



GEYA ELECTRICAL CO.,LTD

ELECTRICAL

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MCCB

Product catalog



Everything for your electricity safety!





Introduction

Geya Electrical was established in 2005, and our head office is based in Wenzhou China.

Our products are exported to more than 20 countries and regions such as South America, WesternEurope, the Middle East, Africa, Australia, South Asia, East Asia, etc.

Geya is ISO9001 Quality Assurance accredited and both quality and safety are of paramount importance to us Our products have SEMKO VDE and CE certificates.

Our expenence and expertise Modem, innovative products design, Vast OEM expenence, Constant new products development, Strong R&D capabilities. Competitive prices, Excellent international market knowledge, Professinal dynainc and customer focused staff, Flexibletrading terms, Quality and timely delivenes.

Use the Electricity Easier





GYCM3 Series

Moulded Case Circuit Breaker (MCCB)

General information

GYCM3, GYCM3L, GYCM3E series circuit breaker, is the new upgraded product developed with advantages of similar international products and domestic and foreign market demand. Rated insulation voltage this series up to 1000V, suitable for power distribution network with AC 50Hz, rated voltage 400V (690V), rated current to 800A, used for distribution of electrical energy and protection the circuit and power equipment from overload, short circuit, undervoltage and other faults. At the same time, it can also be used as the infrequent start and overload, short circuit, undervoltage protection of the motor. The circuit breaker has the characteristics of small size, high breaking capability and short flying arc. The circuit breaker can be installed vertically or horizontally. This product conforms to IEC60947-2, GB/T14048.2 and other standards.

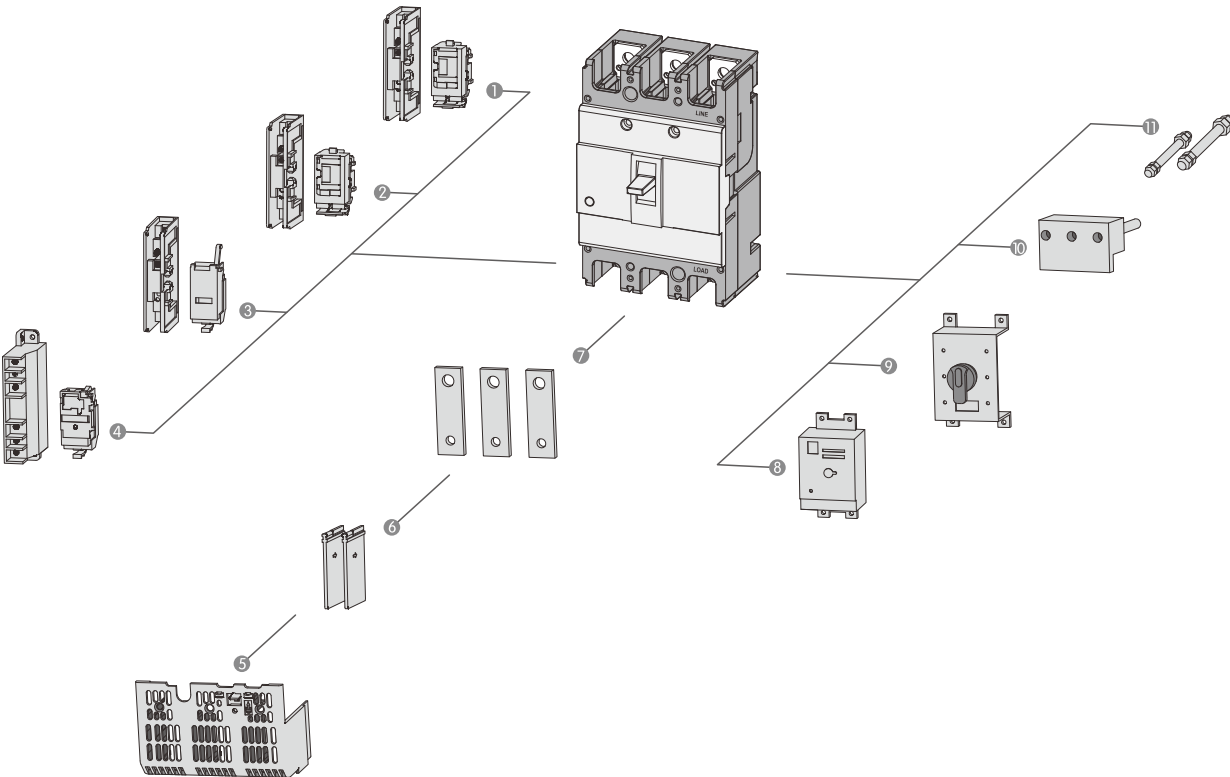
Product features

- ▲ Compact design
Size of the product is more compact, meets different installation requirements of customers.
- ▲ Uniform size
Under same case grade, uniform installation dimension for different breaking capability (S, H), different function (air, leakage).
- ▲ Optimized function parameter setting

Applicable working and installation condition

- ▲ Attitude below 2000 meters
- ▲ Ambient temperature is < +40°C (+45°C for Marine products) and > -5°C
- ▲ Resistance against humidity
- ▲ Resistance against mold
- ▲ Resistance against nuclear radiation
- ▲ Maximum inclination 22.5°
- ▲ Work reliably under normal vibration of the ship
- ▲ Work reliably in case of earthquake (4g)
- ◆ To be installed in an environment without conductive dust, explosion risk, and metal parts and insulation shall be protected against corrosion.
- ▲ Protected against rain and snow

Components



- | | |
|-------------------------|------------------------|
| 1 Auxiliary switch | 7 Front wiring |
| 2 Alarm switch | 8 Electrical operation |
| 3 Shunt release | 9 Manual operation |
| 4 Under voltage release | 10 Plug-in rear wiring |
| 5 Terminal cover | 11 Rear wiring |
| 6 Phase isolation board | |

Selection guide

GYCM3 - 125 S P / 4 300 - 125A 2 A Q1 D1 Q 2

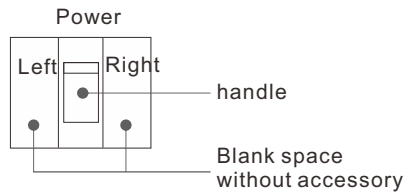
Product code	Case Grade Inm	Breaking capability ICU/ICS (kA)	Opration mode	No. of poles
GYCM3	125	S	P	4
MCCB	125 160 315 630 800	S H 125 25/18 50/35 160 35/18 70/50 315 35/22 100/70 630 35/22 100/70 800 50/35 100/70	P: Electrical Z: Turning handle W: Direct operation	3: 3P 4: 4P

Release operation mode and accessory	Rated current A	Application	Selection code for 4P
300	125A	2	A
Initial number shows operation mode 2: only with instantaneous release 3: multiple release Note: Followed 2 numbers shows accessory code (refer to accessory chart)	125 16,20,32,40 50,63,80,100,125 160 16,20,32,40,50 63,80,100,125 160 315 125,140,160,180 200,225,250,315 630 250,315,350,400, 500,630 800 630,700,800	1: Distribution 2: Motor protection	A: Pole N w/o protection, can not break B: Pole N w/o protection, with breaking function C: Pole N with protection, with breaking function D: Pole N with protection, can not break

Accessory voltage	Electical operation voltage	Installation	wiring board
Q1	D1	Q	2
Under voltage release Q1: AC220V Q2: AC240V Q3: AC380V Q4: AC415V	Shunt release F1: AC230V F2: AC400V F3: DC110V F4: DC24V	Auxiliary alarm J1: AC125V J2: AC250V J3: DC125V J4: DC24V	Dc1 D1: AC220V D2: AC230V D3: AC380V D4: AC400V Dc3 D5: AC230V D6: AC110V D7: DC220 D8: DC110 D9: AC110~240V D10: DC100~220V Note: For selection of applicable voltage please refer to external accessory introduction

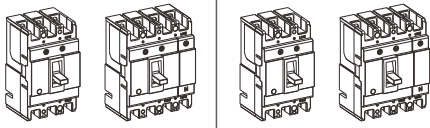
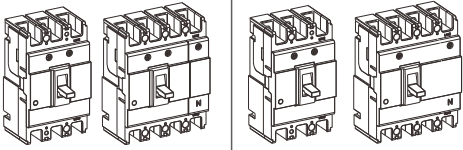
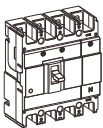
Accessory chart

Model	GYCM3-125	GYCM3-160	GYCM3-315	GYCM3-630	GYCM3-800
Breaking capability	S	S,H	S,H	S,H	S,H
No. of poles	3,4	3,4	3,4	3,4	3,4
Code	Designation				
208、308	Alarm switch				
210、310	Shunt release				
220、320	Auxiliary switch				
230、330	Under voltage release				
240、340	Shunt release, auxiliary switch				
260、360	2 sets auxiliary switch				
270、370	Aux switch, Under voltage release				
218、318	Shunt release, alarm switch				
228、328	Aux switch, alarm switch				
238、338	under voltage release, alarm switch				
248、348	shunt release, aux switch, alarm switch				
268、368	2 sets aux switch, alarm switch				
278、378	aux switch, under voltage release, alarm switch				
280、380	2 sets aux switch, shunt release				

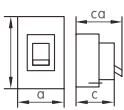


- Legend:
● Alarm switch
○ Auxiliary switch
□ Shunt release
■ Under voltage release
- Note:
1、Three new products: right aux switch, left shunt, left under voltage are available for selection.
2、For 220,320,240,340,270,370, 2 sets of aux switches are available, remark before order.

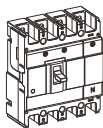
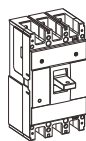
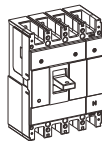
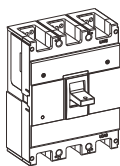
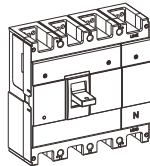
key performance parameters

Frame(A)		125		160		315
Model		GYCM3-125S	GYCM3-125H	GYCM3-160S	GYCM3-160H	GYCM3-315S
Number of poles		3,4		3,4		3,4
						
Rated current(A)		16,20,25,32,40,50,63,80,100,125		16,20,25,32,40,50,63,80,100,125,160		125,140,160,180,200,225,250,315
Rated voltage Ue(V)		AC400V		AC400V		AC400V
Rated insulation voltage Ui(V)		800V		800V		800V
Short-circuit Interrupting capacity(KA)Icu/1cs	AC400V	25/18		25/18		35/22
	ON	1000		1000		1000
Operation life (cycle)	OFF	9000		7000		7000
Dimensions (mm) a-b-c-ca	3P	75-130-68-90	75-130-68-90	90-155-68-90	90-155-68-105	105-165-68-92
	4P	100-130-68-90	100-130-68-90	120-155-68-90	120-155-68-105	140-165-68-92
Weight (kg)	3P	0.55	0.65	1.1	1.1	1.5
	4P	0.65	0.8	1.4	1.4	1.9
Electrical-operation device (MD)		•		•		•
External rotary handle		•		•		•
Automatic tripping device		Thermo - electromagnetic		Thermo - electromagnetic		Thermo - electromagnetic

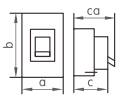
• Accessory available



Kay performance parameter

Frame(A)		315	630		800	
Model		GYCM3-315H	GYCM3-630S	GYCM3-630H	GYCM3-800S	GYCM3-800H
Number of poles		3,4	3,4	3,4	3,4	3,4
						
Rated current(A)		125,140,160,180,200,225,250,315	250,315,350,400,500、630	250,315,350,400,500,630	630,700,800	630,700,800
Rated voltage Ue (V)		AC400V	AC400V	AC400V	AC400V	AC400V
Rated insulation voltage Ui(V)		800V	800V	800V	1000V	1000V
Short-circuit Interrupting capacity (KA)Icu/1cs	AC400V	100/70	35/22	100/70	50/35	100/70
	ON	1000	1000	1000	500	500
Operation life (cycle)	OFF	7000	4000	4000	2500	2500
Dimensions (mm) a-b-c-ca	3P	105-165-68-115	140-257-105-155	140-257-105-155	210-275-105-155	210-275-105-155
	4P	140-165-68-115	185-257-105-155	185-257-105-155	280-275-105-155	280-275-105-155
Weight (kg)	3P	1.8	5.7	5.7	9.5	9.5
	4P	2.3	7.5	7.5	12.5	12.5
Electrical-operation device (MD)		●	●	●	●	●
External rotary handle		●	●	●	●	●
Automatic tripping device		Thermo - electromagnetic	Thermo - electromagnetic	Thermo - electromagnetic	Thermo - electromagnetic	Thermo - electromagnetic

• Accessory available



Performance characteristics

1、 For distribution CB, at ambient temperature of +40°C, inverse time lag performance characteristics when poles are energized simultaneously without humidity compensation, as following chart:

Test current type	Setting current multiple	Time		Initial status
In≤63 63 < In				
No tripping current	1.05	≥1h	≥2h	Cold
Tripping current	1.30	< 1h	< 2h	Thermal

2、 For motor protection CB, at ambient temperature of +40°C , inverse time lag performance characteristics when poles are energized simultaneously without humidity compensation, as following chart:

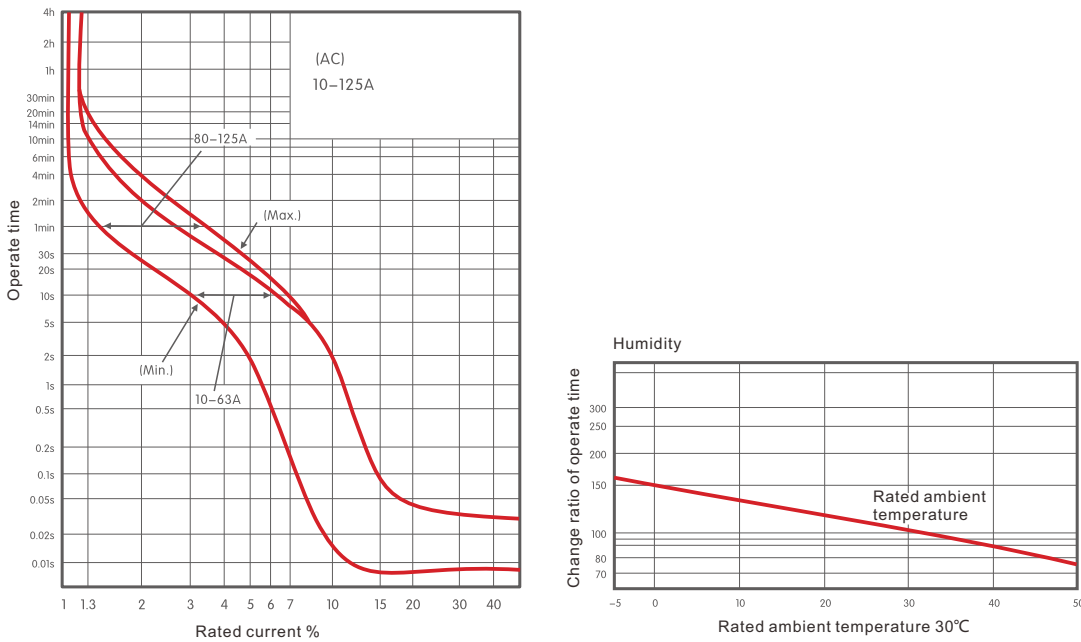
Test current type	setting current mutiple	Time	Initial status
		In≤800	
No tripping current	1.0	≥2h	Cold
Tripping current	1.2	< 2h	Thermal

3、 Performance characteristics when short circuit:

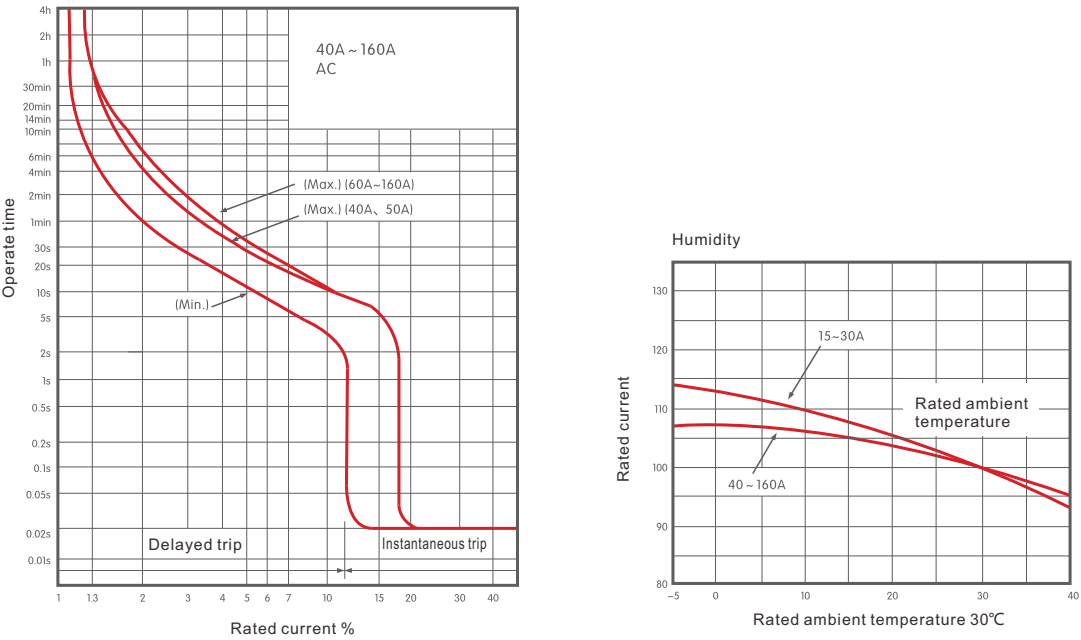
- ◆Distribution CB instantaneous release short circuit current setting value at 10In
- ◆Motor protection CB instantaneous release short circuit current setting value at 12In
- ◆Accuracy of instantaneous release short circuit current ±20%

Trpping characteristics curve

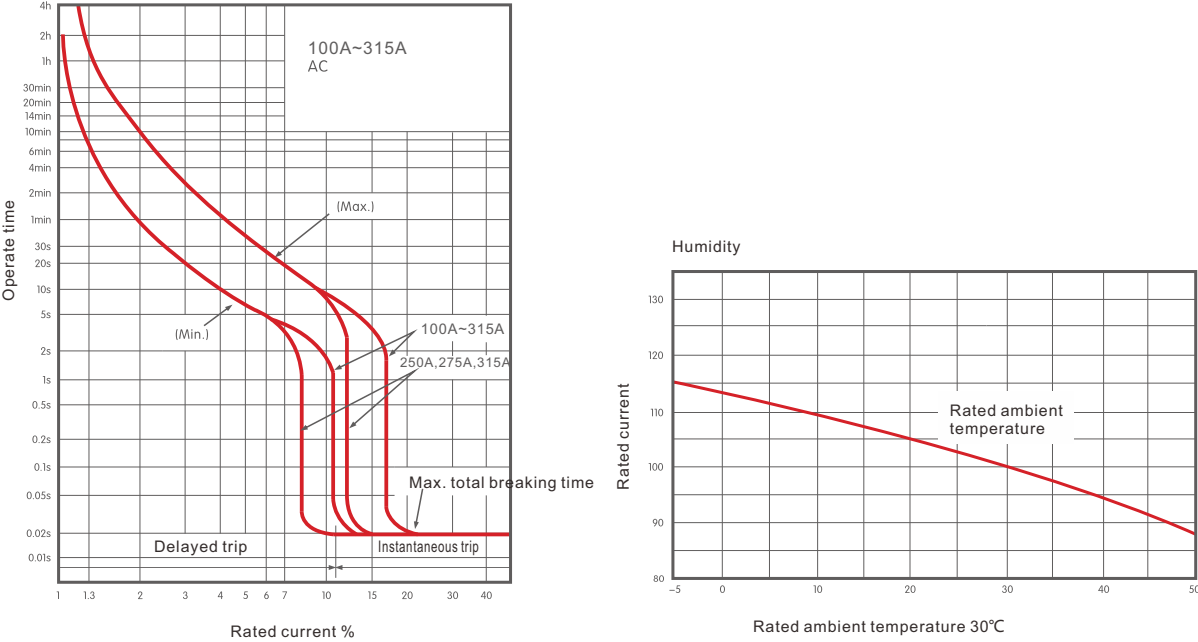
GYCM3-125S、GYCM3-125H



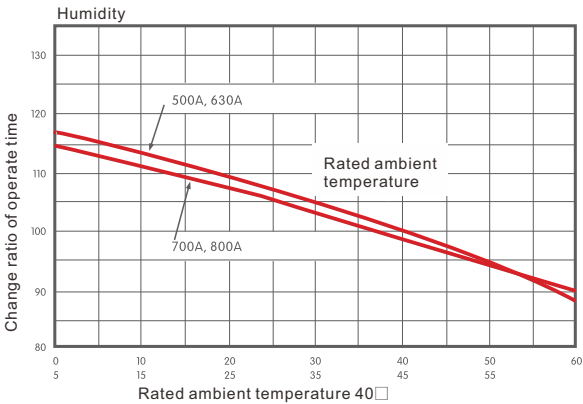
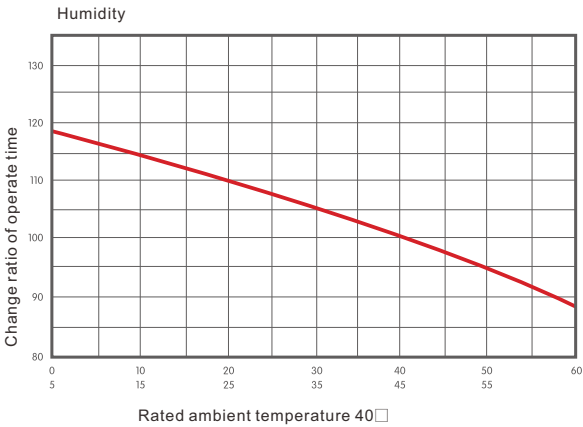
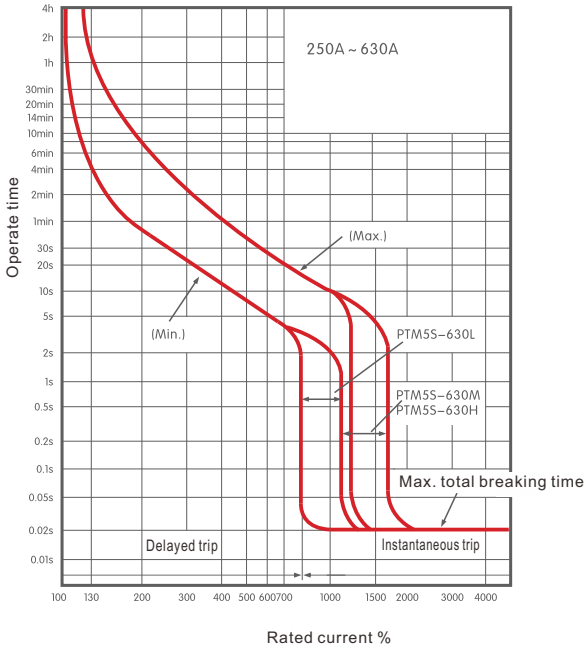
GYCM3-160S、GYCM3-160H



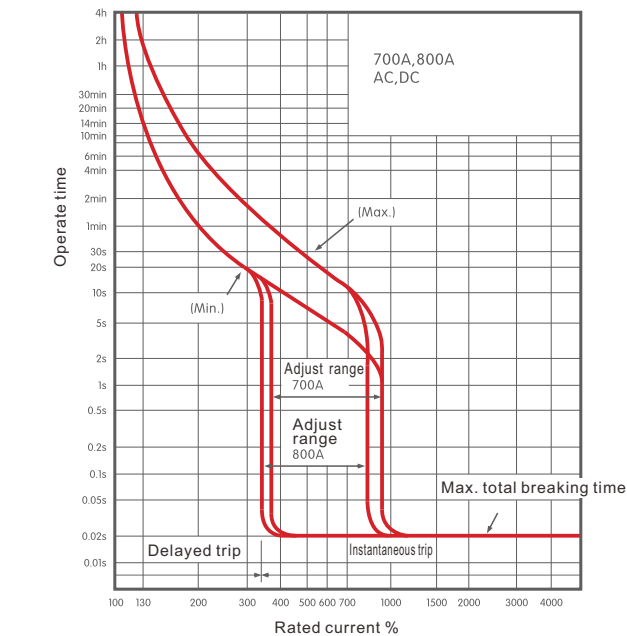
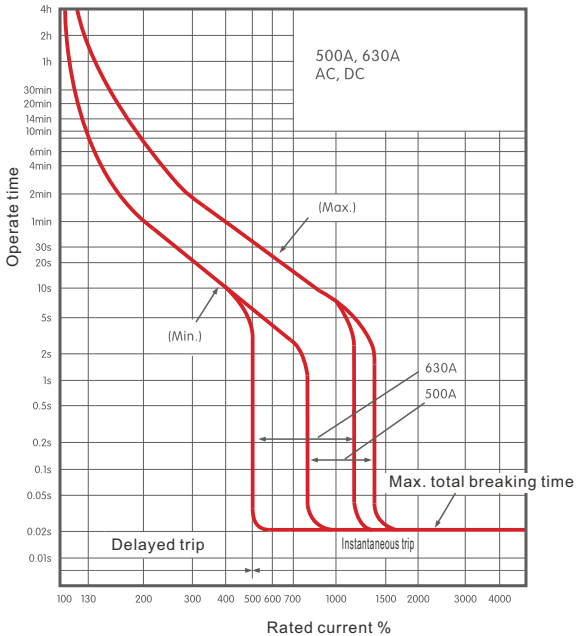
GYCM3-315S、GYCM3-315H



GYCM3-630S, GYCM3-630H



GYCM3-800S, GYCM3-800H



Installation

- ▲ Before installation, check the name plate of the circuit breaker to meet the requirements. The section of the copper conductor shall match the rated current of the circuit breaker.
- ▲ All fasteners must be tightened during installation.
- ▲ The cover of the circuit breaker shall not be opened. The circuit breaker parameters have been set and tested by professionals before delivery, so they shall not be adjusted.

Operation and maintenance

- ▲ Before operation, pull the CB handle up and down several times, the operation mechanism should be flexible, reliable.
- ▲ In case of a general fault in the control circuit, the circuit breaker causes a break, then the handle is in a vertical position. If you need to close the switch, you should first find out the reason, after troubleshooting, and then pull the handle down, so that the operating mechanism "re-buckle", and then turn the handle to "close" position, circuit breaker can be closed.
- ▲ The shell surface of circuit breaker should be cleaned frequently to keep good insulation.
- ▲ Circuit breaker in use or storage, transportation process, should be protected from rain and snow.
- ▲ Warranty: within 18 months from the date of production or 12 months from the date of purchase (whichever is the date of invoice). Circuit breaker seal intact, if the product cannot be used normally due to manufacturing problems and damage, the company is responsible for free replacement or repair.

Documents

Certificate of quality, user manual, packing list included in the product package.

Order notes

- ▲ CB name and model;
- ▲ Rated current and setting multiple of CB;
- ▲ Accessory name and rated voltage.

Selection guide

GYCM3L - 160 L P / 4 300 - 160A 2 A L1 Y1 Q1 D1 Q 2

Product code	Case grade Inm	Breaking capability ICU/ICS (kA)	Operation mode	No. of poles
GYCM3L	160	S	P	4
RCCB	160 315 630 800	M H 160 35/22 50/35 315 50/35 65/42 630 65/50 800 65/50	P: Electrical Z: Turning handle W: Direct operation	3: 3P 4: 4P

Release operation mode and internal accessory	Rated current A	Application	Selection code for 4P
300	160A	2	A
Initial number shows operation mode 2: only with instantaneous release 3: multiple release Note: Followed 2 numbers shows accessory code (refer to accessory chart)	160 16,20,25,32,40,50 63,80,100,140,160 315 125,140,160,180 200,225,250,315 630 400,500,630 800 630,700,800	1: Distribution 2: Motor protection	A: Pole N w/o protection, can not break B: Pole N w/o protection, with breaking function C: Pole N with protection, with breaking function D: Pole N with protection, can not break Note: Default selection will B type, if not specified.

Rated residual operating current mA	Rated delay time (if needed)
L1	Y1
Fixed delay L1:30 L7:200 L2:50 L8:300 L3:75 L9:500 L4:100 L10:1000 L5:150	Fast three speed adjustable L11:30,50,100 L12:30,100,200 L13:30,100,500 L14:100,200,300 L15:100,300,500 L16:300,500,1000
	Fixed delay Y1:0.1s Y4:0.4s Y7:0.7s Y10:1.0s Y2:0.2s Y5:0.5s Y8:0.8s Y11:1.5s Y3:0.3s Y6:0.6s Y9:0.9s Y12:2.0s Fast three speed adjustable Y13:0.45、1、2 Y14:1、2、3(s)

Accessory voltage	Electrical operation voltage	Installation	Wiring board
Q1	D1	Q	2
Under voltage release Q1:AC220V Q2:AC240V Q3:AC380V Q4:AC415V	DC1 D1: AC220V D2: AC230V D3: AC380V D4: AC400V	Q: Front H: Rear C: Plug-in	1: No 2: Yes
Shunt release F1: AC230V F2: AC400V F3: DC110V F4: DC24V	DC3 D5: AC230V D6: AC110V D7: DC220 D8: DC110 D9: AC110~240V D10: DC100~220V		
Auxiliary alarm J1: AC125V J2: AC250V J3: DC125V J4: DC24V			
Note: For selection of applicable voltage please refer to external accessory introduction			

Accessory chart

Model	GYCM3L-160	GYCM3L-315	GYCM3L-630	GYCM3L-800
Breaking capability	L,M	L,M	L,M	M
No. of poles	3,4	3,4	3,4	3,4
Code	Designation			
208、308	Alarm switch			
210、310	Shunt release			
220、320	Aux switch			
230、330	Under voltage release			
240、340	Shunt release, aux switch			
260、360	2 sets aux switch			
270、370	Aux switch, under voltage release			
218、318	Shunt release, alarm switch			
228、328	Aux switch, alarm switch			
238、338	Under voltage release, alarm switch			
248、348	Shunt release, aux switch, alarm switch			
268、368	2 sets aux switch, alarm switch			
278、378	Aux switch, undervoltage release, alarm switch			
280、380	2 sets aux switch, shunt release			

Power

Left Right

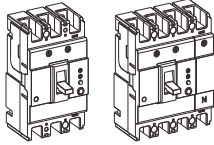
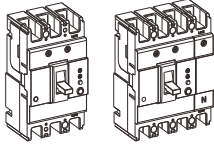
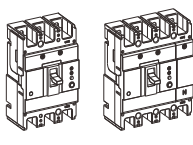
Handle

Blank space without accessory

● Alarm switch ○ Auxiliary switch □ Shunt release ■ Under voltage release

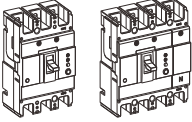
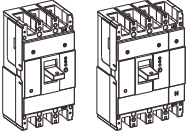
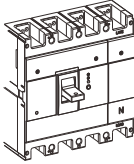
Note:
1.125~315 3PRCCB:only 208,308,220,320,260,360,228,328 available;
210,310,230,330 left installation available;
2.630~800 3PRCCB:one wiring box for 248,348,268,368,no wiring box for other accessories; under voltage for 270,370,218,318, 278,378 comes with wiring box;
3.JENM7L-125,160,315 4P has accessory on left and right side, needs 4P shaft and 4P release plate;
4.220,320,340,270,370, 2 sets switch available, specify before order.

Key performance parameter

Case current (A)		160		315
Model		GYCM3L-160H	GYCM3L-160M	GYCM3L-315H
No. of poles		2,3,4	2,3,4	3,4
				
Power supply system	3P	3Φ3W,1Φ2W,1Φ3W	3Φ3W,1Φ2W,1Φ3W	3Φ3W,1Φ2W,1Φ3W
	4P	3Φ4W	3Φ4W	3Φ4W
Rated current (A)		16,20,25,32,40,50,63,80,100,125,140,160	16,20,25,32,40,50,63,80,100,125,140,160	125,160,180,200,225,250,315
Rated voltage (V)		AC400V	AC400V	AC400V
Rated insulation voltage (V)		800V	1000V	800V
Leakage indication system		Button	Button	Button
Short circuit breaking capacity(A) AC400V(Icu/Ics)		50/35	35/22	65/42
Operation cycle (times)	ON	3000	3000	3000
	OFF	7000	7000	7000
Speed type	Rated leakage operation current(mA)	100,300,500	100,300,500	100,300,500
	Max. operation time (s)	0.1	0.1	0.1
Delay type	Rated leakage operation current(mA)	100,300,500	100,300,500	100,300,500
	Max. operation time(s)	—	—	—
	Max. operation time(s) in 21△n	0.45,1.0,2.0(adjustable)	0.45,1.0,2.0(adjustable)	0.45,1.0,2.0(adjustable)
	Interval inactive time(s) in 21△n(s)	0.1,0.5,1.0	0.1,0.5,1.0	0.1,0.5,1.0
Dimension (mm) a-b-c-ca	3P	90-155-68-90	90-155-83-105	105-165-68-92
	4P	120-155-68-90	120-155-83-105	140-165-68-92
Weight (kg)	3P	1.2	0.85	2.0
	4P	1.5	1.2	2.5
Electrical operation device(MD)		●	●	●
External drive operating handle		●	●	●
Automatic release device		Thermo - electromagnetic	Thermo - electromagnetic	Thermo - electromagnetic

● with — without

Key performance parameter

Case current (A)		315	630	800
Model		GYCM3L-315M	GYCM3L-630	GYCM3L-800
No. of poles		3,4	3,4	3,4
				
Power supply system	3P	3Φ3W,1Φ2W,1Φ3W	3Φ3W,1Φ2W,1Φ3W	3Φ3W,1Φ2W,1Φ3W
	4P	3Φ4W	3Φ4W	3Φ4W
Rated current (A)		125,160,180,200,225,250,315	400,500,630	630,700,800
Rated voltage (V)		AC400V	AC400V	AC400V
Rated insulation voltage (V)		800V	1000V	1000V
Leakage indication system		Button	Button	Button
Short circuit breaking capacity(A) AC400V (Icu/Ics)		50/35	65/50	65/50
Operation cycle (times)	ON	3000	1000	500
	OFF	7000	4000	2500
Speed type	Rated leakage operation current(mA)	100,300,500	50,100,200,300,500,800(adjustable)	50,100,200,300,500,800(adjustable)
	Max. operation time (s)	0.1	0.1	0.1
Delay type	Rated leakage operation current(mA)(mA)	100,300,500	50,100,200,300,500,800(adjustable)	50,100,200,300,500,800(adjustable)
	Max. operation time (s)	—	—	—
	Max. operation time(s) @21△n	0.45,1.0,2.0(adjustable)	0.45,1.0,2.0(adjustable)	0.45,1.0,2.0(adjustable)
	Interval inactive time(s) @21△n(s)	0.1,0.5,1.0	0.1,0.5,1.0	0.1,0.5,1.0
Dimension (mm) a-b-c-ca	3P	105-165-91-115	140-257-105-155	210-257-104-155
	4P	140-165-91-115	185-257-105-155	280-257-104-155
Weight (kg)	3P	2.0	6.6	12.5
	4P	2.5	8.4	17.5
Electrical operation device(MD)		●	●	●
External drive operating handle		●	●	●
Automatic release device		Thermo - electromagnetic	Thermo - electromagnetic	Thermo - electromagnetic

● with — without

Operation characteristics

1、 For distribution CB, at ambient temperature of +40℃, inverse time lag performance characteristics when poles are energized simultaneously without humidity compensation, as following chart:

Test current type	Setting current multiple	Time		Initial status
		In≤63 63 < In		
No tripping current	1.05	≥1h	≥2h	cold
trippingcurrent	1.30	< 1h	< 2h	thermal

2、 For motor protection CB, at ambient temperature of +40℃ , inverse time lag performance characteristics when poles are energized simultaneously without humidity compensation, as following chart:

Test current type	Setting current multiple	Time	Initial status
In≤800			
No tripping current	1.0	≥2h	cold
trippingcurrent	1.2	< 2h	thermal

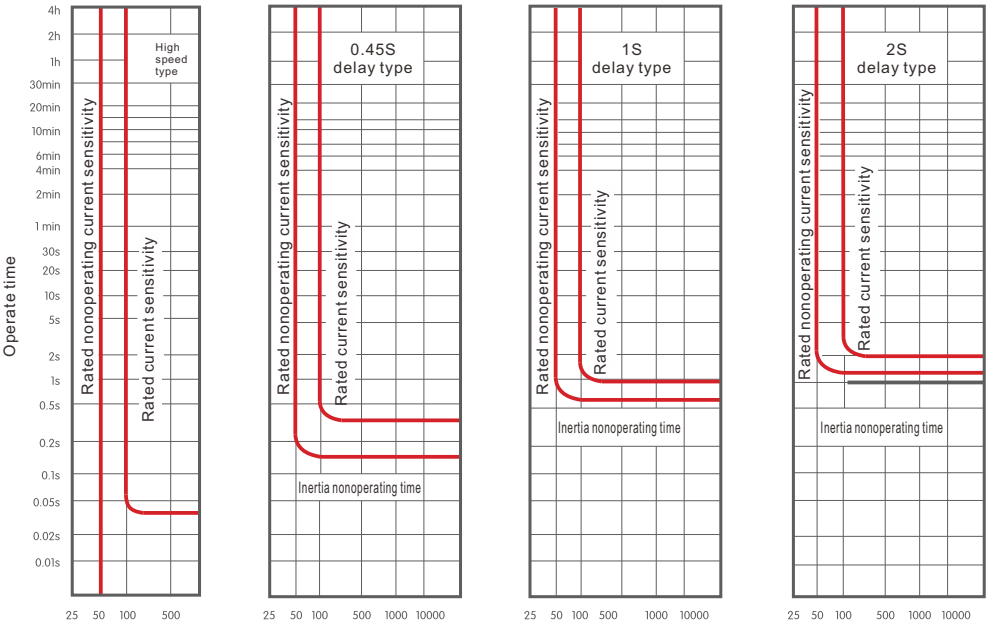
3、 Performance characteristics when short circuit:

- ◆Distribution CB instantaneous release short circuit current setting value at 10In
- ◆Motor protection CB instantaneous release short circuit current setting value at 12In
- ◆Accuracy of instantaneous release short circuit current ±20%

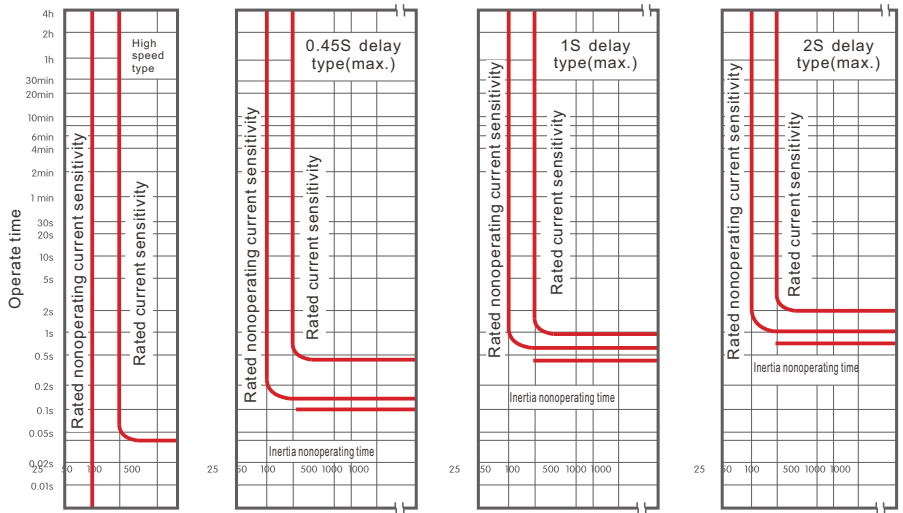
Tripping characteristics curve

Leakage current (rated current sensitivity %)(mA)

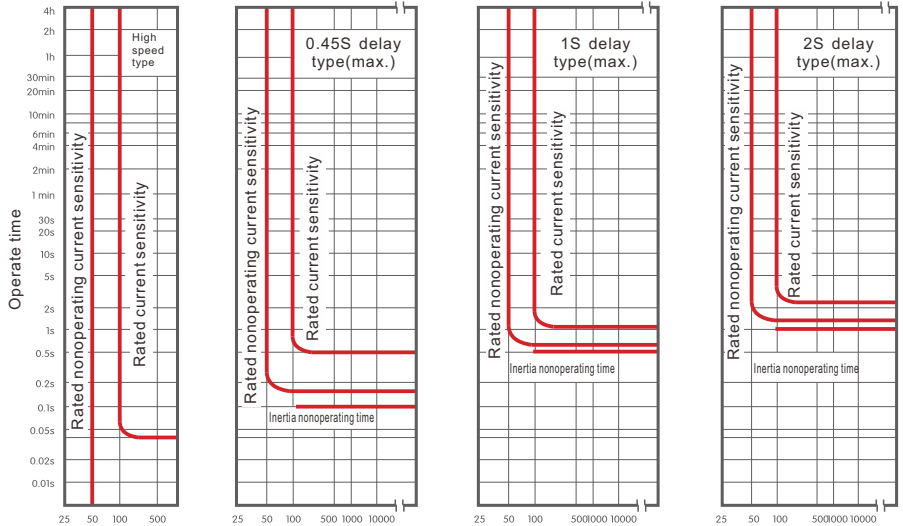
GYCM3L-160M GYCM3L-160H



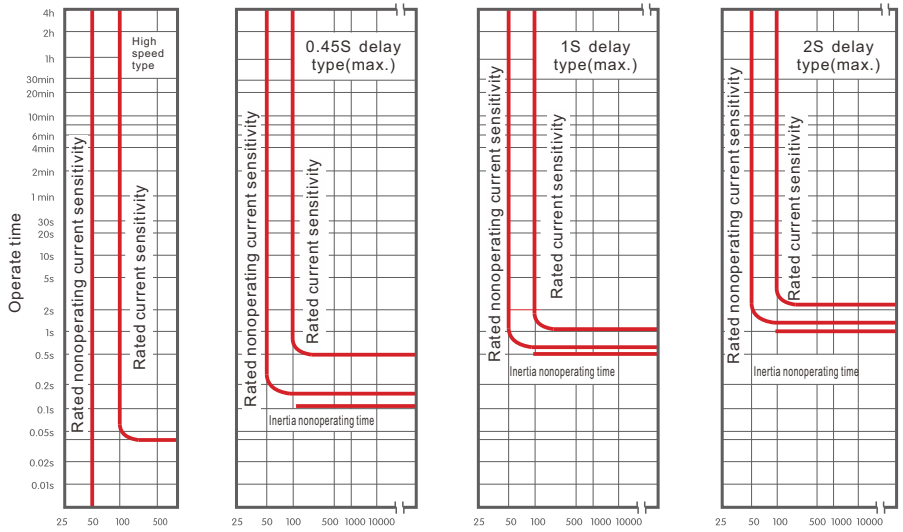
GYCM3L-315M GYCM3L-315H Leakage current (rated current sensitivity %)(mA)



GYCM3L-630



GYCM3L-800



General information

GYCM3E series electronic circuit breaker is suitable for low voltage power system with AC 50Hz, rated voltage below 690V, rated current below 800A.

Applicable working and installation condition

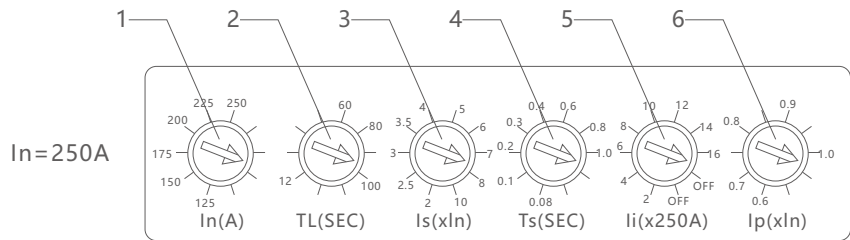
- ♦Attitude below 2000 meters
- ♦Ambient temperature is $< +40^{\circ}\text{C}$ ($+45^{\circ}\text{C}$ for Marine products) and $> -5^{\circ}\text{C}$
- ♦Resistance against humidity
- ♦Resistance against mold
- ♦Resistance against nuclear radiation
- ♦Maximum inclination 22.5°
- ♦Work reliably under normal vibration of the ship
- ♦Work reliably in case of earthquake (4g)
- ♦To be installed in an environment without conductive dust, explosion risk, and metal parts and insulation shall be protected against corrosion.
- ♦Protected against rain and snow

Product features

- 1.The circuit breaker can be equipped with under-voltage release, shunt release, auxiliary contact, alarm contact, electric operating mechanism, rotating operating handle and other accessories.
- 2.The circuit breaker has protection functions such as long time delay of overload, short time delay of short circuit and short time delay of short circuit. The user can set the protection characteristics required by the composition (as long as the parameters of protection function are reset with the code switch).
- 3.Circuit breaker has grounding fault, thermal analog protection function, warning and warning indication, over-current indication, load current indication function, digital current analysis technology, which can achieve higher protection function.
- 4.ZLM30REL is Series of Circuit Breaker with residual current protection function.

Panel and function

Intelligent release adjustment panel



- 1.1 Coding switch for setting rated current I_n
- 1.2 Coding switch with long delay action time $T_l \pm 20\%$
- 1.3 Coding switch for setting short delay setting current I_s
- 1.4 Coding switch for setting short delay action time T_s
- 1.5 Code switch for setting instantaneous setting current I_i
- 1.6 Code switch for setting overload warning current I_p

Selelton guide

GYCM3 E - 160 P / 3 400 2 A

Feature	Adjustable type	Case grade Current select code
GYCM3	E	160
MCCB	E electronic adjustable	Inm=160 Inm=315 Inm=630 Inm=800

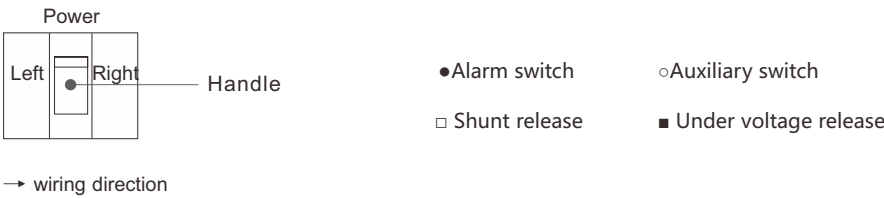
Operation mode	No. of poles code
P	3
P: Electrical Z: Turning handle W: Direct operation ① electric operation DC1,DC2,DC3	3: 3P 4: 4P

Type of release and internal accessory code	Application	4 Pole selection
400	2	A
2: intelligent release refer to chart 1 for accessory code	1: Distribution 2: Motor protection	A: Pole N w/o protection, can not break B: Pole N w/o protection, with breaking function C: Pole N with protection, with breaking function D: Pole N with protection, can not break

Accessory chart

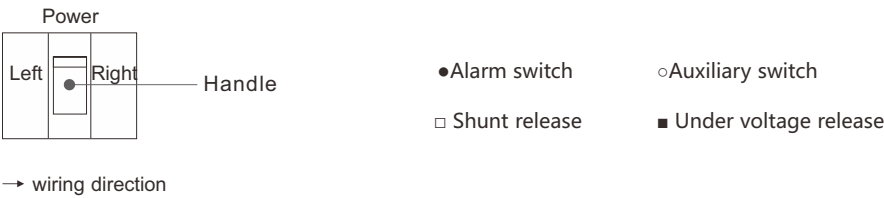
GYCM3E serieies electronic circuit breaker
3P air circuit breaker release mode and internal accessory code

Model		GYCM3E-160 GYCM3E-315	GYCM3E-630	GYCM3E-800
No. of poles		3	3	3
Code	Designation			
408	Alarm switch			
410	Shunt release			
420	Auxiliary switch			
430	Under voltage release			
440	Shunt release, auxiliary switch			
460	2 sets auxiliary switch			
470	Auxiliary switch, under voltage release			
418	Shunt release, alarm switch			
428	Auxiliary switch, alarm switch			
438	Under voltage release, alarm switch			
448	Shunt release, aux switch, alarm switch			
468	2 sets aux switch, alarm switch			
478	Aux switch,under voltage release, alarm switch			
480	2 set aux switch, shunt release			



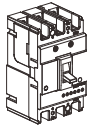
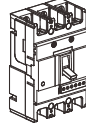
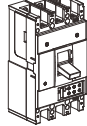
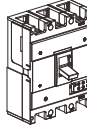
GYCM3E serieies electronic circuit breaker
4P air circuit breaker release mode and internal accessory code

Model		GYCM3E-160 GYCM3E-315	GYCM3E-630	GYCM3E-800
No. of poles		4	4	4
Code	Designation			
408	Alarm switch			
410	Shunt release			
420	Auxiliary switch			
430	Under voltage release			
440	Shunt release, auxiliary switch			
460	2 sets auxiliary switch			
470	Auxiliary switch, under voltage release			
418	Shunt release, alarm switch			
428	Auxiliary switch, alarm switch			
438	Under voltage release, alarm switch			
448	Shunt release, aux switch, alarm switch			
468	2 sets aux switch, alarm switch			
478	Aux switch,under voltage release, alarm switch			
480	2 set aux switch, shunt release			



Key performance parameter

GYCM3E Series electronic circuit breaker

Case current		160	315	630	800
Model		GYCM3E-160	GYCM3E-315	GYCM3E-630	GYCM3E-800
No. of poles		3,4	3,4	3,4	3,4
					
Rated current adjust range		25,32,40,50,63,80,100,125,140,160	80,100,125,140,160,180,200,225,250,315	200-400,500-630	315-630,700-800
Rated voltage		AC400V	AC400V	AC400V	AC400V
Rated insulation voltage		800V	800V	800V	800V
short circuit breaking capability (KA)Icu/1cs	AC400V	70/50	70/50	100/70	100/70
Operation cycle	ON	1500	1000	1000	1000
	OFF	7000	7000	4000	4000
Dimension (mm) a-b -c-ca	3P	105-155 -91-115	105-155 -91-115	140-257 -105-155	210-257 -105-155
	4P	140-155 -91-115	140-155 -91-115	185-257 -105-155	280-257 -105-155
Weight (kg)	3P	1.8	1.8	5.7	9.5
	4P	2.3	2.3	7.5	12.5
Electrical operation device (MD)		●	●	●	●
External drive operating handle		●	●	●	●
Automatic release device		Electronic	Electronic	Electronic	Electronic

Operation characteristics

1、 For distribution CB, at ambient temperature of +40℃ , inverse time lag performance characteristics when poles are energized simultaneously without humidity compensation, as following chart:

Test current type	setting current multiple	Time		Initial status
		$I_n \leq 63$	$63 < I_n$	
No tripping current	1.05	$\geq 1h$	$\geq 2h$	cold
Tripping current	1.30	$< 1h$	$< 2h$	thermal

2、 For motor protection CB, at ambient temperature of +40℃ , inverse time lag performance characteristics when poles are energized simultaneously without humidity compensation, as following chart:

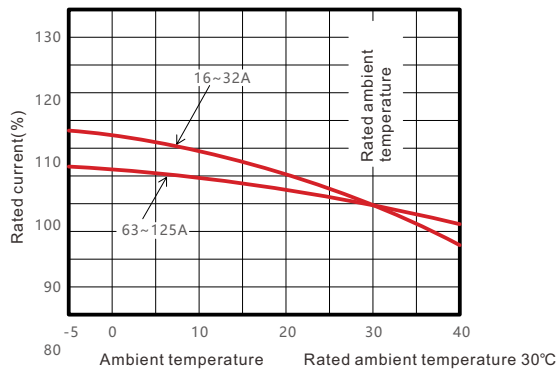
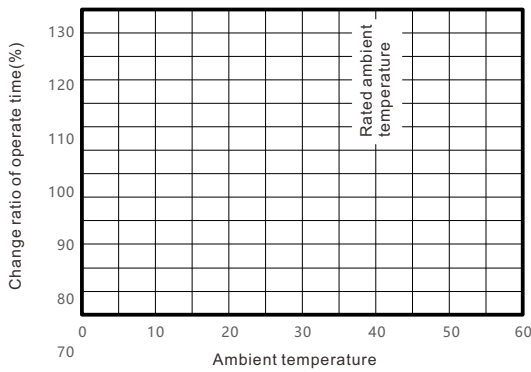
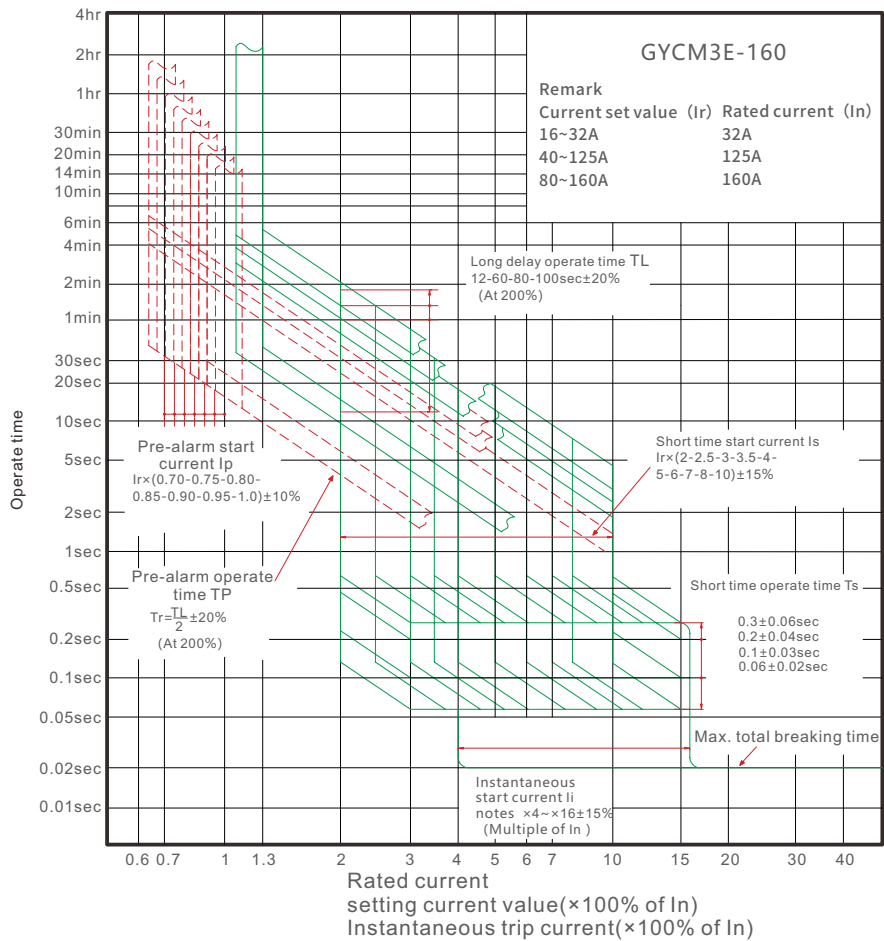
Test current type	setting current multiple	Time	Initial status
		$I_n \leq 800$	
No tripping current	1.0	$\geq 2h$	cold
No tripping current	1.2	$< 2h$	thermal

3、 Performance characteristics when short circuit:

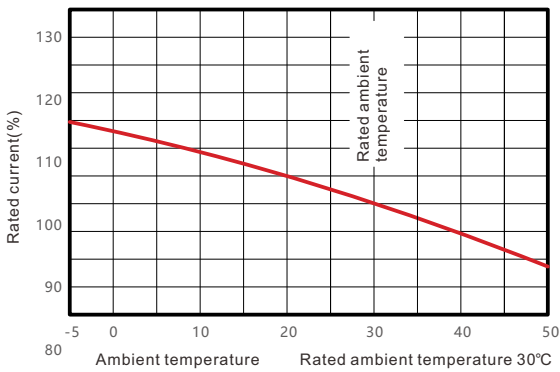
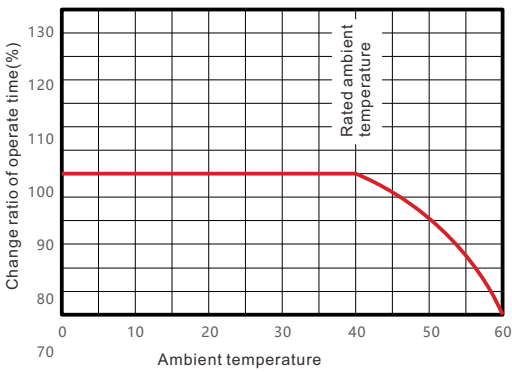
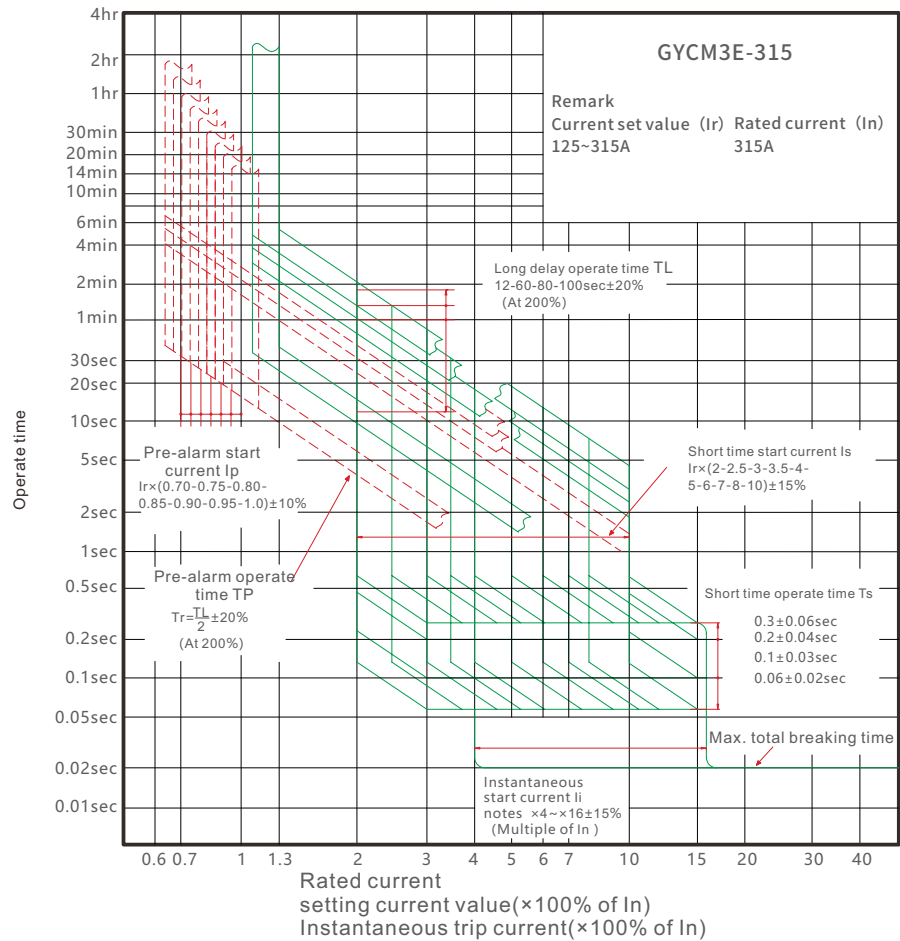
- ◆ Distribution CB instantaneous release short circuit current setting value at $10I_n$
- ◆ Motor protection CB instantaneous release short circuit current setting value at $12I_n$
- ◆ Accuracy of instantaneous release short circuit current $\pm 20\%$

Operation characteristics curve

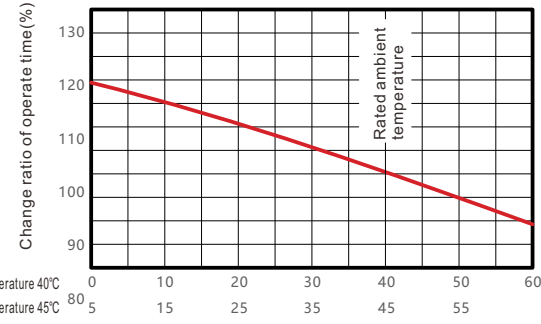
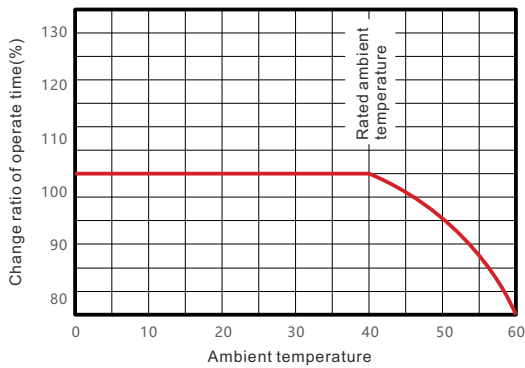
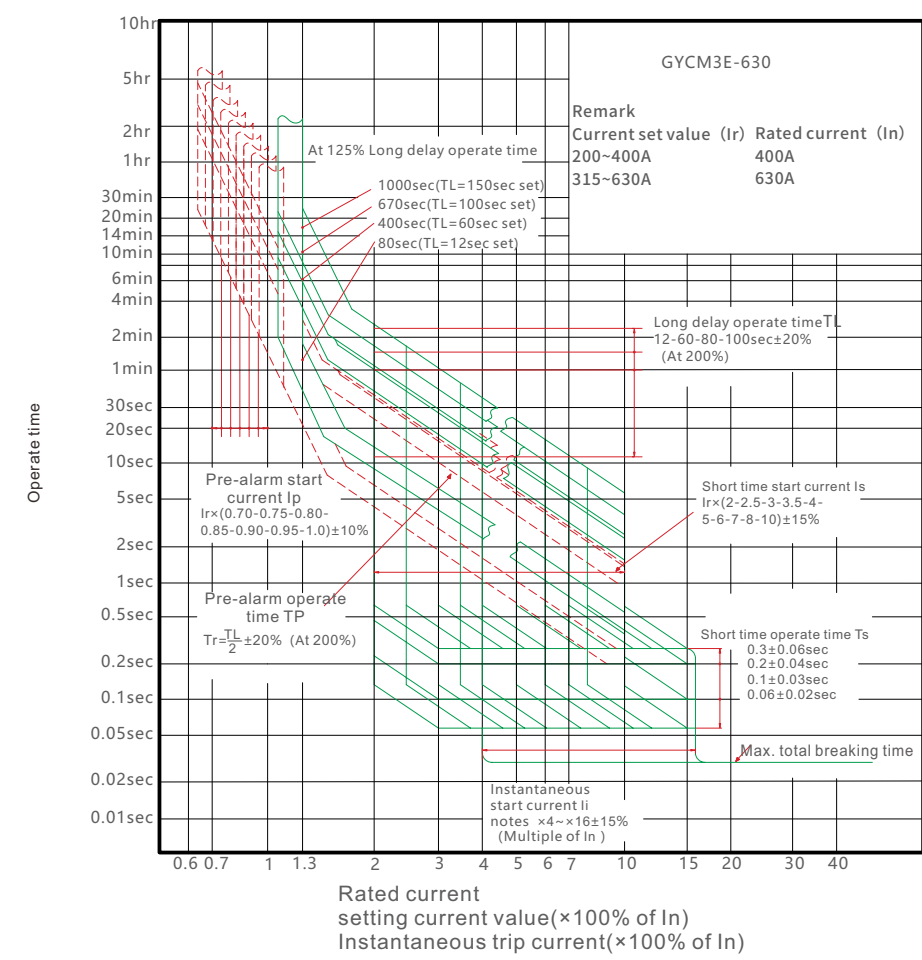
GYCM3E-160



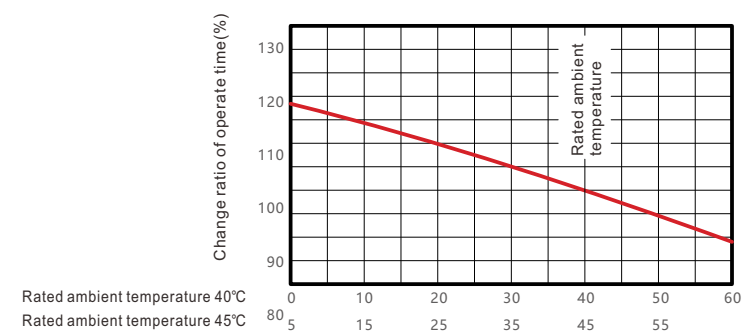
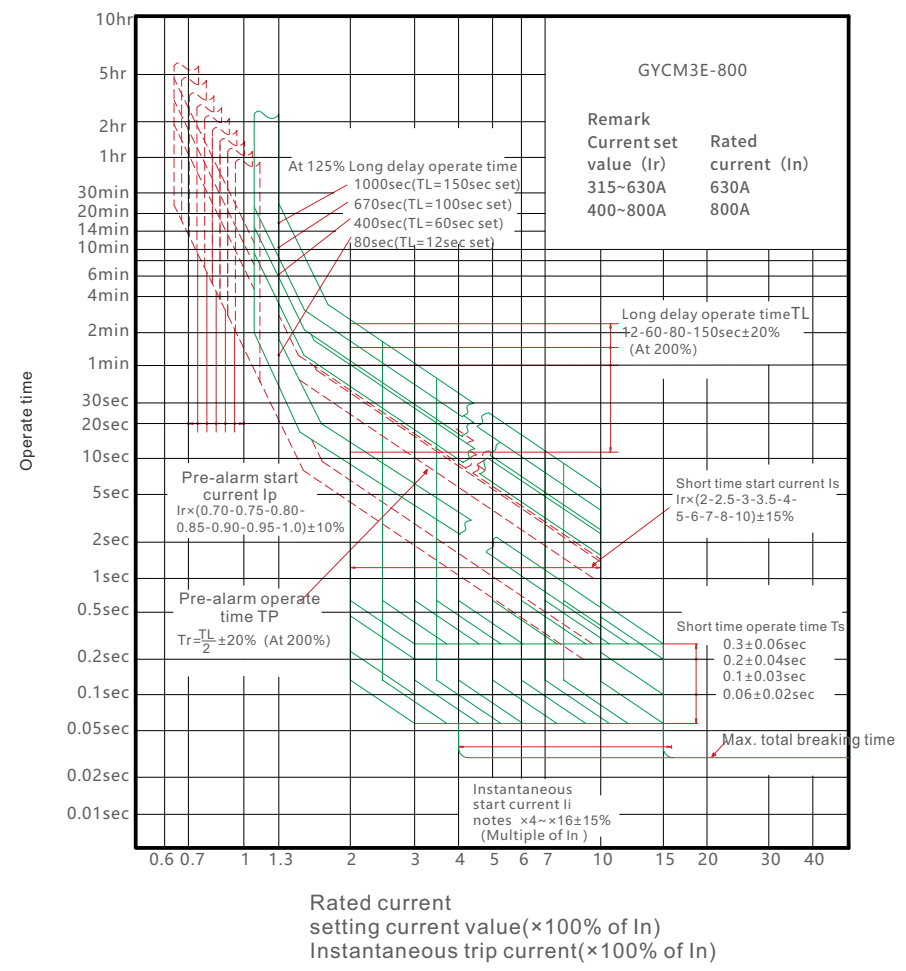
GYCM3E-315

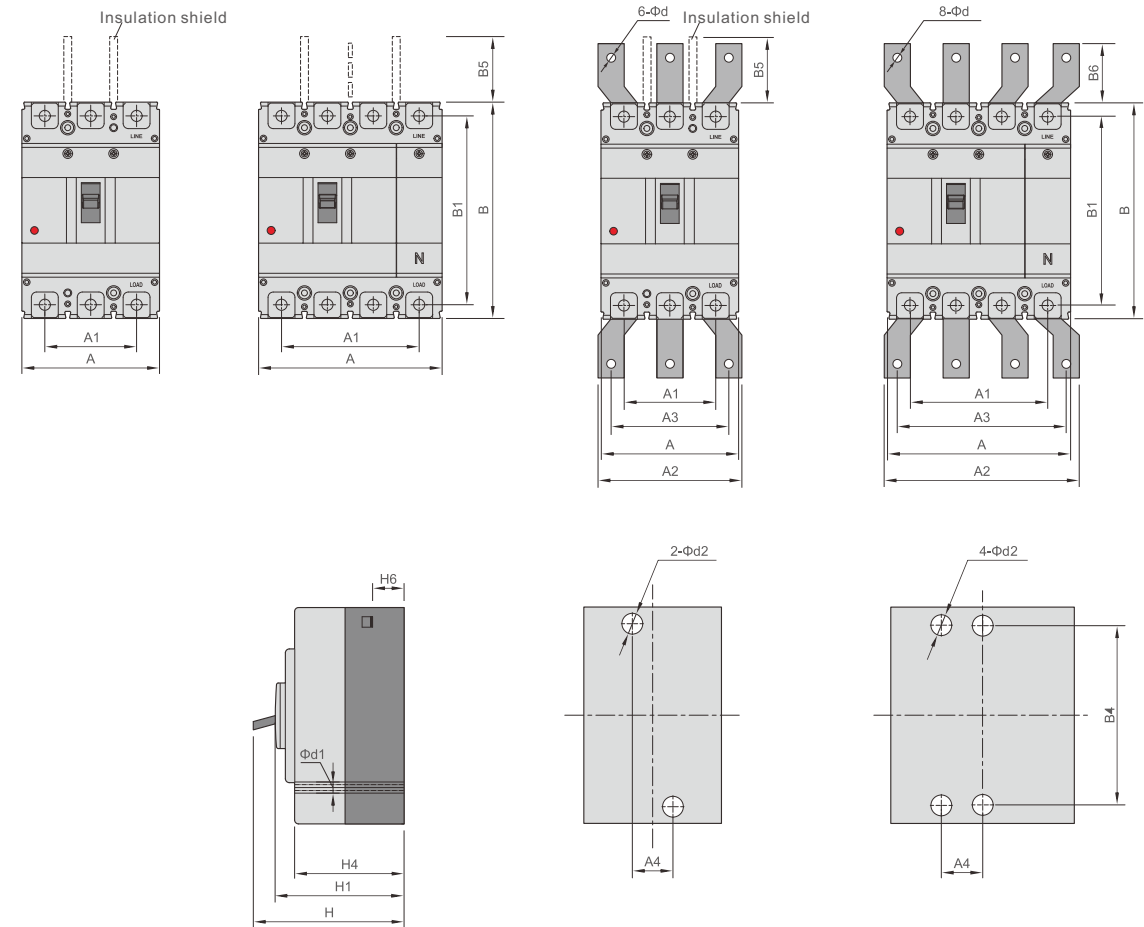


GYCM3E-630



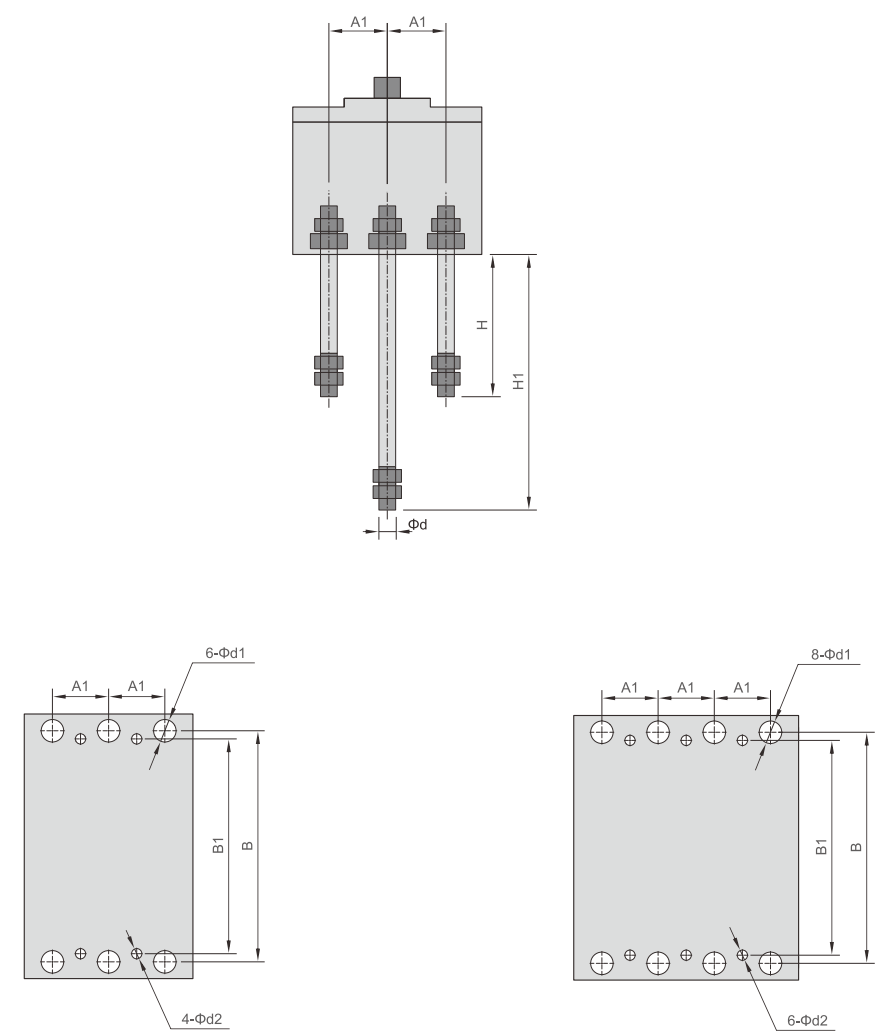
GYCM3E-800





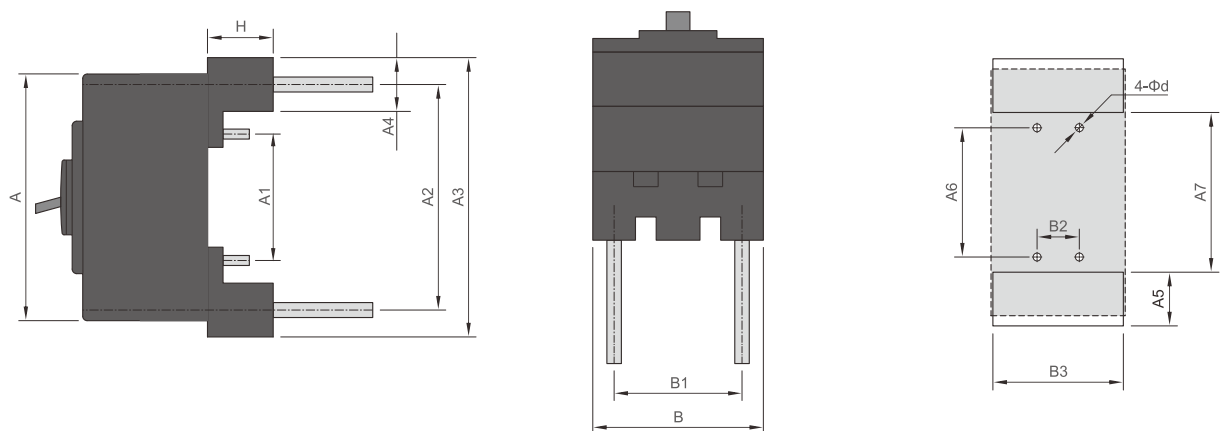
Model			Dimension																	Installation		Bolt size
MCCB (GYCM3)	RCCB (GYCM3L)	Electronic CB (GYCM3E)	A		A1		A2		A3		B	B1	H	H1	H4	H6	Φd	Φd1	Φd2	A4	B4	
			3P	4P	3P	4P	3P	4P	3P	4P												
-125S	—		75	100	50	75	—	—	—	—	130	114	95	77	61	23	—	4.5	5	25	111	M8
-125H	—		75	100	50	75	—	—	—	—	130	114	95	77	61	23	—	4.5	5	25	111	M8
-160S	-160H		90	120	60	90	—	—	—	—	150	132	93	74	60	23	—	4.5	5	30	128	M8
-160H	-160M	-160	90	120	60	90	—	—	—	—	150	132	105	93	74	23	—	4.5	5	30	128	M8
-315S	-315H		105	140	70	105	—	—	—	—	165	144	100	80	64	23	—	4.5	5	35	126	M8
-315H	-315M	-315	105	140	70	105	—	—	—	—	165	144	120	100	85	23	—	4.5	5	35	126	M8
-630S	—		140	185	88	132	142	185	112	154	257	230	155	116	97	32	14	7	7	44	194	M10
-630H	-630	-630	140	185	88	132	142	185	112	154	257	230	155	116	97	32	14	7	7	44	194	M10
-800S	—		210	280	140	210	180	250	140	210	275	250	157	117	98	24	14	8	8	70	243	M8x2
-800H	-800	-800	210	280	140	210	180	250	140	210	275	250	157	117	98	24	14	8	8	70	243	M8x2

Rear wiring dimension



Model			Rear wiring dimension							
MCCB (GYCM3)	RCCB (GYCM3L)	Electronic CB (GYCM3E)	A1	B	B1	H	H1	Φd	Φd1	Φd2
-125S	—		25	114	111	62	87	6	14	5
-125H	—		25	114	111	62	87	6	14	5
-160S	-160H		30	134	132	72	112	8	18	5
-160H	-160M	-160	30	134	132	72	112	8	18	5
-315S	-315H		35	144	126	87	126	12	24	5
-315H	-315M	-315	35	144	126	87	126	12	24	5
-630S	—		44	230	194	83	136	18	35	7
-630H	-630	-630	44	230	194	83	136	18	35	7
-800S	—		70	243	243	174	243	26	48	7
-800H	-800	-800	70	243	243	174	243	26	48	7

Plug-in wiring dimension



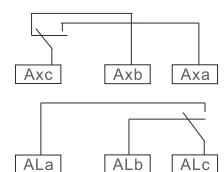
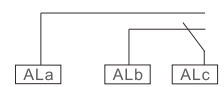
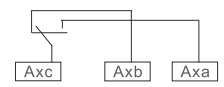
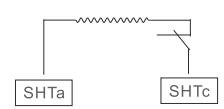
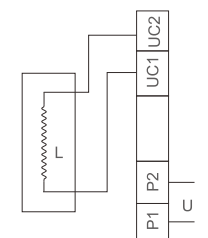
Model			Plug-in wiring dimension													
MCCB (GYCM3)	RCCB (GYCM3L)	Electronic CB (GYCM3E)	A	A1	A2	A3	A4	A5	A6	A7	H	B	B1	B2	B3	Φd
-125S	—		130	54	114	140	29	31	54	80	48	75	50	25	78	5.2
-125H	—		130	54	114	140	29	31	54	80	48	75	50	25	78	5.2
-160S	-160H		155	54	134	168	38	40	54	92	52	90	60	30	93	6.5
-160H	-160M	-160	155	54	134	168	38	40	54	92	52	90	60	30	93	6.5
-315S	-315H		165	54	144	182	45	47	54	90	50	105	70	70	108	6.5
-315H	-315M	-315	165	54	144	182	45	47	54	90	50	105	70	70	108	6.5
-630S	—		257	140	230	282	55	55	140	171	60	134	87	44	136	8.2
-630H	-630	-630	257	140	230	282	55	55	140	171	60	134	87	44	136	8.2
-800S	—		275	155	243	298	55	56	155	187	60	206	140	70	208	8.2
-800H	-800	-800	275	155	243	298	55	56	155	187	60	206	140	70	208	8.2

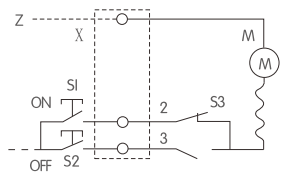
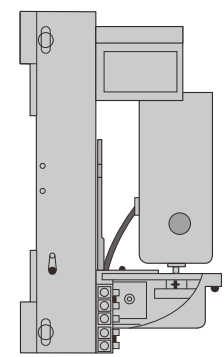
Internal accessory

Internal accessories for GYCM3、GYCM3L、GYCM3E series include under voltage release, shunt release, auxiliary alarm release, their main technical parameters are as following:

Under voltage release	
Power rated voltage	main function
AC220,AC240 AC380,AC415	A. The supply voltage drops to 70% and 35% of the rated voltage, under voltage Release should operate. B. when the supply voltage is lower than 35% of the rated voltage, the under-voltage release shall not be allowed Suction to prevent circuit breaker from closing. C. Under-voltage release when the supply voltage is equal to or greater than 85% of the rated voltage The suction shall be guaranteed and the circuit breaker shall be reliably closed.
Shunt release	
Power rated voltage	Main function
DC24,DC110 AC230,AC400	Direct shunt trippers with rated voltages of 70% and 110% can operate reliably.
Auxiliary alarm contact	
Power rated voltage	Main function
Auxiliary switch AC 125V 5A, AC 250V 3A DC 125V 0.4A, DC 24V 0.2A	Provide a distinguishing signal for a circuit breaker in an "on" and "off" position
Alarm switch AC 125 5A, AC 250V 3A DC 125V 0.4A, DC 24V 0.2A	30/5000 Provides a distinguishing signal for a circuit breaker in a "normal" and "fault free trip" position.
Auxiliary alarm switch AC 125V 5A AC 250V 3A DC 125V 0.4A,DC24V 0.2A	Provide distinguishing signals for circuit breakers in "closing", "breaking" and "fault free trip" positions.

Note: wiring box with accessory, with 18mm.





M-motor
S3-microswitch
X-wiring terminal
S1/S2-Button (supplied by customer)

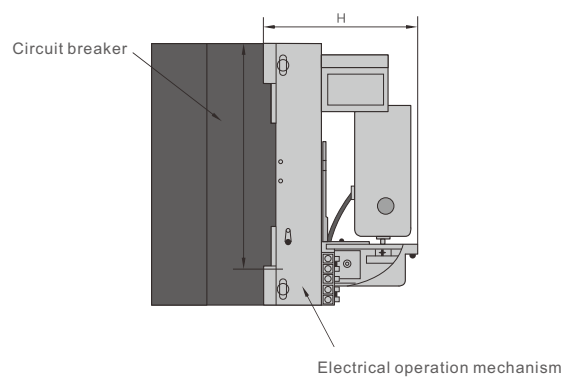
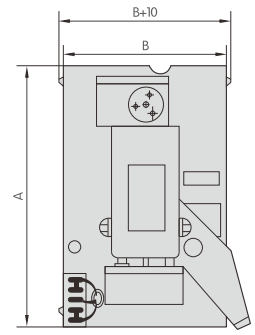
External accessory

Main technical parameter, dimension and installation instruction of external accessories for GYCM3□GYCM3L□GYCM3E, are as following,

Dc1 electrical operation mechanism

Dc1 series uses electrical operation mechanism, applicable for operation of CB with rated current at 250A and above.

Model		DC1-400/30	DC1-630/30
Applicable models		GYCM3-630	GYCM3-800
		GYCM3L-630	GYCM3L-800
		GYCM3E-630	GYCM3E-800
Dimension	a	226	
	b	132	
	c	196	
	d	139	
Rated voltage (V)		AC400V, AC380V, AC230V, AC220V	
Start current (A)		≤5.7	
Power (W)		120	
Operation/hr (times)		120	

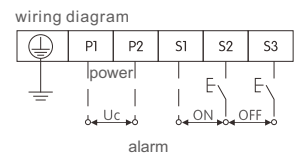
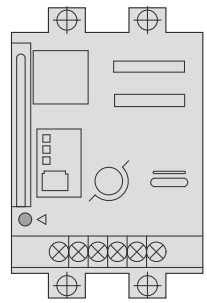


External accessory

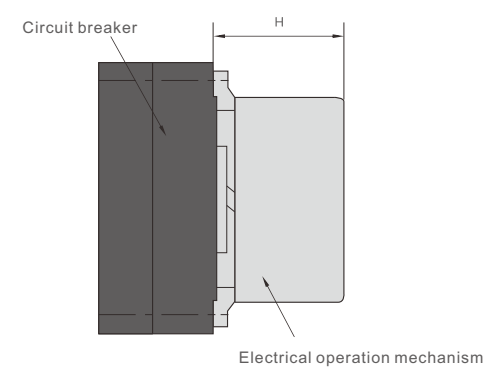
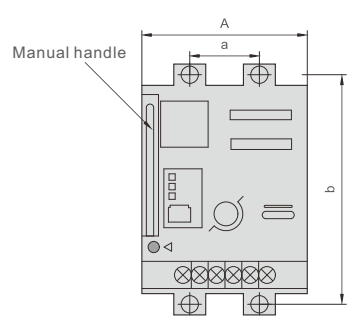
Dc3 electrical operation mechanism

DC3 series uses advanced switch power technology, driven by miniature permanent magnetic motor, applicable for both AC/DC, and lower working current, suitable for MCCB with rated current from 63 to 800A.

Model		DC3-63/30	DC3-100/30	DC3-250/30	DC3-400/30	DC3-630/30
Applicable models		GYCM3-125	GYCM3-160	GYCM3-315	GYCM3-630	GYCM3-800
			GYCM3L-160	JENM7L-315	GYCM3L-630	GYCM3L-800
			GYCM3E-160	JENM7E-315	GYCM3E-630	GYCM3E-800
Dimension	a	25	30	35	44	70
	b	117	132	126	194	243
	c	90	90	90	130	130
	d	88.5	89.5	92	152	153
Rated voltage (V)		AC-110-24, DC100-220,DC24			AC230,DC220或 AC110,DC110,DC24	
Start current(A)		≤0.5			≤2	
Mechanical life		14000			10000	5000
Power (W)		14			35	



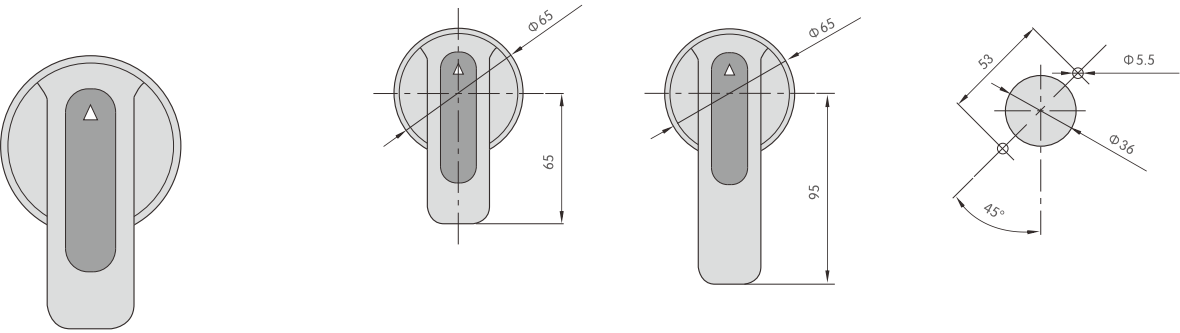
1.Manual forbid anti-clockwise operation
2.when manual operation, insert handle at start point, turn 180°clockwise



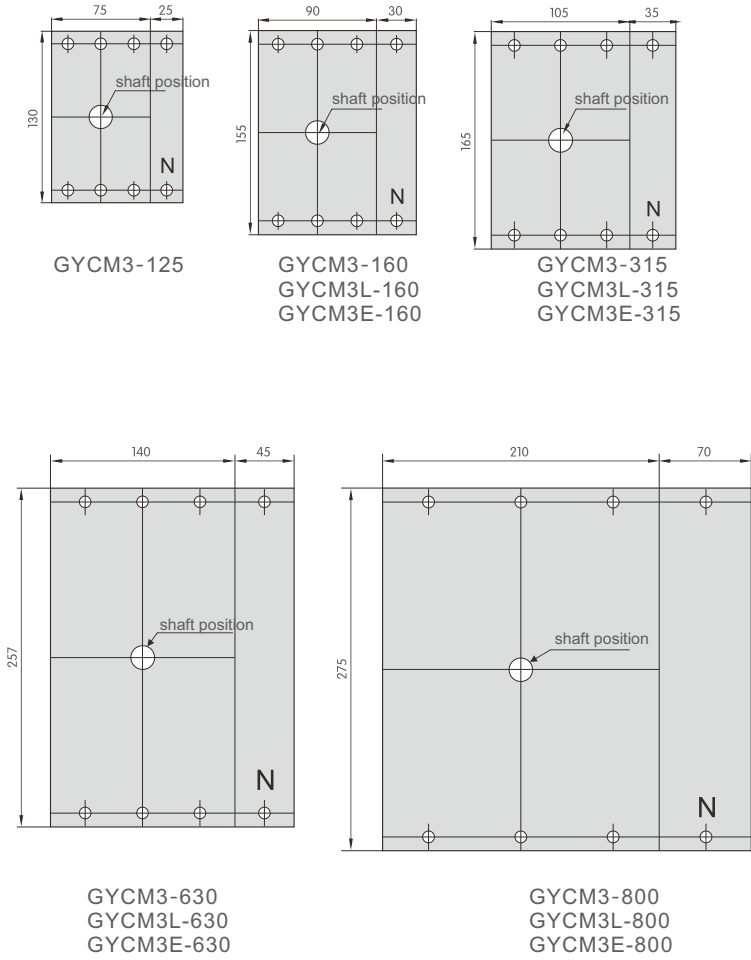
External accessory

Manual operation mechanism

Handle shape and door hole dimension (hole center at least 200mm to hinge)

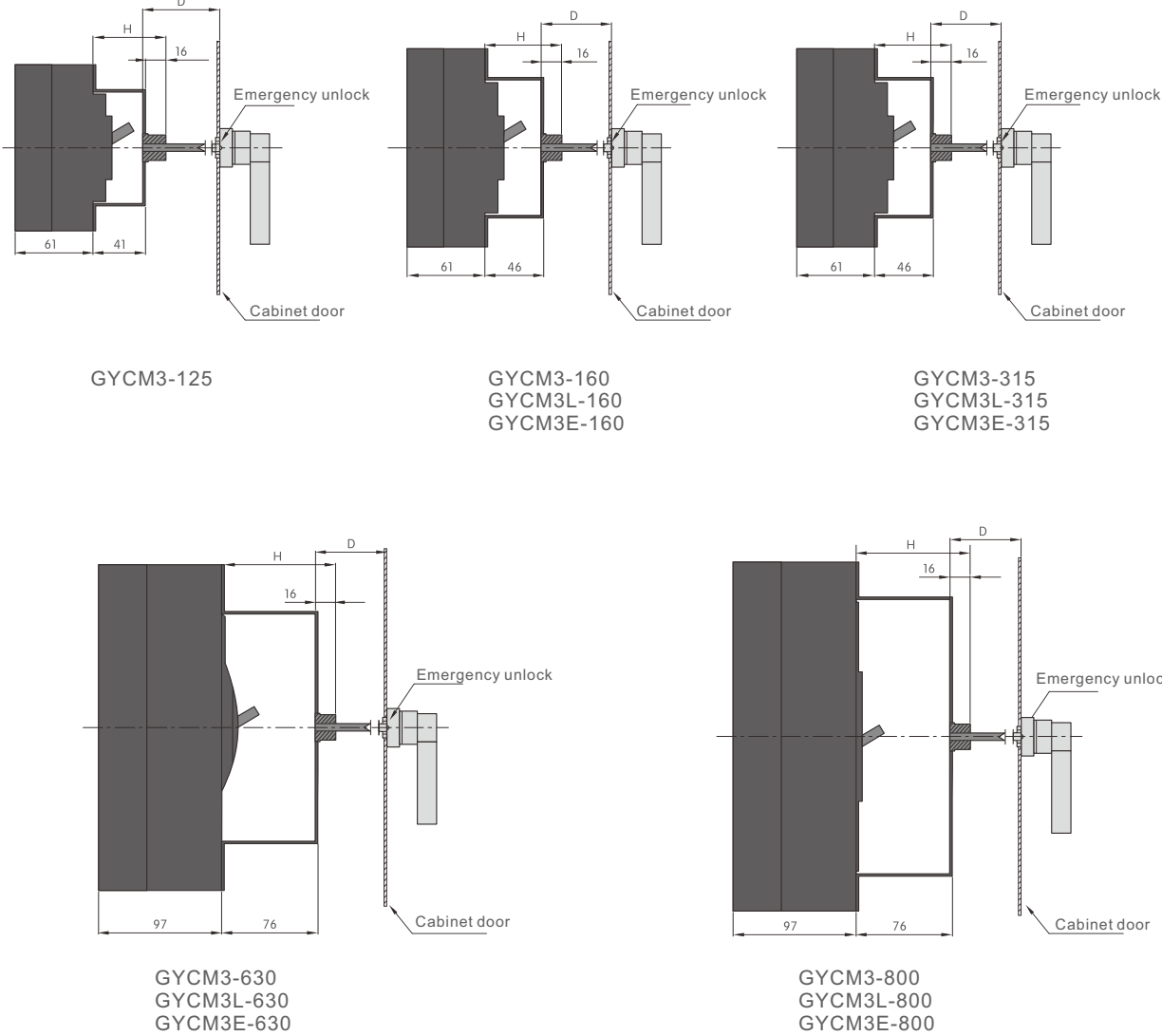


Hole opening diagram for center type rotating shaft



External accessory

Installation diagram for door and cabinet



Note: Square shaft D=150mm □ remark before ordering if length is less than 150mm.