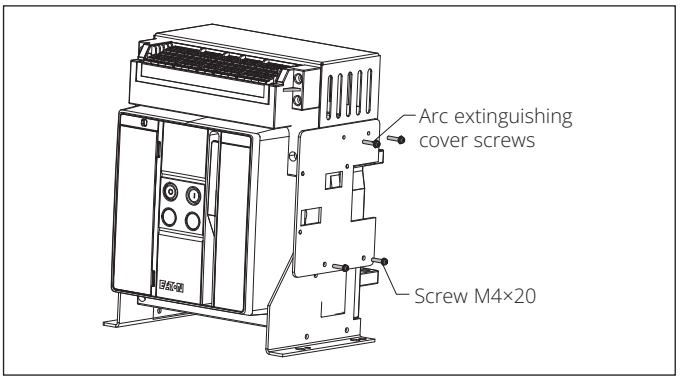

Figure 6. Step 3

Step 4: Mount the mechanical interlock onto the mounting panel with 3 screws (M4×8).

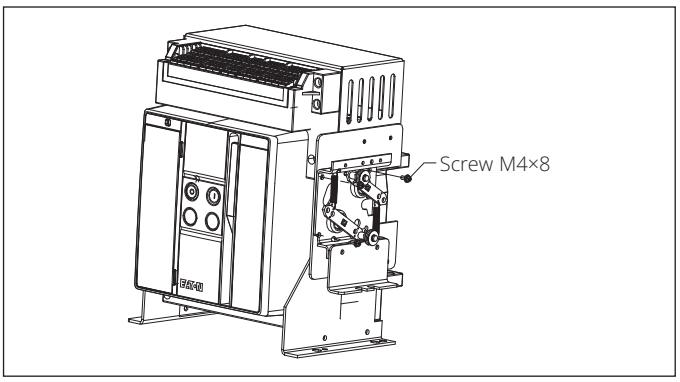

Figure 7. Step 4

Step 5: Mount the other one or two interlocks in the same manner.

Section 3: Verifying the interlocking between circuit breakers

Interlocking between two circuit breakers:

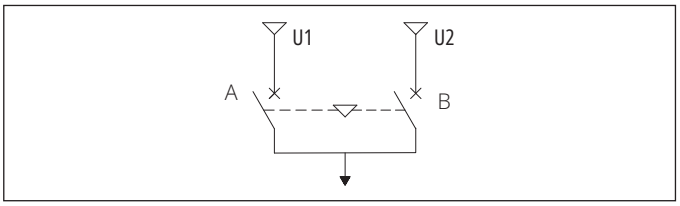

Figure 8: Schematic diagram of two interlocking devices

Both circuit breakers are in the charged status:

- When Circuit Breaker A is closed, Circuit Breaker B cannot be closed; Circuit breaker B can be closed after Circuit Breaker A is opened.
- When Circuit Breaker B is closed, Circuit Breaker A cannot be closed; Circuit breaker A can be closed after Circuit Breaker B is closed.

Interlocking between two circuit breakers:

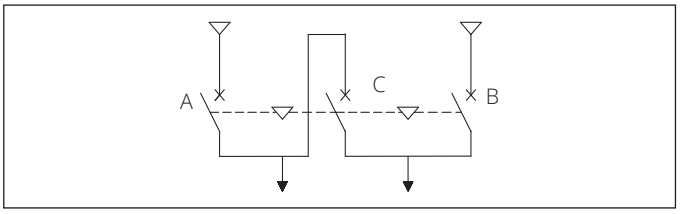

Figure 9: Schematic diagram of three interlocking devices

Three circuit breakers are in the charged status:

- When Circuit Breaker A and B are closed, Circuit Breaker C cannot be closed; Circuit breaker C can be closed after Circuit Breaker A or B is opened.
- When Circuit Breaker A and C are closed, Circuit Breaker B cannot be closed; Circuit breaker B can be closed after Circuit Breaker A or C is opened.
- When Circuit Breaker B and C are closed, Circuit Breaker A cannot be closed; Circuit breaker A can be closed after Circuit Breaker B or C is opened.
- Among Circuit Breaker A, B and C, only one or two circuit breakers can be closed.

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