

# GEIS

## RC<sup>+</sup>

# Z6 molded case circuit breaker

GEIS Electrical Protection

Safer Smarter Greener



## About GEIS

GEIS was established in 2019 following the spin-off of several businesses and assets that ABB had acquired from GE on July 1, 2018, include 3 manufacturing centers, Warehousing & Trading business at FTZ, China Technology Center.

- Components: Full range of circuit breakers up to 40.5kV: Medium voltage vacuum circuit breakers, LV circuit breakers: ACB, MCCB, MCB, RCD, RCBO: Control components.
- Equipment: MV switchgear (Air insulation and Gas Insulation Technology), LV switchgear, switchboard.
- Medium voltage cast coil dry type transformer.
- Medium voltage ATS system (Paralleling Switchgear).

After the separation, all the above product lines were rebranded as AEG for selected markets and GEIS for global markets.



## Quality is Built-in

The Vertical Integrated Manufacturing Center

- Established in 2000, the 1st North Asia facility of GE Industrial Solutions
- Localize US and European products to serve the local market
- Evolving into a Global platform of Cast Coil Dry-Type Transformer, Air Circuit Breaker, IEC and NEMA medium voltage VCB and switchgear for GE Industrial Solutions
- A GE Global Star Facility



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**GEIS deliver complete range of products for the evolving electrification needs:**

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**SecoVac VCB**



**M-PACT Plus ACB**



**Elfa Series MCB/RCBO**



**EV Charger**



**SecoGear MV Switchgear**



**US5.0 Gas Insulated Switchgear**



**WaveCast Transformer**



**MLS LV Switchgear**

# RC<sup>+</sup> Z6 molded case circuit breaker

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### Product



Standards: IEC60947-2



RC+ Series Z6 molded circuit breaker protection function definition, provides a general standard protection molded circuit breaker and with residual current protection molded circuit breaker options.

- Standard protection molded circuit breaker, providing thermomagnetic distribution or motor protection solution, the product has the isolation function
- Molded circuit breaker with residual current protection, providing thermal magnetic distribution + leakage protection scheme, the product has isolation function

#### ■ RC+ series Z6 molded case circuit breaker

RC+ series Z6 molded circuit breaker has 5 frames:  
 Chassis current 100A: rated current 10-100A  
 Chassis current 160A: Rated current 100-160A  
 Chassis current 250A: Rated current 100-250A  
 Chassis current 400A: Rated current 225-400A  
 Chassis current 630A: rated current 400-630A

### Product

RC+ series Z6 molded circuit breaker as a member of GEIS MCCB family, follows "perfekt in form und funktion" industrial design concept.

The circuit breaker design process uses a scientific platform and method, and the manufacturing process is constructed through the GEIS ALPS lean manufacturing system to provide reliable products.

While considering the performance and appearance of the circuit breaker, the field practicability of the product is also considered in many aspects.

RC+ series Z6 MCCB rated insulation voltage is 800V, suitable for AC 50Hz, rated operating voltage AC400V, rated operating current up to 630A low voltage distribution network.

Circuit breakers can be used in buildings, infrastructure, power, power control and other low-voltage distribution networks, can connect, carry and break the current under normal circuit conditions, but also in the specified abnormal circuit (such as short circuit) under the switch, break the fault current.

#### ■ RC+ Series Z6R circuit breaker with residual current protection

RC+ series Z6R with residual molded circuit breaker has 4 frames:  
 Frame current 100A: rated current 10-100A  
 Frame current 250A: Rated current 100-250A  
 Frame current 400A: rated current 225-400A  
 Frame current 630A: rated current 400-630A

### Selection guide

#### Z6S molded case circuit breaker, 100/160/250 frame

Z6	S	100	L	3	063
Product series	Breaking capacity	Frame	Trip unit	Poles	Rated current
GEIS RC+ Series Z6 Molded case circuit breaker	S: Icu=36kA	100: 100A 160: 160A 250: 250A	L: Line thermal magnetic protection M: Only magnetic motor protection	3 : 3 poles 4 : 4 poles	010-10A ... .. 063-63A ... .. 250-250A

#### Z6N molded case circuit breaker, 400/630 frame

Z6	N	400	L	3	400
Product series	Breaking capacity	Frame	Trip unit	Poles	Rated current
GEIS RC+ Series Z6 Molded case circuit breaker	N: Icu=50kA	400: 400A 630: 630A	L: Line thermal magnetic protection M: Only magnetic motor protection	3 : 3 poles 4 : 4 poles	225-250A ... .. 400-400A ... .. 630-630A

#### Overview of Specifications for RC<sup>+</sup> Series Z6 Molded Case Circuit Breakers

Frame	Break-ing	Rated current A																					
		10	16	20	25	32	40	50	63	80	100	125	140	160	180	200	225	250	315	350	400	500	630
Z6S100	36kA	█	█	█	█	█	█	█	█	█	█												
Z6S160	36kA									█	█	█	█										
Z6S250	36kA									█	█	█	█	█	█	█	█	█					
Z6N400	50kA																█	█	█	█	█		
Z6N630	50kA																				█	█	█

Description of commonly used accessory models:

Auxiliary contact - FAS;

Alarm contact FAB;

Auxiliary alarm contact - FASB

Shunt release - SHT;

Plug in- DDF;

Undervoltage release - UVR

### Selection guide

#### Z6S molded case circuit breaker with residual current protection, 100/250 frame

Z6	S	100	R	4	100
Product series	Breaking capacity	Frame	Trip unit	Poles	Rated current
GEIS RC+ Series Z6 Molded case circuit breaker with residual current protection	S: I <sub>cu</sub> =36kA	100: 100A	R: Line thermal magnetic type with residual current protection	3 : 3 poles	016-16A
		250: 250A		4 : 4 poles	... ..
					063-63A
					... ..
					250-250A

#### Z6N molded case circuit breaker with residual current protection, 400/630 frame

Z6	N	400	R	4	400
Product series	Breaking capacity	Frame	Trip unit	Poles	Rated current
GEIS RC+ Series Z6 Molded case circuit breaker with residual current protection	N: I <sub>cu</sub> =50kA	400: 400A	R: Line thermal magnetic type with residual current protection	3 : 3 poles	225-225A
		630: 630A		4 : 4 poles	... ..
					400-400A
					... ..
					630-630A

#### Overview of Specifications for RC<sup>+</sup> Series Z6 molded case circuit breakers with residual current protection

Frame	Break- ing	Rated current A																					
		16	20	25	32	40	50	63	80	100	125	140	160	180	200	225	250	315	350	400	500	630	
Z6S100	36kA	█	█	█	█	█	█	█	█	█													
Z6S250	36kA									█	█	█	█	█	█	█	█						
Z6N400	50kA															█	█	█	█	█			
Z6N630	50kA																				█	█	█

Description of commonly used accessory models:

Auxiliary contact - FAS;

Alarm contact FAB;

Auxiliary alarm contact - FASB

Shunt release - SHT;

Plug in- DDF;

Undervoltage release - UVR

### Technical data

#### Z6 MCCB Technical data



MCCB Frame			Z6 100	Z6 160	Z6 250	Z6 400	Z6 630
Poles			3P,4P	3P,4P	3P,4P	3P,4P	3P,4P
Rated insulation voltage	Ui	V	800	800	1000	1000	1000
Rated impulse withstand voltage	Uimp	kV	8	8	8	8	8
Rated working voltage	AC	V	400	400	400	400	400
Usage category			A	A	A	A	A
Suitable for use as isolation	Clear ON-OFF indication		YES	YES	YES	YES	YES
Conventional thermal current	Ith	A	100	160	250	400	630
Rated current	A		10-100	100-160	100-250	225-400	400-630
Breaking code			S	S	S	N	N
Rated ultimate short-circuit breaking capacity Icu	AC400V	kA	36	36	36	50	50
Rated service short-circuit breaking capacity Ics	AC400V	kA	18	18	18	25	25
Trip unit							
Line thermal magnetic protection		L	<input type="checkbox"/>				
Only magnetic motor protection		M	<input type="checkbox"/>				
Life							
Mechanical lifes		times	10000	12000	12000	12000	12000
Electrical lifes		times	4000	5000	5000	4000	4000
Internal accessories and functions							
Auxiliary contacts			<input type="checkbox"/>				
Alarm contacts			<input type="checkbox"/>				
Shunt release			<input type="checkbox"/>				
Installation							
Fixed			<input checked="" type="checkbox"/>				
Plug-in			<input type="checkbox"/>				
Size WxHxD	3P	mm	75x130x80	92x150x106	107x165x107	150x257x141	182x270x146
	4P	mm	100x130x80	122x150x106	142x165x107	198x257x141	240x270x146
Weight	3P	kg	0.9	1.6	2.4	5.6	7.6
	4P	kg	1.2	2.2	3.2	7.5	10.1
Standard			IEC60947-2				

■ Standard configuration □ Optional configuration - Not available

### Technical data

#### Z6R MCCB with residual current protection Technical data



MCCB Frame			Z6 100R	Z6 250R	Z6 400R	Z6 630R
Poles			3P,4P	3P,4P	3P,4P	3P,4P
Rated insulation voltage	U <sub>i</sub>	V	800	800	800	800
Rated impulse withstand voltage	U <sub>imp</sub>	kV	8	8	8	8
Rated working voltage	AC	V	400	400	400	400
Usage category			A	A	A	A
Suitable for use as isolation	Clear ON-OFF indication		YES	YES	YES	YES
Conventional thermal current	I <sub>th</sub>	A	100	250	400	630
Rated current			16-100A	100-250A	225-400A	400-630A
Breaking code			S	S	N	N
Rated ultimate short-circuit breaking capacity I <sub>cu</sub>	AC400V	kA	36	36	50	50
Rated service short-circuit breaking capacity I <sub>cs</sub>	AC400V	kA	18	18	25	25
Trip unit						
Line thermal magnetic type with residual current protection	R		■	■	■	■
Type of residual protection current			Type AC	Type AC	Type AC	Type AC
Residual current action value	I <sub>Δn</sub>	mA	100/300/500	100/300/500	100/300/500	300/500/1000
Life						
Mechanical lifes	次		10000	12000	12000	12000
Electrical lifes	次		4000	5000	4000	4000
Internal accessories and functions						
Auxiliary contacts			□	□	□	□
Alarm contacts			□	□	□	□
Shunt release			□	□	□	□
Installation						
Fixed			■	■	■	■
Plug-in			□	□	□	□
Size WxHxD	3P	mm	92x150x110	107x165x110	150x257x147	210x280x155
	4P	mm	122x150x110	142x165x110	198x257x147	280x280x155
Weight	3P	kg	1.7	2.3	5.9	7.9
	4P	kg	2.2			
Standard			IEC60947-2			

■ Standard configuration □ Optional configuration - Not available

### Trip unit



#### Line thermal magnetic protection

The line thermal magnetic trip unit uses a thermal magnetic release device to provide overload (thermal) protection and short circuit (magnetic) protection. The thermal protection device is usually calibrated at an ambient temperature of 40 degrees Celsius.

Line thermal magnetic protection unit L:

Thermal protection action value  $I^2t$ :

- $I_n \leq 63A$ , 1.05 $I_n$ , no action within 1 hour; 1.3 $I_n$ , action within 1 hour
- $I_n > 63A$ , 1.05 $I_n$ , no action within 2 hours; 1.3 $I_n$ , action within 2 hours

Magnetic protection action value:

- $I_n \geq 32A$ , magnetic protection action value is 10 $I_n$
- $I_n \leq 25A$ , magnetic protection action value is 300A



#### Only magnetic motor protection

Circuit breakers can also provide single magnet motor protection for motor loads, fire protection, and other circuits.

Motor only magnetic protection unit M: Magnetic protection setting value: 12 $I_n$



#### Line thermal magnetic type with residual current protection

Circuit breakers can also provide a composite protection unit with line thermal magnetic and residual current functions, forming a compact integrated molded case circuit breaker with residual current protection. Using a thermal magnetic release device to provide overload (thermal) protection and short circuit (magnetic) protection, the thermal protection device is usually calibrated at an ambient temperature of 40 degrees Celsius; Use intelligent electronic units to provide residual current protection.

Line thermal magnetic type with residual current protection unit R:

- Thermal protection action value  $I^2t$ :
- $I_n \leq 63A$ , 1.05 $I_n$ , no action within 1 hour; 1.3 $I_n$ , action within 1 hour
  - $I_n > 63A$ , 1.05 $I_n$ , no action within 2 hours; 1.3 $I_n$ , action within 2 hours

Magnetic protection action value :

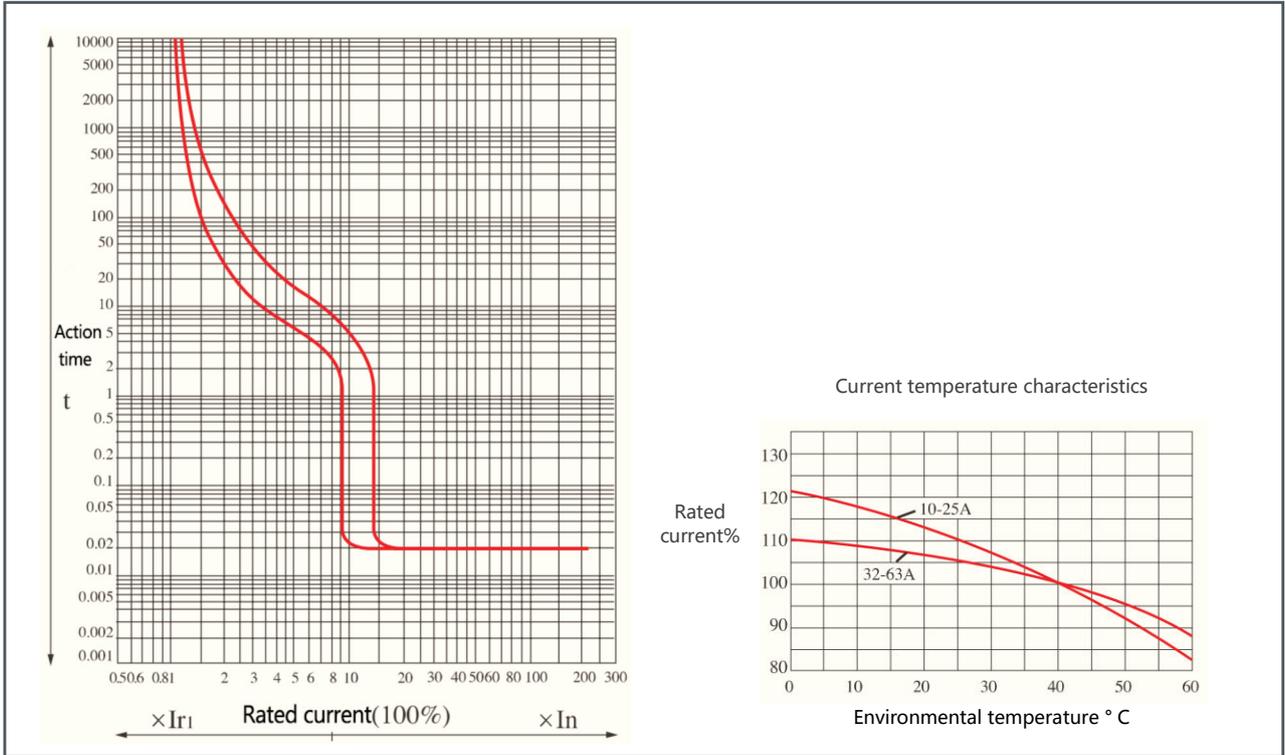
- $I_n \geq 32A$ , magnetic protection action value is 10 $I_n$
- $I_n \leq 25A$ , magnetic protection action value is 300A

Residual current protection value:

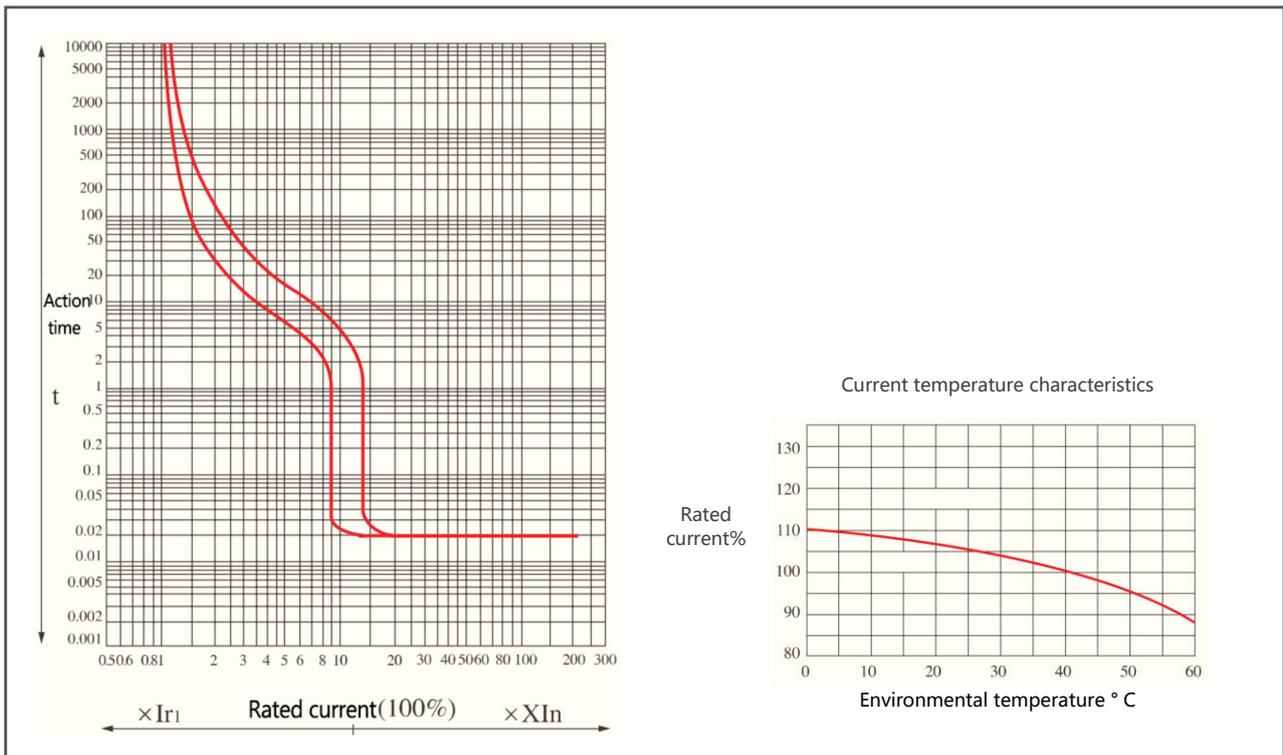
$I \Delta n$ : 100/300/500 adjustable

**Trip unit**

■ Z6 100 molded case circuit breaker-current curve

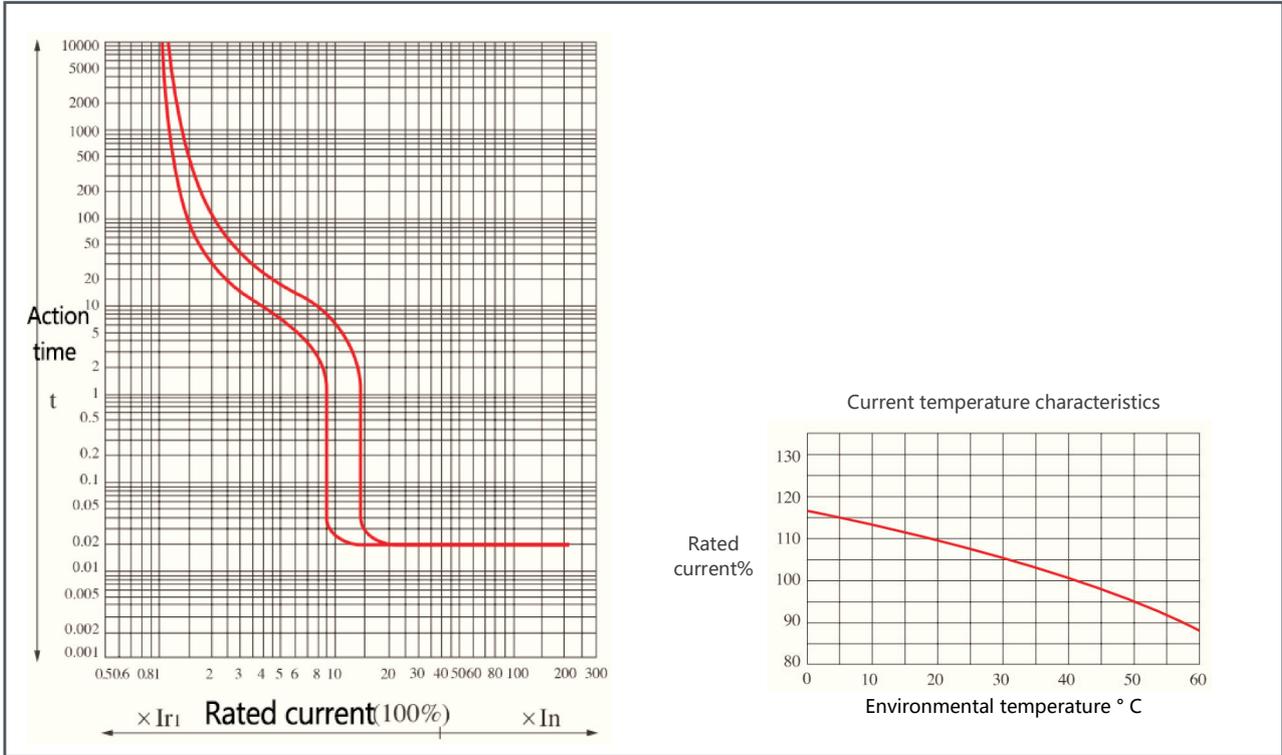


■ Z6 160 molded case circuit breaker-current curve

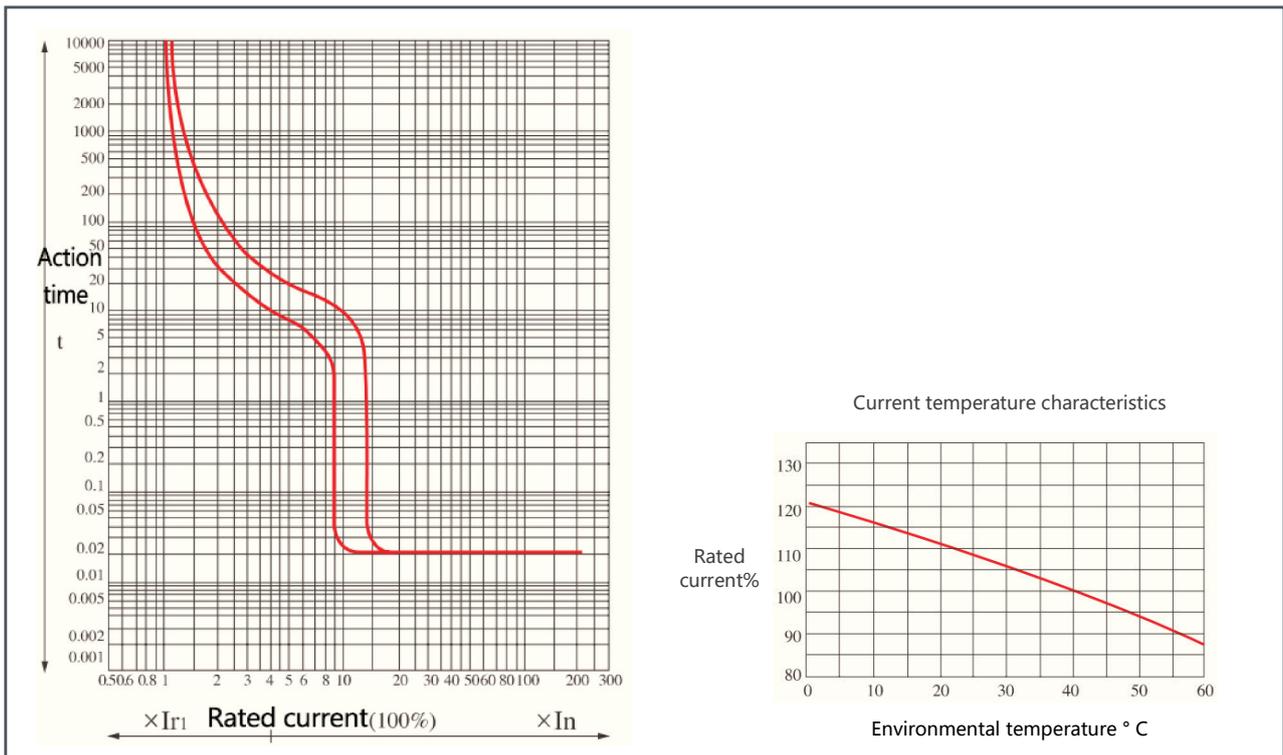


**Trip unit**

■ Z6 250 molded case circuit breaker-current curve



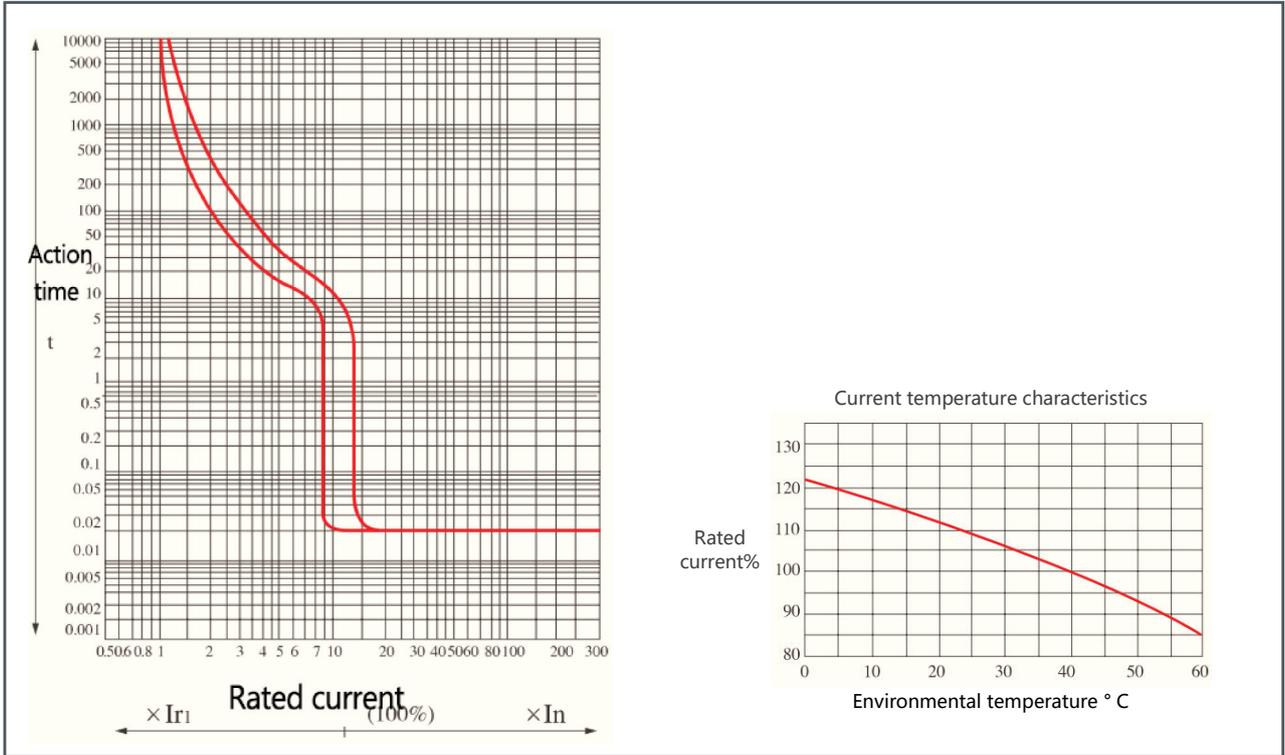
■ Z6 400 molded case circuit breaker-current curve



RC<sup>+</sup> Z6 molded case circuit breaker

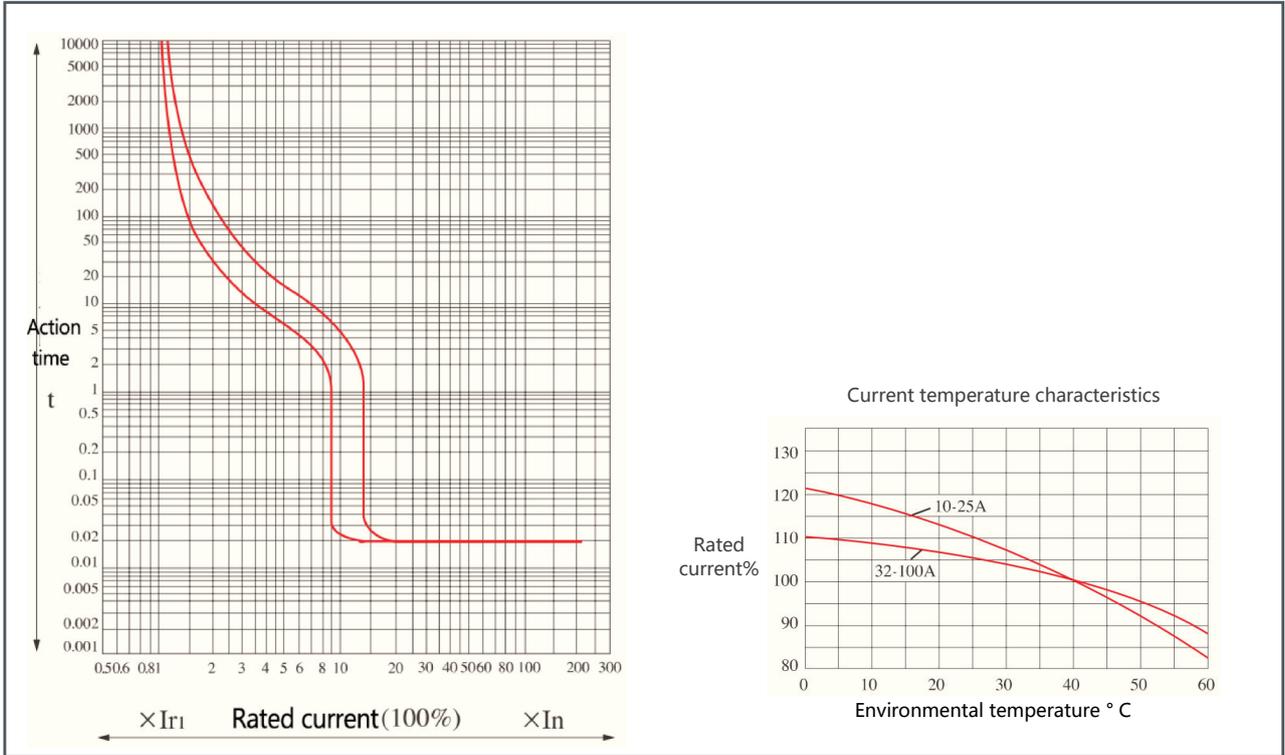
# Trip unit

■ Z6 630 molded case circuit breaker-current curve

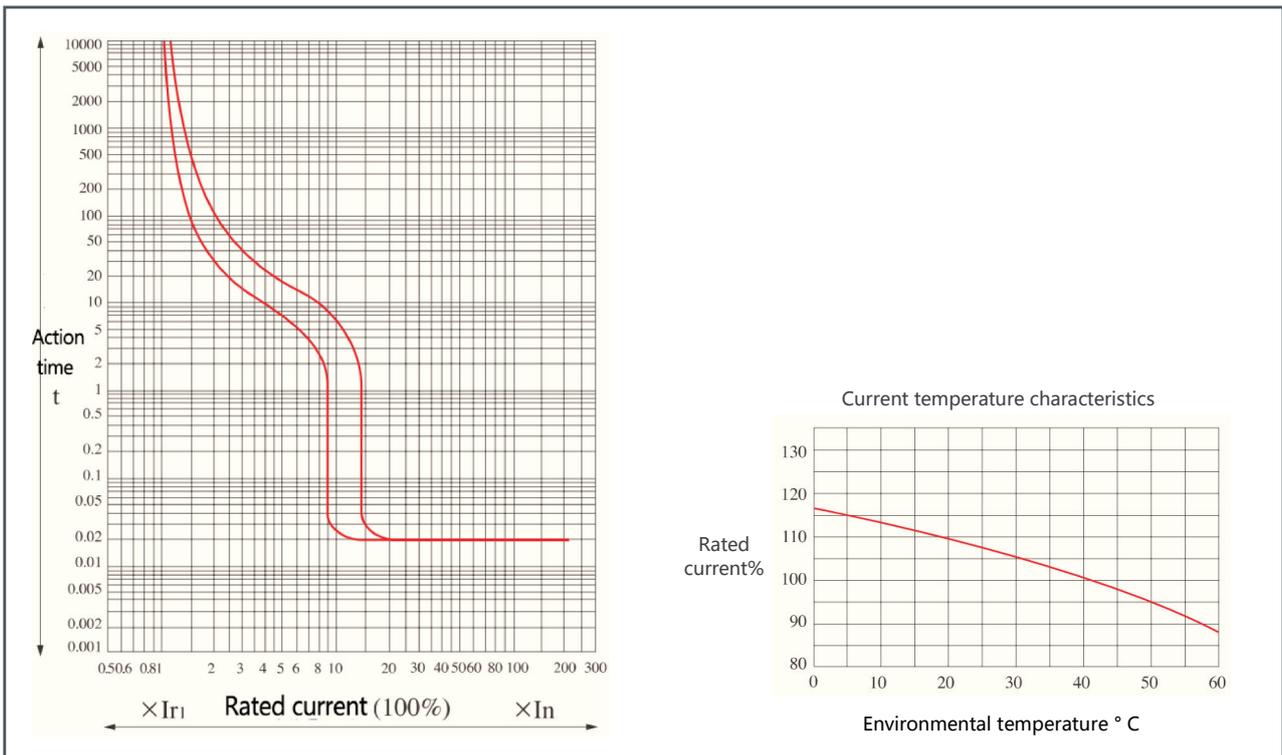


**Trip unit**

■ Z6 100R molded case circuit breaker with residual current protection - current curve

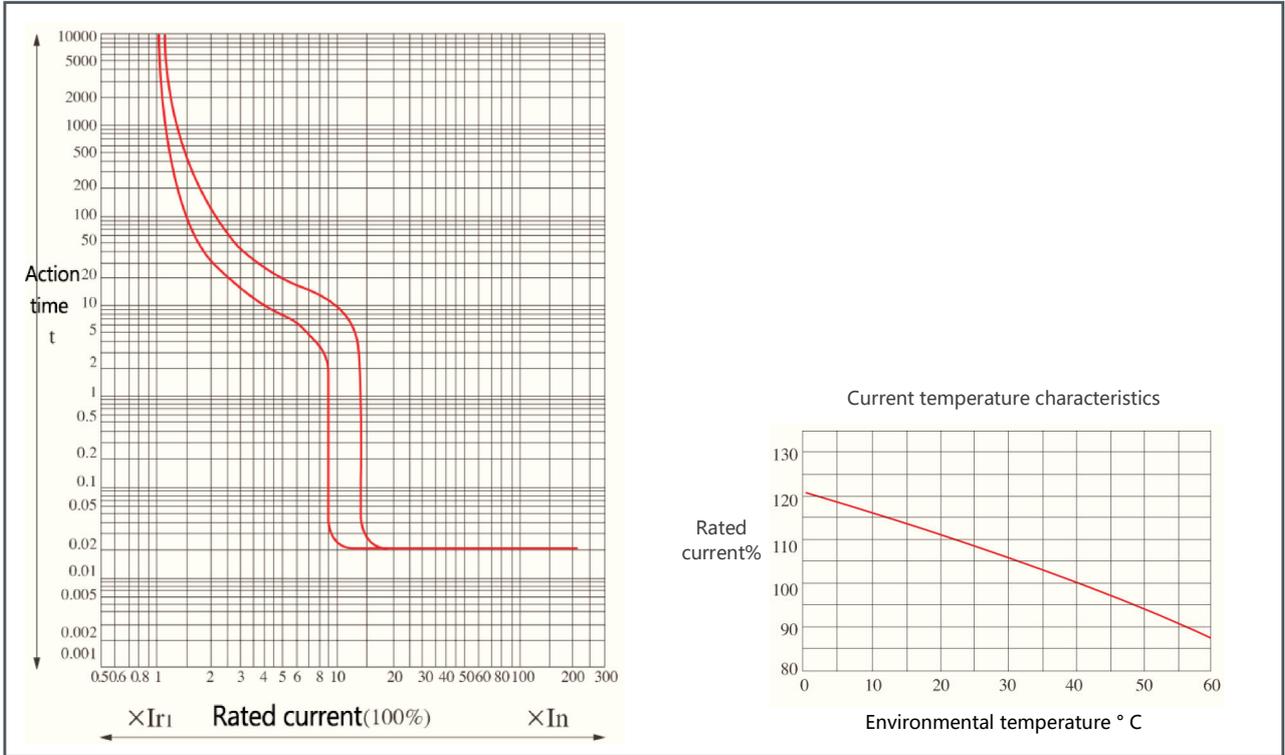


■ Z6 250R molded case circuit breaker with residual current protection - current curve

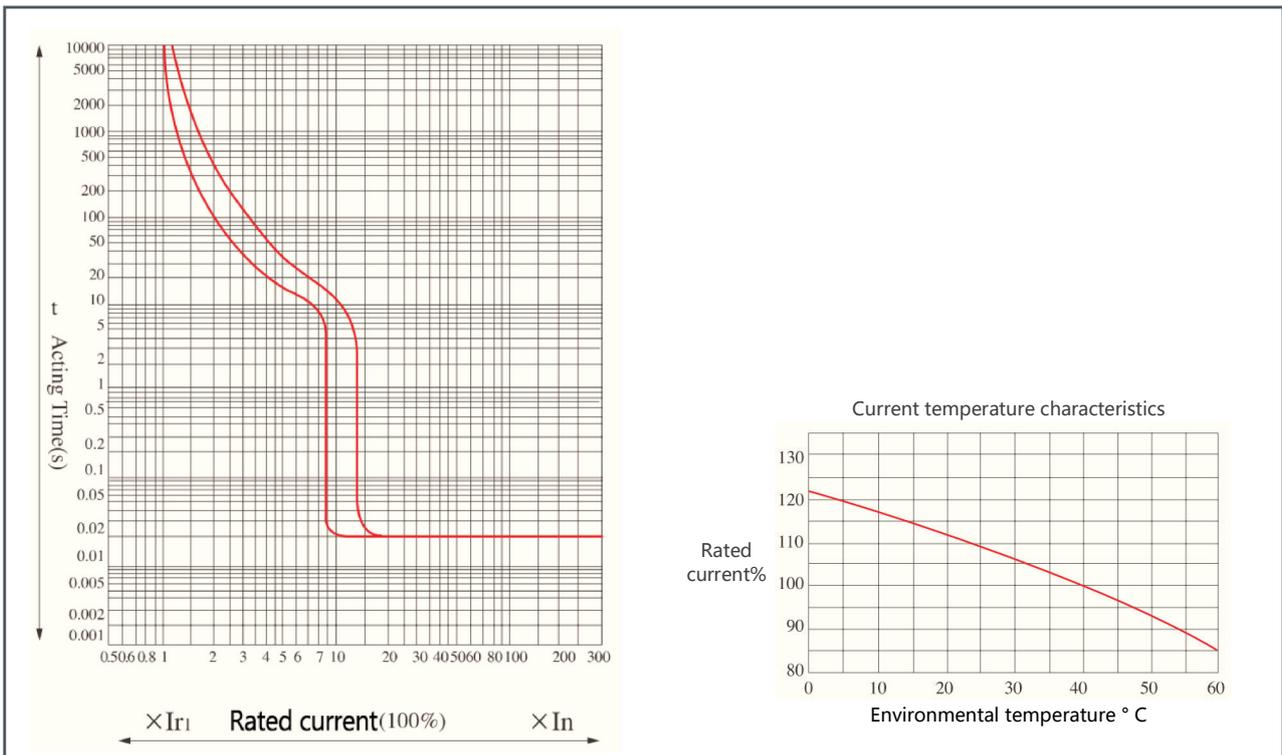


**Trip unit**

■ Z6 400R molded case circuit breaker with residual current protection - current curve



■ Z6 630R molded case circuit breaker with residual current protection - current curve

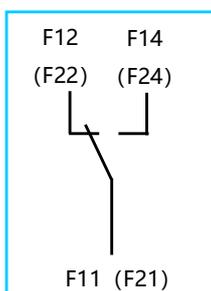


### Accessories

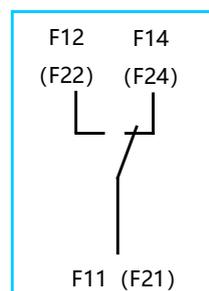
#### Auxiliary contacts

The auxiliary contact module can be easily fixed to an auxiliary device compartment, and removing the circuit breaker cover can access the compartment. This complete compartment has multiple boxes, with most boxes reserved for use as auxiliary contacts.

- The circuit breaker is in the " open" or " free release" position:



- The circuit breaker is in the "closed" position:

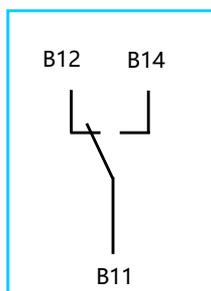


#### Alarm contacts

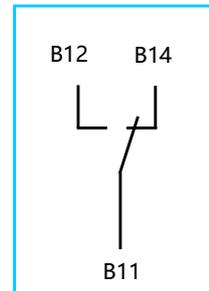
Mechanical alarm contacts are used to indicate that the circuit breaker has tripped due to one of the following reasons:

- Fault
- The release button on the front end of the circuit breaker has been pressed
- Shunt or undervoltage trip operatio

- The circuit breaker is in the position when using the handle to " open" or "close" :



- The position of the circuit breaker when it is in "mechanical free release" :



#### Auxiliary alarm contacts

Molded case circuit breakers can also provide auxiliary and alarm contact combinations, as well as auxiliary signals and mechanical alarm signals.

## Accessories

### Rated current of auxiliary and alarm contacts

Frame level	Rated current	Conventional thermal current I <sub>th</sub>	Rated current I <sub>e</sub>	
			AC400V (AC-15)	DC220V (DC-13)
	I <sub>nm</sub> ≤ 250A	3A	0.3A	0.15A
	I <sub>nm</sub> ≥ 400A	3A	0.4A	0.15A

### Power on operation performance and corresponding test conditions of auxiliary contacts and alarm contacts

Usage category	Making			Breaking			Operation frequency	power on time	
	I/I <sub>e</sub>	U/U <sub>e</sub>	cosφ	I/I <sub>e</sub>	U/U <sub>e</sub>	cosφ			
AC-15	10	1	0.3	1	1	0.3	6050	360	≥ 0.05s
DC-13	1	1	6Pe	1	1	6Pe	6050	360	≥ T <sub>0.95</sub>

### Auxiliary and alarm contact making and breaking capabilities

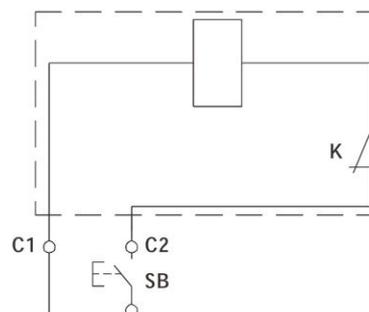
Usage category	Making			Breaking			Operation frequency	power on time	
	I/I <sub>e</sub>	U/U <sub>e</sub>	cosφ	I/I <sub>e</sub>	U/U <sub>e</sub>	cosφ			
AC-15	10	1.1	0.3	10	1.1	0.3	10	120	≥ 0.05s
DC-13	1.1	1.1	6Pe	1.1	1.1	6Pe	10	120	≥ T <sub>0.95</sub>

## Accessories

### Shunt release

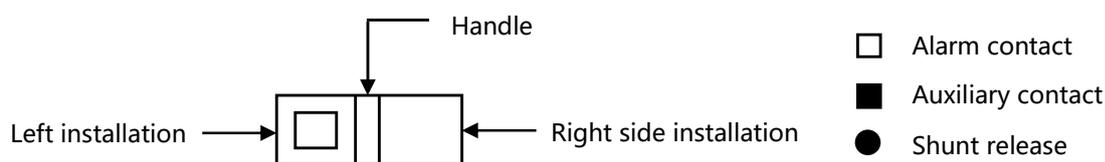
When the circuit breaker is in the " ON" position and the shunt trip coil is excited, the circuit breaker will trip and open. K is a micro switch connected in series with the coil inside the shunt release. When the circuit breaker is in the closed state, the contact of the micro switch is in the closed state. When the circuit breaker is in the open or released state, the contact is in the open state. The SB operation button needs to be provided by the user.

When the rated control power supply is between 70 % -110%, the shunt release reliably releases the circuit breaker.



### Accessories

#### Z6 molded case circuit breaker accessories installing

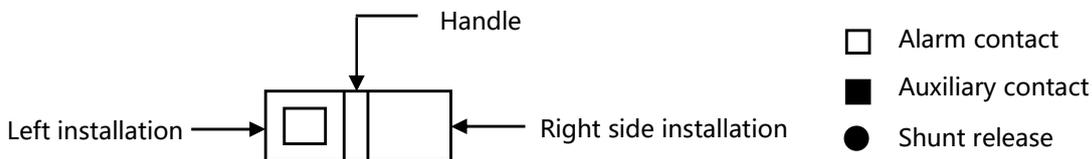


Accessories Name	Z6 100	Z6 160	Z6 250	Z6 400/630
	3P/4P	3P/4P	3P/4P	3P/4P
Alarm contact				
Shunt release				
Auxiliary contact (1NO+1NC)				
Auxiliary contact (2NO+2NC)				
Auxiliary contact (2NO+2NC)				
Shunt release +Auxiliary contact (1NO+1NC)				
Shunt release +Auxiliary contact (2NO+2NC)				
Shunt release +Auxiliary contact (2NO+2NC)				
Two sets of auxiliary contacts (2NO+2NC)				
Two sets of auxiliary contacts (4NO+4NC)				
Two sets of auxiliary contacts (3NO+3NC)				
Two sets of auxiliary contacts (4NO+4NC)				
Shunt release+Alarm contact				
Auxiliary contact (1NO+1NC) +Alarm contact				
Auxiliary contact (2NO+2NC) +Alarm contact				
Shunt release+Auxiliary contact (1NO+1NC) +Alarm contact				
Shunt release+Auxiliary contact (2NO+2NC) +Alarm contact				
Two sets of auxiliary contacts (2NO+2NC) +Alarm contact				
Two sets of auxiliary contacts (4NO+4NC) +Alarm contact				
Two sets of auxiliary contacts (3NO+3NC) +Alarm contact				

Note: 1) Shunt release, auxiliary, and alarm accessories need to be ordered together with the circuit breaker, and shipped after assembly within the factory; 2) For a single circuit breaker, the number of accessories cannot exceed 2. When there is a high demand for accessories, please prioritize selecting the material model with combined functions

### Accessories

#### Z6R Installation of molded case circuit breaker accessories with residual current protection



Accessories Name	Z6R 100/250		Z6R 400		Z6R 630	
	3P	4P	3P	4P	3P	4P
Alarm contact						
Shunt release						
Auxiliary contact (1NO+1NC)						
Auxiliary contact (2NO+2NC)						
Auxiliary contact (2NO+2NC)						
Shunt release +Auxiliary contact (1NO+1NC)						
Shunt release +Auxiliary contact (2NO+2NC)						
Shunt release +Auxiliary contact (2NO+2NC)						
Two sets of auxiliary contacts (2NO+2NC)						
Two sets of auxiliary contacts (4NO+4NC)						
Two sets of auxiliary contacts (3NO+3NC)						
Two sets of auxiliary contacts (4NO+4NC)						
Shunt release+Alarm contact						
Auxiliary contact (1NO+1NC) +Alarm contact						
Auxiliary contact (2NO+2NC) +Alarm contact						
Shunt release+Auxiliary contact (1NO+1NC) +Alarm contact						
Shunt release+Auxiliary contact (2NO+2NC) +Alarm contact						
Two sets of auxiliary contacts (2NO+2NC) +Alarm contact						
Two sets of auxiliary contacts (4NO+4NC) +Alarm contact						
Two sets of auxiliary contacts (3NO+3NC) +Alarm contact						

Note: 1) Shunt release, auxiliary, and alarm accessories need to be ordered together with the circuit breaker, and shipped after assembly within the factory; 2) For a single 4P integrated leakage circuit breaker, the number of accessories cannot exceed 2. When there is a high demand for accessories, please prioritize selecting the material model with combined functions. 3) For integrated leakage 3P products, only 1 accessory can be selected. Please prioritize selecting the material model with combined functions

## Application

### Selection of cross-section for connecting wires and cables at ambient temperature

- Suggestion for wire selection

Rated current <b>A</b>	10	16	25	32	40	63	80	100	125	160	180	250	315	400
	20		50			142			200		350			
	225													
Wire cross -section <b>mm<sup>2</sup></b>	1.5	2.5	4	6	10	16	25	35	50	70	95	120	185	240

- Suggestion for selection Cable

Rated current <b>A</b>	Cable cross-sectional area		Copper bar size	
	quantity	Cross-sectional area mm <sup>2</sup>	quantity	Cross-sectional area mm <sup>2</sup>
500	2	150	2	30x5
630	2	185	2	40x5

### Power loss

Circuit breaker frame current <b>A</b>	Rated current <b>A</b>	Total power loss W		
		Fixed circuit breaker	Plug in front wiring	Plug in board rear wiring
Z6 100	≤63	7	7	7
Z6 100	80-100	16	16	16
Z6 160	≤160	30	31	31
Z6 250	≤250	40	40	41
Z6 400	≤400	48	48	48
Z6 630	≤630	107	108	108
Z6R 100	≤100	16	-	16
Z6R 250	≤250	32	-	33
Z6R 400	≤400	68	-	68
Z6R 630	≤630	133	-	133

## Application

### Circuit breaker capacity reduction coefficient environmental temperature change

Circuit breaker frame curren	Capacity reduction coefficient xIn						
	A	+40°C	+45°C	+50°C	+55°C	+60°C	+65°C
Z6 100	1	0.98	0.96	0.94	0.92	0.89	0.87
Z6 160	1	0.96	0.92	0.88	0.84	0.8	0.75
Z6 250	1	0.99	0.97	0.95	0.94	0.92	0.89
Z6 400	1	0.98	0.96	0.94	0.92	0.89	0.87
Z6 630	1	0.98	0.96	0.94	0.92	0.89	0.87
Z6R 100	1	0.97	0.94	0.92	0.88	0.87	0.82
Z6R 250	1	0.98	0.96	0.94	0.92	0.9	0.89
Z6R 400	1	0.98	0.96	0.94	0.9	0.88	0.87
Z6R 630	1	0.98	0.96	0.94	0.9	0.88	0.87

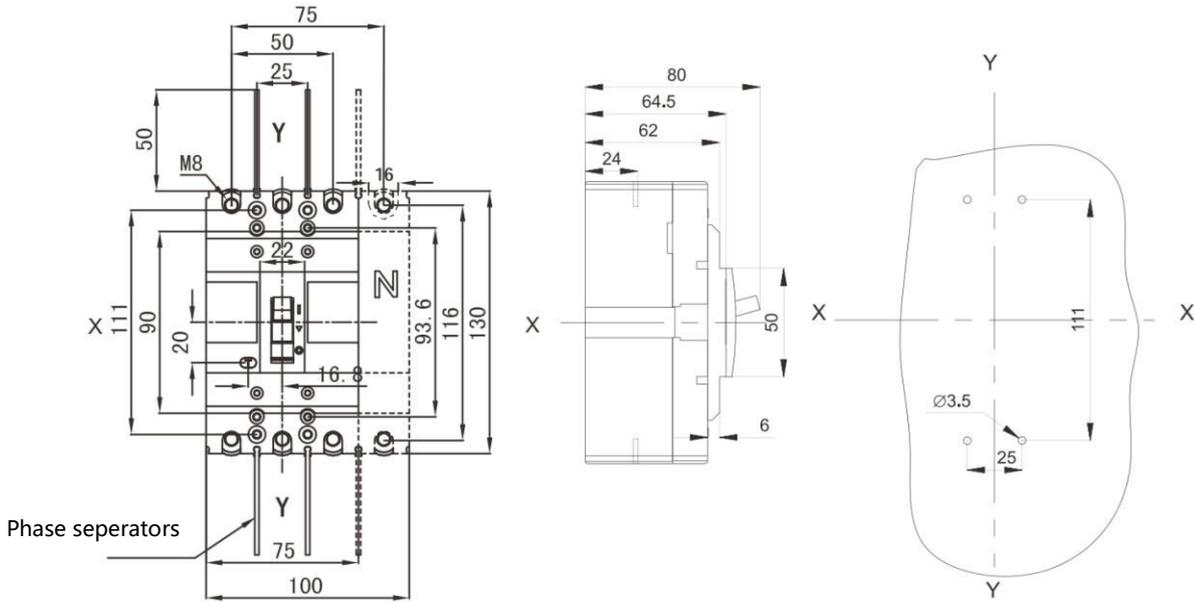
### Change in altitude of circuit breaker capacity reduction coefficient

Parameter type		altitude (m)		
		2000	2500	3000
Power frequency withstand voltage	V	2500	2500	2200
Insulation voltage	V	800	800	700
working voltage	V	≤400	≤400	≤380
Working current correction factor	xIn	1	1	0.98

**Dimension**

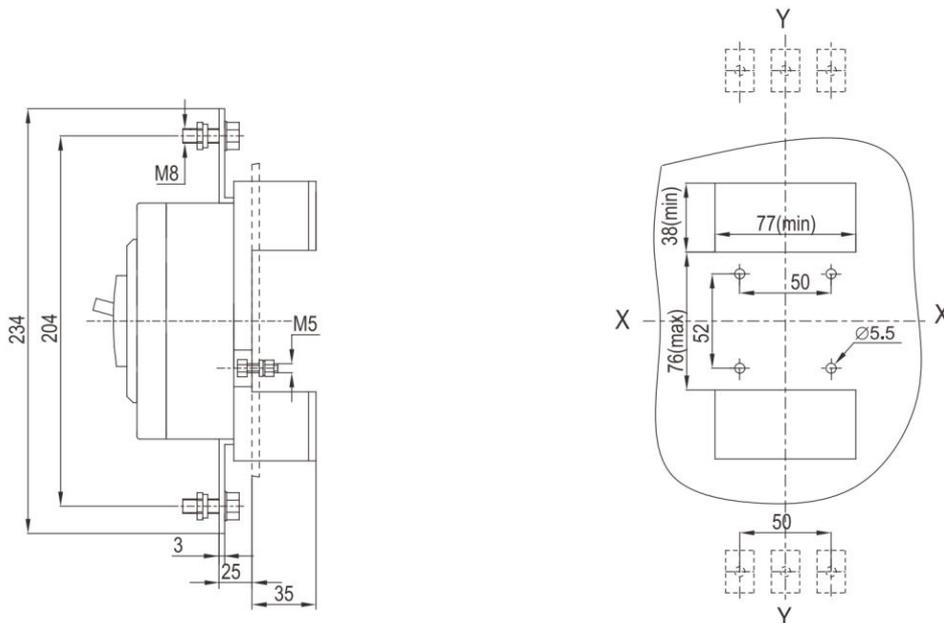
**Z6 100 Fixed circuit breaker**

X-X and Y-Y represent the center of the 3P circuit breaker



**Z6 100 Plug-in front wiring**

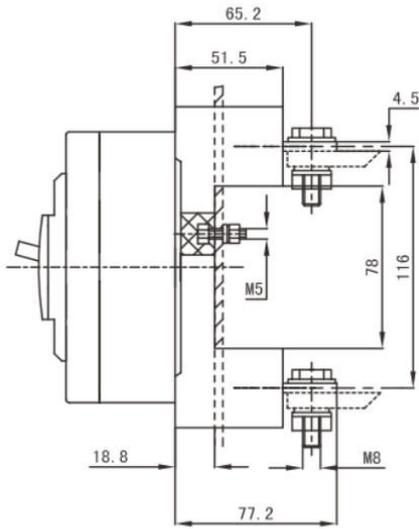
X-X and Y-Y represent the center of the 3P circuit breaker



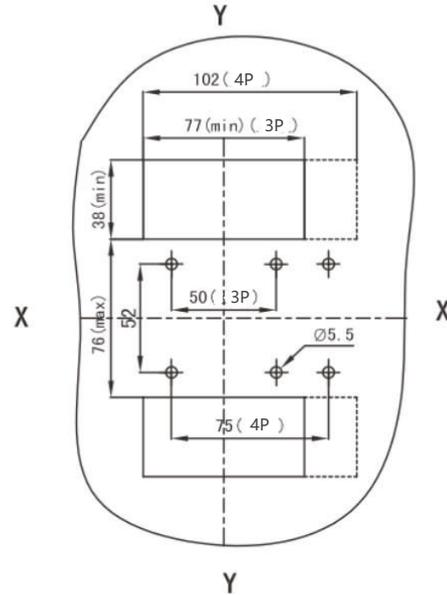
RC<sup>+</sup> Z6 molded case circuit breaker

**Dimension**

**Z6 100 Plug-in board rear wiring**

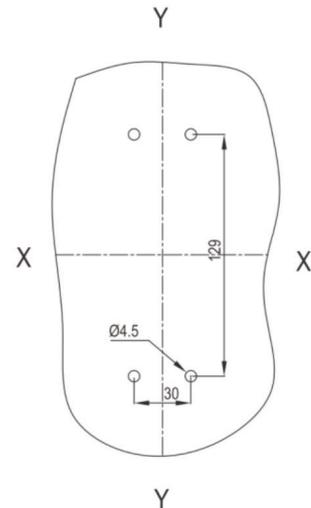
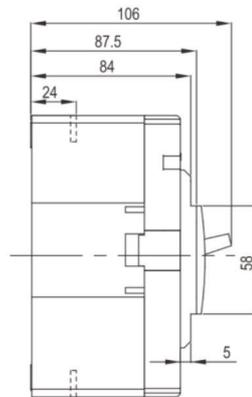
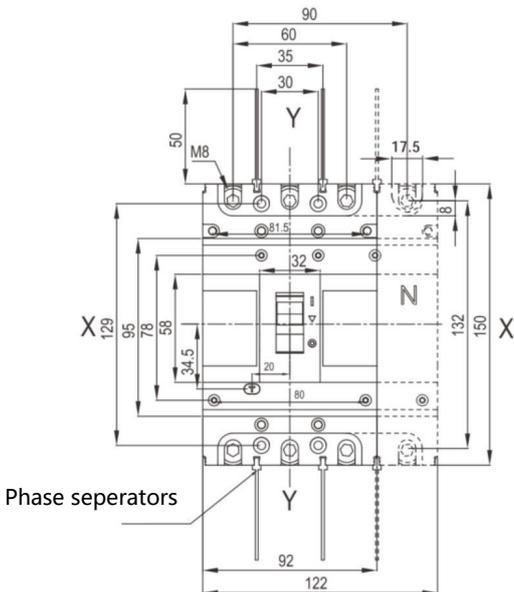


X-X and Y-Y represent the center of the 3P circuit breaker



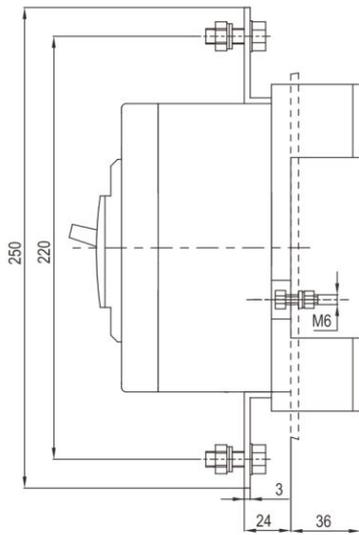
**Z6 160 Fixed circuit breaker**

X-X and Y-Y represent the center of the 3P circuit breaker

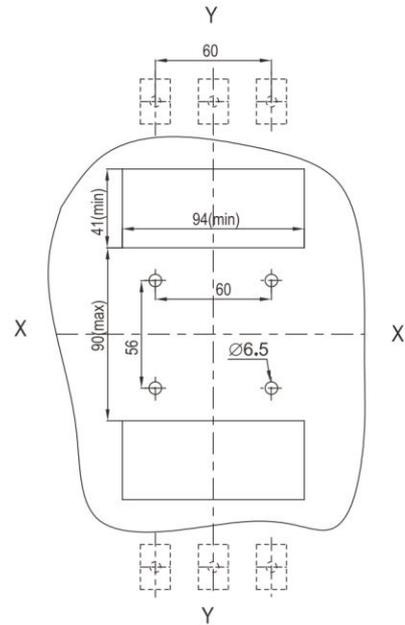


**Dimension**

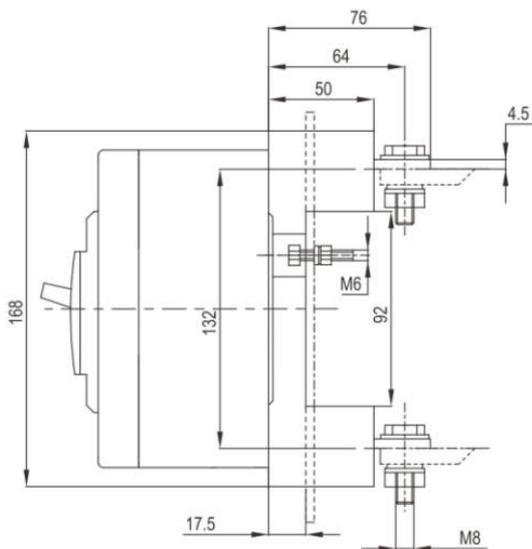
**Z6 160 Plug-in front wiring**



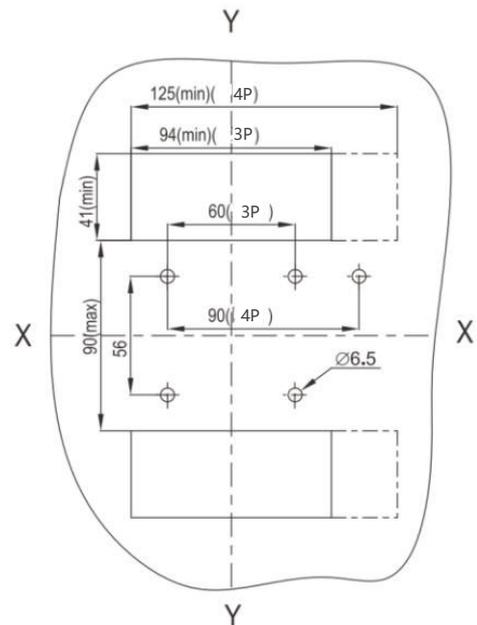
X-X and Y-Y represent the center of the 3P circuit breaker



**Z6 160 Plug-in board rear wiring**



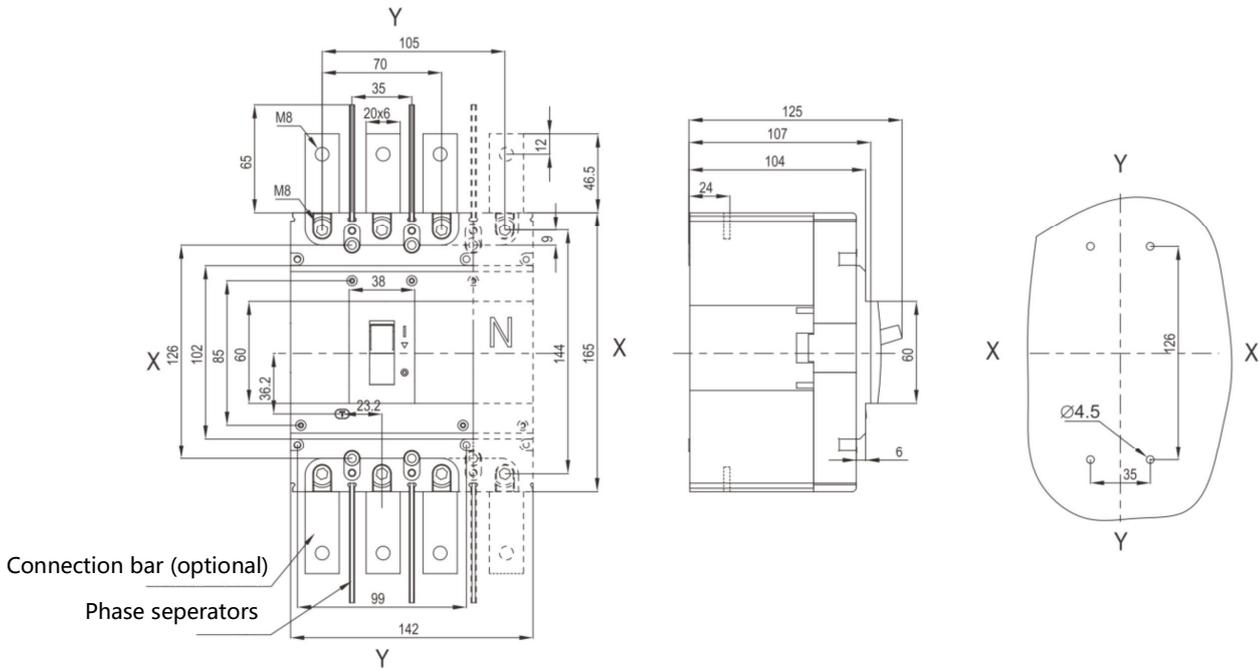
X-X and Y-Y represent the center of the 3P circuit breaker



**Dimension**

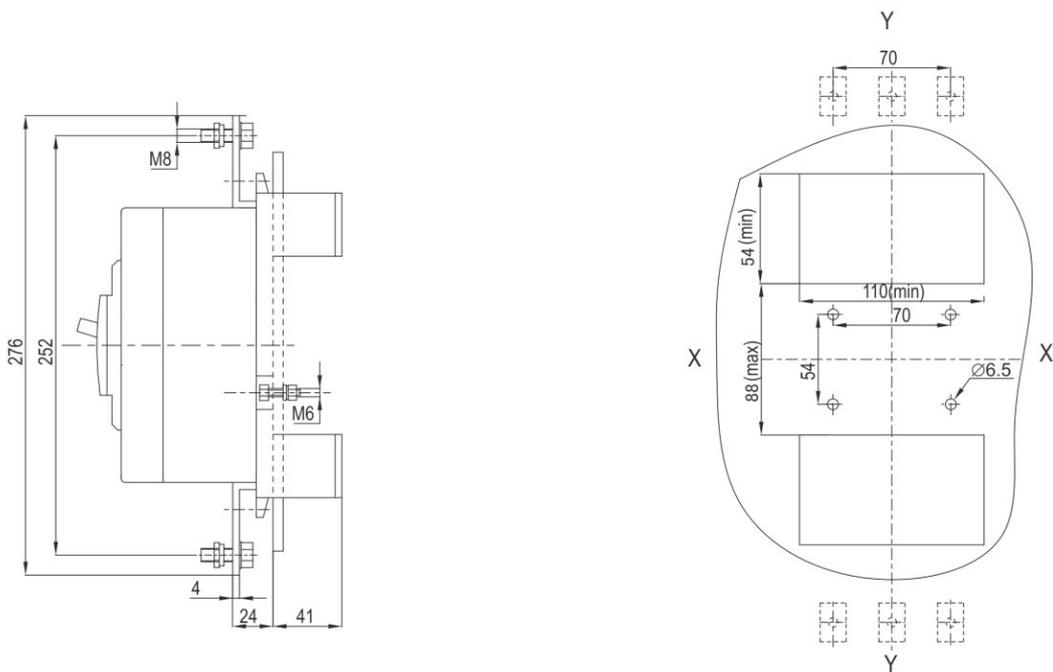
**Z6 250 Fixed circuit breaker**

X-X and Y-Y represent the center of the 3P circuit breaker



**Z6 250 Plug-in front wiring**

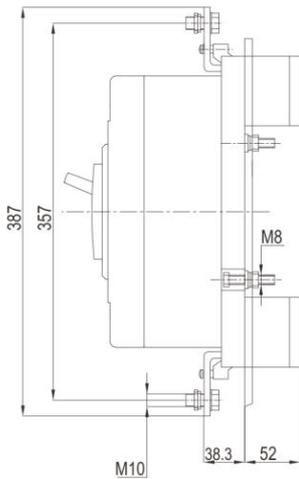
X-X and Y-Y represent the center of the 3P circuit breaker



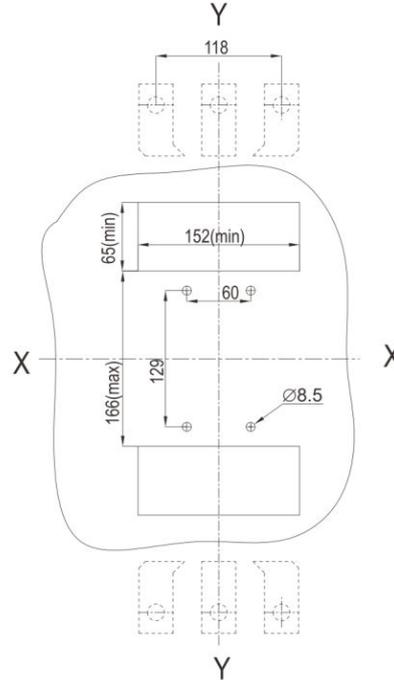


**Dimension**

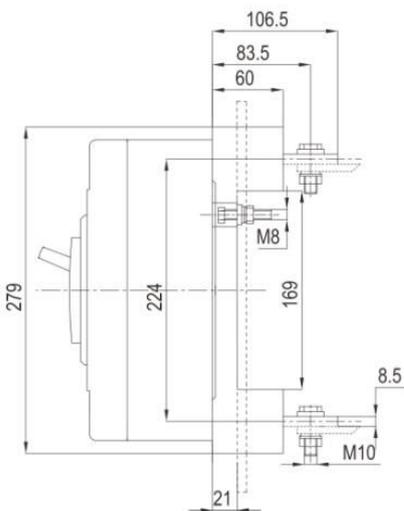
**Z6 400 Plug-in front wiring 3P**



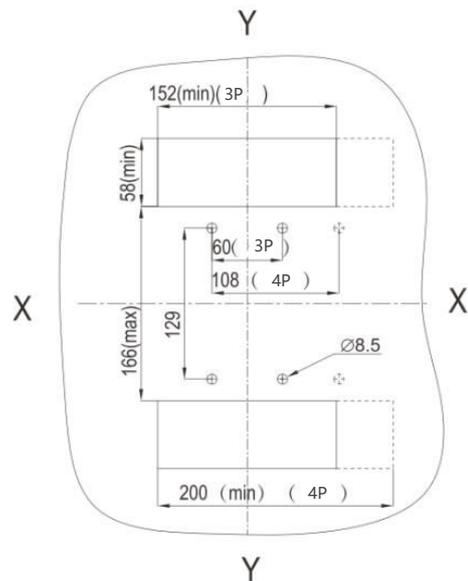
X-X and Y-Y represent the center of the 3P circuit breaker



**Z6 400 Plug-in board rear wiring 3P**

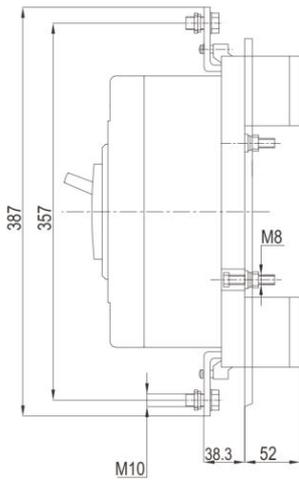


X-X and Y-Y represent the center of the 3P circuit breaker

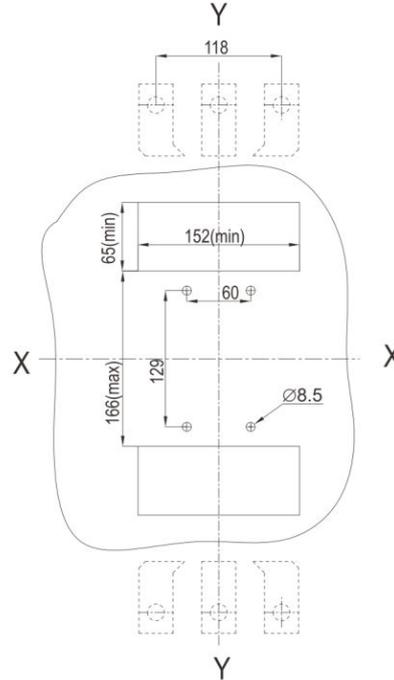


Dimension

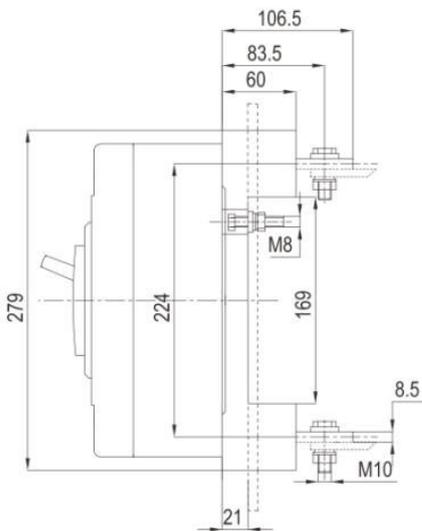
Z6 400 Plug-in front wiring 4P



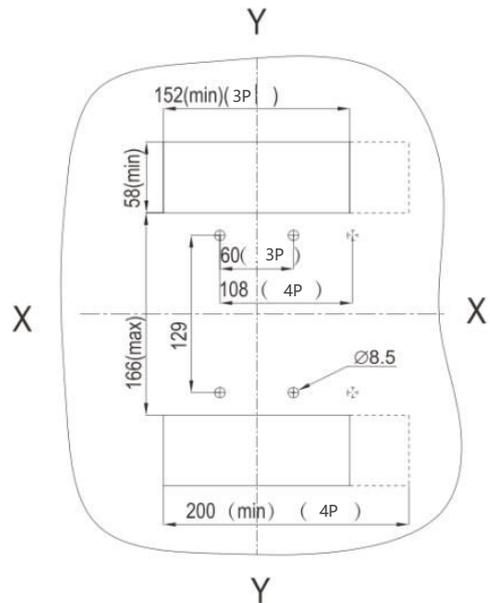
X-X and Y-Y represent the center of the 3P circuit breaker



Z6 400 Plug-in board rear wiring 4P



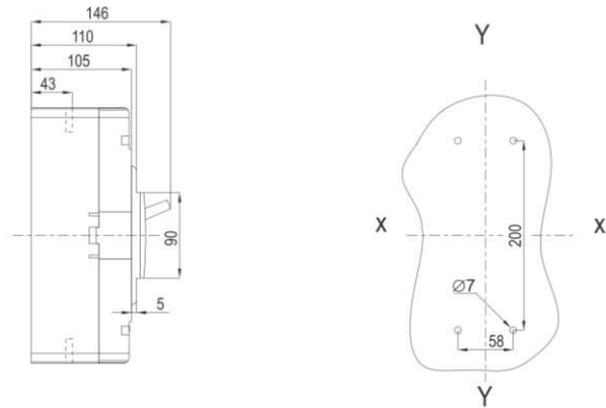
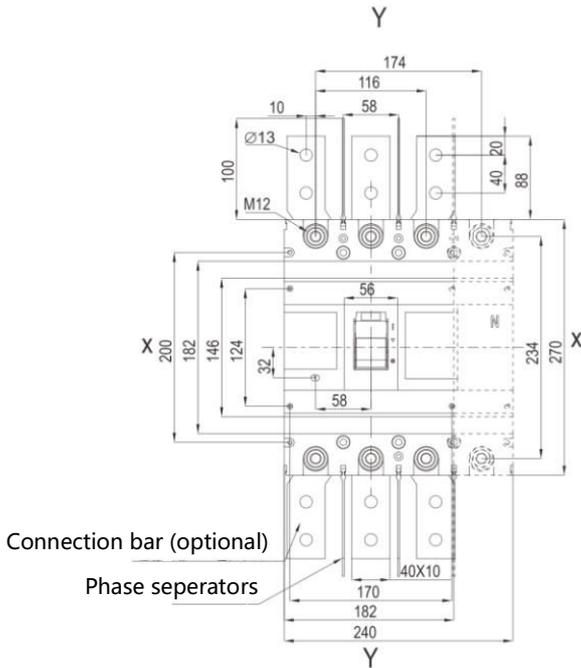
X-X and Y-Y represent the center of the 3P circuit breaker



**Dimension**

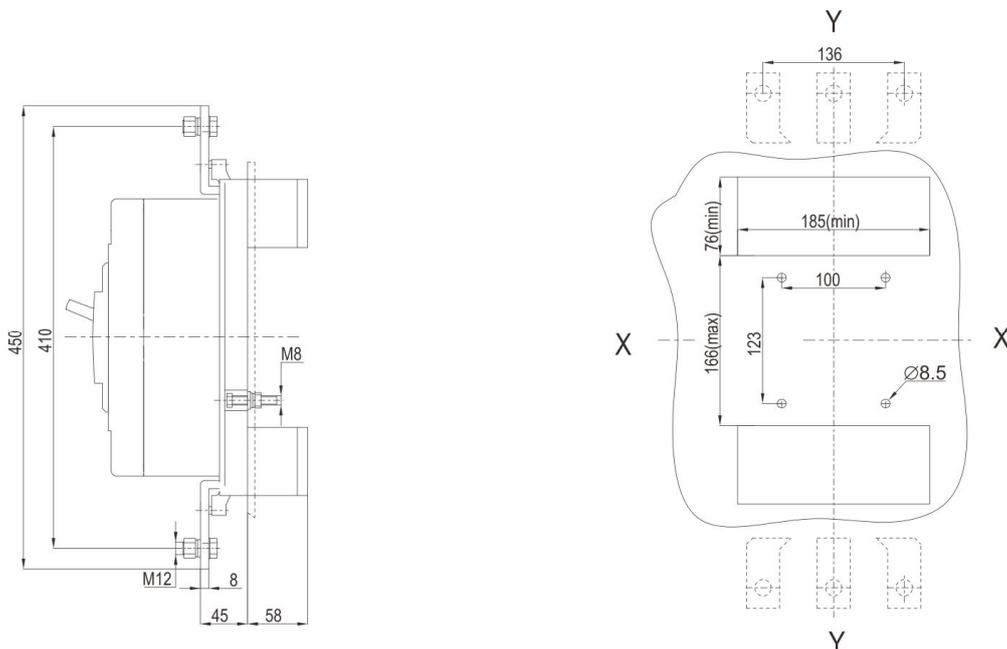
**Z6 630 Fixed circuit breaker**

X-X and Y-Y represent the center of the 3P circuit breaker



**Z6 630 Plug-in front wiring**

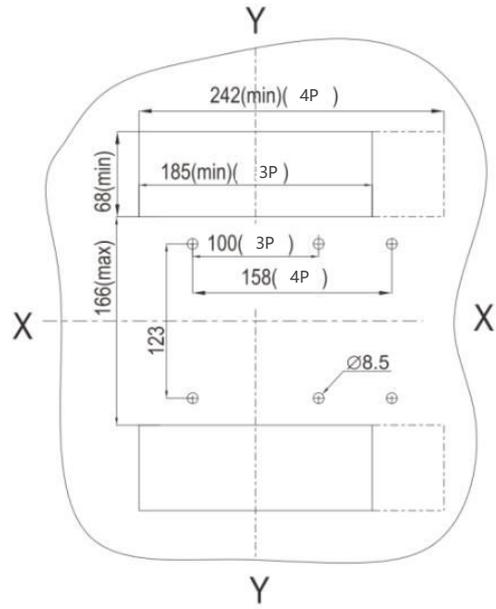
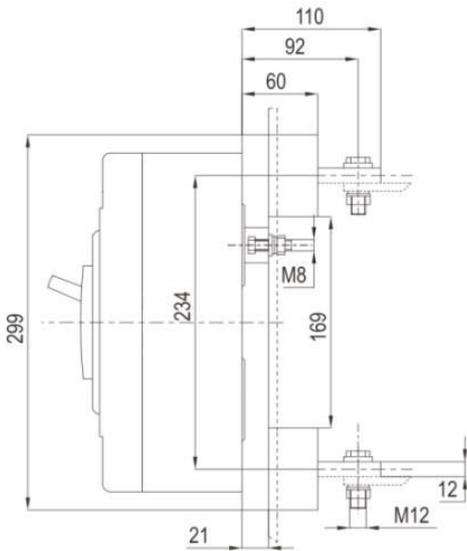
X-X and Y-Y represent the center of the 3P circuit breaker



**Dimension**

**Z6 630-Plug in board rear wiring**

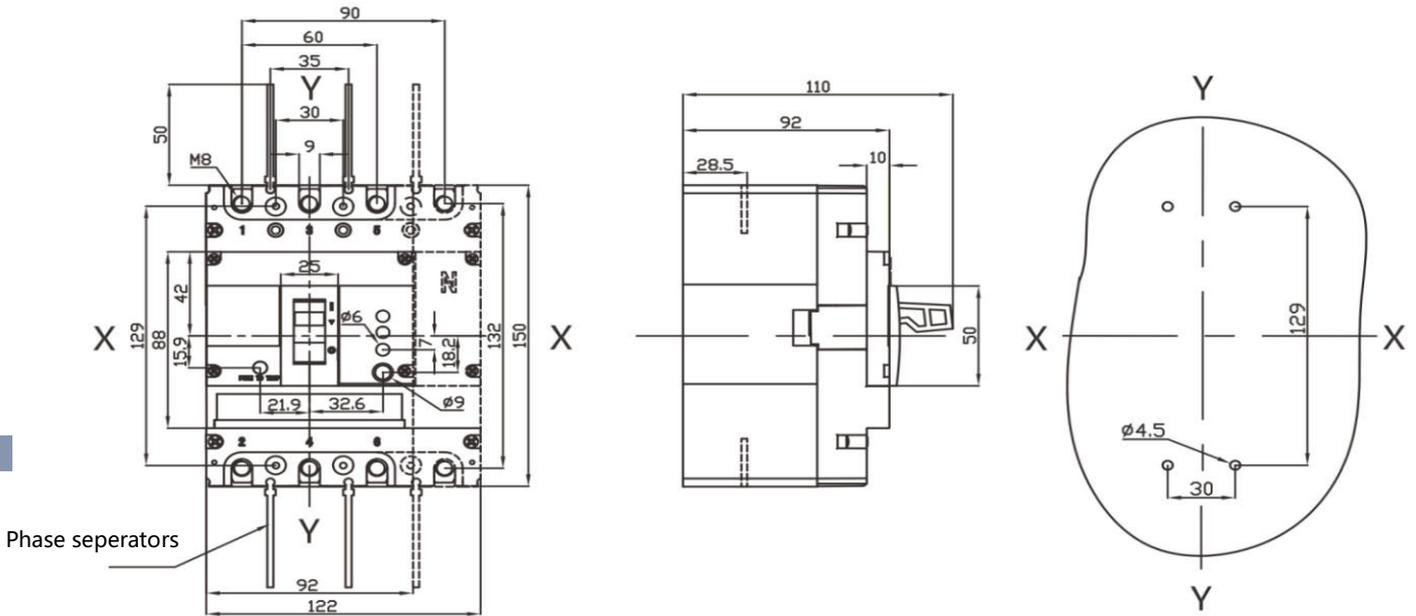
X-X and Y-Y represent the center of the 3P circuit breaker



**Dimension**

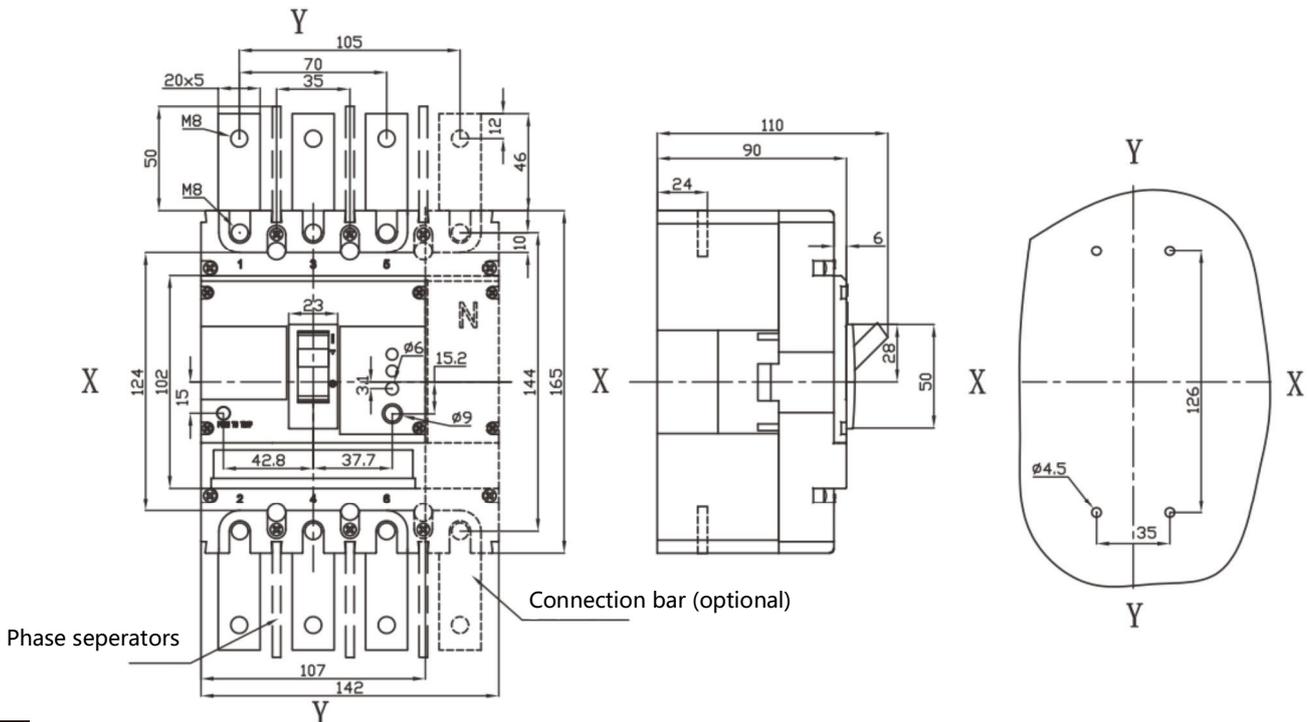
**Z6R 100 Fixed circuit breaker with residual current protection**

X-X and Y-Y represent the center of the 3P circuit breaker



**Z6R 250 Fixed circuit breaker with residual current protection**

X-X and Y-Y represent the center of the 3P circuit breaker

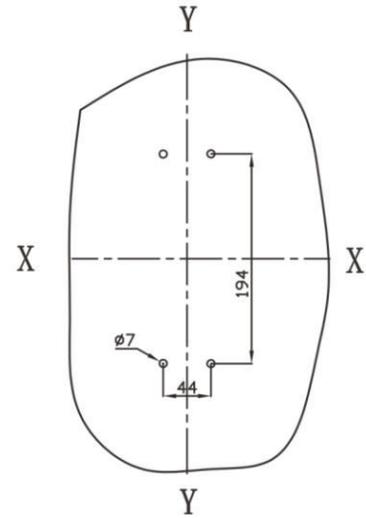
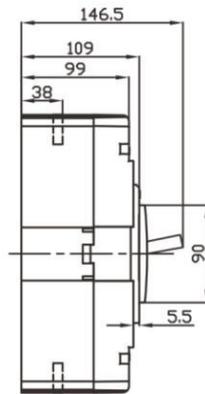
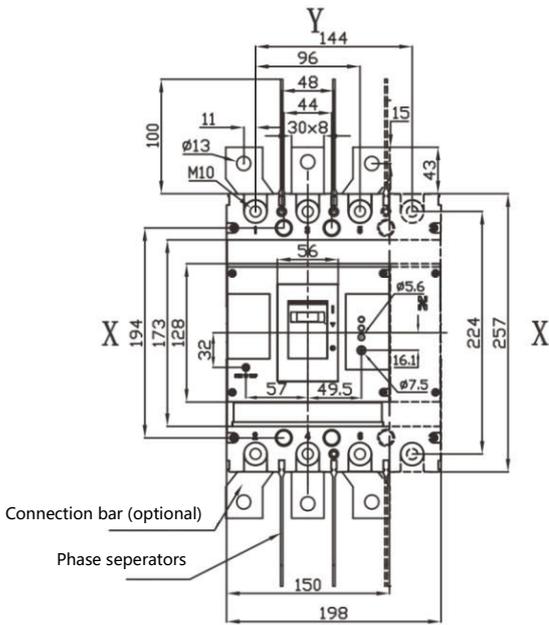


RC<sup>+</sup> Z6 molded case circuit breaker

Dimension

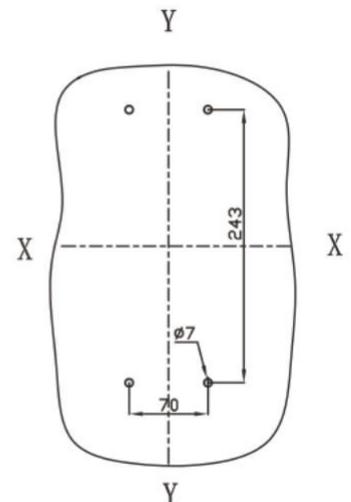
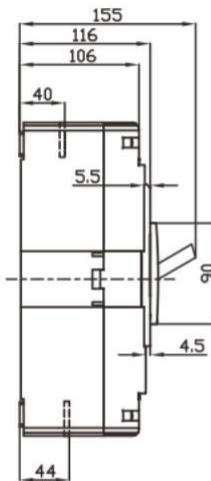
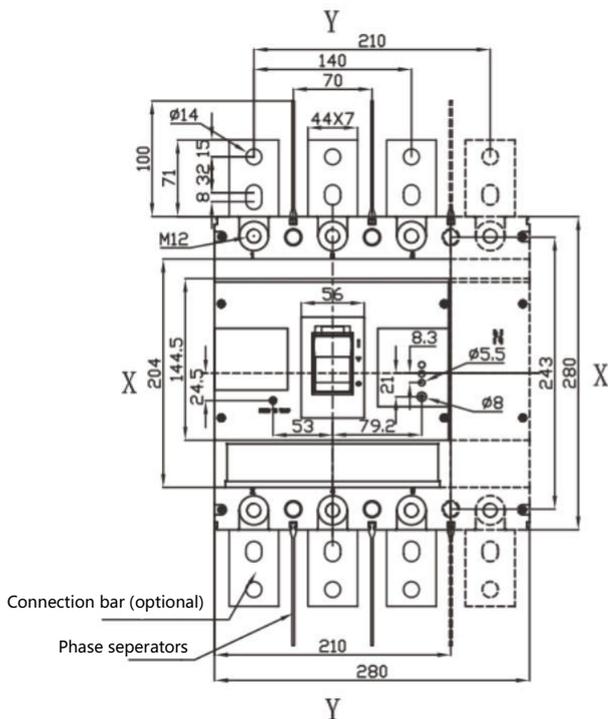
Z6R 400 Fixed circuit breaker with residual current protection

X-X and Y-Y represent the center of the 3P circuit breaker



Z6R 630 Fixed circuit breaker with residual current protection

X-X and Y-Y represent the center of the 3P circuit breaker



## Ordering information

### Z6 100 Complete circuit breaker



#### Line thermal magnetic protection L

In (A)	3 poles		4 poles	
	Product model	Order number	Product model	Order number
10	Z6S100L3010	Z60001G	Z6S100L4010	Z60041G
16	Z6S100L3016	Z60002G	Z6S100L4016	Z60042G
20	Z6S100L3020	Z60003G	Z6S100L4020	Z60043G
25	Z6S100L3025	Z60004G	Z6S100L4025	Z60044G
32	Z6S100L3032	Z60005G	Z6S100L4032	Z60045G
40	Z6S100L3040	Z60006G	Z6S100L4040	Z60046G
50	Z6S100L3050	Z60007G	Z6S100L4050	Z60047G
63	Z6S100L3063	Z60008G	Z6S100L4063	Z60048G
80	Z6S100L3080	Z60009G	Z6S100L4080	Z60049G
100	Z6S100L3100	Z60010G	Z6S100L4100	Z60050G

S breaking  
Icu=36kA

#### Only magnetic motor protection M



In (A)	3 poles	
	Product model	Order number
10	Z6S100M3010	Z60011G
16	Z6S100M3016	Z60012G
20	Z6S100M3020	Z60013G
25	Z6S100M3025	Z60014G
32	Z6S100M3032	Z60015G
40	Z6S100M3040	Z60016G
50	Z6S100M3050	Z60017G
63	Z6S100M3063	Z60018G
80	Z6S100M3080	Z60019G
100	Z6S100M3100	Z60020G

S breaking  
Icu=36kA

### Z6 100 Accessories

#### Z6 100-Internal Accessories

	Product model	Order number
Z6 100 Left Auxiliary 1NO+1NC	Z6FAS11L100	Z62034G
Z6 100 Right Auxiliary 1NO+1NC	Z6FAS11R100	Z62039G
Z6 100 Left Auxiliary 2NO+2NC	Z6FAS22L100	Z62044G
Z6 100 Right Auxiliary 2NO+2NC	Z6FAS22R100	Z62050G
Z6 100 Left alarm 1NO+1NC	Z6FAB11L100	Z62056G
Z6 100 Right alarm 1NO+1NC	Z6FAB11R100	Z62062G
Z6 100 Left Auxiliary 1NO+1NC alarm 1NO+1NC	Z6FASB11L100	Z62068G
Z6 100 Right Auxiliary 1NO+1NC alarm 1NO+1NC	Z6FASB11R100	Z62073G
Z6 100 shunt DC24V	Z6SHT100D	Z62001G
Z6 100 shunt AC230V	Z6SHT100N	Z62002G
Z6 100 shunt AC400V	Z6SHT100U	Z62003G

#### Z6 100-External Accessories

Z6 100 plug-in base 3P board front wiring	Z6DDF100/3F	Z62080G
Z6 100 plug-in base 3P board rear wiring	Z6DDF100/3B	Z62081G
Z6 100 plug-in base 4P board rear wiring	Z6DDF100/4B	Z62082G
Z6 100 extended straight terminal 3P	Z6BSS100/3	Z62095G
Z6 100 extended straight terminal 4P	Z6BSS100/4	Z62096G
Z6 100 central manual operating mechanism/F	Z6RBG100/F	Z62115G

Note: 1) Shunt release, auxiliary, and alarm accessories need to be ordered together with the circuit breaker, and shipped after assembly within the factory; 2) For a single circuit breaker, the number of accessories cannot exceed 2. When there is a high demand for accessories, please prioritize selecting the material model with combined functions

### Ordering information

#### Z6 160 Complete circuit breaker

##### Line thermal magnetic protection L



S  
breaking  
Icu=36kA

In (A)	3poles		4poles	
	Product model	Order number	Product model	Order number
100	Z6S160L3100	Z60081G	Z6S160L4100	Z60097G
125	Z6S160L3125	Z60082G	Z6S160L4125	Z60098G
140	Z6S160L3140	Z60083G	Z6S160L4140	Z60099G
160	Z6S160L3160	Z60084G	Z6S160L4160	Z60100G

##### Only magnetic motor protection M



S  
breaking  
Icu=36kA

In (A)	3poles	
	Product model	Order number
100	Z6S160M3100	Z60085G
125	Z6S160M3125	Z60086G
140	Z6S160M3140	Z60087G
160	Z6S160M3160	Z60088G

#### Z6 160 Accessories

##### Z6 160-Internal Accessories

	Product model	Order number
Z6 160 Left Auxiliary 1NO+1NC	Z6FAS11L160	Z62035G
Z6 160 Right Auxiliary 1NO+1NC	Z6FAS11R160	Z62040G
Z6 160 Left Auxiliary 2NO+2NC	Z6FAS22L160	Z62045G
Z6 160 RightAuxiliary 2NO+2NC	Z6FAS22R160	Z62051G
Z6 160 Left alarm 1NO+1NC	Z6FAB11L160	Z62057G
Z6 160 Right alarm 1NO+1NC	Z6FAB11R160	Z62063G
Z6 160 Left Auxiliary 1NO+1NC alarm1NO+1NC	Z6FASB11L160	Z62069G
Z6 160 Right Auxiliary 1NO+1NC alarm1NO+1NC	Z6FASB11R160	Z62074G
Z6 160 shunt DC24V	Z6SHT160D	Z62004G
Z6 160 shunt AC230V	Z6SHT160N	Z62005G
Z6 160 shunt AC400V	Z6SHT160U	Z62006G

##### Z6 160-External Accessories

Z6 160Plug in base 3P board front wiring	Z6DDF160/3F	Z62083G
Z6 160Plug in base 3P board rear wiring	Z6DDF160/3B	Z62084G
Z6 160Plug in base 4P board rear wiring	Z6DDF160/4B	Z62085G
Z6 160Extend straight terminal 3P	Z6BSS160/3	Z62097G
Z6 160Extend straight terminal 4P	Z6BSS160/4	Z62098G
Z6 160 Central manual operation mechanism/F	Z6RBG160/F	Z62116G

Note: 1) Shunt release, auxiliary, and alarm accessories need to be ordered together with the circuit breaker, and shipped after assembly within the factory; 2) For a single circuit breaker, the number of accessories cannot exceed 2. When there is a high demand for accessories, please prioritize selecting the material model with combined functions

## Ordering information

### Z6 250 Complete circuit breaker

Line thermal magnetic protection L					
In (A)	3poles		4poles		
	Product model	Order number	Product model	Order number	
100	Z6S250L3100	Z60113G	Z6S250L4100	Z60145G	 <p>S breaking Icu=36kA</p>
125	Z6S250L3125	Z60114G	Z6S250L4125	Z60146G	
140	Z6S250L3140	Z60115G	Z6S250L4140	Z60147G	
160	Z6S250L3160	Z60116G	Z6S250L4160	Z60148G	
180	Z6S250L3180	Z60117G	Z6S250L4180	Z60149G	
200	Z6S250L3200	Z60118G	Z6S250L4200	Z60150G	
225	Z6S250L3225	Z60119G	Z6S250L4225	Z60151G	
250	Z6S250L3250	Z60120G	Z6S250L4250	Z60152G	

Only magnetic motor protection M					
In (A)	3poles				
	Product model	Order number			
100	Z6S250M3100	Z60121G			 <p>S breaking Icu=36kA</p>
125	Z6S250M3125	Z60122G			
140	Z6S250M3140	Z60123G			
160	Z6S250M3160	Z60124G			
180	Z6S250M3180	Z60125G			
200	Z6S250M3200	Z60126G			
225	Z6S250M3225	Z60127G			
250	Z6S250M3250	Z60128G			

### Z6 250 Accessories

Z6 250-Internal Accessories		
	Product model	Order number
Z6 250 Left Auxiliary 1NO+1NC	Z6FAS11L250	Z62036G
Z6 250 Right Auxiliary 1NO+1NC	Z6FAS11R250	Z62041G
Z6 250 Left Auxiliary 2NO+2NC	Z6FAS22L250	Z62046G
Z6 250 Right Auxiliary 2NO+2NC	Z6FAS22R250	Z62052G
Z6 250 Left alarm 1NO+1NC	Z6FAB11L250	Z62058G
Z6 250 Right alarm 1NO+1NC	Z6FAB11R250	Z62064G
Z6 250 Left Auxiliary 1NO+1NC alarm 1NO+1NC	Z6FASB11L250	Z62070G
Z6 250 Right Auxiliary 1NO+1NC alarm 1NO+1NC	Z6FASB11R250	Z62075G
Z6 250 shunt DC24V	Z6SHT250D	Z62007G
Z6 250 shunt AC230V	Z6SHT250N	Z62008G
Z6 250 shunt AC400V	Z6SHT250U	Z62009G
Z6 250-External Accessories		
Z6 250 Plug in base 3P board front wiring	Z6DDF250/3F	Z62086G
Z6 250 Plug in base 3P board rear wiring	Z6DDF250/3B	Z62087G
Z6 250 Plug in base 4P board rear wiring	Z6DDF250/4B	Z62088G
Z6 250 Extend straight terminal 3P	Z6BSS250/3	Z62099G
Z6 250 Extend straight terminal 4P	Z6BSS250/4	Z62100G
Z6 250 Central manual operation mechanism/F	Z6RBG250/F	Z62117G

Note: 1) Shunt release, auxiliary, and alarm accessories need to be ordered together with the circuit breaker, and shipped after assembly within the factory; 2) For a single circuit breaker, the number of accessories cannot exceed 2. When there is a high demand for accessories, please prioritize selecting the material model with combined functions

## Ordering information

### Z6 400/630 Complete circuit breaker



N  
breaking  
I<sub>cu</sub>=50kA

#### Line thermal magnetic protection L

In (A)	3poles		4poles	
	Product model	Order number	Product model	Order number
225	Z6N400L3225	Z60177G	Z6N400L4225	Z60187G
250	Z6N400L3250	Z60178G	Z6N400L4250	Z60188G
315	Z6N400L3315	Z60179G	Z6N400L4315	Z60189G
350	Z6N400L3350	Z60180G	Z6N400L4350	Z60190G
400	Z6N400L3400	Z60181G	Z6N400L4400	Z60191G
400	Z6N630L3400	Z60197G	Z6N630L4400	Z60203G
500	Z6N630L3500	Z60198G	Z6N630L4500	Z60204G
630	Z6N630L3630	Z60199G	Z6N630L4630	Z60205G

#### Only magnetic motor protection M



N  
breaking  
I<sub>cu</sub>=50kA

In (A)	Product model	Order number
225	Z6N400M3225	Z60182G
250	Z6N400M3250	Z60183G
315	Z6N400M3315	Z60184G
350	Z6N400M3350	Z60185G
400	Z6N400M3400	Z60186G
400	Z6N630M3400	Z60200G
500	Z6N630M3500	Z60201G
630	Z6N630M3630	Z60202G

### Z6 400/630 Accessories

#### Z6 400/630-Internal Accessories

	Product model	Order number
Z6 400/630 Left Auxiliary 2NO+2NC	Z6FAS22L400/630	Z62047G
Z6 400/630 Right Auxiliary 2NO+2NC	Z6FAS22R400/630	Z62053G
Z6 400/630 Left alarm 1NO+1NC	Z6FAB11L400/630	Z62059G
Z6 400/630 Right alarm 1NO+1NC	Z6FAB11R400/630	Z62065G
Z6 400/630 Left Auxiliary 2NO+2NC alarm 1NO+1NC	Z6FASB22L400/630	Z62078G
Z6 400/630 Right Auxiliary 2NO+2NC alarm 1NO+1NC		Z62079G
Z6 400/630 shunt DC24V	Z6SHT400/630D	Z62010G
Z6 400/630 shunt AC230V	Z6SHT400/630N	Z62011G
Z6 400/630 shunt AC400V	Z6SHT400/630U	Z62012G

#### Z6 400/630-External Accessories

Z6 400 plug-in base 3P board front wiring	Z6DDF400/3F	Z62089G
Z6 400 plug-in base 3P board rear wiring	Z6DDF400/3B	Z62090G
Z6 400 plug-in base 4P board rear wiring	Z6DDF400/4B	Z62091G
Z6 630 plug-in base 3P board front wiring	Z6DDF630/3F	Z62092G
Z6 630 plug-in base 3P board rear wiring	Z6DDF630/3B	Z62093G
Z6 630 plug-in base 4P board rear wiring	Z6DDF630/4B	Z62094G
Z6 400 pole spacing extension terminal 3P	Z6BSS400/3	Z62101G
Z6 400 pole spacing extension terminal 4P	Z6BSS400/4	Z62102G
Z6 630 pole spacing extension terminal 3P	Z6BSS630/3	Z62103G
Z6 630 pole spacing extension terminal 4P	Z6BSS630/4	Z62104G
Z6 400 central manual operating mechanism/F 3P	Z6RBG400/F3	Z62118G
Z6 630 central manual operating mechanism/F 3P	Z6RBG630/F3	Z62119G
Z6 400 central manual operating mechanism/F 4P	Z6RBG400/F4	Z62124G
Z6 630 central manual operating mechanism/F 4P	Z6RBG630/F4	Z62125G

Note: 1) Shunt release, auxiliary, and alarm accessories need to be ordered together with the circuit breaker, and shipped after assembly within the factory; 2) For a single circuit breaker, the number of accessories cannot exceed 2. When there is a high demand for accessories, please prioritize selecting the material model with combined functions

## Ordering information

### Z6R 100 Complete circuit breaker



S  
breaking  
I<sub>cu</sub>=36kA

#### Thermal magnetic line with residual current protection R

In (A)	3poles		4poles	
	Product model	Order number	Product model	Order number
16	Z6S100R3016	Z61001G	Z6S100R4016	Z61037G
20	Z6S100R3020	Z61002G	Z6S100R4020	Z61038G
25	Z6S100R3025	Z61003G	Z6S100R4025	Z61039G
32	Z6S100R3032	Z61004G	Z6S100R4032	Z61040G
40	Z6S100R3040	Z61005G	Z6S100R4040	Z61041G
50	Z6S100R3050	Z61006G	Z6S100R4050	Z61042G
63	Z6S100R3063	Z61007G	Z6S100R4063	Z61043G
80	Z6S100R3080	Z61008G	Z6S100R4080	Z61044G
100	Z6S100R3100	Z61009G	Z6S100R4100	Z61045G

### Z6R 100 Accessories

#### Z6R 100-Internal Accessories

	Product model	Order number
Z6R 100 Left Auxiliary 1NO+1NC	Z6RFAS11L100	Z62037G
Z6R 100 Right Auxiliary 1NO+1NC	Z6RFAS11R100	Z62042G
Z6R 100 Left Auxiliary 2NO+2NC	Z6RFAS22L100	Z62048G
Z6R 100 Right Auxiliary 2NO+2NC	Z6RFAS22R100	Z62054G
Z6R 100 Left alarm 1NO+1NC	Z6RFAB11L100	Z62060G
Z6R 100 Right alarm 1NO+1NC	Z6RFAB11R100	Z62066G
Z6R 100 Left Auxiliary 1NO+1NC alarm 1NO+1NC	Z6RFASB11L100	Z62071G
Z6R 100 Right Auxiliary 1NO+1NC alarm 1NO+1NC	Z6RFASB11R100	Z62076G
Z6R 100 shunt DC24V	Z6RSHT100D	Z62013G
Z6R 100 shunt AC230V	Z6RSHT100N	Z62014G
Z6R 100 shunt AC400V	Z6RSHT100U	Z62015G

#### Z6R 100-External Accessories

Z6R 100 Central manual operation mechanism/F	Z6RBG100R/F	Z62120G
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Note: 1) Shunt release, auxiliary, and alarm accessories need to be ordered together with the circuit breaker, and shipped after assembly within the factory; 2) For a single 4P integrated leakage circuit breaker, the number of accessories cannot exceed 2. When there is a high demand for accessories, please prioritize selecting the material model with combined functions. 3) For integrated leakage 3P products, only 1 accessory can be selected. Please prioritize selecting the material model with combined functions

## Ordering information

### Z6R 250 Complete circuit breaker

Thermal magnetic line with residual current protection R					
In (A)	3poles			4poles	
	Product model	Order number	Product model	Order number	
100	Z6S250R3100	Z61073G	Z6S250R4100	Z61105G	
125	Z6S250R3125	Z61074G	Z6S250R4125	Z61106G	
140	Z6S250R3140	Z61075G	Z6S250R4140	Z61107G	
160	Z6S250R3160	Z61076G	Z6S250R4160	Z61108G	
180	Z6S250R3180	Z61077G	Z6S250R4180	Z61109G	
200	Z6S250R3200	Z61078G	Z6S250R4200	Z61110G	
225	Z6S250R3225	Z61079G	Z6S250R4225	Z61111G	
250	Z6S250R3250	Z61080G	Z6S250R4250	Z61112G	



S  
breaking  
Icu=36kA

### Z6R 250 Accessories

Z6R 250-Internal Accessories		
	Product model	Order number
Z6R 250 Left Auxiliary 1NO+1NC	Z6RFAS11L250	Z62038G
Z6R 250 Right Auxiliary 1NO+1NC	Z6RFAS11R250	Z62043G
Z6R 250 Left Auxiliary 2NO+2NC	Z6RFAS22L250	Z62049G
Z6R 250 Right Auxiliary 2NO+2NC	Z6RFAS22R250	Z62055G
Z6R 250 Left alarm 1NO+1NC	Z6RFAB11L250	Z62061G
Z6R 250 Right alarm 1NO+1NC	Z6RFAB11R250	Z62067G
Z6R 250 Left Auxiliary 1NO+1NC alarm1NO+1NC	Z6RFASB11L250	Z62072G
Z6R 250 Right Auxiliary 1NO+1NC alarm1NO+1NC	Z6RFASB11R250	Z62077G
Z6R 250 shunt DC24V	Z6RSHT250D	Z62016G
Z6R 250 shunt AC230V	Z6RSHT250N	Z62017G
Z6R 250 shunt AC400V	Z6RSHT250U	Z62018G

Z6R 250-External Accessories		
	Product model	Order number
Z6R 250 Central manual operation mechanism/F	Z6RBG250R/F	Z62121G

Note: 1) Shunt release, auxiliary, and alarm accessories need to be ordered together with the circuit breaker, and shipped after assembly within the factory; 2) For a single 4P integrated leakage circuit breaker, the number of accessories cannot exceed 2. When there is a high demand for accessories, please prioritize selecting the material model with combined functions. 3) For integrated leakage 3P products, only 1 accessory can be selected. Please prioritize selecting the material model with combined functions

## Ordering information

### Z6R 400/630 Complete circuit breaker



**Thermal magnetic line with residual current protection R**

In (A)	3poles		4poles	
	Product model	Order number	Product model	Order number
225	Z6N400R3225	Z61137G	Z6N400R4225	Z61147G
250	Z6N400R3250	Z61138G	Z6N400R4250	Z61148G
315	Z6N400R3315	Z61139G	Z6N400R4315	Z61149G
350	Z6N400R3350	Z61140G	Z6N400R4350	Z61150G
400	Z6N400R3400	Z61141G	Z6N400R4400	Z61151G
400	Z6N630R3400	Z61157G	Z6N630R4400	Z61163G
500	Z6N630R3500	Z61158G	Z6N630R4500	Z61164G
630	Z6N630R3630	Z61159G	Z6N630R4630	Z61165G

N  
breaking  
I<sub>cu</sub>=50kA

### Z6R 400/630 Accessories

**Z6R 400/630-Internal Accessories**

	Product model	Order number
Z6 400 Left Auxiliary 2NO+2NC	Z6FAS22L400/630	Z62047G
Z6 400 RightAuxiliary 2NO+2NC	Z6FAS22R400/630	Z62053G
Z6 400 Left alarm 1NO+1NC	Z6FAB11L400/630	Z62059G
Z6 400 Right alarm 1NO+1NC	Z6FAB11R400/630	Z62065G
Z6 400 Left Auxiliary 2NO+2NC alarm1NO+1NC	Z6FASB22L400/630	Z62078G
Z6 400 Right Auxiliary 2NO+2NC alarm1NO+1NC		Z62079G
Z6 400 shunt DC24V	Z6RSHT400/630D	Z62019G
Z6 400 shunt AC230V	Z6RSHT400/630N	Z62020G
Z6 400 shunt AC400V	Z6SRHT400/630U	Z62021G

**Z6R 400/630-External Accessories**

Z6R 400 Central manual operation mechanism/F 3P Z6RBG400R/F3	Z62122G	
Z6R 630 central manual operating mechanism/F	Z6RBG630R/F	Z62123G
Z6R 400 central manual operating mechanism/F 4P Z6RBG400R/F4	Z62126G	

Note: 1) Shunt release, auxiliary, and alarm accessories need to be ordered together with the circuit breaker, and shipped after assembly within the factory; 2) For a single 4P integrated leakage circuit breaker, the number of accessories cannot exceed 2. When there is a high demand for accessories, please prioritize selecting the material model with combined functions. 3) For integrated leakage 3P products, only 1 accessory can be selected. Please prioritize selecting the material model with combined functions

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