

Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

Type designation

1. Ambient temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$
2. Altitude: 2000m
3. Humidity: The relative humidity of air shall not exceed 50% at $+40^{\circ}\text{C}$.
4. Pollution degree: Grade 3
5. Installation category: Category III
6. Places free from rain and snow erosion.
7. Places free from metals, gases that damage insulation, and conductive dust.
8. Places free from explosive media and media that are corrosive enough to damage the product.
9. Installation method: Vertical installation, horizontal installation
10. Transportation and Storage Conditions: Between -25°C and $+55^{\circ}\text{C}$ under normal conditions.
11. Short-term temperature: It can reach up to $+70^{\circ}\text{C}$ for a short period (24 hours).

Protection Characteristics

Tripper Operation Performance

For Power Distribution

Table 1

Rated Operating Current of Tripper (In)	Thermal Tripper (Reference Temperature 40°C)		Electromagnetic Tripper Operating Current (A)	Remarks
	1.05In [Cold State] Non-operation Time	1.30In (Hot State) Operation Time		
$10 < \text{In} \leq 63$	≥ 1	< 1	$10\text{In} \pm 20\%$	Power distribution protector. Note: For 1000A, it's $7\text{In} \pm 20\%$
$63 < \text{In} \leq 100$	≥ 2	< 2	$10\text{In} \pm 20\%$	
$100 < \text{In} \leq 1600$	≥ 2	< 2	$5\text{In} \pm 20\%$ $7\text{In} \pm 20\%$ $10\text{In} \pm 20\%$	

Note: Circuit breakers with a rated current less than 160A do not have tripping at 5In current.

For Motor Protection

Table 2

Rated Operating Current of Tripper (In) (A)	Thermal Tripper (Reference Temperature 40°C)				Electromagnetic Tripper Operating Current (A)
	1.0In [Cold State] Non-operation Time(h)	1.20In (Hot State) Operation Time(h)	1.50In [Hot State] Operation Time(h)	7.20In (Cold State) Operation Time(h)	
$10 < \text{In} \leq 630$	≥ 2	≤ 2	8min	$6\text{s} < \text{Tp} < 20\text{s}$	$12\text{In} \pm 20\%$

Power Loss

Circuit Breaker Power Loss

Table 3

Model	Derating Factor(In)				
	$+40^{\circ}\text{C}$	$+45^{\circ}\text{C}$	$+50^{\circ}\text{C}$	$+55^{\circ}\text{C}$	$+60^{\circ}\text{C}$
YCM6i-63/125	1	0.94	0.88	0.81	0.74
YCM6i-160	1	0.96	0.91	0.85	0.78
YCM6i-250	1	0.97	0.94	0.90	0.86
YCM6i-320	1	0.97	0.94	0.90	0.86
YCM6i-400/630	1	0.95	0.89	0.82	0.75
YCM6i-800	1	0.94	0.88	0.82	0.76
YCM6i-1000	1	0.94	0.87	0.80	0.72

Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

Derating Factor

Derating Factor of Circuit Breaker with Ambient Temperature Change

Table 4

Model	Derating Factor(In)				
	+40°C	+45°C	+50°C	+55°C	+60°C
YCM6i-63/125	1	0.94	0.88	0.81	0.74
YCM6i-160	1	0.96	0.91	0.85	0.78
YCM6i-250	1	0.97	0.94	0.90	0.86
YCM6i-400/630	1	0.95	0.89	0.82	0.75
YCM6i-800	1	0.94	0.88	0.82	0.76
YCM6i-1000	1	0.94	0.87	0.80	0.72

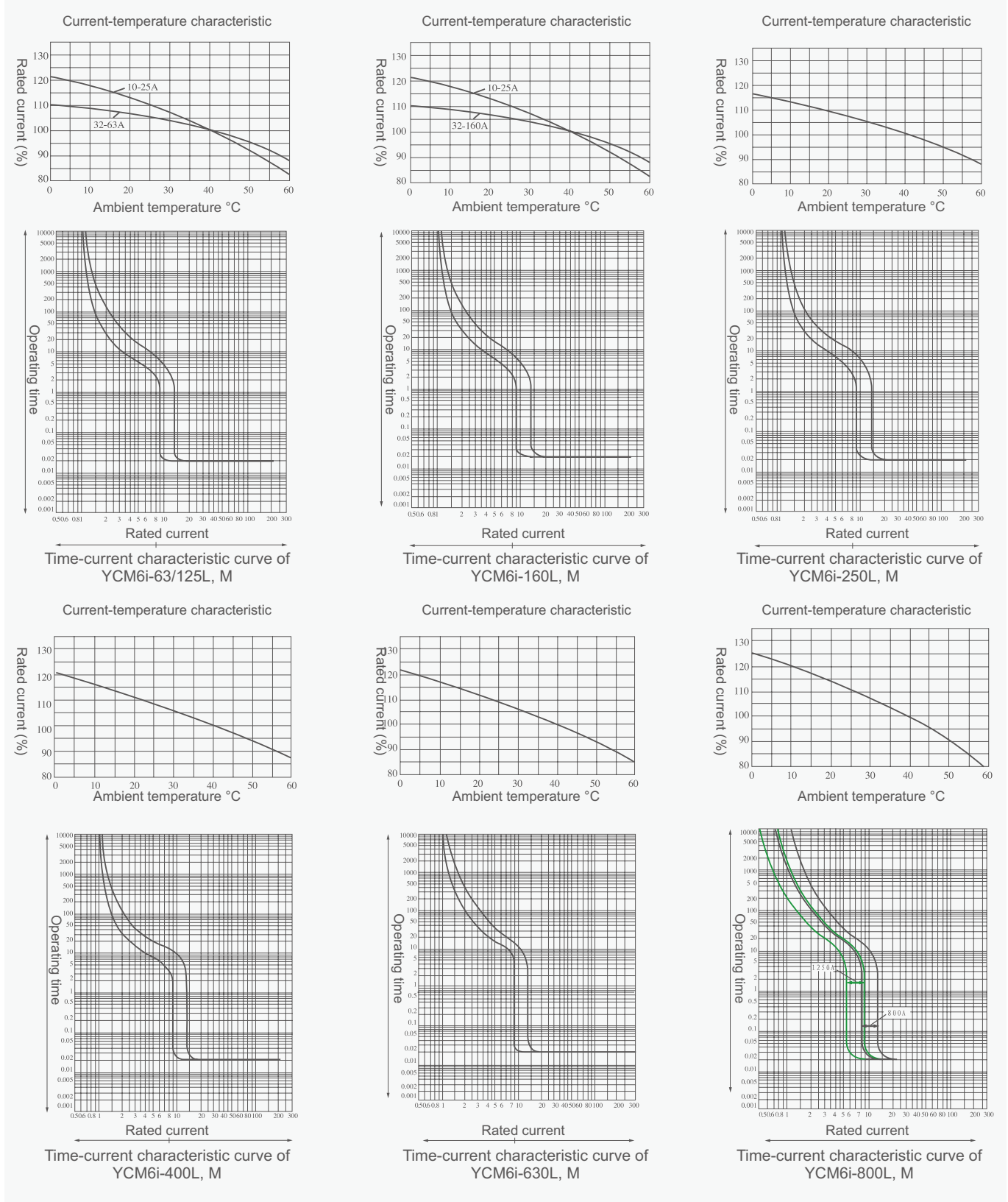
Notes: The above derating factors are measured under the frame-level rated current.

Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

Characteristic Curve

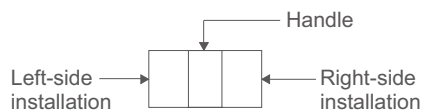
Description: The characteristic curve is measured under cold conditions and three-phase load.



Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

Inner accessories



- Alarm contact
- Auxiliary contact
- Shunt tripper
- Undervoltage tripper
- Lead direction

Model		YCM6i-63,125	YCM6i-250	YCM6i-400/630	YCM6i-800	YCM6i-1000
No. of poles		3,4	3,4	3,4	3,4	3,4
Code	Accessory name					
200, 300	Alarm contact					
208, 308	Shunt release					
210, 310	Auxiliary contact					
220, 320	Undervoltage release					
230, 330	Shunt release, auxiliary contact					
240, 340	Shunt release, undervoltage release					
250, 350	Two sets of auxiliary contacts					
260, 360	Auxiliary contact, undervoltage release					
270, 370	Shunt release, alarm contact					
218, 318	Auxiliary contact, alarm contact					
228, 328	Undervoltage release, alarm contact					
238, 338	Shunt release, auxiliary contact, alarm contact					
248, 348	Two sets of auxiliary contacts, alarm contact					
268, 368	Auxiliary contact, undervoltage release, alarm contact					
278, 378	Auxiliary contact, undervoltage release, alarm contact					

Note:

200: Indicates a circuit breaker with only an electromagnetic release; 300: Indicates a circuit breaker with a thermal-electromagnetic release; 000: Indicates a circuit breaker without thermal and electromagnetic releases.

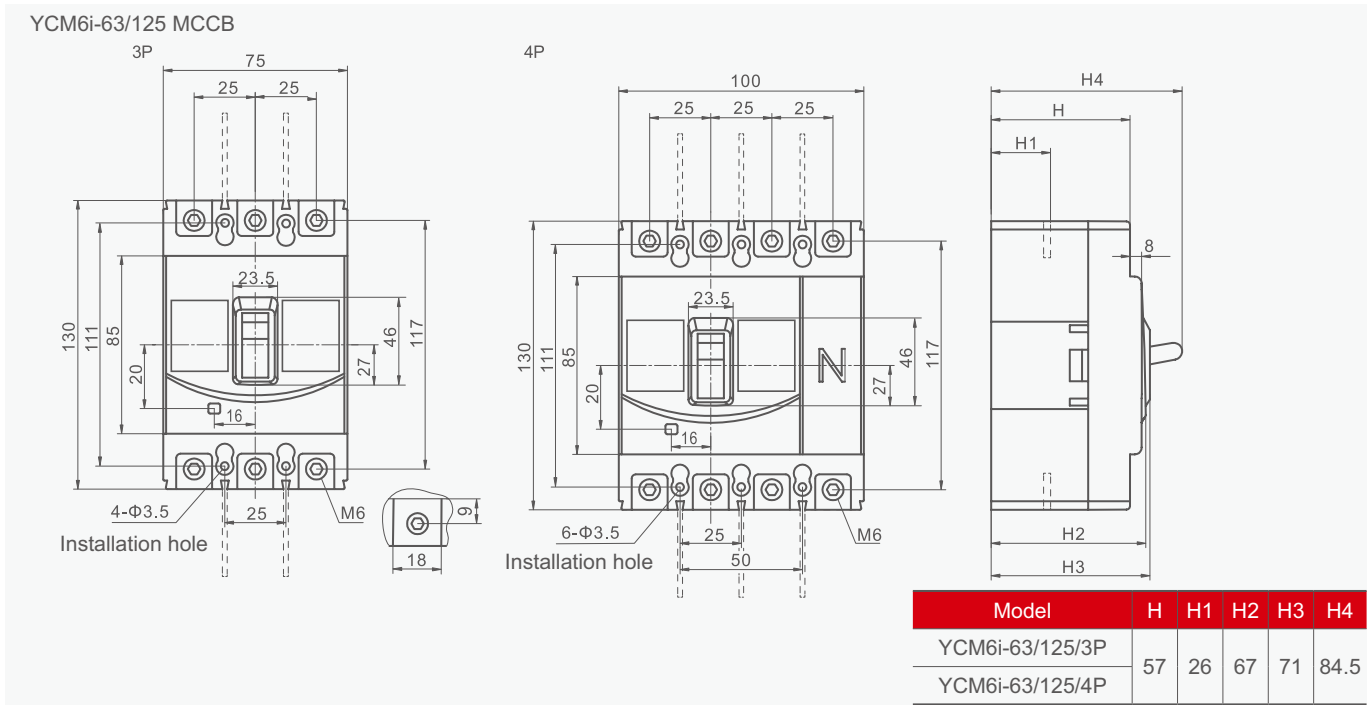
For 4-pole circuit breakers of YCM6i-63, 125, and 250 series, when the N-pole is of Type A, the codes 240, 340, 360, 260, 268, and 368 are not applicable.

For YCM6i-63, YCM6i-125, and YCM6i-250 series, the auxiliary contacts under specifications 220, 320, 240, 340, 270, and 370 can be provided as two pairs of contacts (i.e., two normally open and two normally closed contacts); those under specifications 260 and 360 can be provided as three pairs of contacts (i.e., three normally open and three normally closed contacts). However, this must be specified when placing an order.

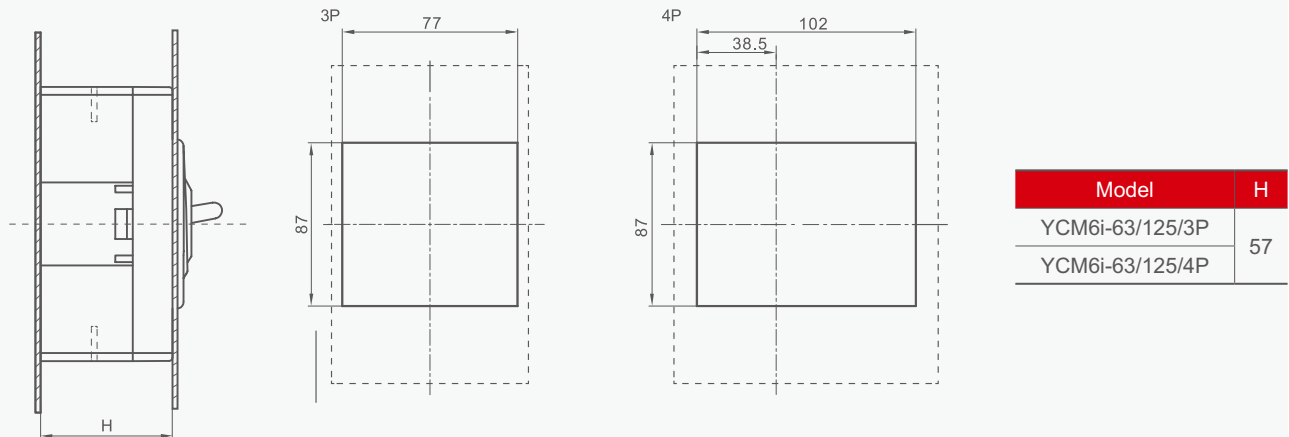
Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

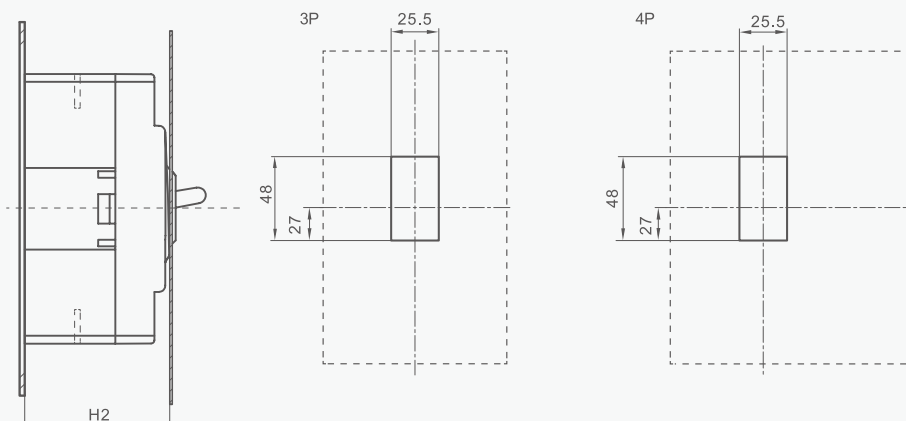
Overall and mounting dimensions(mm)



YCM6i-63/125 Diagram of Large Hole Dimensions for Cabinet Door



YCM6i-63/125 Diagram of Small Hole Dimensions for Cabinet Door Installation



Note: It is recommended to open a large hole as shown in the above diagram. Since the outer surface of the product handle is curved, opening a small hole will affect the appearance.

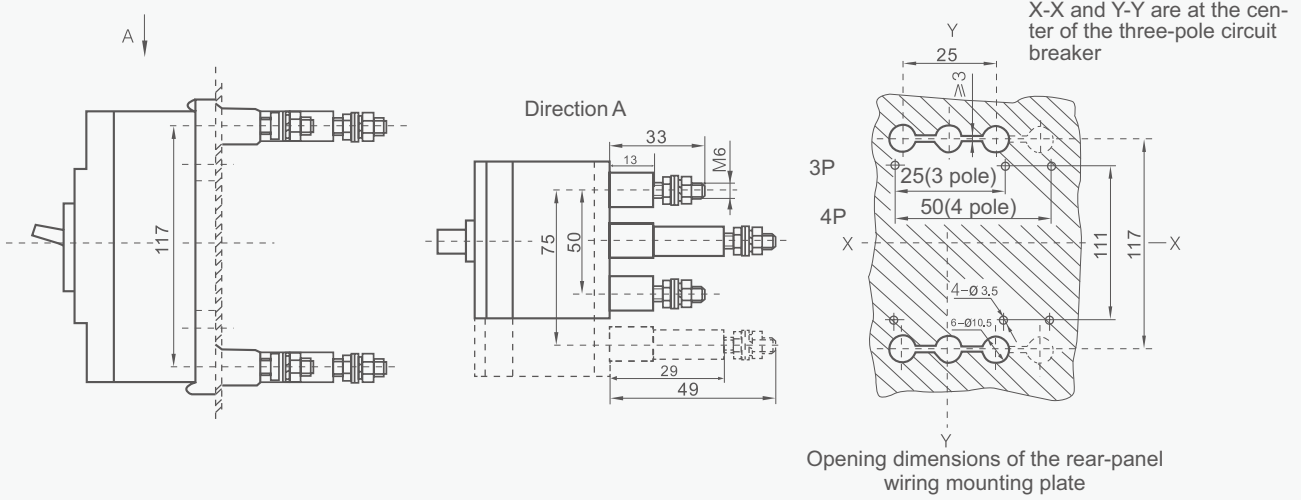
Model	H2
YCM6i-63/125/3P	65.5
YCM6i-63/125/4P	67

Distribution Apparatus

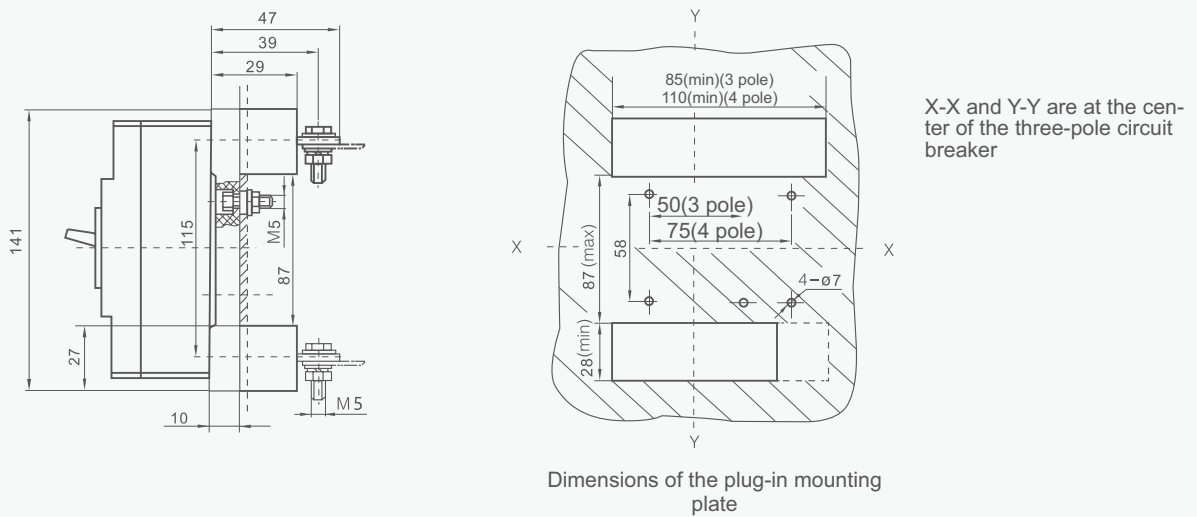
YCM6i Series Molded Case Circuit Breaker (MCCB)

Overall and mounting dimensions(mm)

YCM6i-63/125 MCCB(Rear-panel Wiring)



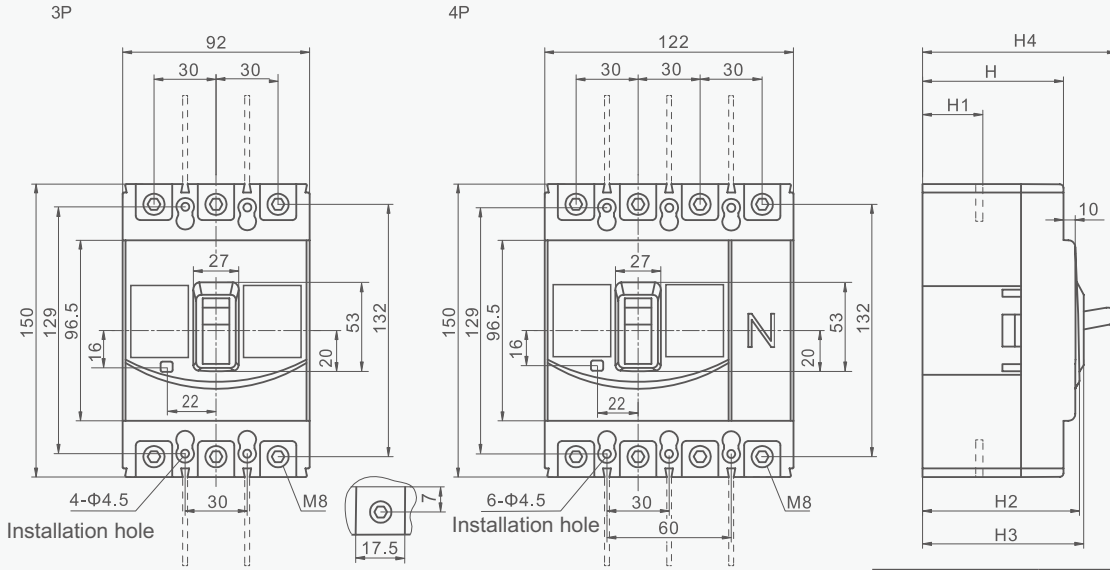
YCM6i-63/125 MCCB(Plug-in Rear-panel Wiring)



Distribution Apparatus

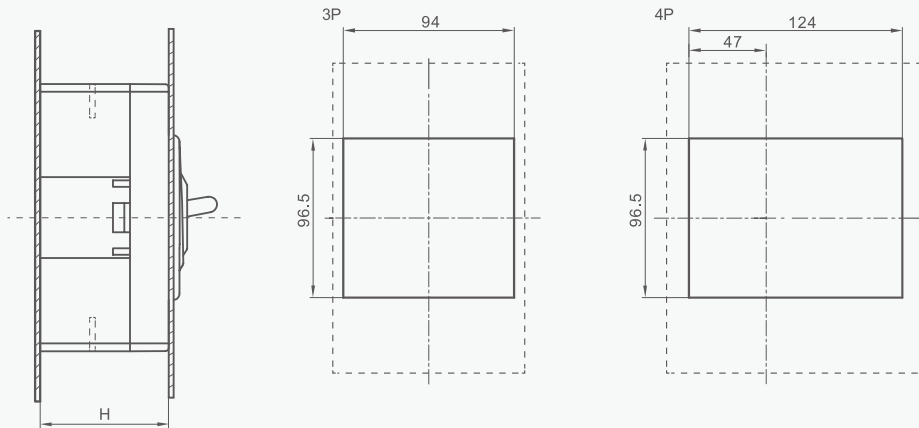
YCM6i Series Molded Case Circuit Breaker (MCCB)

YCM6i-160 MCCB



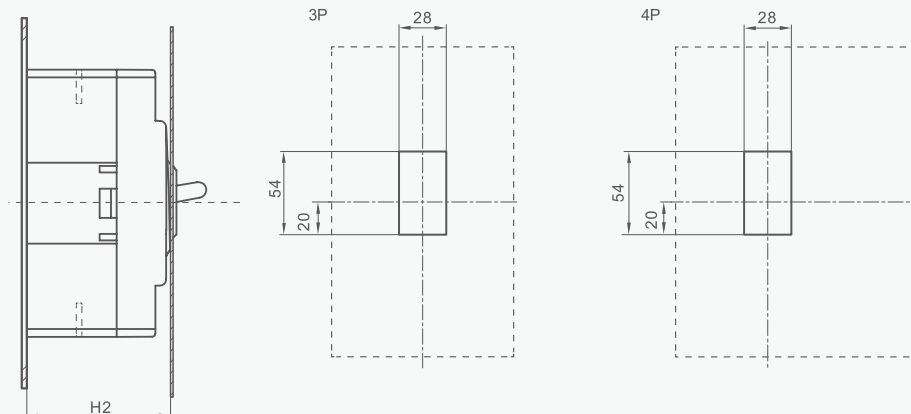
Model	H	H1	H2	H3	H4
YCM6i-160/3P	65	23.5	77.5	79.5	94.5
YCM6i-160/4P					

YCM6i-160 Diagram of Large Hole Dimensions for Cabinet Door



Model	H
YCM6i-160/3P	65
YCM6i-160/4P	65

YCM6i-160 Diagram of Small Hole Dimensions for Cabinet Door Installation



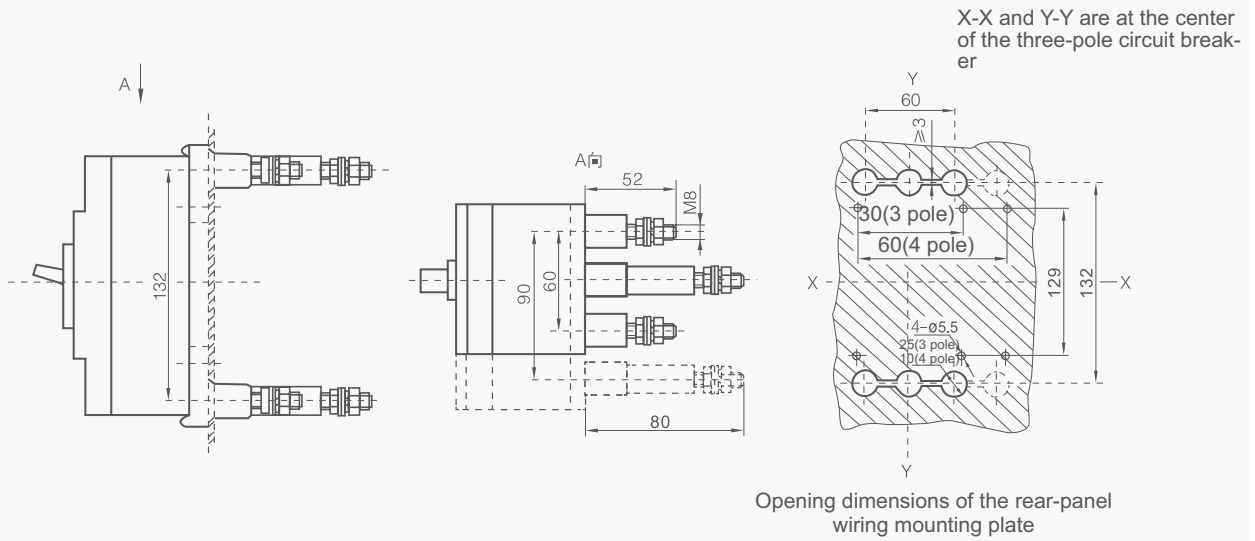
Note: It is recommended to open a large hole as shown in the above diagram. Since the outer surface of the product handle is curved, opening a small hole will affect the appearance.

Model	H2
YCM6i-160/3P	77.5
YCM6i-160/4P	77.5

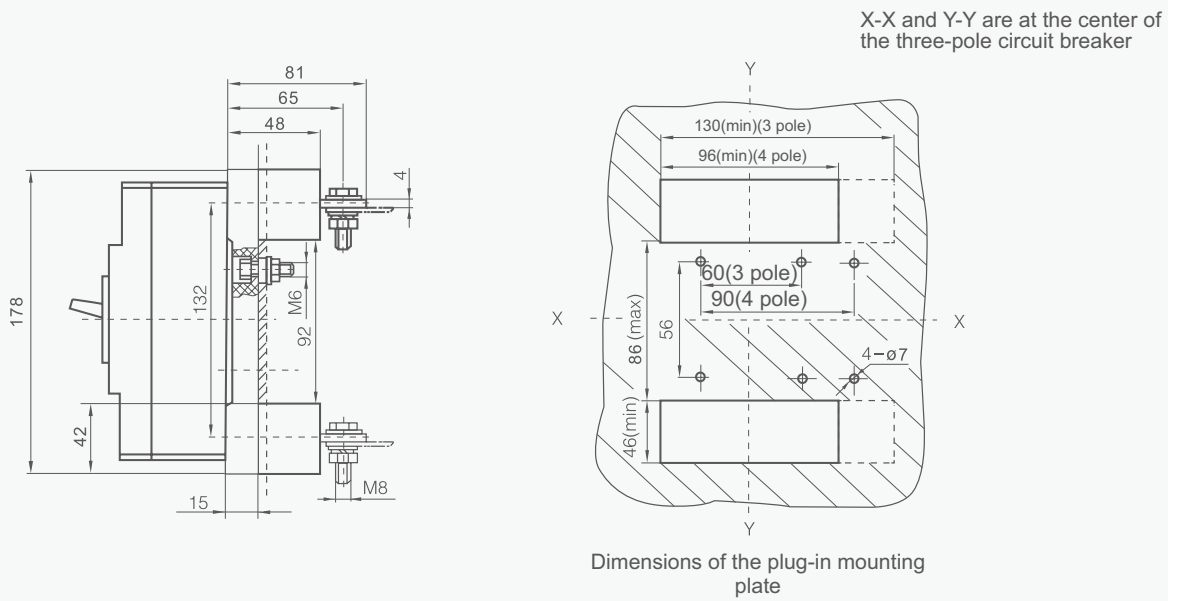
Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

YCM6i-160 MCCB(Rear-panel Wiring)



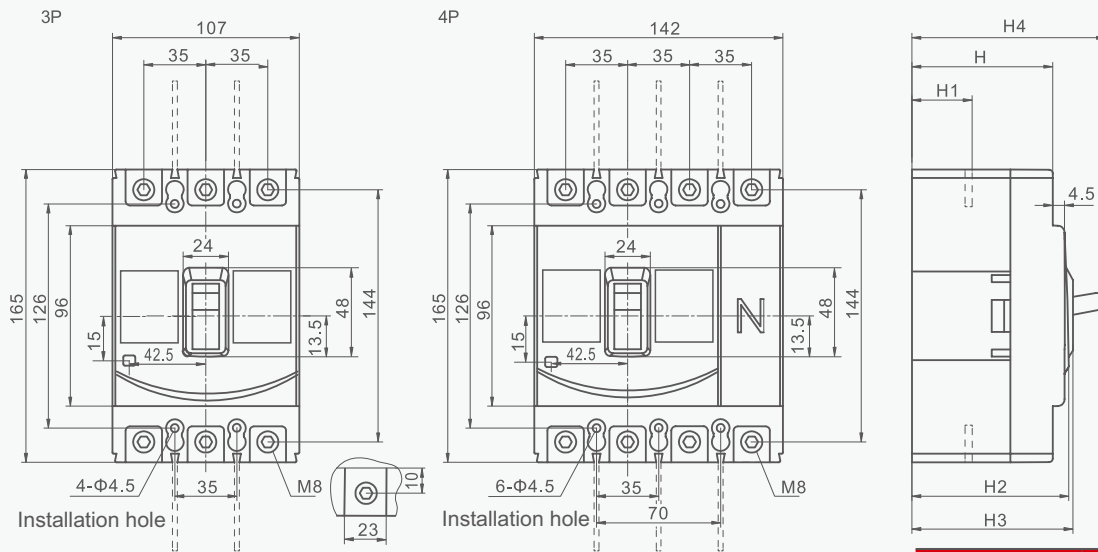
YCM6i-160 MCCB(Plug-in Rear-panel Wiring)



Distribution Apparatus

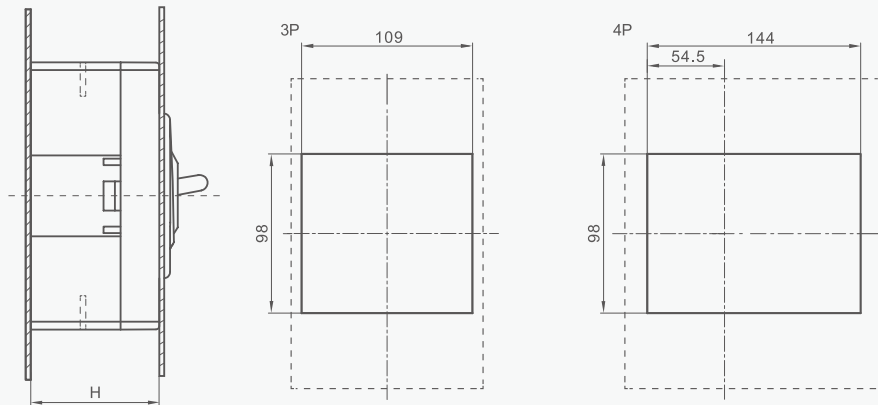
YCM6i Series Molded Case Circuit Breaker (MCCB)

YCM6i-250 MCCB



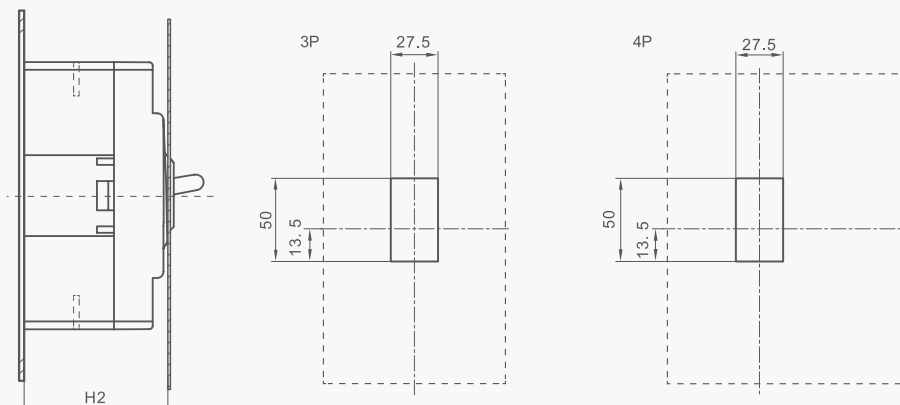
Model	H	H1	H2	H3	H4
YCM6i-250/3P	69	22	77	81	97
YCM6i-250/4P	69	22	77	81	97

YCM6i-250 Diagram of Large Hole Dimensions for Cabinet Door



Model	H
YCM6i-250/3P	69
YCM6i-250/4P	69

YCM6i-250/320 Diagram of Small Hole Dimensions for Cabinet Door Installation



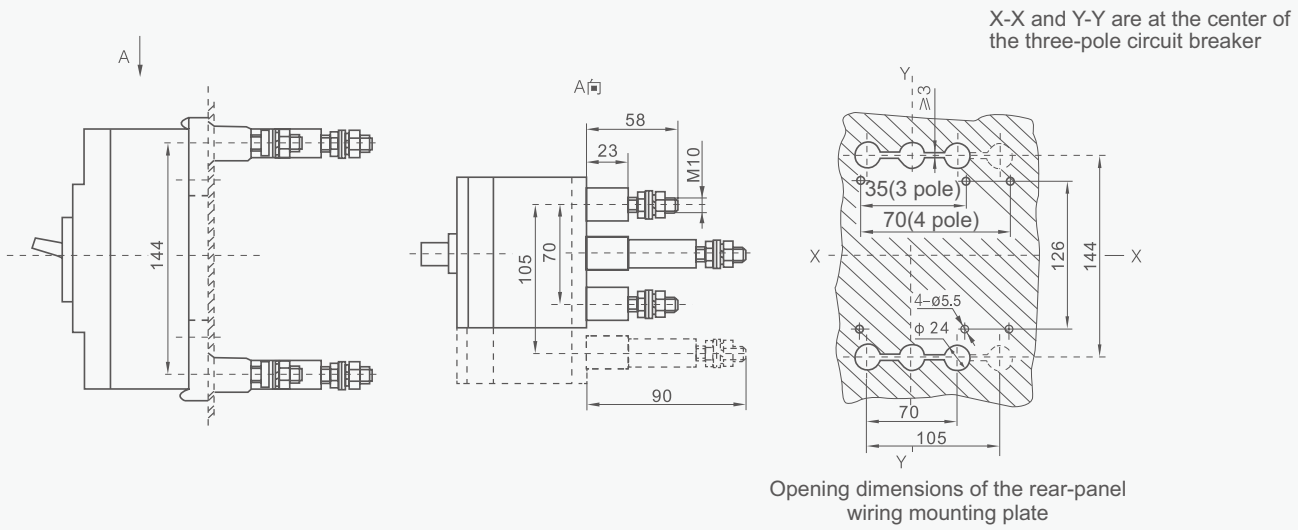
Note: It is recommended to open a large hole as shown in the above diagram. Since the outer surface of the product handle is curved, opening a small hole will affect the appearance.

Model	H2
YCM6i-250/3P	77
YCM6i-250/4P	77

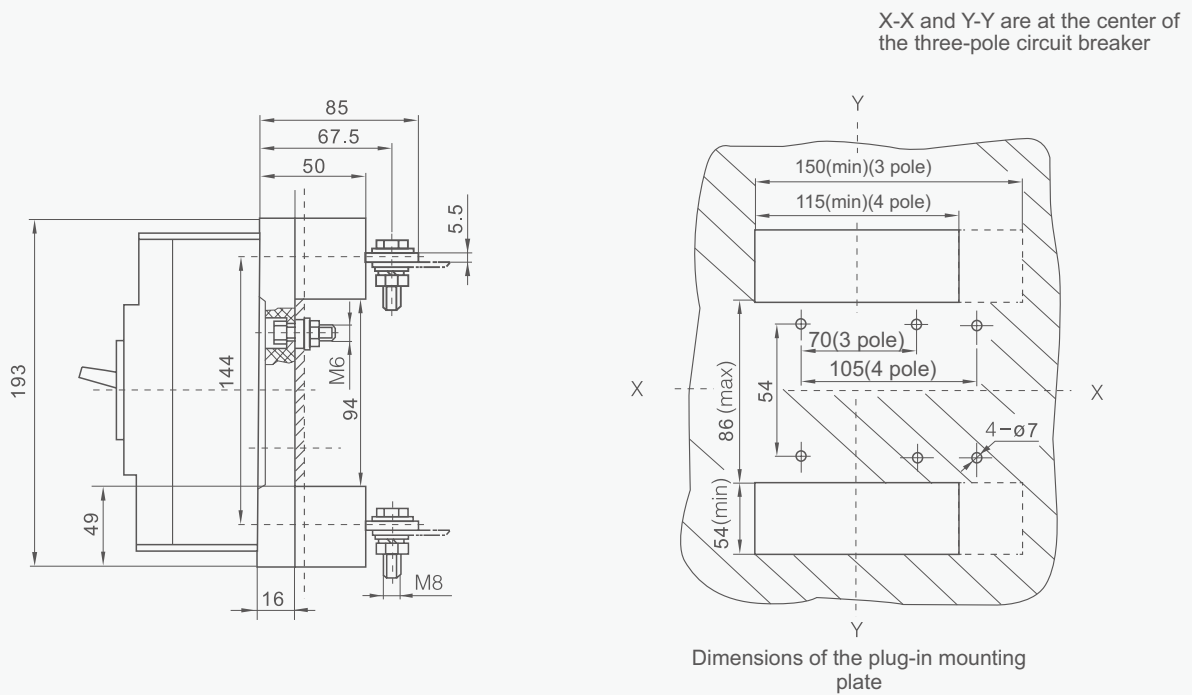
Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

YCM6i-250 MCCB(Rear-panel Wiring)



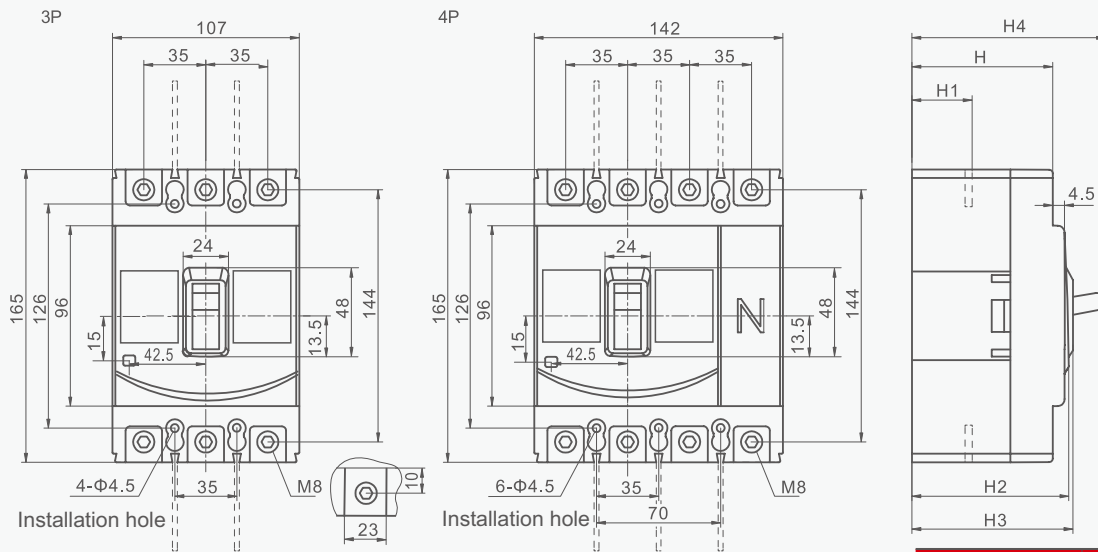
YCM6i-250 MCCB(Plug-in Rear-panel Wiring)



Distribution Apparatus

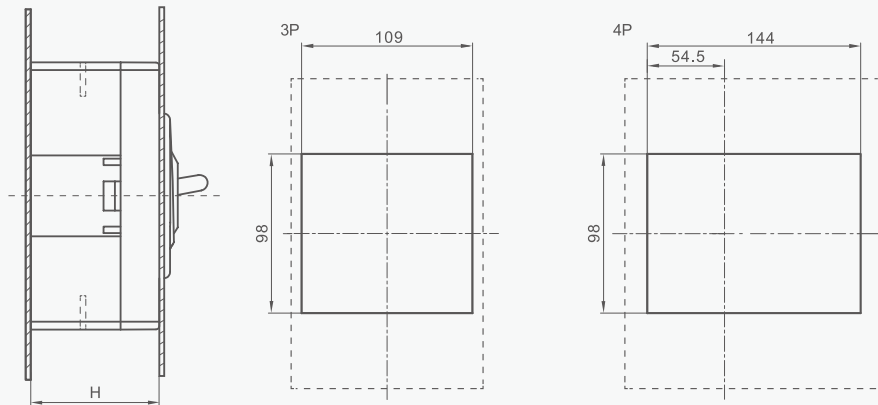
YCM6i Series Molded Case Circuit Breaker (MCCB)

YCM6i-320 MCCB



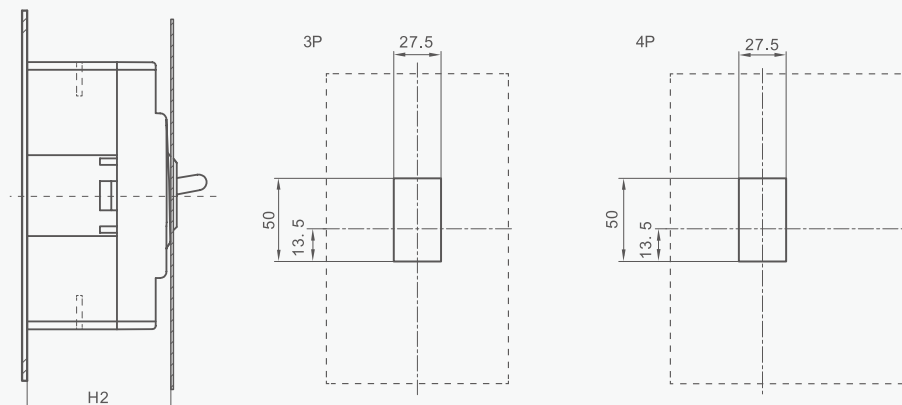
Model	H	H1	H2	H3	H4
YCM6i-320/3P	69	22	77	81	97
YCM6i-320/4P	69	22	77	81	97

YCM6i-320 Diagram of Large Hole Dimensions for Cabinet Door



Model	H
YCM6i-320/3P	69
YCM6i-320/4P	69

YCM6i-320 Diagram of Small Hole Dimensions for Cabinet Door Installation



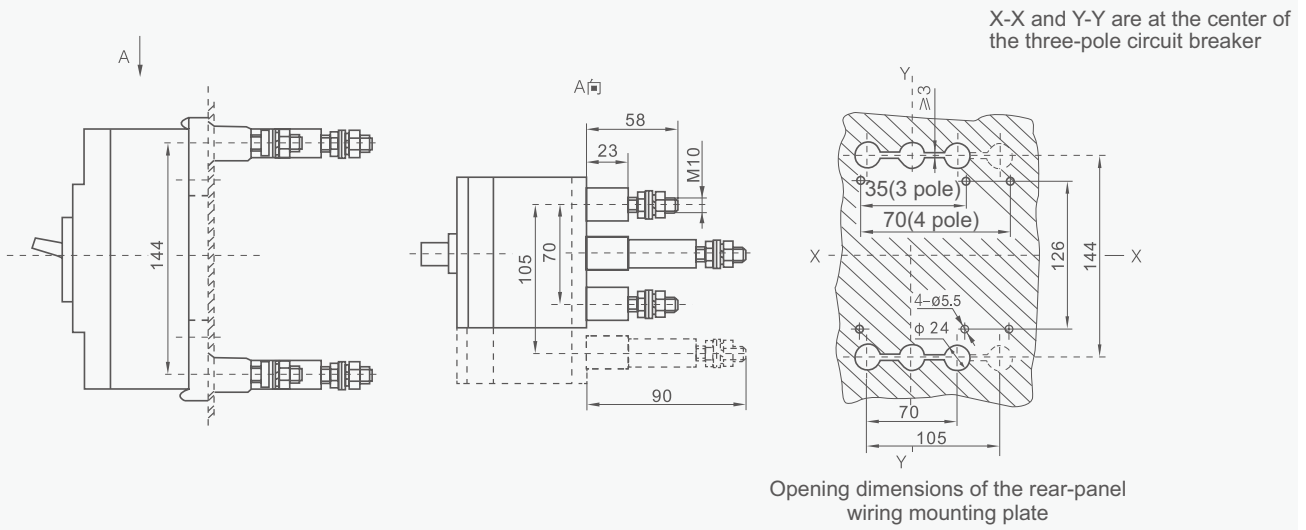
Note: It is recommended to open a large hole as shown in the above diagram. Since the outer surface of the product handle is curved, opening a small hole will affect the appearance.

Model	H2
YCM6i-320/3P	77
YCM6i-320/4P	77

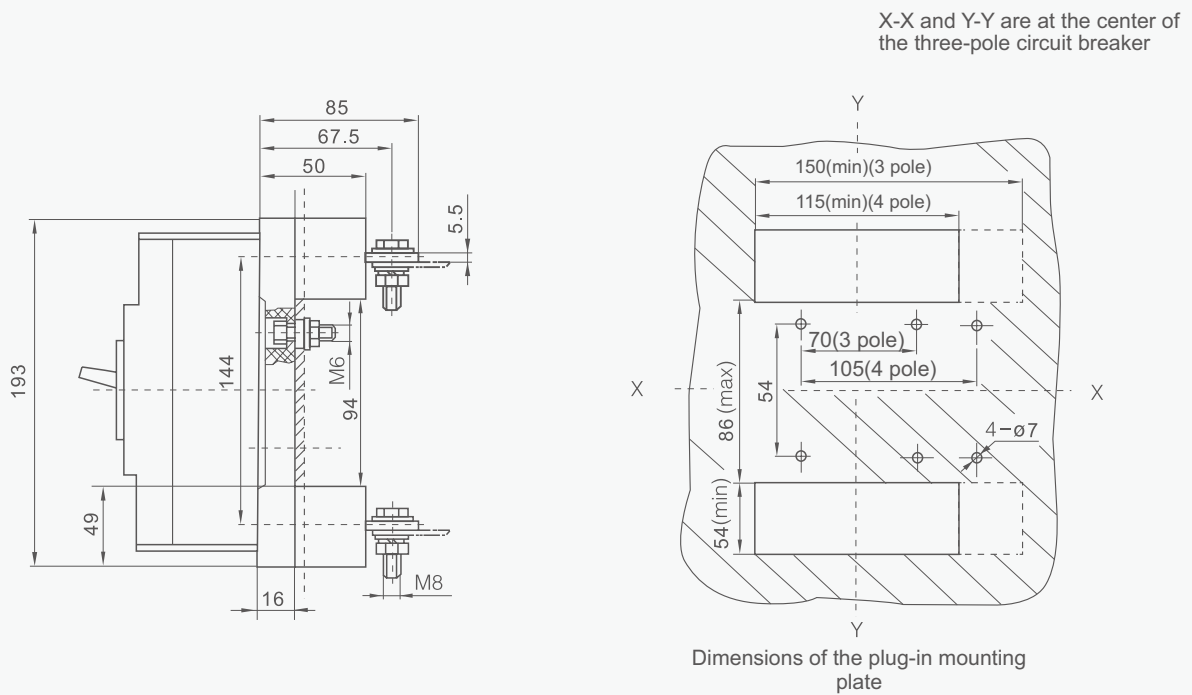
Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

YCM6i-320 MCCB(Rear-panel Wiring)



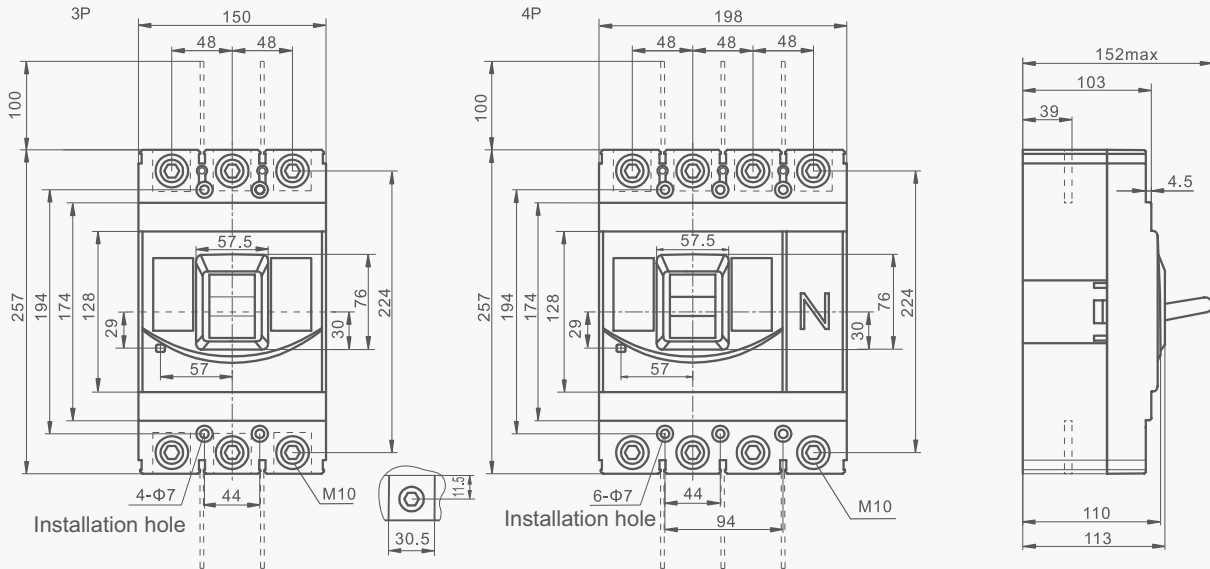
YCM6i-320 MCCB(Plug-in Rear-panel Wiring)



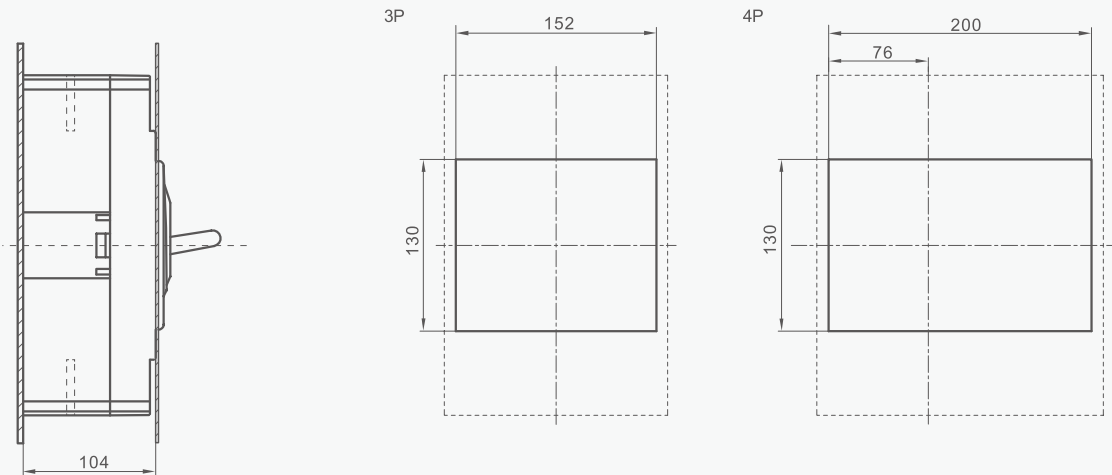
Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

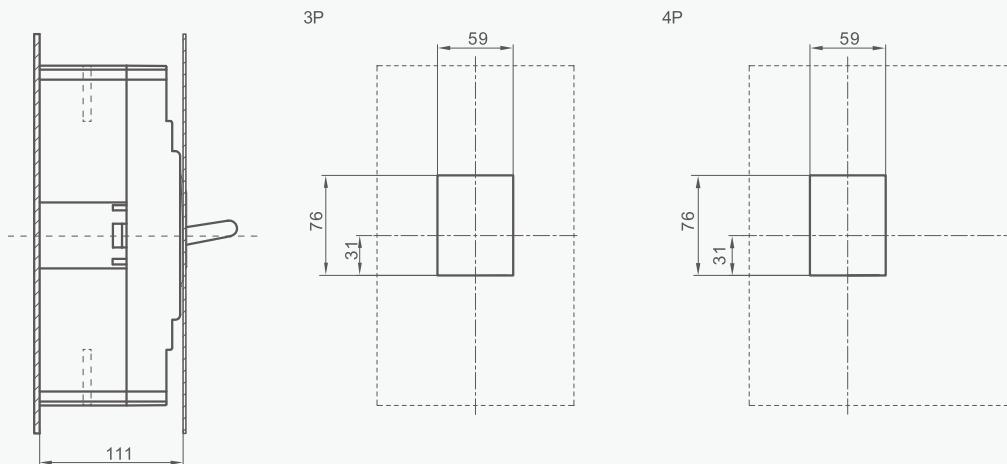
YCM6i-400/630 MCCB



YCM6i-400/630 Diagram of Large Hole Dimensions for Cabinet Door



YCM6i-400/630 Diagram of Small Hole Dimensions for Cabinet Door Installation

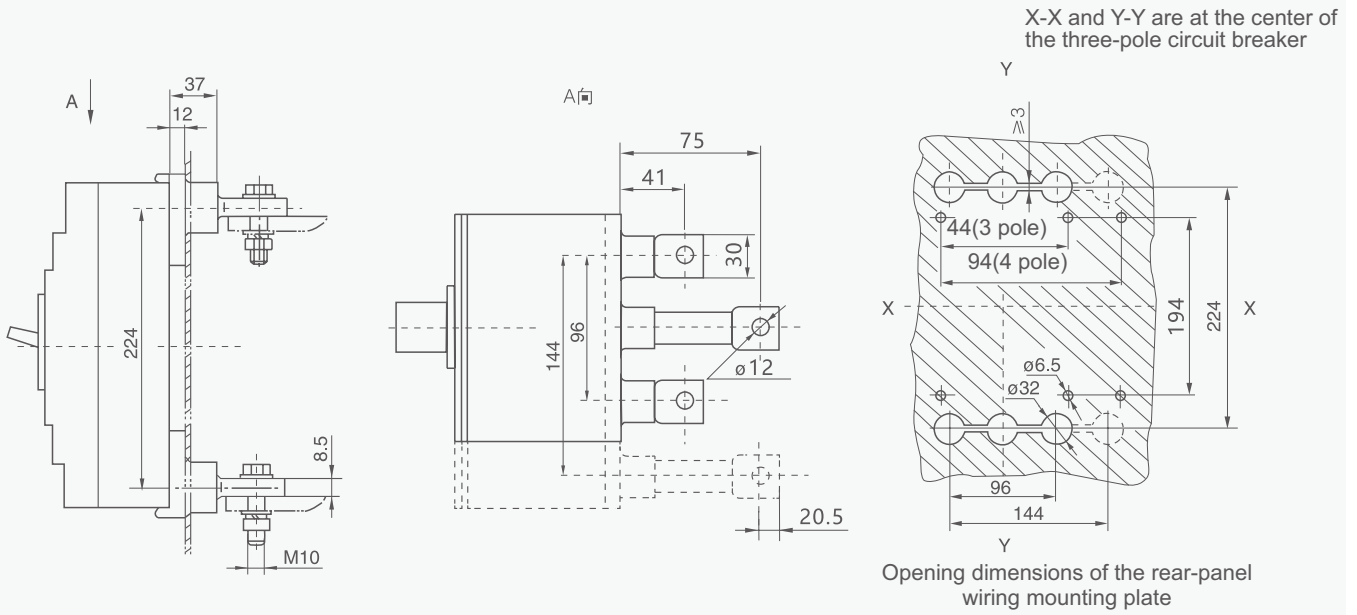


Note: It is recommended to open a large hole as shown in the above diagram. Since the outer surface of the product handle is curved, opening a small hole will affect the appearance.

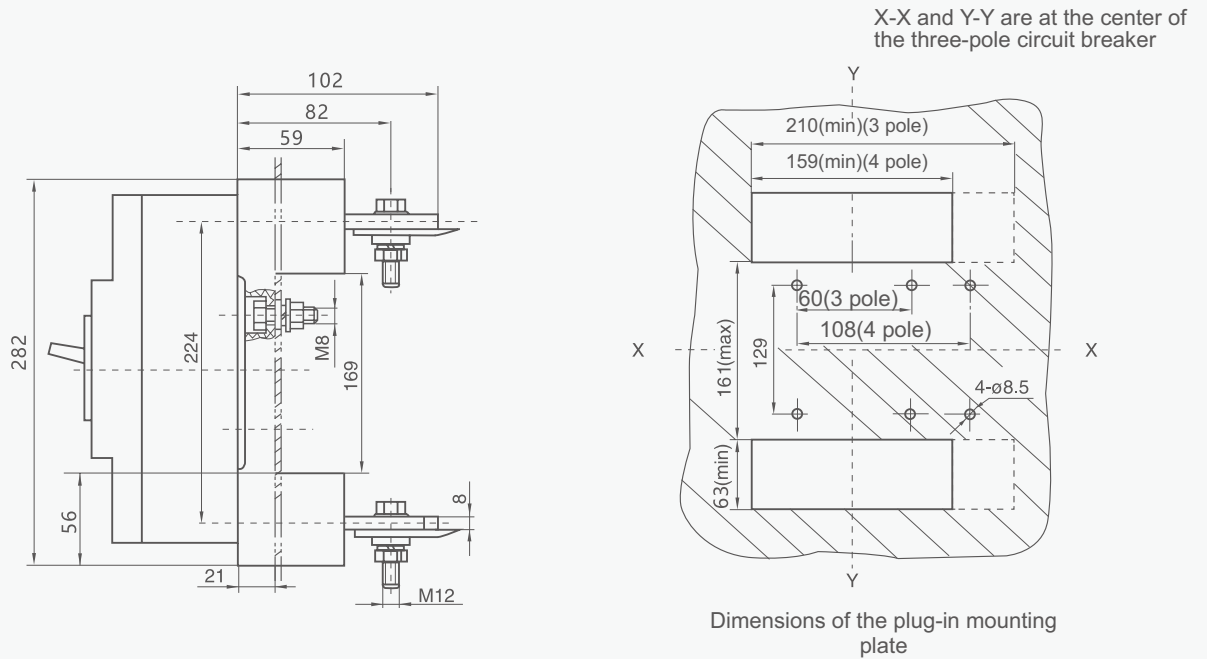
Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

YCM6i-400/630 MCCB(Rear-panel Wiring)



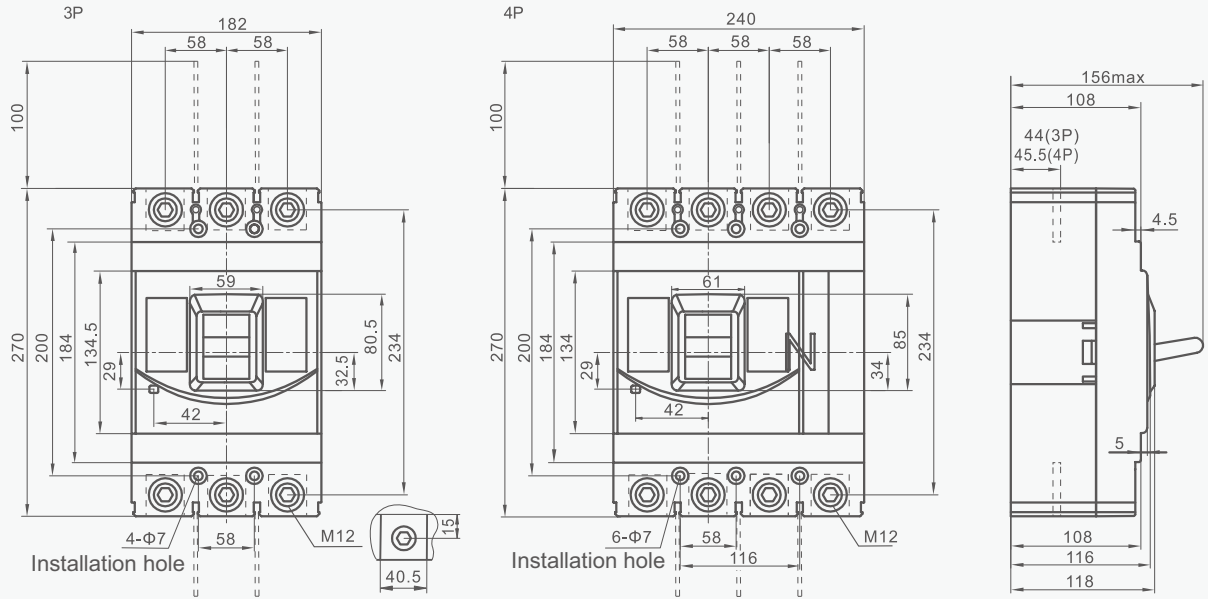
YCM6i-400/630 MCCB(Plug-in Rear-panel Wiring)



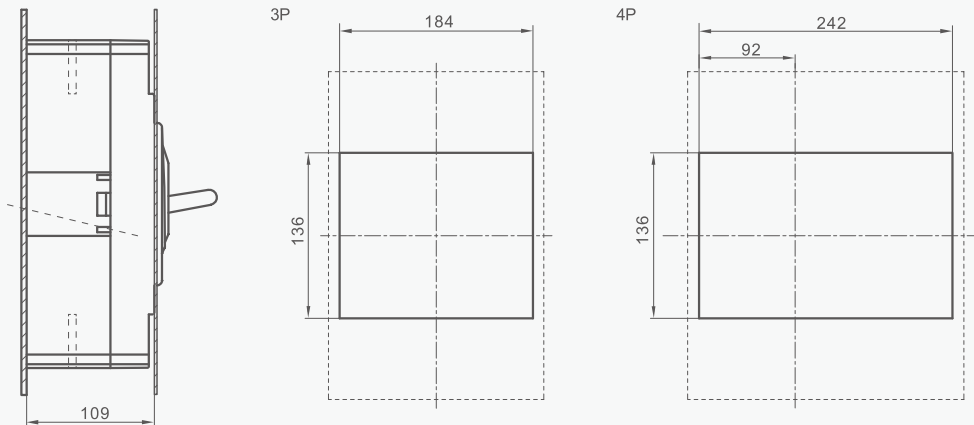
Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

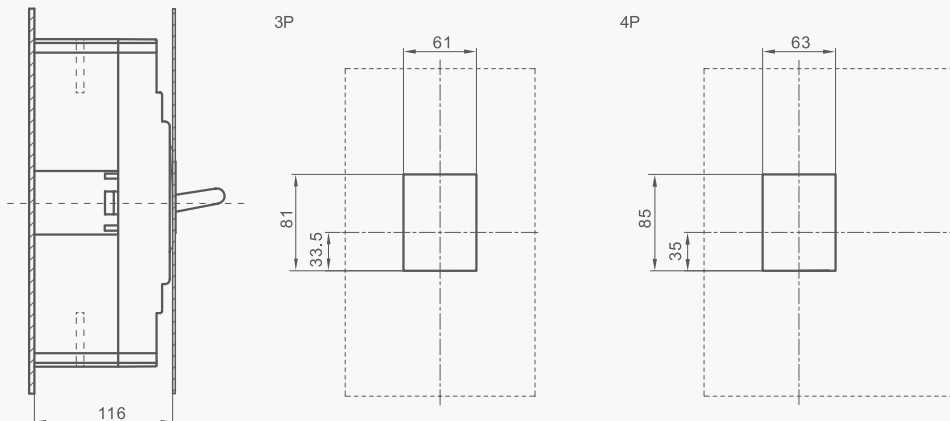
YCM6i-800 MCCB



YCM6i-800 Diagram of Large Hole Dimensions for Cabinet Door



YCM6i-800 Diagram of Small Hole Dimensions for Cabinet Door Installation

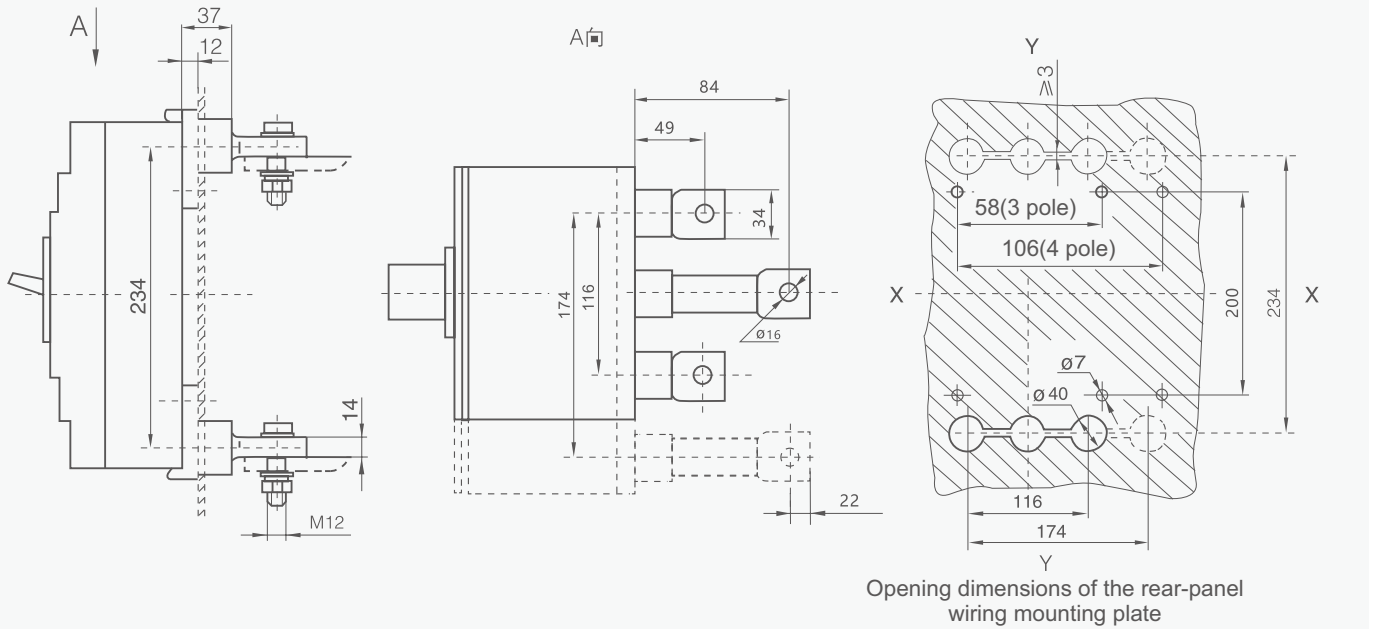


Note: It is recommended to open a large hole as shown in the above diagram. Since the outer surface of the product handle is curved, opening a small hole will affect the appearance.

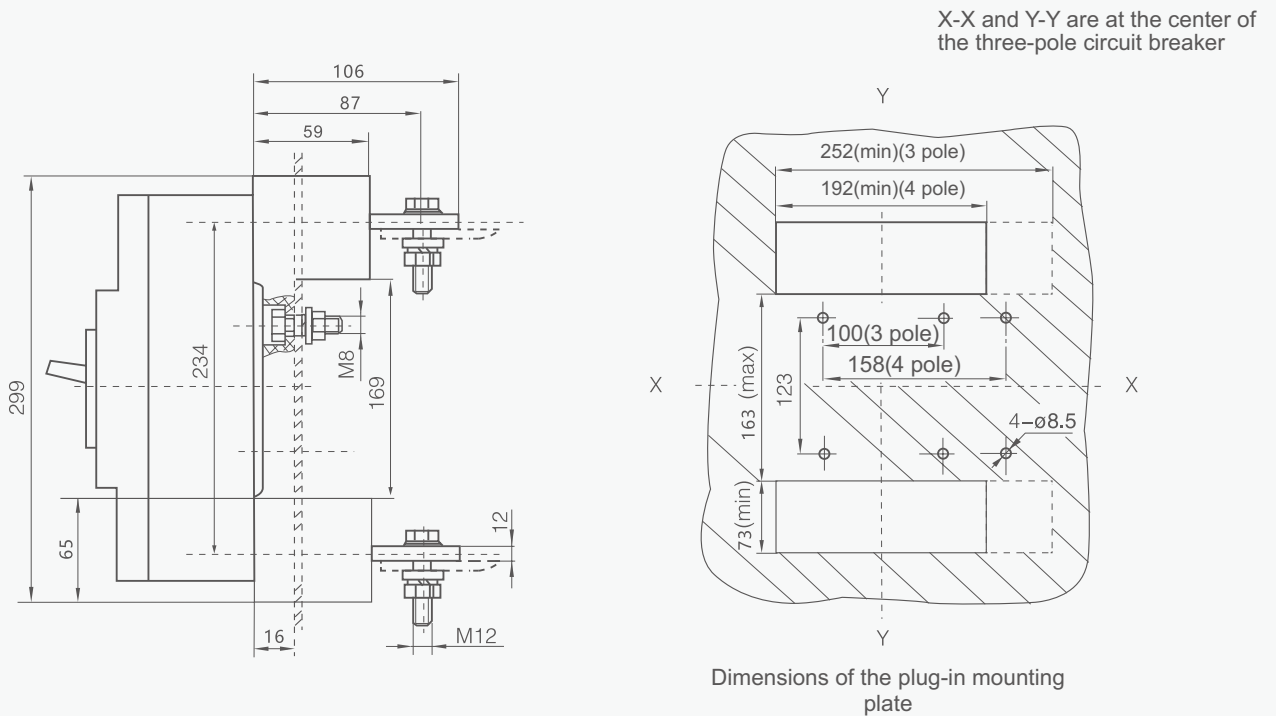
Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

YCM6i-800 MCCB(Rear-panel Wiring)



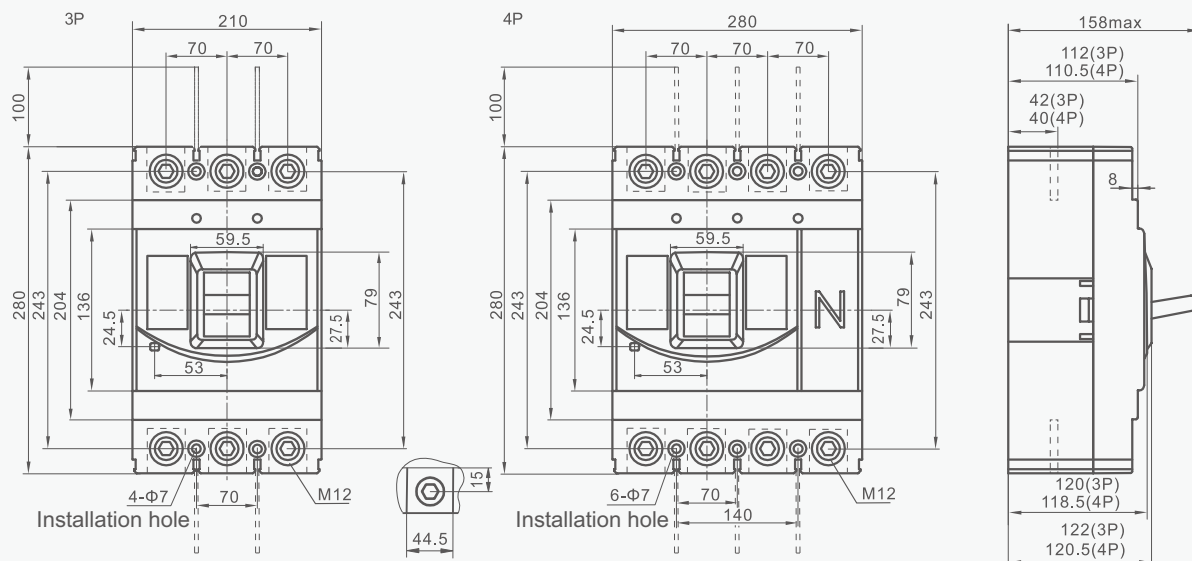
YCM6i-800 MCCB(Plug-in Rear-panel Wiring)



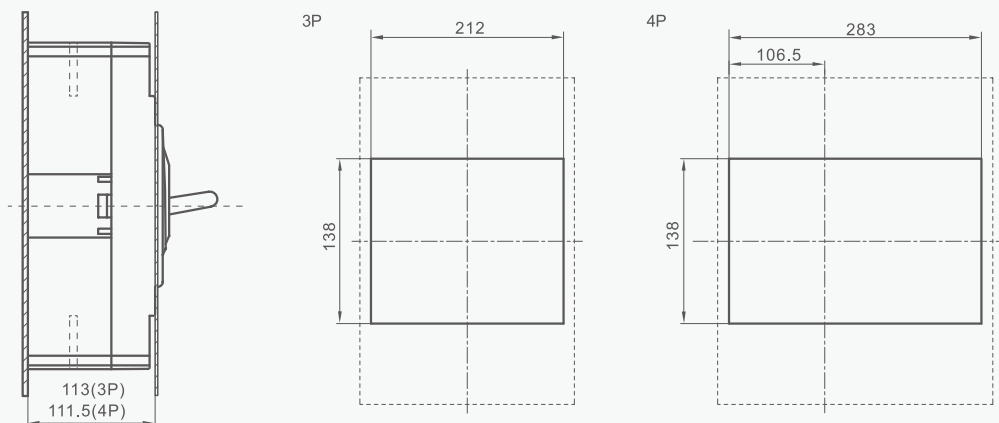
Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

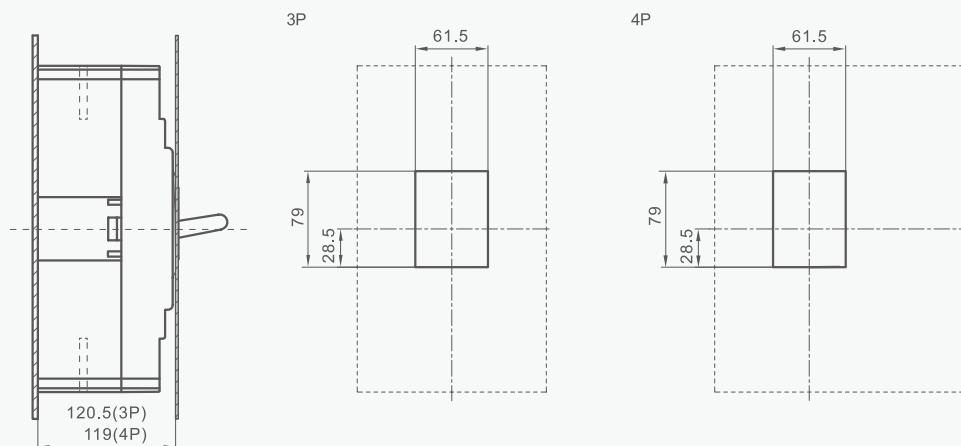
YCM6i-1000 MCCB



YCM6i-1000 Diagram of Large Hole Dimensions for Cabinet Door



YCM6i-1000 Diagram of Small Hole Dimensions for Cabinet Door Installation

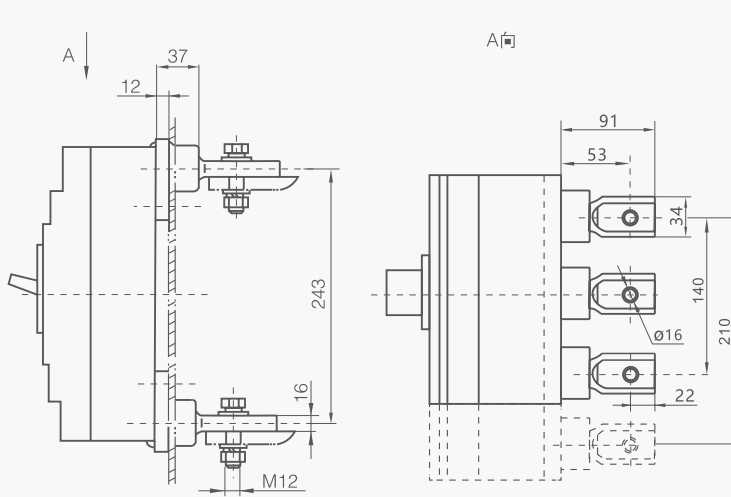


Note: It is recommended to open a large hole as shown in the above diagram. Since the outer surface of the product handle is curved, opening a small hole will affect the appearance.

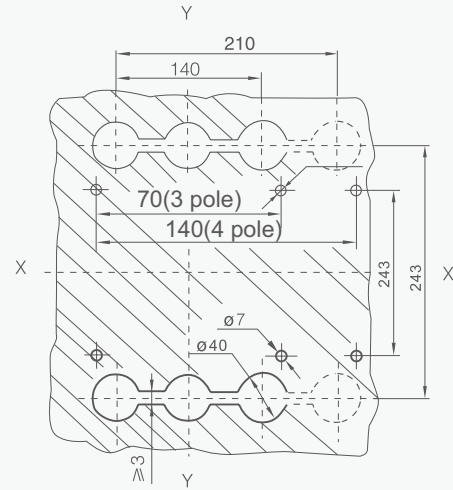
Distribution Apparatus

YCM6i Series Molded Case Circuit Breaker (MCCB)

YCM6i-1000 MCCB(Rear-panel Wiring)

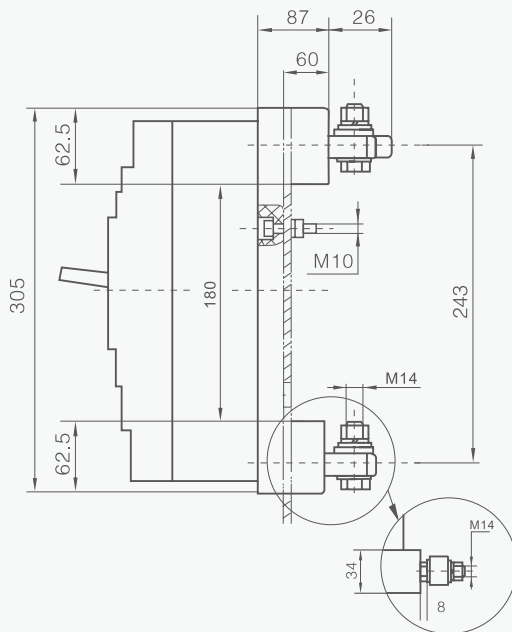


X-X and Y-Y are at the center of the three-pole circuit breaker

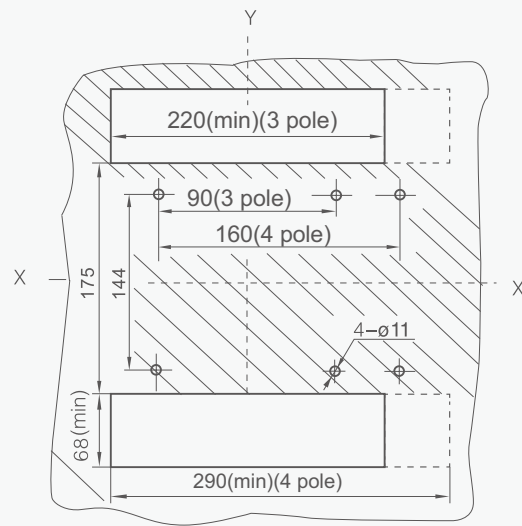


Opening dimensions of the rear-panel wiring mounting plate

YCM6i-1000 MCCB(Plug-in Rear-panel Wiring)



X-X and Y-Y are at the center of the three-pole circuit breaker



Dimensions of the plug-in mounting plate