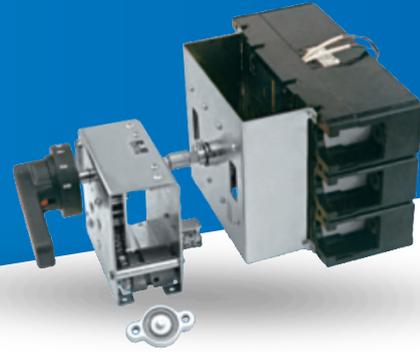


## CJG-1 type Operating Mechanism



## CJG-2 type Operating Mechanism



### Features

By rotating the operating handle mounted on the drawer panel within a 360 ° range, the switching (on/off), testing, isolation, and locking positions can be achieved. The engagement and disengagement of the drawer are realized through the transmission between gears and cams.

### Modle Compositon And Meaning



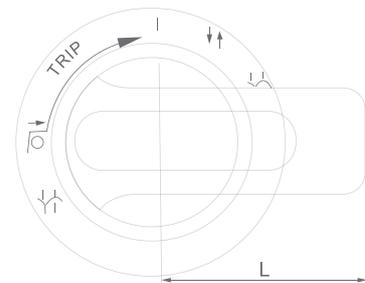
### Installation Diagram CJG-type 1、 type 3 Undervoltage Operating Mechanism

- | Working Position: Main switch closed, assembly locked.
- Main Switch Open Position: Main circuit disconnected, control circuit remains connected, assembly locked.
- ⚡ Test Position: Main switch open, control circuit connected, assembly locked.
- ⚡ Withdrawn Position: Both main circuit and control circuit disconnected.
- ⚡ Isolation Position: Withdrawn by 30 mm, both main circuit and control circuit disconnected, assembly locked.



operating handle must be pressed inward before it can be turned from "0" position to the "I" position to open or close the circuit breaker.

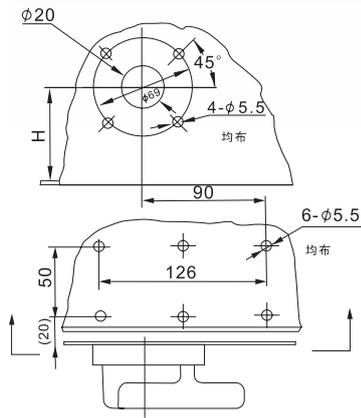
If further operation is required, it must be done by pressing and holding manually in one continuous motion without stopping midway.



Handle Modle	Handle Dimension
CJG-1B	L=65
CJG-3B	L=95
CJG-4B	L=125
CJG-5B	L=80

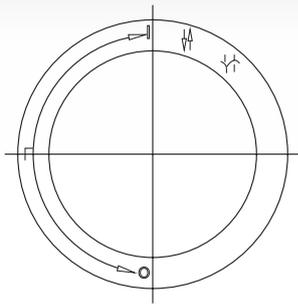


## CJG-1 and CJG-3 Operating Mechanism Panel Cutout Installation Dimension



Handle Mode	Height from Bottom Surface to Handle Center
CJG-1	H=69
CJG-3	H=105

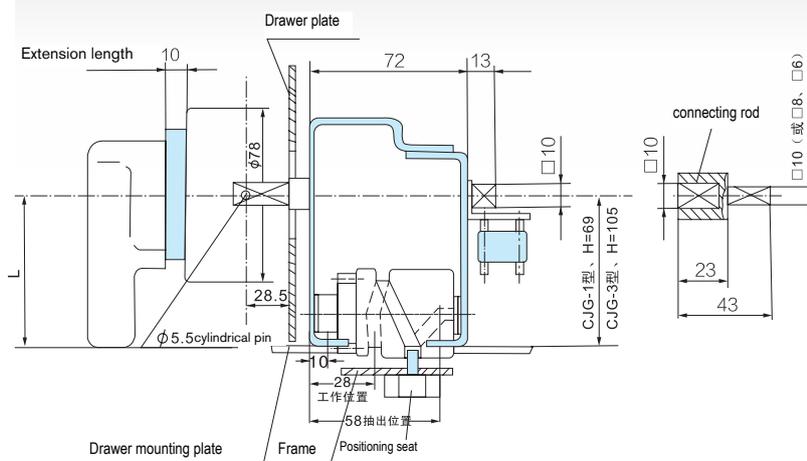
## CJG-1 and CJG-3 Undervoltage Actuators



### Schematic Diagram of CJG-1 and CJG-3 Undervoltage Handles

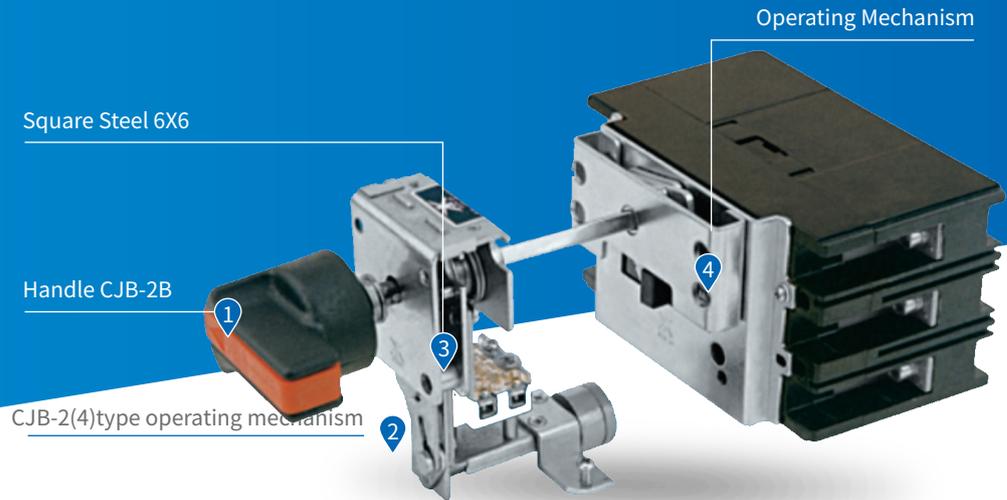
Features: The CJG-1/Undervoltage and CJG-3/Undervoltage mechanisms are specifically designed for circuit breakers equipped with undervoltage protection. Their external installation dimensions are identical to those of the corresponding CJG-1 and CJG-3 models, with the only difference being the indicator plate on the operating handle. To close the breaker, press and hold the handle while rotating it to the "I" position; to open it, press and hold the handle while rotating it to the "0" position. The operation must be performed in one continuous motion without pausing midway.

## CJG-1 and CJG-3 Operating Mechanism Installation Diagram



The CJG-1/Z(1G) and CJG-3/DC(4B) mechanisms are specially designed for drawers equipped with electric operating mechanisms. Their external installation dimensions correspond exactly to those of the CJG-1 and CJG-3 models, with the only addition being a micro switch. This additional micro switch is activated during the opening and closing operations of the switch.

# CJG2(4)-type Operation Mechanism



## Features

CJG-2 and CJG-4 operating mechanisms are specifically designed for 1/2-cell drawers used in GCS-type low-voltage draw-out switchgear. They enable the functions of opening, closing, testing, isolating, and locking, which are operated from the drawer panel. Additionally, a micro switch is mounted on the operating mechanism. It serves to electrically interlock the switching apparatus as the operating handle rotates within a 360° range.

## Model Composition And Meaning

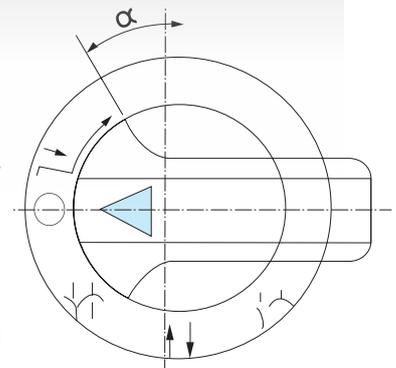
**CGS - 2/4**

Design Code: 2 indicates a 60-degree switching operation, and 4 indicates a 90-degree switching operation.

GCS Operating Mechanism Designation Code

## Installation Diagram for CJG-1 and CJG-3 Type Operating Mechanisms

- I Working Position: Main switch closed, assembly locked.
  - O Main Switch Tripped: Main circuit open, control circuit remains energized, assembly locked.
  - ↕ Test Position: Main switch open, control circuit energized, assembly locked.
  - ↕ Withdrawn Position: Both main circuit and control circuit disconnected.
  - ↕ Isolation Position: Withdrawn by 30 mm, both main circuit and control circuit disconnected, assembly locked.
- The operating handle must be pressed inward before it can be rotated from position 0 to position I to open or close the circuit breaker.

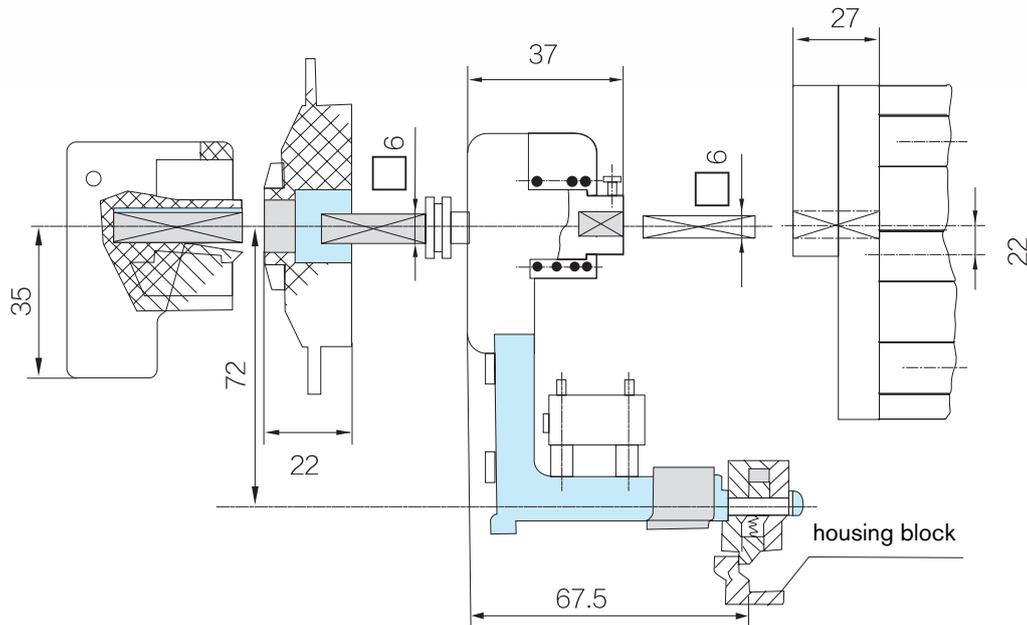


If further operation is required, it must be done by pressing and holding manually in one continuous motion without stopping midway.

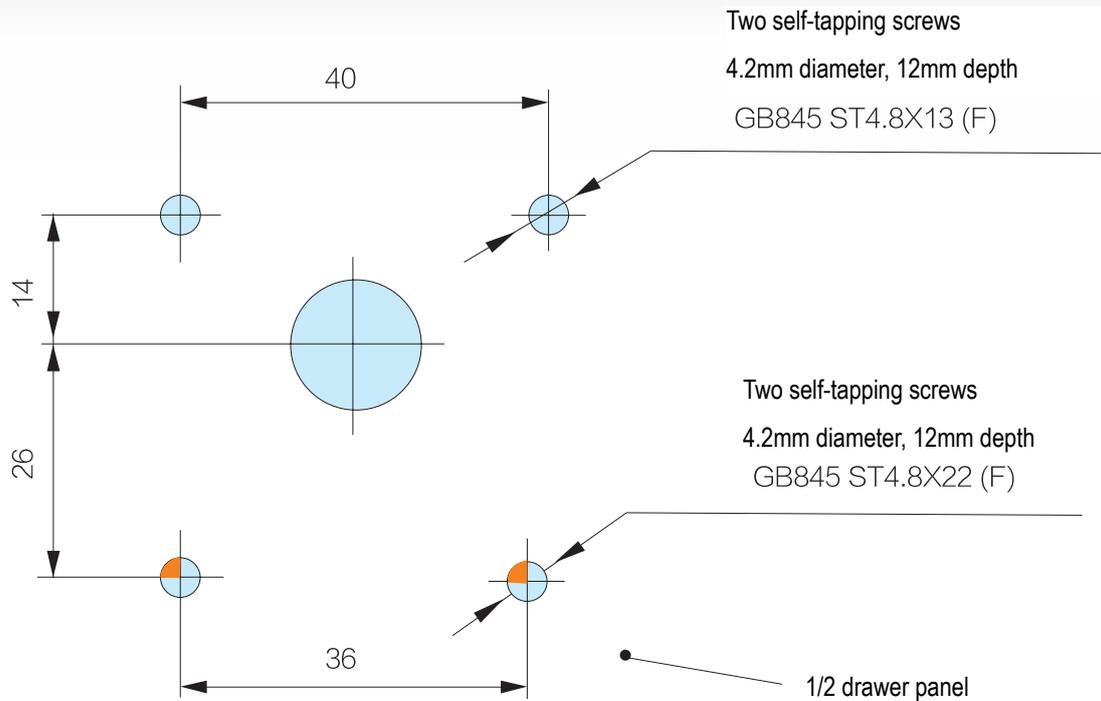
Mode	Handel Dimention	Note
CJG-2 Type	L=65	90° I/O
CJG-4 Type	L=95	90° I/O



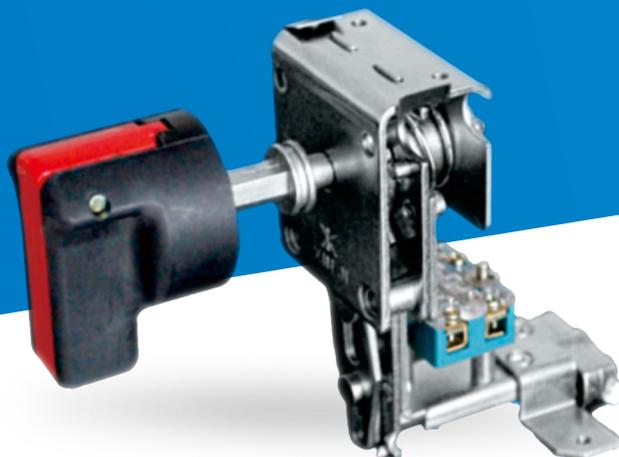
## CJG-2、4 Type Operating Mechanism Installation Diagram



## CJG-2、4 Type Operating Mechanism Panel Cutout Installation Dimension



# CJG-5(6) Type Operating Mechanism



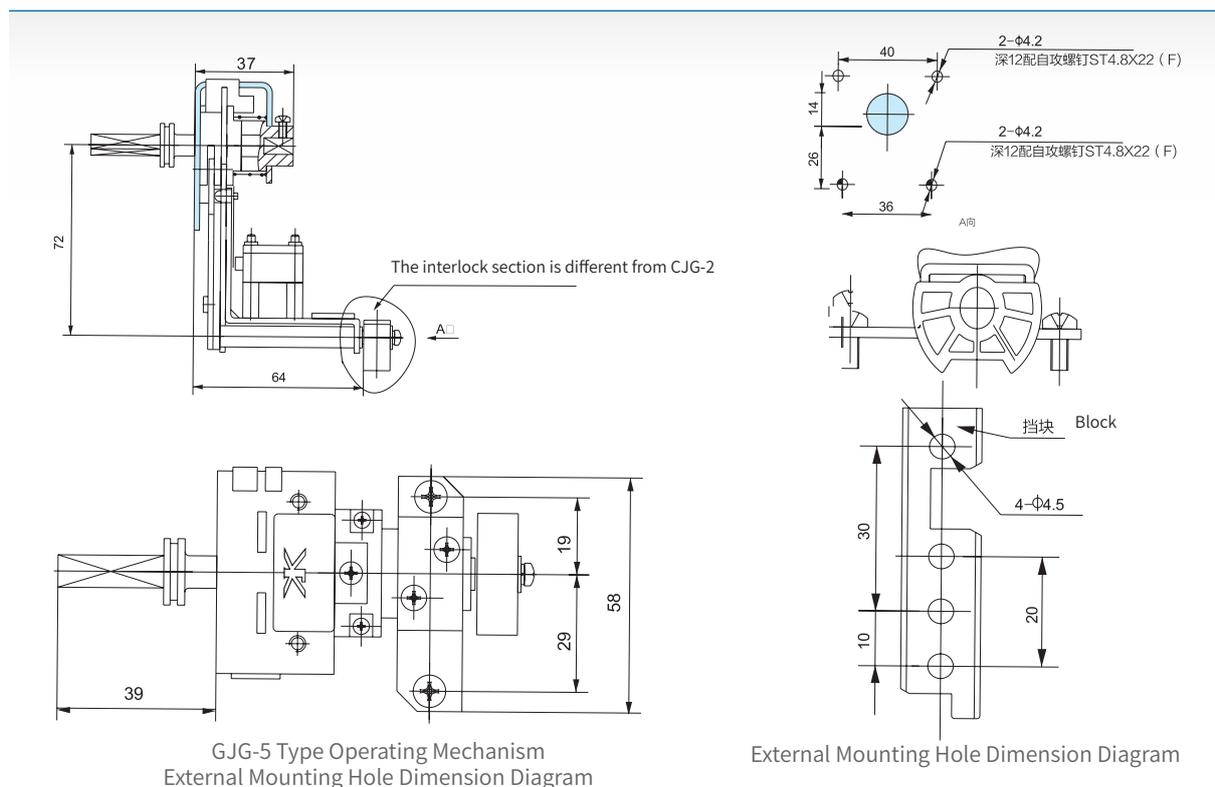
## Features

CJG-5(6) Operating Mechanism is modified from CJG-2(4) by removing the frame stopper and adding an internal limit block on the frame, with all other features unchanged.

## Advantage

The interlock is reliable, preventing damage to the latch of the CJG-2(4) mechanism caused by friction during racking in and out.

## CJG-5(6) Type Operation Mechanism Dimension



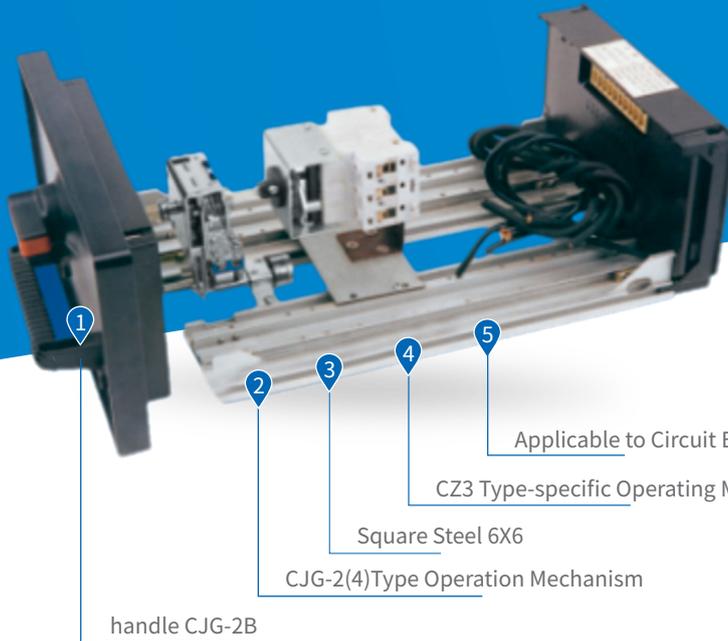


### CJG-2 Mechanism Matched with C45 and C65 Switches

### Matched with CJG-2 Special Operating Mechanism

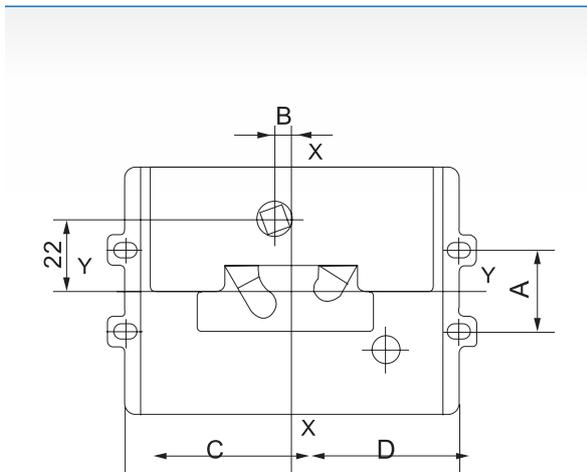
#### CZ3-183 □ Series Mechanism

#### CZ3-17 □ Series

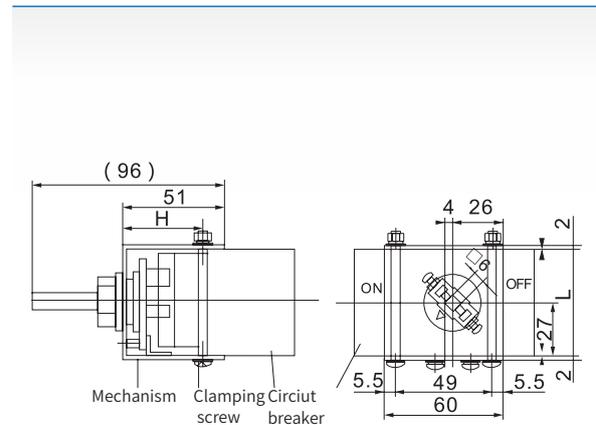


### Installation Dimension Diagram for Series A Operating Mechanism

#### Installation Dimension Diagram for CZ3-17 □ Series Operating Mechanism



#### Installation Dimension Diagram for CZ3-183 □ Series Operating Mechanism



## Installation Dimension Table For CJG-2 Style Operating Mechanism

Model	Suitable for Circuit Breakers	Cutout Location (Square)			
		A	B	C	D
CZ3-171	CM1-100 TM30-100 SM30-100 etc.	30	5	52	52
CZ3-171.3	S(D)-100	30	5	66	66
CZ3-171.4	NM1-100H	30	2	52	52
CZ3-171.5	KFM2-100	30	5	66	66
CZ3-172	CM1-63 TM30-63 SM100-63 etc.	25	5	50	50
CZ3-172.2	NF63-HW/CW/SW	25	5	55	55
CZ3-172.3	BMM-63	25	5	55	55
CZ3-172.4	NSD-100	25	3	55	55
CZ3-172.5	NF32-SW	25	3	55	50
CZ3-172.6	KFM2-63	25	5	50	50
CZ3-173.1	S1 HSM1-125RMM1-63H, 100C etc.	25	-5	50	50
CZ3-173	S2 HSM1-160 etc.	30	-5	50	50
CZ3-178	TC-100BDW	30	10	55	45

No	Model	Applicable Switch Model(s)	Clamping Screw	H	L
1	CZ3-183	C45/3P	M4×65	44	54
2	CZ3-183F	C45/3P+Aux. Contact	M4×75	44	63
3	CZ3-183.1	C45/4P	M4×85	44	72
4	CZ3-183.4	C65/3P	M4×65	40	54
5	CZ3-184.4F	C65/3P+Aux. Contact	M4×75	40	63
6	CZ3-183.8	C65/4P	M4×85	40	72

## CJG-□ Style Mechanism Selection Handle Parameter Table

□

Operating Mechanism Model	Selected Handle Model	L	Name	Connecting Rod Code	Applicable Number of Drawer Units	Matched CB Mechanism
CJG-1 Type	CJG-1B	65	Connecting Rod 8x8	GCS-TC-00090	1 Unit	Select CJ2 Mechanism or CJ3 Mechanism
	CJG-5B	80	Connecting Rod 6x6	GCS-TC-00096		
	CJG-3B	95	Connecting Rod 10x10	GCS-TC-0089	≥ 1.5 Unit	
CJG-3 Type	CJG-4B	125			≥ 2 Unit	





# MLS-3 STYLE OPERATING MECHANISM SERIES

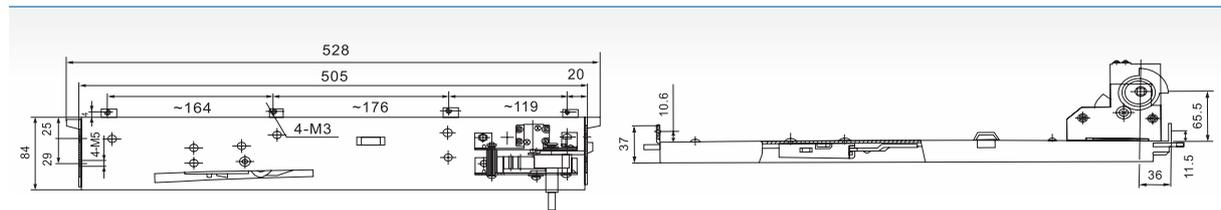
MLS-3 型操作机构



## Features

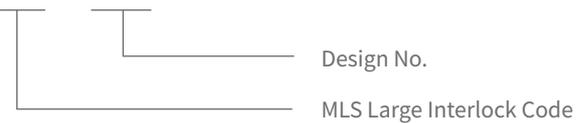
MLS-3 Large Interlock System is a dedicated operating component for drawers of 1 unit and above in MLS-type Low-Voltage Withdrawable Switchgear.

## MLS-3 Large Interlock Dimension Drawing

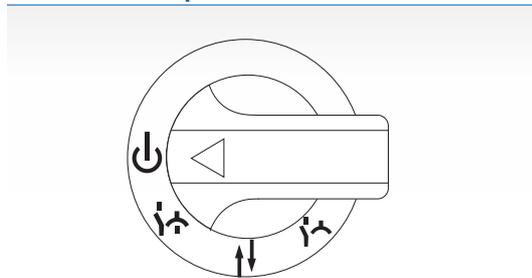


## Model Composition and Meaning

MLS - 3

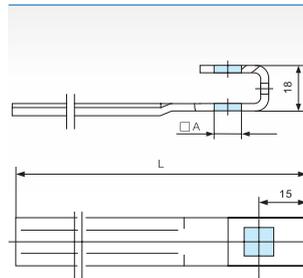


## Operating Handle (Non-withdrawable with Test Position) Assembly - Operating Handle Position Description



- Working Position: The assembly is locked. The main switch (isolating switch or molded case switch) is operable (via a separate handle). The handle can only be turned to the test position after the main switch is open.
- Test Position: The main switch is open. The control circuit is energized. The assembly is locked.
- Withdrawn Position: Both the main circuit and secondary circuits are disconnected.
- Isolation Position: The assembly is withdrawn 30 mm. Both the main circuit and secondary circuits are disconnected. The assembly is mechanically interlocked and locked.

## MLS Latch Tongue Outline and Dimension Table

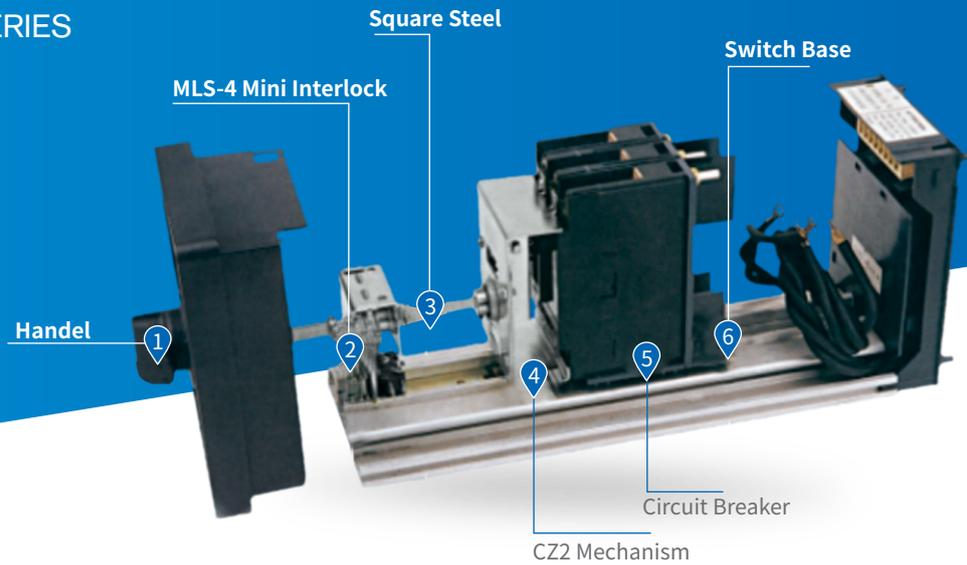


Note: The latch tongue can be customized according to length L and square hole A.

Model	L	A	Model	L	A
Latch Tongue MLS200069.1	108	8	Latch Tongue MLS200069.14	140	8
Latch Tongue MLS200069.2	120	8	Latch Tongue MLS200069.15	167	10
Latch Tongue MLS200069.3	150	10	Latch Tongue MLS200069.17	133	8
Latch Tongue MLS200069.4	166	10	Latch Tongue MLS200069.18	133	10
Latch Tongue MLS200069.5	160	8	Latch Tongue MLS200069.20	127	8
Latch Tongue MLS200069.6	160	10	Latch Tongue MLS200069.21	108	10
Latch Tongue MLS200069.11	128	8	Latch Tongue MLS200069.22	173	10
Latch Tongue MLS200069.12	127	10	Latch Tongue MLS200069.23	130	8
Latch Tongue MLS200069.13	147	10	Latch Tongue MLS200069.24	130	10

# MLS-4 Type Operating Mechanism

## MLS-4 STYLE OPERATING MECHANISM SERIES

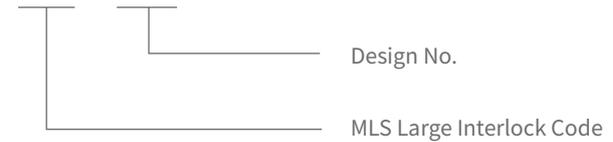


### Features

The MLS-4 Mini Interlock is a dedicated operating component for 8E/2 and 8E/4 unit drawers in the MLS-type Low-Voltage Withdrawable Switchgear. By operating the handle mounted on the drawer front panel within a 360° rotation range, it enables the switching functions of ON, OFF, TEST, and isolation locking.

### Model Composition and Meaning

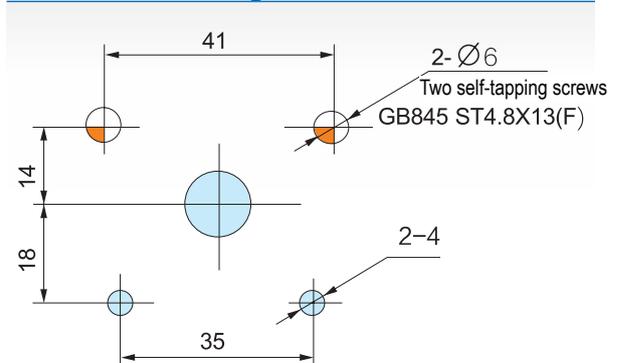
#### MLS - 4



### MLS-4 Mini Interlock Accessories Diagram

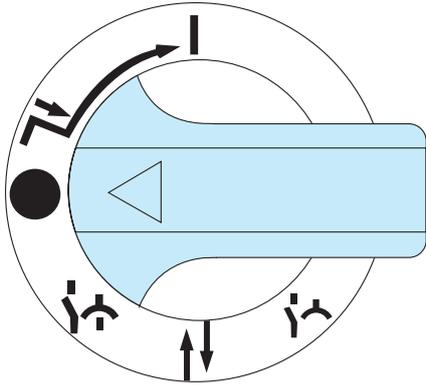


### MLS-4 Mini Interlock to Panel Connection Dimension Drawing





## CJG-2 and CJG-4 Operating Mechanism Installation Diagram



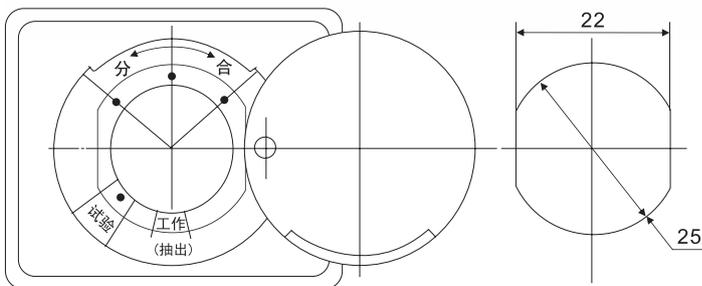
- I Working Position: Main switch closed, assembly locked.
- Main Switch Open: Main circuit disconnected, control circuit remains energized, assembly locked.
- ⚡ Test Position: Main switch open, control circuit energized, assembly locked.
- ⚡ Withdrawn Position: Both main and control circuits disconnected.
- ⚡ Isolation Position: Withdrawn 30 mm, main and control circuits both disconnected, assembly locked.
- 🔑 The operating handle must be pressed inward before it can be turned from position 0 to position I.

Up to three padlocks can be added to the operating handle for safety assurance, allowing the main switch to be locked in the open, test, and isolation positions.



If further operation is required, it must be done by pressing and holding manually in one continuous motion without stopping midway.

## Indicator Plate 8WXJ.860.042



Indicator Plate

Cutout Dimensions

- I Work Position: Main switch closed, assembly locked.
- ⚡ Test Position: Main switch open/close allowed, control circuit energized.
- ⚡ Withdrawn Position: Main and secondary circuits disconnected.



Note: This indicator plate is for use with HD-2 driving mechanism.

# CZ2-A- □ Operating Mechanism

CZ2-A- □ OPERATING  
MECHANISM SERIES



## Feature

CZ2 operating mechanism features a unique rotating design for smooth breaker opening, closing, and resetting. Easy to install and adjust, with performance exceeding similar products. Compatible with A, B, and C rotary handles — users can choose as needed. Type-tested and certified by the National Electric Testing Center.

## Purpose

This mechanism is suitable for use with molded case circuit breakers of the CM1, NS, NM1, CDM1, LG, NF, S(), T(), TM30, SM30 series, etc. It enables panel-mounted operation for draw-out cabinets, distribution cabinets, and power distribution boxes via a rotary handle.

## Model Composition and Meaning

Model Composition And Meaning

CZ2 - □ □ - □ □ □



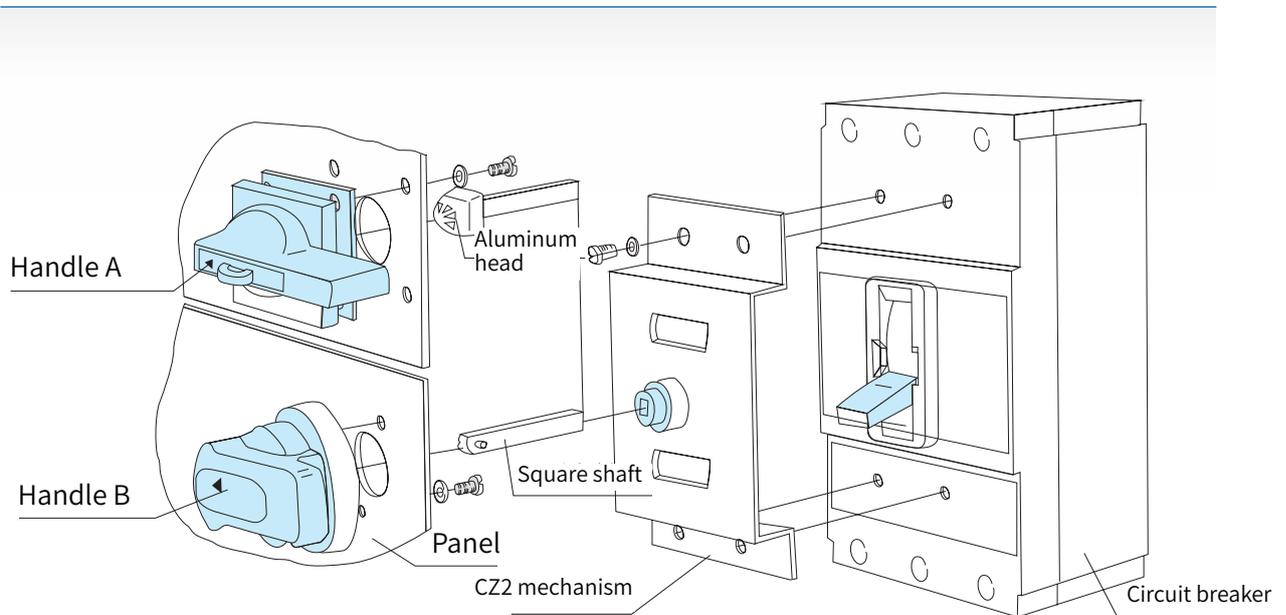


# CZ2-B- □ Operation Mechanism

CZ2-B- □ OPERATING  
MECHANISM SERIES

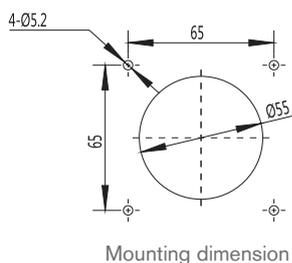
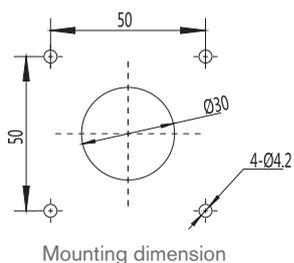
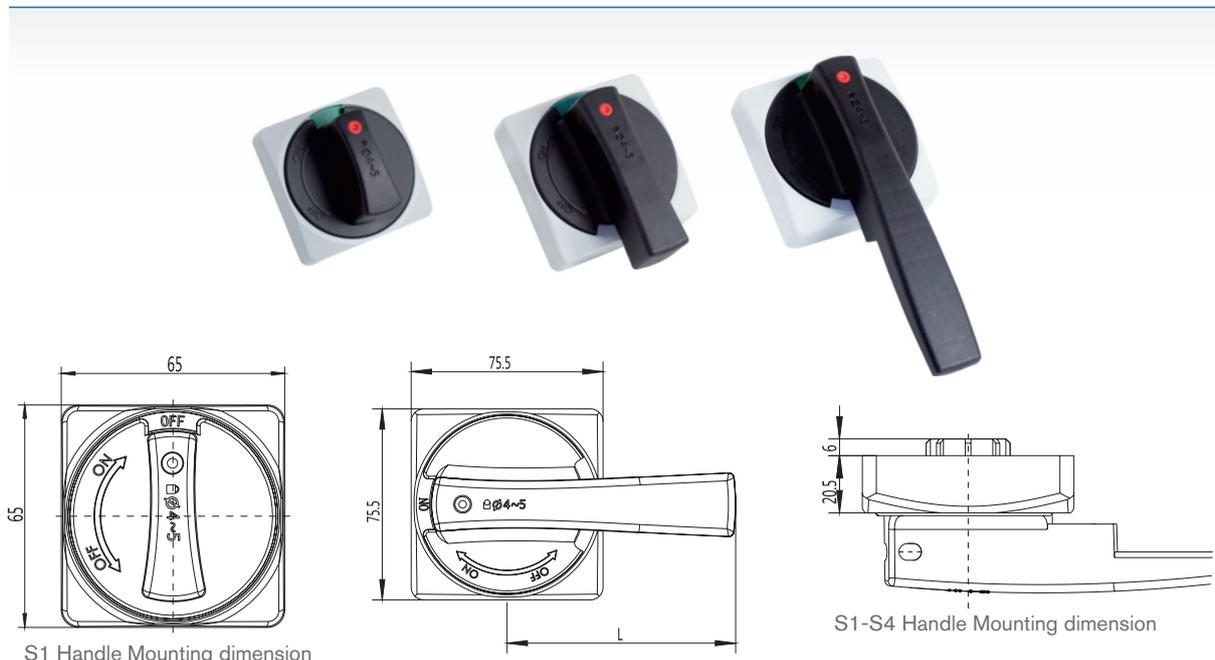


## CZ2 Type Operating Mechanism Installation Diagram



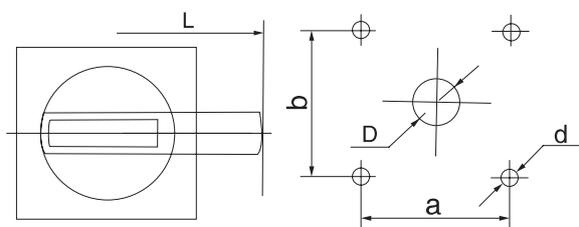
Note: The center of the handle should be no less than 100mm from the hinge.  
Please specify when ordering if it includes an undervoltage release handle.

## S Type Handle Mounting Dimensions



Mode	L
S2	53
S3	90
S4	120

## A Type Handle Mounting Dimensions



Standard Aluminum Head Square Shaft Length 100mm  
Powder-coated Aluminum Head Square Shaft Length 150mm



Note: If a special length of the square shaft is required, please specify when ordering.

Handle Specification	A1	A2
D	42	∅ 63
d	4.5	∅ 5.5
a	65	88
b	65	88
L	60	140



## B Type Handle Mounting Dimensions

B1 Handle      B2 Handle      B3 Handle

← B Type Square Shaft  
Square Shaft Length 150mm

Note: If a special length of the square shaft is required, please specify when ordering.

Handle Specification	B1	B2	B3
D		∅ 33	
d		∅ 4.5	
a		∅ 53	
L	65	125	95

## C Type Handle Mounting Dimensions

C1 Handle      C2 Handle      C3 Handle

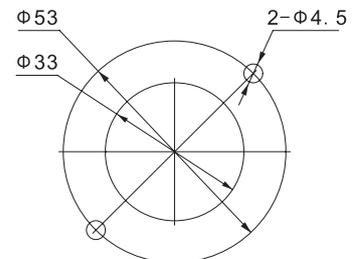
C4 Handle

Handle Specification	C1	C2	C3
L	67	97	127

- C4 handle is a dedicated operating handle for 1/2-unit or 1/4-unit drawers.
- The C4 handle functions the same as the CJG-2 handle.

### C1、C2、C3 Handle

- C1、C2、C3 Suitable for one-unit and larger drawers or fixed-separation units.
- C1、C2、C3 Handle Mounting Dimensions



# CZ3-B- □ Operating Mechanism

## CZ3-B- □ OPERATING MECHANISM SERIES



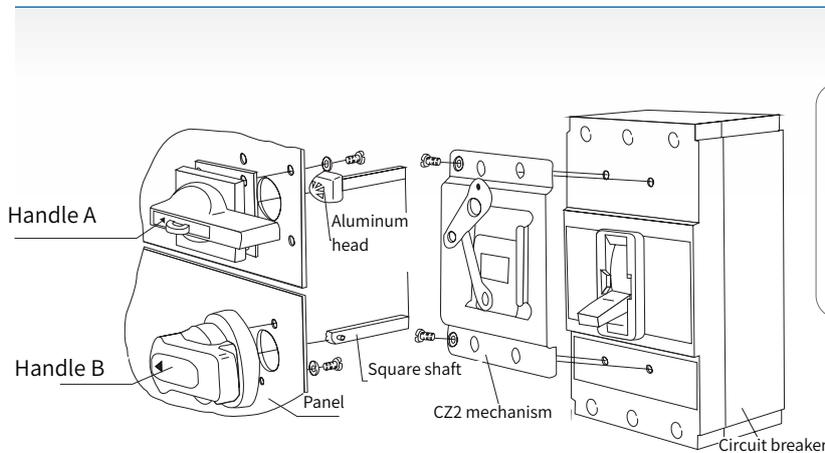
### Main Purpose and Scope of Application

This operating mechanism employs a crank-slider principle, where the slider drives the handle of the circuit breaker. By rotating the handle, the crank-slider mechanism is activated, enabling on-panel operation of the drawer, distribution cabinet, or power box to fulfill the requirements of switching, closing, and resetting of the molded-case circuit breaker. The operation is flexible, smooth, and suitable for configuration in various positions.

### Model Composition and Meaning



### CZ3 Type Operating Mechanism Installation Diagram



 Cutout Dimension Diagram

Note: If a Type A handle is required, please specify when ordering.  
The distance from the center of the handle to the hinge should be no less than 100mm.  
If an undervoltage release handle is included, please indicate when ordering.

Note: For selecting the handle (Type A, Type B, Type C, or Type S handle), please refer to pages 13-14 of the instruction manual.

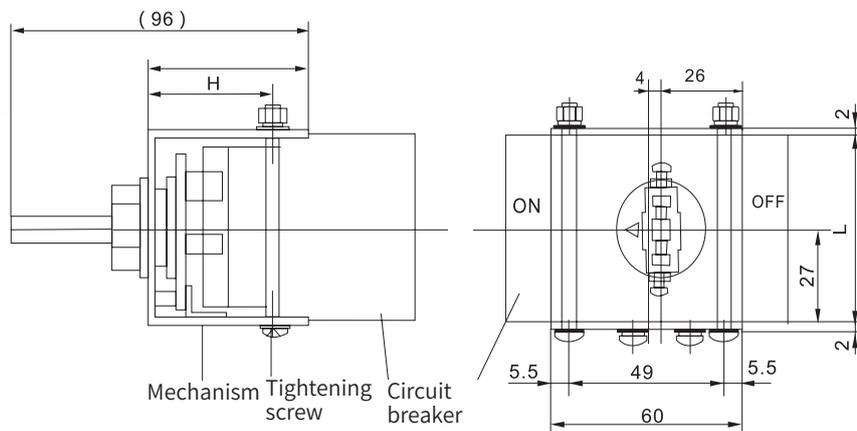




## ABB Miniature Circuit Breaker Operating Mechanism Model and Installation Diagram

Mechanism Model	Compatible Circuit Breaker	Application
CZ3-196	S250(2-3P)	Suitable for GCS cabinet 1/2-unit 60° Open/Close operation
	S270(2-3P)	
	S500(2-3P)	
CZ3-197	S250(2-3P)	suitable for MLS cabinet or other drawer cabinets 90° Open/Close operation
	S270(2-3P)	
	S500(2-3P)	

## 配 ABB 微型断路器操作机构型号及安装示意图 ABB Miniature Circuit Breaker Operating Mechanism Model and Installation Diagram

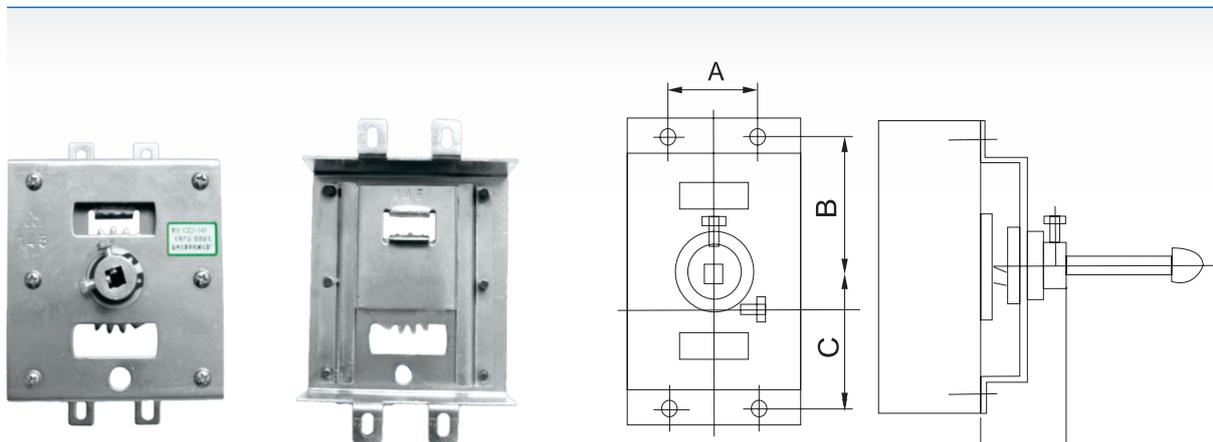


No.	Model	Compatible Circuit Breaker	Clamping Screw	H	L	Note
1	CZ3-184	C45/3p	M4×65	44	54	For MLS, GCK, and other withdrawable switchgear and distribution cabinets.
2	CZ3-184F	C45/3p+Aux. Contact	M4×75	44	62	
3	CZ3-184.1	C45/4p	M4×85	44	72	
4	CZ3-184.4	C65/3p	M4×65	40	54	
5	CZ3-184.4F	C65/3p+Aux.	M4×75	40	62	
6	CZ3-184.8	C45/4p	M4×85	40	72	
7	CZ3-184/L2	C45/2p+RC	M4×90	44	63+13 管子	
8	CZ3-184/L3	C45/3p+RC	M4×105	44	90	



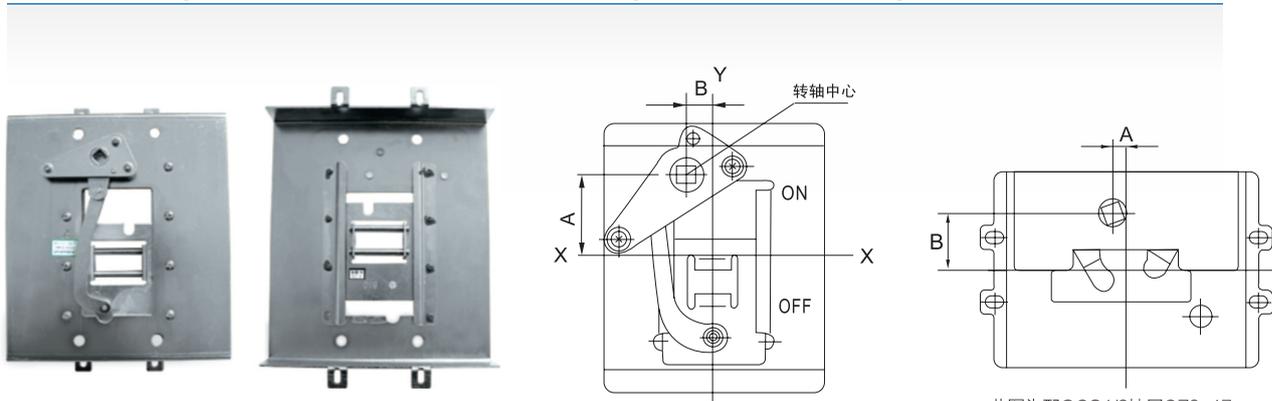
Mounting dimension table for operating mechanism models compatible with C45 and C65 circuit breaker series.

## CZ2 Operating Mechanism Outline and Mounting Dimension Drawing



CZ2型操作机构外形及安装尺寸图

## CZ3 Operating Mechanism Outline and Mounting Dimension Drawing



CZ3-□/A型操作机构外形及安装尺寸图

此图为配GCS1/2抽屉CZ3-17  
□□机构的外形及安装尺寸图

## Mounting Dimensions A, B, C, S and Model of the Operating Mechanisms (CJ2, CJ3) Matched with the Circuit Breaker.

Note:



- 1.If a handle is required with the order, please specify whether it is Type A, Type B, Type C, Type S handle, or a connecting rod.
- 2.The central mechanism is supplied by default. Plug-in or withdrawable type must be specified. For offset mechanisms, the A and B dimensions provided by our company, or the specific mechanism model, must be indicated.
- 3.To meet the requirements of various switchgear assemblies, customization can be performed after receiving the customer's circuit breaker.
- 4.The CJ2-131A and CJ2-132.1 mechanisms are supplied with a switch base only, without copper studs. If copper studs are required, please state this on the order.