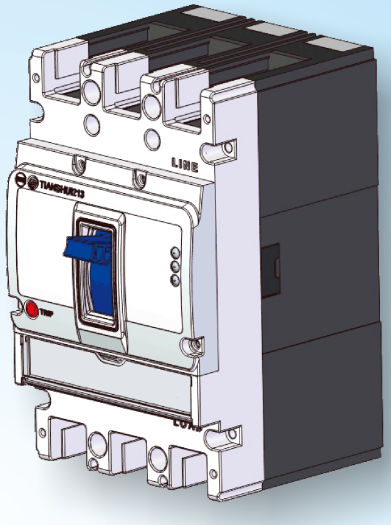
GSM3E系列电子式塑料外壳式断路器

GSM3E Series Moulded Case Circuit Breakers

安全 智能 灵动



CE UL CCC TÜV CB RoHS

ISO9001 ISO14001 OHSAS18001

用途 APPLICATION

GSM3E系列塑料外壳式断路器适用于交流50/60Hz，其额定绝缘电压至800V，额定工作电压至690V,额定工作电流至1250A的电路中。断路器具有电子式脱扣器，有长延时、短延时、瞬时、接地保护，同时具有隔离功能。还可欠装欠电压脱扣器、分励脱扣器、报警触头、辅助触头和电操机构等功能模块，实现多种保护和控制功能。断路器可带有过载报警不脱扣功能。

GSM3E series moulded case circuit breakers suitable for turn–on or turn–off not frequently and starting a motor not frequently in the circuit of AC50/60Hz, rated insulation voltage up to 800V, rated working voltage 690V or below, rated working current up to 800A. Besides having short cuicuit and overload protection for cuicuit and motor, the breakers can assembly many function modules such as under–voltage realease, shunt release, alarm contact, anxiliary contact, motor–driven operation device and so on, meeting all kinds of protection and control functions. circuit breaker with overload not tripping alarm function.

符合标准 ACCORD WITH STANDARD

△ GB14048.2 低压开关设备和控制设备：低压断路器
Low–voltage switchgear and controlgear: Low voltage breakers

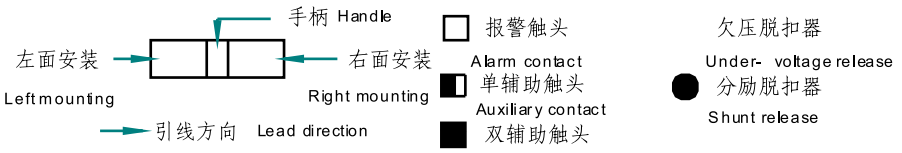
△ IEC/EN60947–2 低压开关设备和控制设备：第二部分 低压断路器
Low–voltage switchgear and controlgear: Part Ⅱ Low voltage breakers

型号及含义 MODEL & MEANING

GSM3E 125 H P / 4 3 00 2 B 125A 固定式板后接线

- 接线方式:固定式板前接线、固定式板后接线、插入式板 前 接 线、插入式板后接线、抽出式板前接线、抽出式板后接线；
  Connection means: Wiring in front of board with patch poard 、Wiring on back of board with patch poard 、Insertion connrction in front of the board 、Insertion connrction on back of the board 、Draw-out conection in front of the board 、Draw-out conection on back of the board;
- 额定电流 Rated current of breaker
- 中性极(N极)代号（三极无此分类）:可选A或B
  code of–pole(having the code only for3 poles product) :A or B
  A型：N极不装过电流脱扣器，且N极始终接通，不与其它三极一起分合；
  Type A： N-pole with out over current release unit ,it has been connected all a long ,and does not act with other poles to turn on or off;
  Type B： N-pole with out over current release unit ,it would act with other three poles.
- 用途代号：配电用无代号，电动机保护型代号为2
  code for application:no code for power distribution 2 for motor protection
- 内部附件代号见表1 code for inner accessories see table 1
- 脱扣方式：电子式脱扣器 Release Pattern:electronic release
- 极数：3、4 code for the pole number:3、4
- 操作方式 code for the operation means:
  “p”电动操作 power driven
  “z”转动手柄操作 turning handls
- 额定极限短路分断能力:分L型、M型、H型
  Limiting short–circuit breaking ability:type “M” .Type “H”
  M–较高分断型 second high breaking type
  H–高分断型 high breaking type
- 壳架等级额定电流(Inm) 125、250、400、630、800、1250
  code for the frame grade
- GS:企业代号 code for company
  M:塑料外壳式断路器 Moulded case circuit breakers
  3:设计序号 Code for designation
  E:电子式 Elcetronic

表1：脱扣方式及附件代号 TRIPPING MODE AND ACCESSORY CODE



附件代号 Accessories code	附件名称 Accessories name	GSM3E-125 GSM3E-250 GSM3E-400 极数 Pole number 3	GSM3E-125 GSM3E-250 GSM3E-400 极数 Pole number 4 (A, D)	GSM3E-125 GSM3E-250 GSM3E-400 极数 Pole number 4 (B, C)	GSM3E-630 GSM3E-800 极数 Pole number 3	GSM3E-630 GSM3E-800 极数 Pole number 4	GSM3E-1250 极数 Pole number 3
300	无附件 No Accessories						
308	报警触头 Alarm contact						
310	分励脱扣器 Shunt release						
320	双辅助触头 Auxiliary contact						
321	单辅助触头 Auxiliary contact						—
330	欠压脱扣器 Under-voltage release						
340	分励脱扣器 Shunt release 双辅助触头 Auxiliary contact	—					
341	分励脱扣器 Shunt release 单辅助触头 Auxiliary contact	—					—
350	分励脱扣器 Shunt release 欠压脱扣器 Under-voltage release	—	—				
360	二组双辅助触头 Two groups of auxiliary contact	—					
361	二组单辅助触头 Two groups of auxiliary contact	—					—
362	一组单辅助触头 一组双辅助触头 Auxiliary contact	—					—
370	双辅助触头 Auxiliary contact 欠压脱扣器 Under-voltage release	—					
371	单辅助触头 Auxiliary contact 欠压脱扣器 Under-voltage release	—					—
318	分励脱扣器 Shunt release 报警触头 Alarm contact	—	—				
328	双辅助触头 Auxiliary contact 报警触头 Alarm contact	—					
338	欠压脱扣器 Under-voltage release 报警触头 Alarm contact	—	—				
348	分励脱扣器 Shunt release 单辅助+报警触头 Auxiliary contact Alarm contact	—	—	—			—
358	单辅助+报警触头 Auxiliary contact Alarm contact						—
368	双辅助触头 Two groups of auxiliary contact 单辅助+报警触头 Alarm contact	—					
378	欠压脱扣器 Under- voltage release 单辅助+报警触头 Auxiliary contact Alarm contact	—	—	—			

注：单辅助触头为一常开一常闭触头；双辅助触头为两常开两常闭触头
Note：The single auxiliary has 1ON1NC,the double auxiliary has 2ON2NC

工作环境 ENVIRONMENT CONDITION

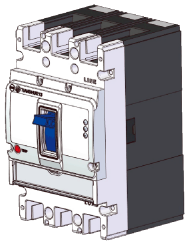
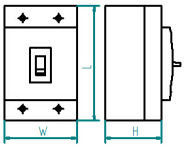
△ 产品周围空气温度上限为＋75℃，下限为－25℃，24小时平均值不超过＋35℃；
△ 安装地点的海拔高度不超过2000米；
△ 安装地点的空气相对湿度在最高温度为＋40℃时不超过50%，在较低温度下可以有较高的相对湿度，例如20℃时达90%。对由于温度变化偶尔产生的凝露应采取特殊措施；
△ 污染等级为3级；
△ 断路器主电路及欠压脱扣器安装类别为Ⅲ，其余辅助电路、控制电路安装类别为Ⅱ；
△ 断路器能耐受潮湿空气、盐雾、油雾、霉菌的影响(TH型)；
△ 断路器应安装在无爆炸危险和无导电尘埃，无足以腐蚀金属和破坏绝缘的地方；
△ 断路器应安装在没有雨雪侵袭的地方
△ Ambient temperature: –25℃ ~ ＋75℃，the average of temperature not exceeding +35℃ during 24 hours
△ Elevation≤2000m
△ Relative humidity:not exceeding 50% at the maxi–mum ambient temperature of +40℃.With lower temperature,higher humidity would be permitted,but the lowest average temperature in a month notexceeding +25℃ during the most moist month, and the maximum monthly average relative humidity not exceeding 90% in that month,and giving consi–deration tthe dews on the goods surface,which would appear due to temperature change.
△ Pollution protection:3grade.
△ Installing categories:Ⅲfor breakers` main circuits,coils of under–voltage release and primary circuit of transformers;Ⅱ for other auxiliary circuits and control circuits.
△ Be able to bear the influence of moisture in the air or salt fog and oil fog or mould or nuclear radiation
△ There must be not any explosive medium,and the–re must be not any gas which would corrode metal or any con–ducting dust which would destroy the insulation.
△ The place would not be invaded by rain and snow.

产品分类 CLASSIFICATION OF BREAKERS

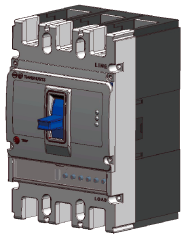
△ 按额定短路分断能力分：较高分断型（M型）高分断型(H型)
△ 按接线方式分：固定式板前接线（基本接线方式）、固定式板后接线、插入式板前接线、插入式板后接线、抽出式板前接线和抽出式板后接线（仅GSM3E–400,630,800有抽出式接线方式）六种；
△ 按操作方式分：手柄直接操作；转动手柄操作；电动操作
△ 按用途分：配电用；保护电动机用
△ 按极数分：三极；四极
△ 按中性极（N极）的型式分（三极无此分类）：
A型：N极不装过电流脱扣器，且N极始终接通，不与其它三极一起分合；
B型：N极不装过电流脱扣器，且N极与其它三极一起分合。
△ According to the breaking ability: Second high breaking type(Type M) High breaker type(Type H);
△ According to the wiring method: Wiring in front of the board ; Wiring on back of the board ; Insertion connection in front of the board ; Insertion connection on back of the board ; Draw–out connection (only GSM3E–400,630,800 have this type);
△ According to the operation means: Handle operating directly Turning handle Power driven;
△ According to the usage Power distribution motor protection;
△ According to the pole number Three poles Four poles;
△ According to the type of the neutral pole(N–pole) (having not the classification for three poles products)
Type A: N–pole without over current release unit, it has been connected all along, and does not act with other poles to turn on or off;
Type B:N–pole without over current release unit ,it would act with other three poles;

主要性能和参数指标见表 2
MAIN TECHNICAL PERFORMANCE PARAMETER OF THE BREAKER SEE TABLE 2

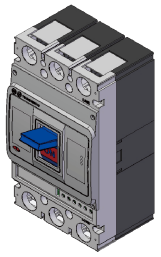
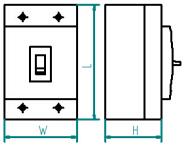
表(table)2-1

壳架电流Inm（A） Frame Current Inm（A）			125			
型号 Type			GSM3E-125M		GSM3E-125H	
外形 Outline						
额定电流In（A） Rate current In（A）			32（16~32）63（32~63）125（63~125）			
极数 Pole number			3P	4P	3P	4P
额定绝缘电压Ui（V） Rate insulation voltage（V）			800			
额定工作电压Ue（V） Rate working voltage（V）			AC400V AC690V		AC400V	
额定冲击耐受电压Uimp（V） Rate impulse withstand voltage Uimp（V）			8000			
飞弧距离（mm） Arc-over distance（mm）			50			
额定极限短路分断能力Icu（kA） Limiting short-circuit breakering ability Icu（kA）		AC400V	50		85	
		AC690V	20		/	
额定运行短路分断能力Ics（kA） Operating short-circuit breakering ability Ics（kA）		AC400V	35		50	
		AC690V	10		/	
额定短时耐受电流Icw（kA）/0.5s Rateed short-time withstand current			5			
使用类别 Utilization category			B			
操作性能（次） Operational performance（times）		电气寿命 Electrical life	8000			
		机械寿命 Mechanical life	20000（免维护） 40000（有维护）			
外形尺寸 Outine dimensions		W	92	122	92	122
		L	150		150	
		H	82		82	

表(table)2-2

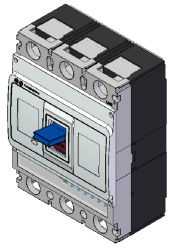
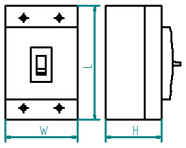
壳架电流Inm（A） Frame Current Inm（A）		250			
型号 Type		GSM3E-250M		GSM3E-250H	
外形 Outline					
额定电流In（A） Rate current In（A）		250（100～250）			
极数 Pole number		3P	4P	3P	4P
额定绝缘电压Ui（V） Rate insulation voltage（V）		800			
额定工作电压Ue（V） Rate working voltage（V）		AC400V AC690V		AC400V	
额定冲击耐受电压Uimp（V） Rate impulse withstand voltage Uimp（V）		8000			
飞弧距离（mm） Arc-over distance（mm）		50			
额定极限短路分断能力Icu（kA） Limiting short-circuit breakering ability Icu（kA）	AC400V	50		85	
	AC690V	20		/	
额定运行短路分断能力Ics（kA） Operating short-circuit breakering ability Ics（kA）	AC400V	35		50	
	AC690V	10		/	
额定短时耐受电流Icw（kA）/0.5s Rateed short-time withstand current		5			
使用类别 Utilization category		B			
操作性能（次） Operational performance（times）	电气寿命 Electrical life	8000			
	机械寿命 Mechanical life	20000（免维护） 40000（有维护）			
外形尺寸 Outine dimensions	W	107	142	107	142
	L	165		165	
	H	85		85	

表(table)2-3

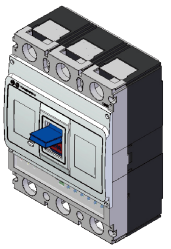
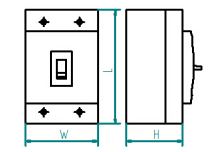
壳架电流Inm（A） Frame Current Inm（A）		400			
型号 Type		GSM3E-400M		GSM3E-400H	
外形 Outline					
额定电流In（A） Rate current In（A）		400(200-400)			
极数 Pole number		3P	4P	3P	4P
额定绝缘电压Ui（V） Rate insulation voltage（V）		800			
额定工作电压Ue（V） Rate working voltage（V）		AC400V AC690V		AC400V	
额定冲击耐受电压Uimp（V） Rate impulse withstand voltage Uimp（V）		8000			
飞弧距离（mm） Arc-over distance（mm）		100			
额定极限短路分断能力Icu（kA） Limiting short-circuit breakering ability Icu（kA）	AC400V	75		100	
	AC690V	20		/	
额定运行短路分断能力Ics（kA） Operating short-circuit breakering ability Ics（kA）	AC400V	75		80	
	AC690V	15		/	
额定短时耐受电流Icw（kA）/1s Rateed short-time withstand current		5			
使用类别 Utilization category		B			
操作性能（次） Operational performance（times）	电气寿命 Electrical life	7500			
	机械寿命 Mechanical life	10000（免维护） 20000（有维护）			
外形尺寸 Outine dimensions		W	150	198	150	198
		L	257		257	
		H	97		97	

表(table)2-1

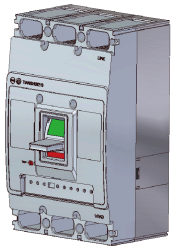
表(table)2-4

壳架电流Inm（A） Frame Current Inm（A）			630			
型号 Type			GSM3E-630M		GSM3E-630H	
外形 Outline						
额定电流In（A） Rate current In（A）			630(400-630)			
极数 Pole number			3P	4P	3P	4P
额定绝缘电压Ui（V） Rate insulation voltage（V）			800			
额定工作电压Ue（V） Rate working voltage（V）			AC400V AC690V		AC400V	
额定冲击耐受电压Uimp（V） Rate impulse withstand voltage Uimp（V）			8000			
飞弧距离（mm） Arc-over distance（mm）			100			
额定极限短路分断能力Icu（kA） Limiting short-circuit breakering ability Icu（kA）		AC400V	75		100	
		AC690V	35		/	
额定运行短路分断能力Ics（kA） Operating short-circuit breakering ability Ics（kA）		AC400V	75		80	
		AC690V	25		/	
额定短时耐受电流Icw（kA）/1s Rateed short-time withstand current			8			
使用类别 Utilization category			B			
操作性能（次） Operational performance（times）		电气寿命 Electrical life	7500			
		机械寿命 Mechanical life	10000（免维护） 20000（有维护）			
外形尺寸 Outine dimensions		W	210	280	210	280
		L	280		280	
		H	103		103	

表(table)2-5

壳架电流Inm（A） Frame Current Inm（A）		800			
型号 Type		GSM3E-800M		GSM3E-800H	
外形 Outline					
额定电流In（A） Rate current In（A）		800(630-800)			
极数 Pole number		3P	4P	3P	4P
额定绝缘电压Ui（V） Rate insulation voltage（V）		800			
额定工作电压Ue（V） Rate working voltage（V）		AC400V AC690V		AC400V	
额定冲击耐受电压Uimp（V） Rate impulse withstand voltage Uimp（V）		8000			
飞弧距离（mm） Arc-over distance（mm）		100			
额定极限短路分断能力Icu（kA） Limiting short-circuit breakering ability Icu（kA）	AC400V	75		100	
	AC690V	35		/	
额定运行短路分断能力Ics（kA） Operating short-circuit breakering ability Ics（kA）	AC400V	75		80	
	AC690V	25		/	
额定短时耐受电流Icw（kA）/1s Rateed short-time withstand current		10			
使用类别 Utilization category		B			
操作性能（次） Operational performance（times）	电气寿命 Electrical life	7500			
	机械寿命 Mechanical life	10000（免维护） 20000（有维护）			
外形尺寸 Outine dimensions		W	210	280	210	280
		L	280		280	
		H	103		103	

表(table)2-6

壳架电流Inm（A） Frame Current Inm（A）		1250	
型号 Type		GSM3E-1250M	GSM3E-1250H
外形 Outline			
额定电流In（A） Rate current In（A）		1250(800-1250)	
极数 Pole number		3P	
额定绝缘电压Ui（V） Rate insulation voltage（V）		1000	
额定工作电压Ue（V） Rate working voltage（V）		AC400V AC690V	AC400V
额定冲击耐受电压Uimp（V） Rate impulse withstand voltage Uimp（V）		8000	
飞弧距离（mm） Arc-over distance（mm）		100	
额定极限短路分断能力Icu（kA） Limiting short-circuit breakering ability Icu（kA）	AC400V	75	100
	AC690V	35	/
额定运行短路分断能力Ics（kA） Operating short-circuit breakering ability Ics（kA）	AC400V	75	80
	AC690V	25	/
额定短时耐受电流Icw（kA）/1s Rateed short-time withstand current		15	
使用类别 Utilization category		B	
操作性能（次） Operational performance（times）	电气寿命 Electrical life	500	
	机械寿命 Mechanical life	2500（免维护） 5000（有维护）	
外形尺寸 Outine dimensions	W	210	
	L	340	
	H	138.5	

断路器的保护特性、特性曲线
PROTECTION FEATURE,CHARACTERISTIC CURVE OF THE BREAKER

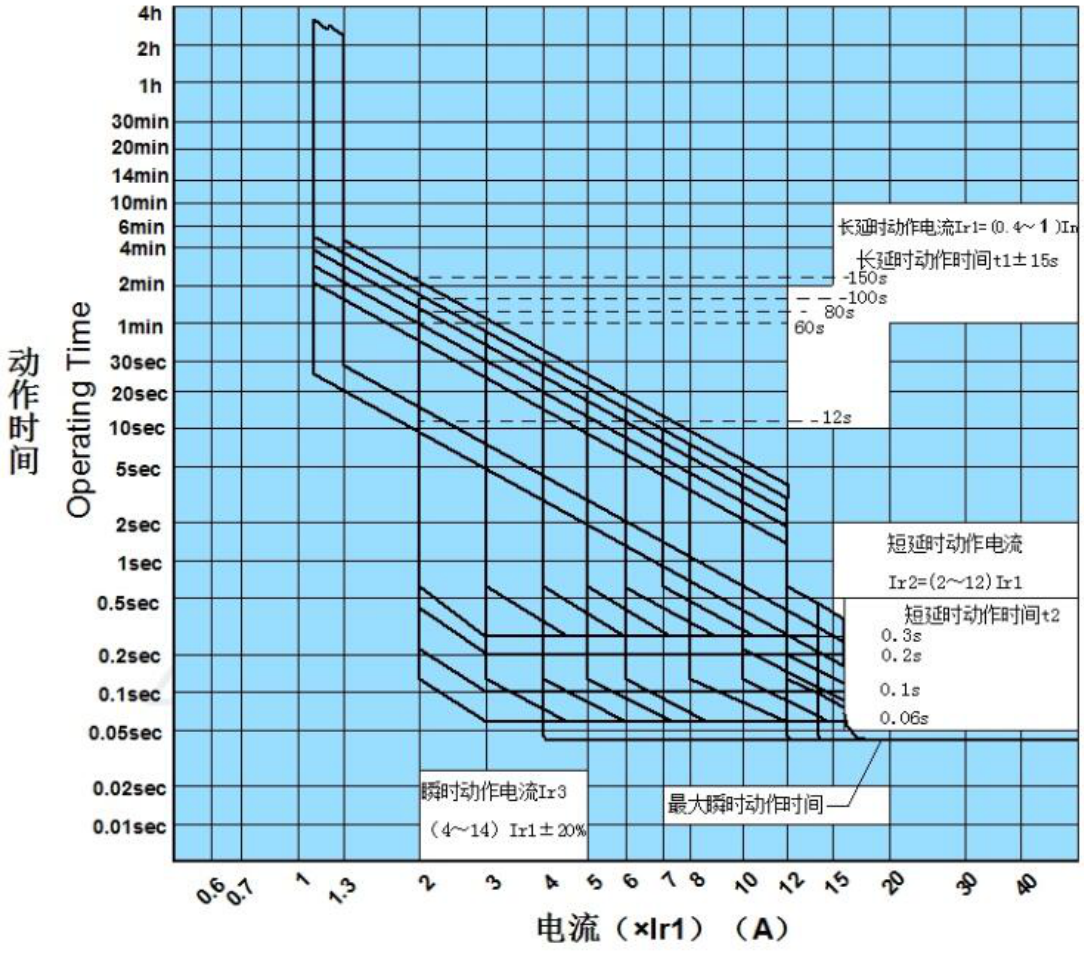
■ 保护特性见表3　Protection feature see following Table3

△ 表3：断路器保护特性

Table 3 ： protection feature of breakers

保护功能 defencive function	壳架等级 Shell frame	额定电流In（A） rated currentIn（A）	电流设定值（A） Current setting value	动作特性/时间 Action characteristic / time
过载长延时 Overload long delay	125	32	Ir1=16-20-25-32	按I^2t动作 1.05Ir1，2h不动作 1.3 Ir1，1h内动作 2 Ir1， t1=（12-60-80-100）S（GSM3E-125/250） t1=（12-60-100-150）S (GSM3E-400/630/800/1250)
		63	Ir1=32-36-40-45-50-55-60-63	
		125	Ir1=63-65-70-75-80-85-90-95-100-125	
	250	250	Ir1=100-125-140-150-160-180-200-225-250	
	400	400	Ir1=200-225-250-280-315-350-400	
	630	630	Ir1=400-420-440-460-480-500-530-560-600-630	
	800	800	Ir1=630-640-660-680-700-720-740-760-780-800	
	1250	1250	Ir1=800-850-900-950-1000-1050-1100-1250	
动作允差 Action tolerance	±15%			
短路短延时 Short circuit short delay	125~630	16~630	Ir2=（2-3-4-5-6-7-8-10-12）×Ir1	当Ir2≤I＜1.5Ir2，反时限动作； 1.5 Ir2，t2=（0.06-0.1-0.2-0.3）S 反时限：±20% 当1.5Ir2≤I＜Ir3，定时限动作； t2=0.06S，±0.02S t2=0.1S，±0.03S t2=0.2S，±0.04S t2=0.3S，±0.06S
	800/1250	630~1250	Ir2=（2-2.5-3-4-5-6-7-8-10）×Ir1	
动作允差 Action tolerance	±10%			
短路瞬时 Short circuit transient	125	16~125	Ir3=（4-6-7-8-9-10-11-12-13-14）×Ir1	瞬时动作 instantaneous operation
	250/400/630	100~630	Ir3=（4-6-7-8-9-10-11-12-13-14）×Ir1	
	800/1250	630~1250	Ir3=（4-5-6-7-8-9-10-11-12）×Ir1	
动作允差 Action tolerance	±15%			
过载预报警 Overload forecast alarm	全系列 Whole series	16~1250	Ir0=（0.7-0.75-0.8-0.85-0.9-0.95-1）×Ir1	/

■ 特性曲线 Characteristic curve of the breaker



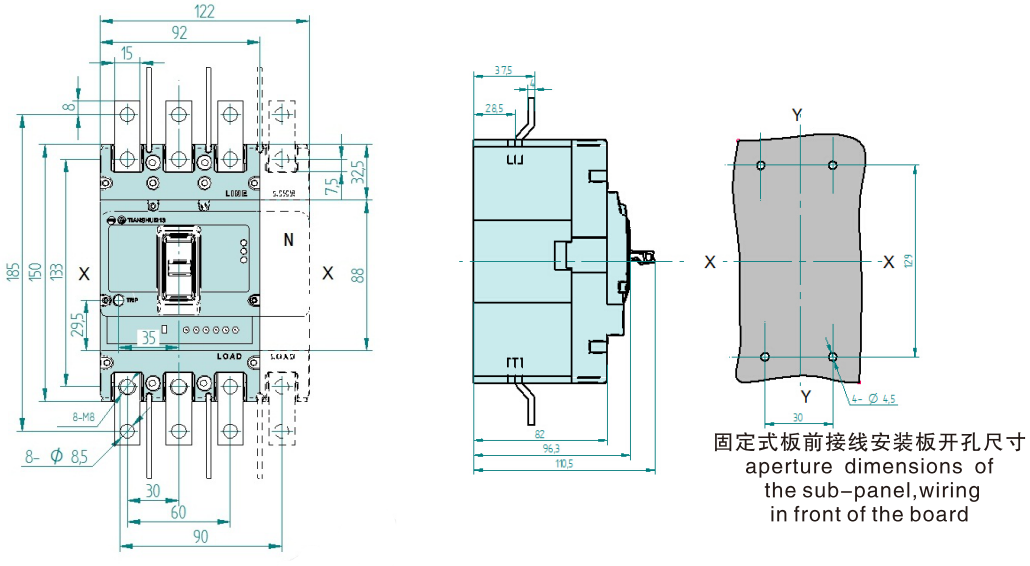
外形尺寸及安装尺寸
OUTLINE DIMENSIONS AND MOUNTING DIMENSIONS

△ GSM3E–125(M、H)固定式板前接线（三极、四极）(接线板为选购件）

Wiring in front of the board(GSM3E–125M、H,three poles and four poles)（patch board needs to buy)

X–X、Y–Y为三极断路器中心

X–X,Y–Y as the center of the breaker(three poles)

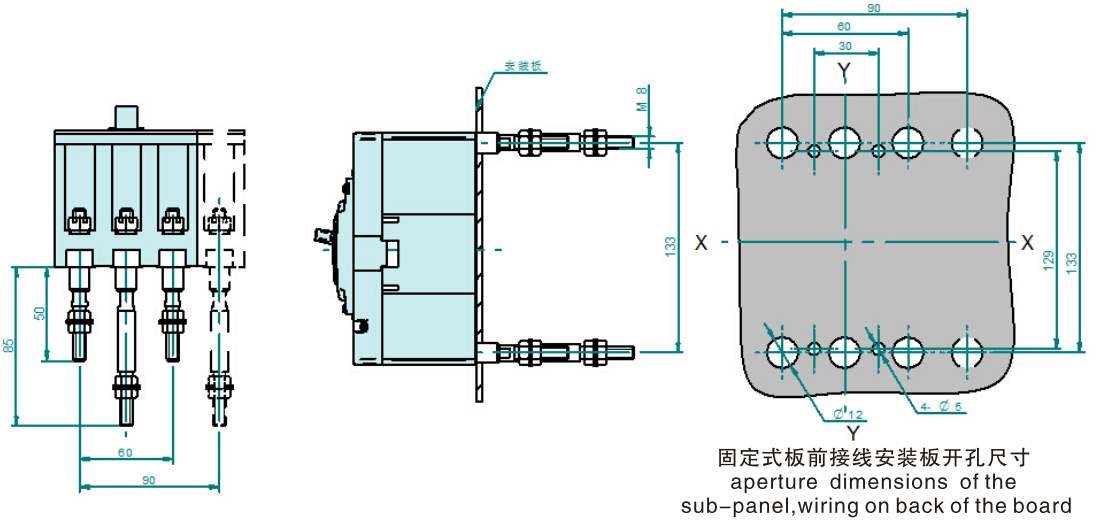


△ GSM3E–125(M、H)固定式板后接线（三极、四极）

Wiring on back of the board(GSM3–125M、H,three poles and four poles)

X–X、Y–Y为三极断路器中心

X–X,Y–Y as the center of the breaker(three poles)



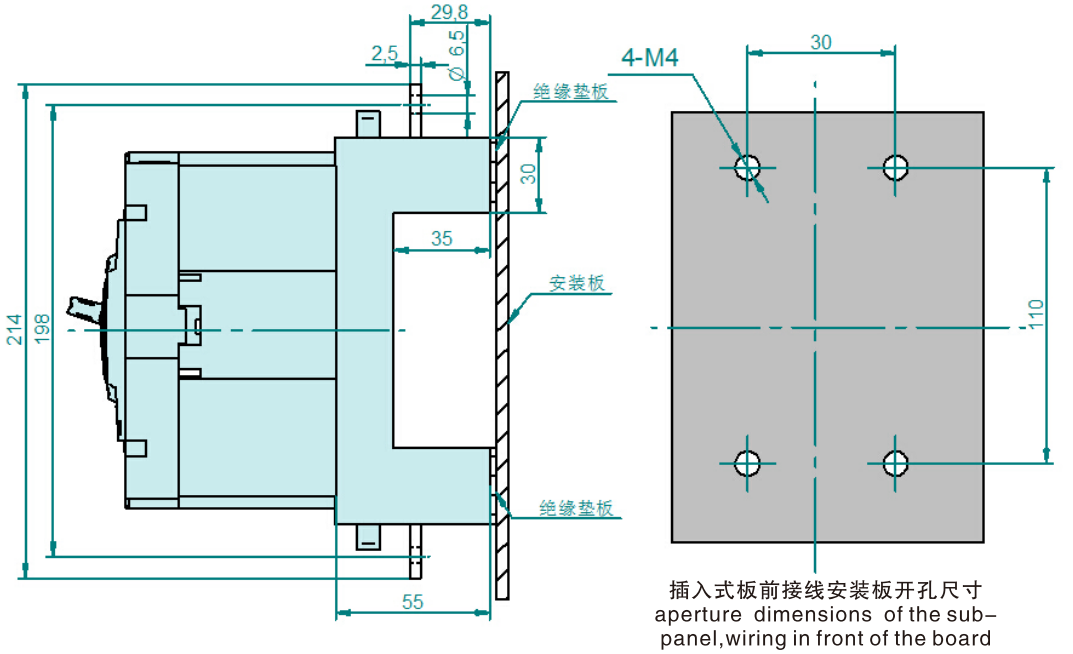
固定式板前接线安装板开孔尺寸
aperture dimensions of the
sub–panel,wiring on back of the board

△ GSM3E–125(M、H)插入式板前接线板（三极、四极）

Insertion type in front of the board(GSM3E–125M、H,three poles and four poles)

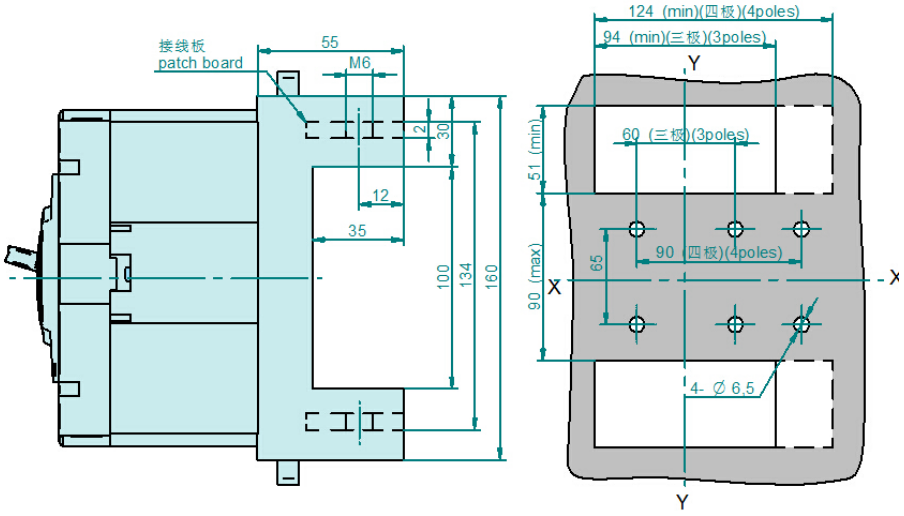
X–X、Y–Y为三极断路器中心

X–X,Y–Y as the center of the breaker(three poles)



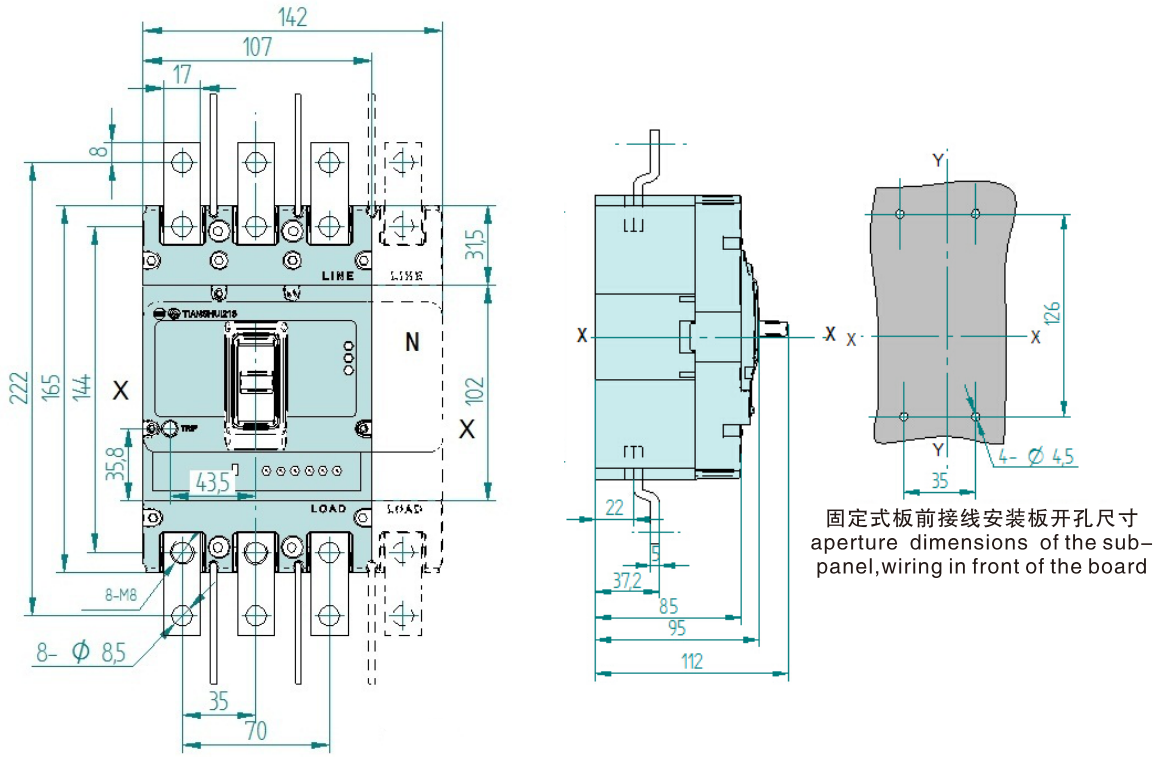
插入式板前接线安装板开孔尺寸
aperture dimensions of the sub–
panel,wiring in front of the board

△ GSM3E–125(M、H)插入式板后接线（三极、四极）
Insertion type on back of the board(GSM3E–125M、H,three poles and four poles)
X–X、Y–Y为三极断路器中心
X–X,Y–Y as the center of the breaker(three poles)



插入式板前接线安装板开孔尺寸
aperture dimensions of the sub–panel,wiring on back of the board

△ GSM3E–250(M、H)固定式板前接线（三极、四极）(接线板为选购件）
Wiring in front of the board(GSM3E–250M、H,three poles and four poles)（patch board needs to buy)
X–X、Y–Y为三极断路器中心
X–X,Y–Y as the center of the breaker(three poles)



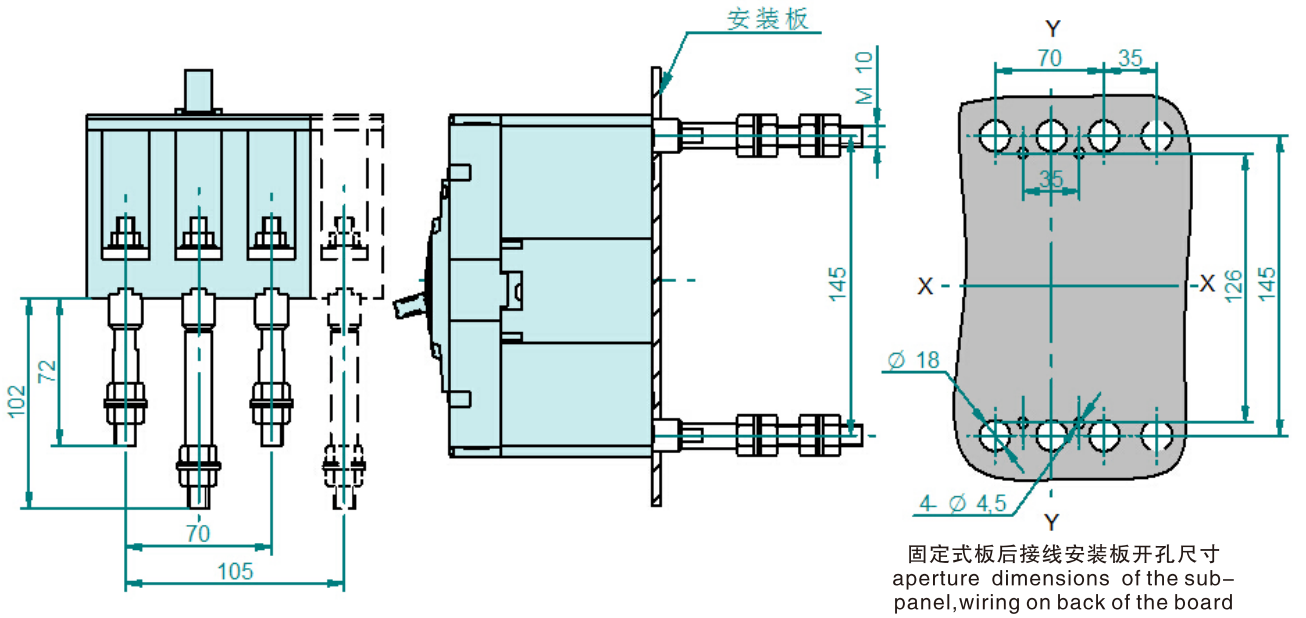
固定式板前接线安装板开孔尺寸
aperture dimensions of the sub–panel,wiring in front of the board

△ GSM3E-250(M、H)固定式板后接线（三极、四极）

Wiring on back of the board(GSM3E-250M、H,three poles and four poles)

X-X、Y-Y为三极断路器中心

X-X,Y-Y as the center of the breaker(three poles)



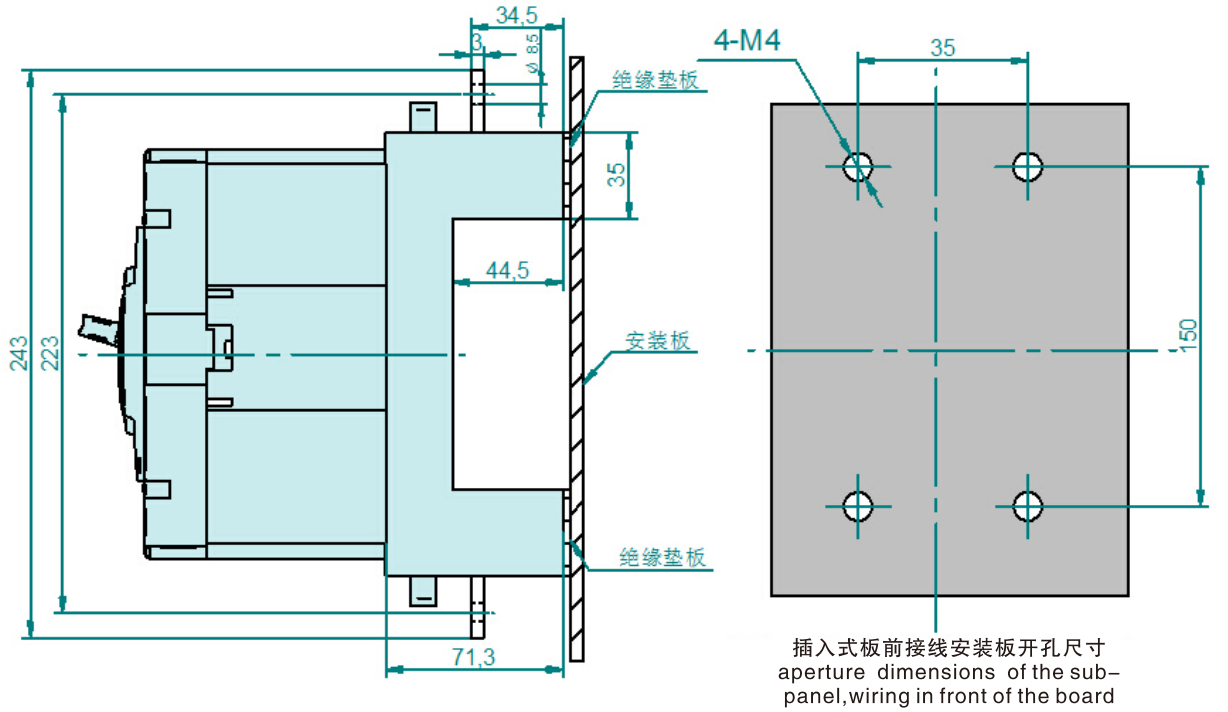
固定式板后接线安装板开孔尺寸
aperture dimensions of the sub-panel,wiring on back of the board

△ GSM3E-250(M、H)插入式板前接线板（三极、四极）

Insertion type in front of the board(GSM3E-250M、H,three poles and four poles)

X-X、Y-Y为三极断路器中心

X-X,Y-Y as the center of the breaker(three poles)



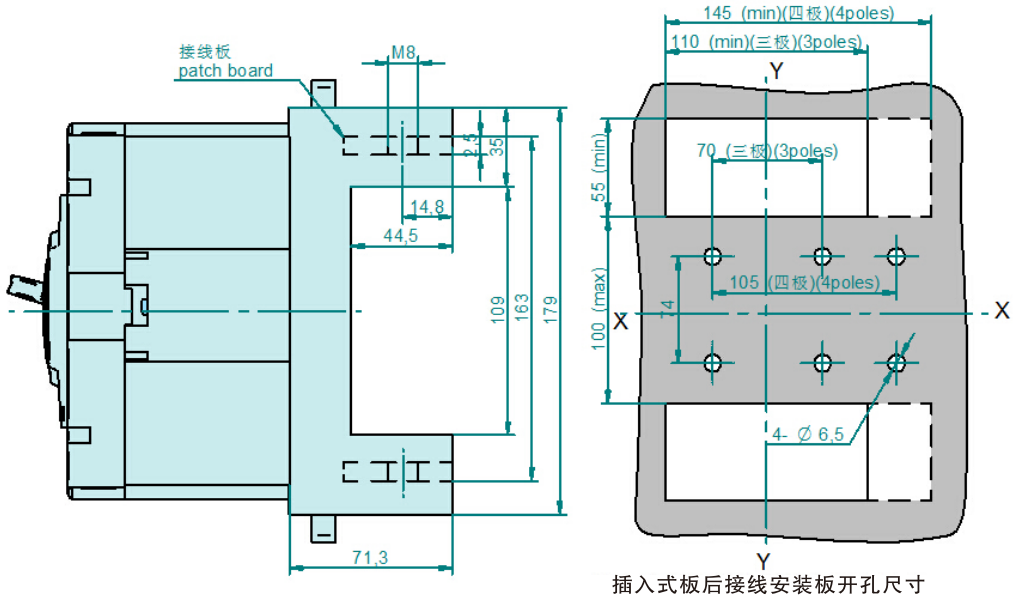
插入式板前接线安装板开孔尺寸
aperture dimensions of the sub-panel,wiring in front of the board

△ GSM3E-250(M、H)插入式板后接线（三极、四极）

Insertion type on back of the board(GSM3E-250M、H,three poles and four poles)

X-X、Y-Y为三极断路器中心

X-X,Y-Y as the center of the breaker(three poles)



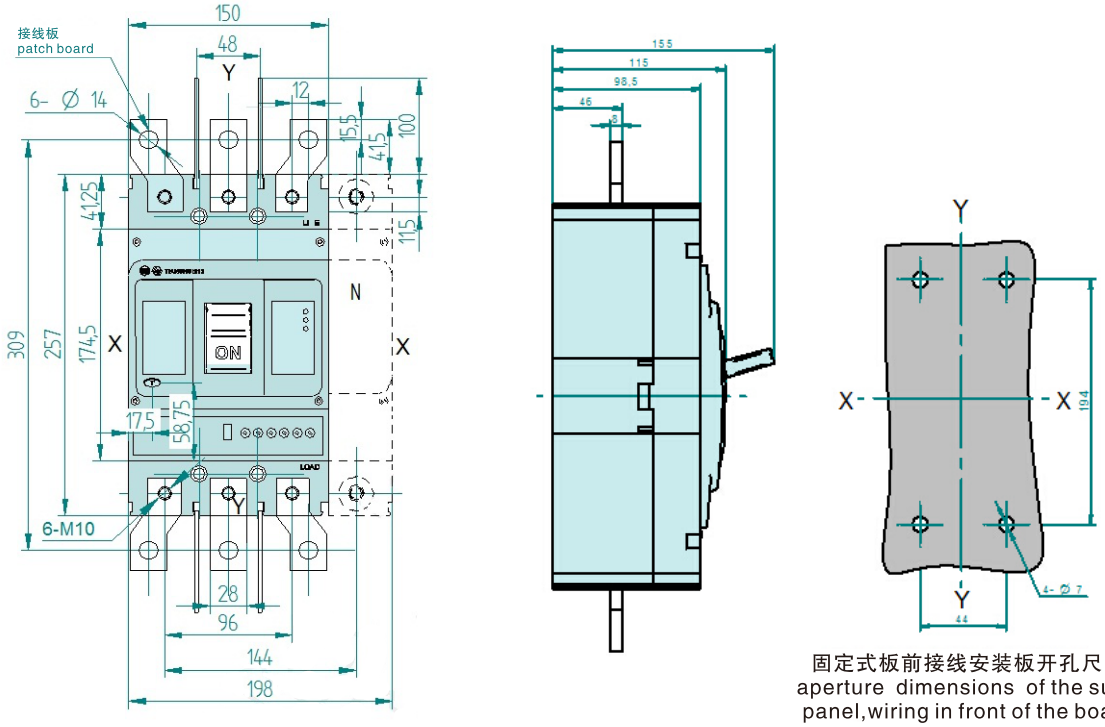
插入式板后接线安装板开孔尺寸
aperture dimensions of the sub-panel,wiring on back of the board

△ GSM3E-400(M、H）板前接线（三极、四极）（接线板为选购件）

Wiring in front of the board(GSM3E-400M、H,three poles and four poles)(patch board need to buy)

X-X、Y-Y为三极断路器中心

X-X,Y-Y as the center of the breaker(three poles)



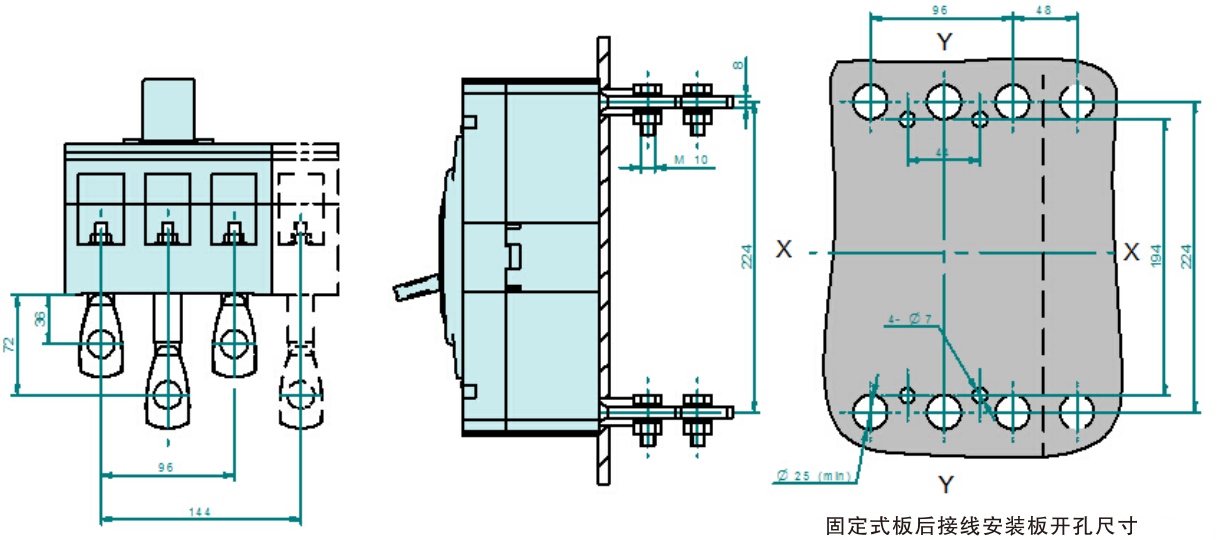
固定式板前接线安装板开孔尺寸
aperture dimensions of the sub-panel,wiring in front of the board

△ GSM3E-400(M、H)固定式板后接线（三极、四极）

Wiring on back of the board(GSM3E-400M、H,three poles and four poles)

X-X、Y-Y为三极断路器中心

X-X,Y-Y as the center of the breaker(three poles)



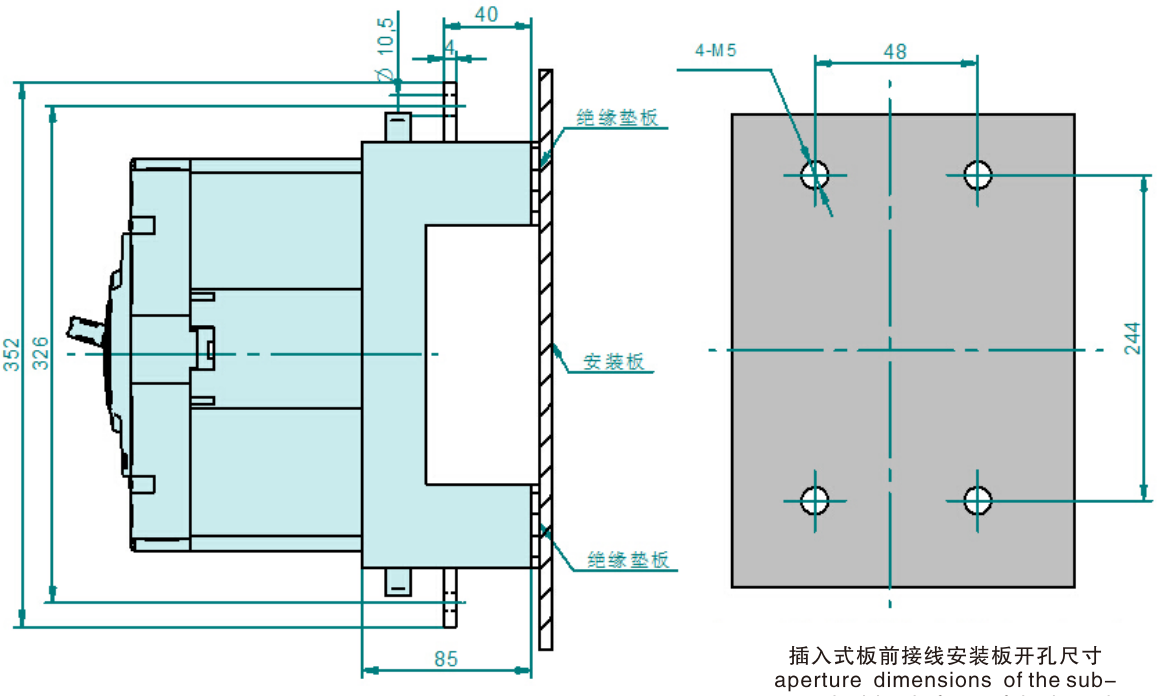
固定式板后接线安装板开孔尺寸
aperture dimensions of the sub-panel,wiring on back of the board

△ GSM3E-400(M、H)插入式板前接线板（三极、四极）

Insertion type on back of the board(GSM3E-400M、H,three poles and four poles)

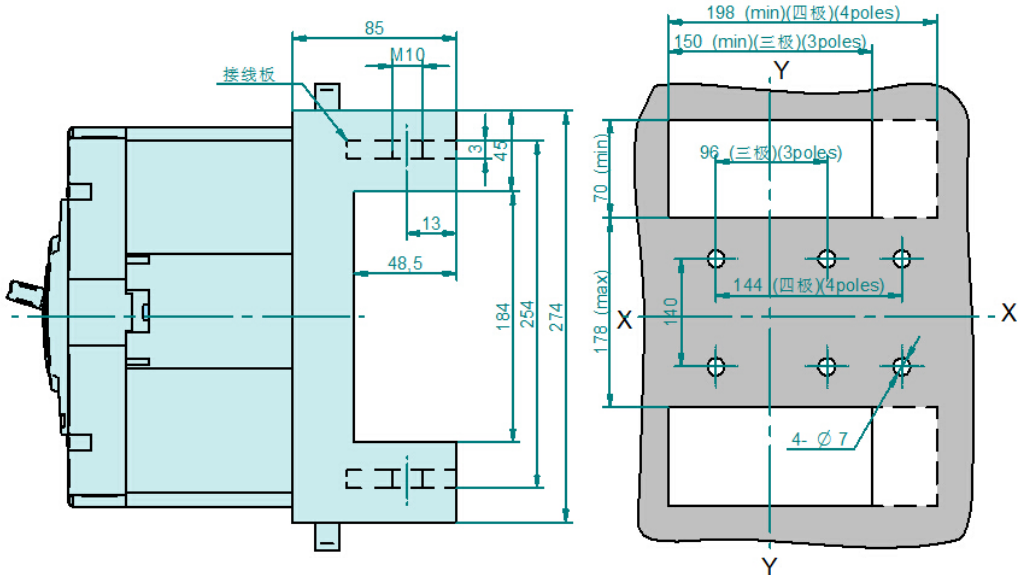
X-X、Y-Y为三极断路器中心

X-X,Y-Y as the center of the breaker(three poles)



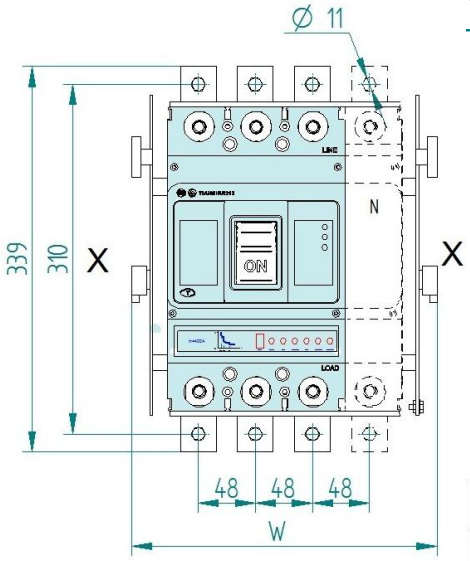
插入式板前接线安装板开孔尺寸
aperture dimensions of the sub-panel,wiring in front of the board

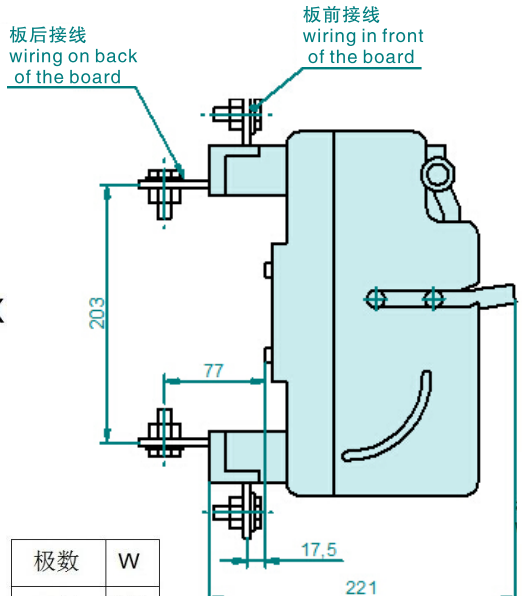
△ GSM3E–400(M、H)插入式板后接线（三极、四极）
Insertion type in front of the board(GSM3E–400M、H,three poles and four poles)
X–X、Y–Y为三极断路器中心
X–X,Y–Y as the center of the breaker(three poles)



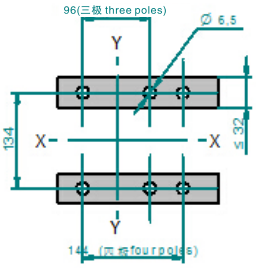
固定式板后接线安装板开孔尺寸
aperture dimensions of the sub–panel,wiring on back of the board

△ GSM3E–400(M、H）抽出式接线（三极、四极）
Wiring of draw–out connection (GSM3E–400M、H, three poles and four poles)
X–X、Y–Y为三极断路器中心
X–X,Y–Y as the center of the breaker(three poles)





极数	W
三极	223
四极	271



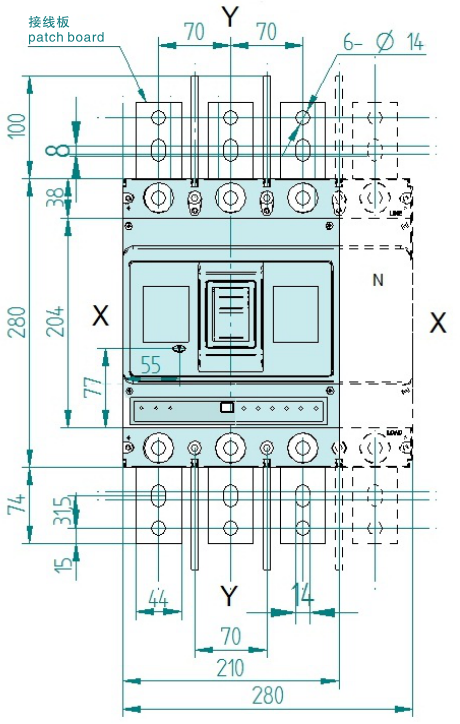
插入式板前
接线安装板开孔尺寸
aperture dimensions of the sub–panel,wiring in front of the board

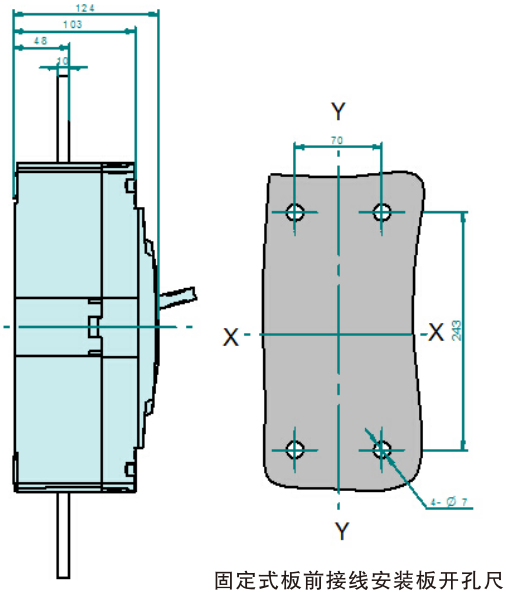
△ GSM3E–630/800(M、H）固定式板前接线（三极、四极)(接线板为选购件)

Wiring in front of the board(GSM3E–630/800M、H, three poles and four poles)（patch board need to buy）

X–X、Y–Y为三极断路器中心

X–X,Y–Y as the center of the breaker(three poles)





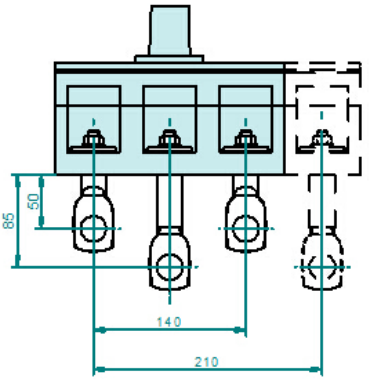
固定式板前接线安装板开孔尺寸
aperture dimensions of the sub–panel,wiring in front of the board

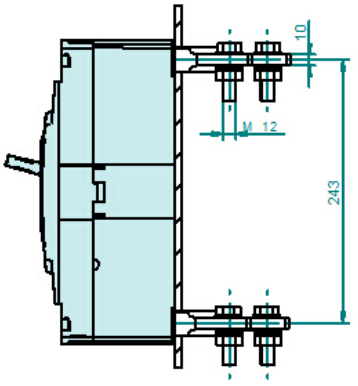
△ GSM3E–630/800(M、H）固定式板后接线（三极、四极）

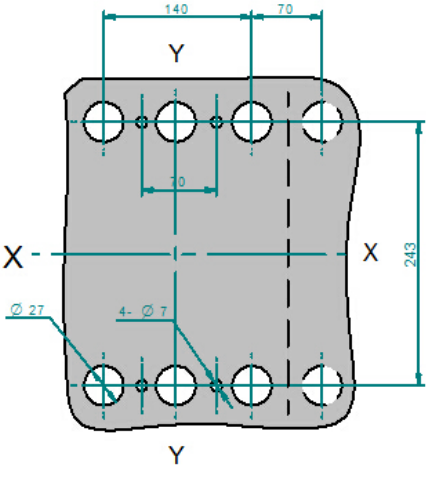
Wiring on back of the board(GSM3E–630/800M、H, three poles and four poles)

X–X、Y–Y为三极断路器中心

X–X,Y–Y as the center of the breaker(three poles)







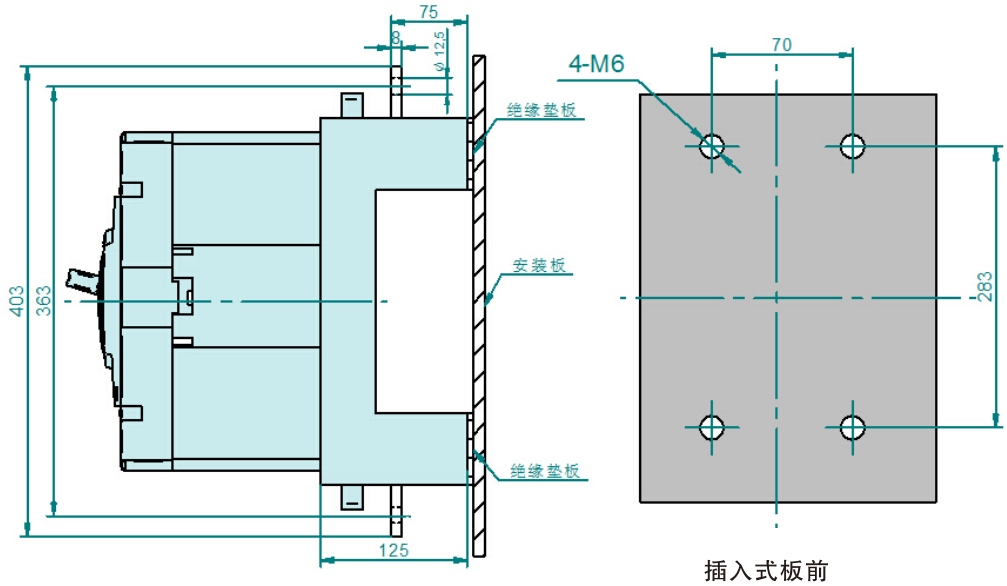
固定式板后接线安装板开孔尺寸
aperture dimensions of the sub–panel,wiring on back of the board

△ GSM3E-630/800(M、H)插入式板前接线板（三极、四极）

Wiring on back of the board(GSM3E-630/800M、H,three poles and four poles)

X-X、Y-Y为三极断路器中心

X-X,Y-Y as the center of the breaker(three poles)



插入式板前
接线安装板开孔尺寸
aperture dimensions of the sub-panel,wiring in front of the board

注：GSM3E-800中800A电流规格暂不提供插入式装置

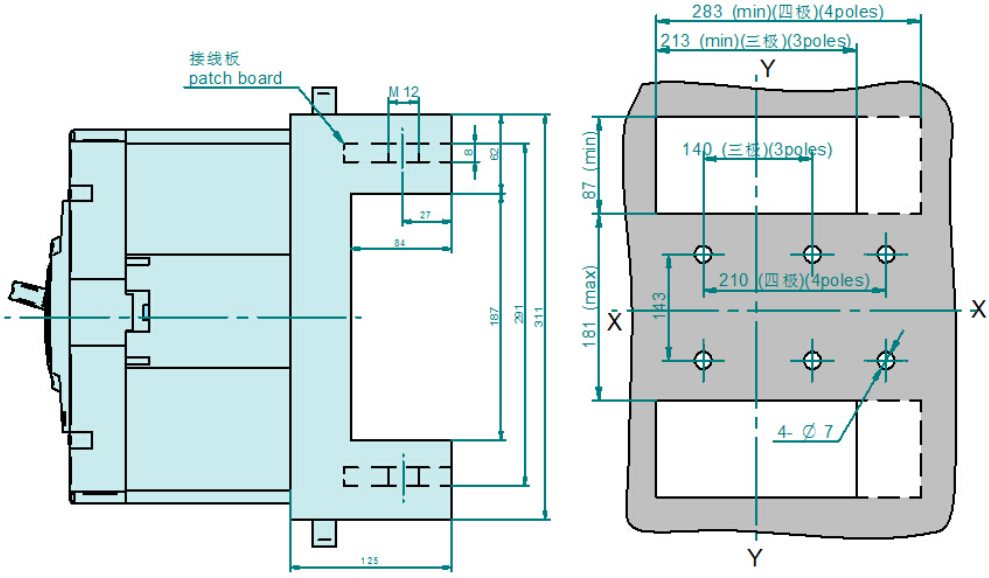
Note: 800 a current specifications in gsm3e – 800 temporarily does not provide a plug-in device

△ GSM3E-630/800(M、H)插入式板后接线（三极、四极）

Insertion type on back of the board(GSM3E-630/800M、H,three poles and four poles)

X-X、Y-Y为三极断路器中心

X-X,Y-Y as the center of the breaker(three poles)



插入式板后接线安装板开孔尺寸
aperture dimensions of the sub-panel,wiring on back of the board

注：GSM3E-800中800A电流规格暂不提供插入式装置

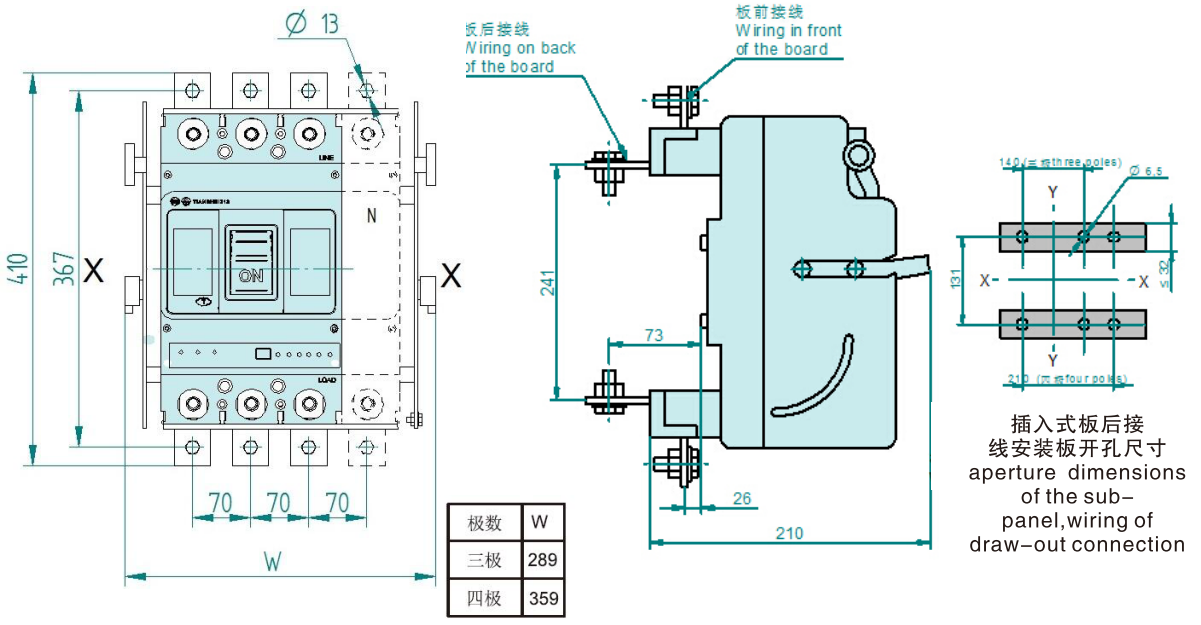
Note: 800 a current specifications in gsm3e – 800 temporarily does not provide a plug-in device

△ GSM3E–630/800(M、H）抽出式接线（三极、四极）

Wiring of draw–out connection (GSM3E–630/800M、H, three poles and four poles)

X–X、Y–Y为三极断路器中心

X–X,Y–Y as the center of the breaker(three poles)



极数	W
三极	289
四极	359

插入式板后接线安装板开孔尺寸
aperture dimensions of the sub–panel,wiring of draw–out connection

注：GSM3E–800中800A电流规格暂不提供抽出式装置

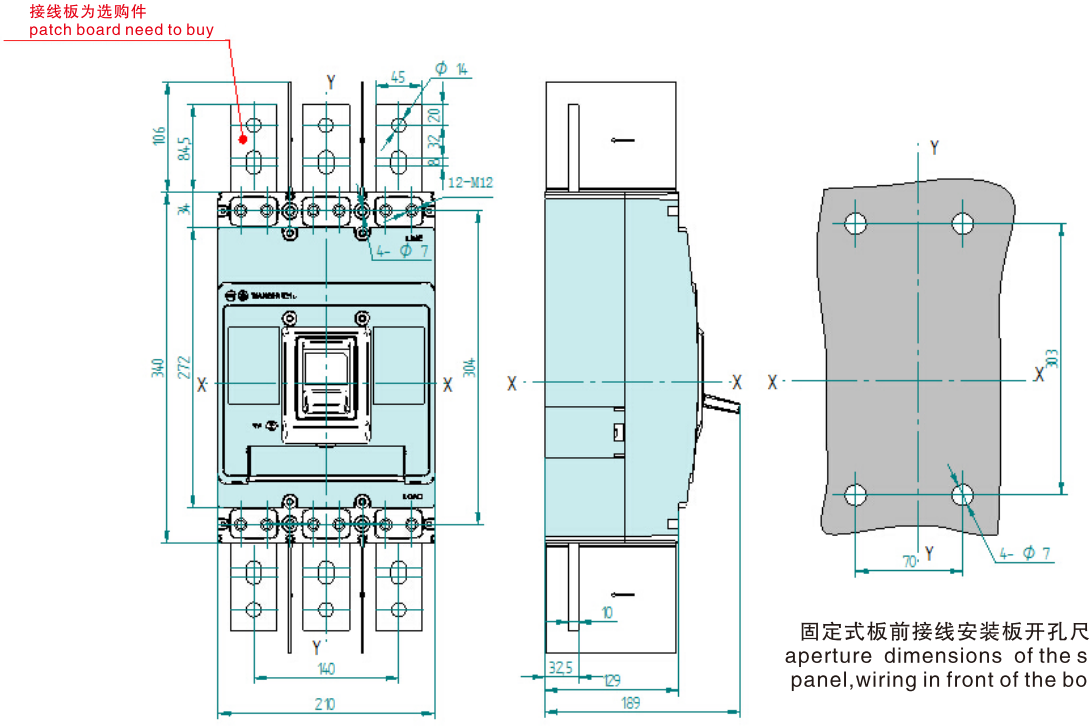
Note: 800 a current specifications in gsm3e – 800 temporarily does not provide drawer–type device

△ GSM3E–1250(M、H）固定式板前接线（三极)(接线板为选购件)

Wiring in front of the board(GSM3E–1250M、H, three poles)（patch board need to buy)

X–X、Y–Y为三极断路器中心

X–X,Y–Y as the center of the breaker(three poles)



固定式板前接线安装板开孔尺寸
aperture dimensions of the sub–panel,wiring in front of the board

断路器的内、外附件
THE INTERNAL AND EXTERNAI ACCESSORIES OF THE BREAKER

断路器的内部附件 The internal accessories of the breaker

注：根据用户需要断路器附件可直接导线引出或加装接线端子排（加装端子排，用户订货时注明）。

Note: according to user_demands,accessories could lead to direct wire outcoming or line wiring terminals could be added (please mark out in case of making)

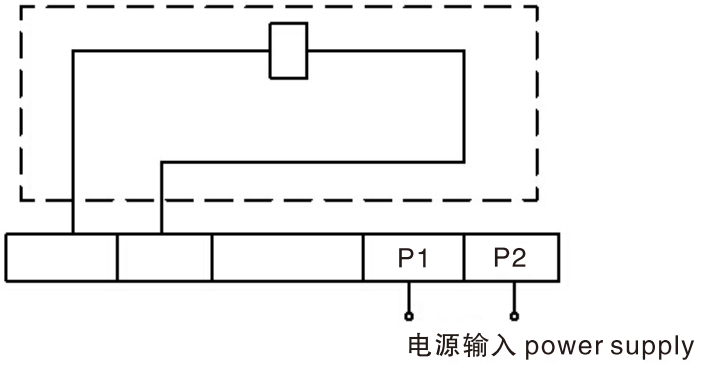
欠压脱扣器 Under–voltage releas

△ 用途：避免设备在欠电压状态运行Usage：Under–voltage protection for equipment

△ 额定工作电压Ue：AC50Hz 110V、220V（230V)、380V(400V)

△ 外挂欠电压模块接线图见下图（虚线框内为断路器内部附件）

Wiring diagram of the under–voltage module connected externally(inner accessories are indicated in the dotted square)



△ 表7：欠电压脱扣器功率

Table 7 : Power of the under–voltage release

表(Table) 7

配用断路器 Fitting breaker	欠电压脱扣器功率（W） Power of the under-voltage release(W)	
	AC220V	AC380V
GSM3E–125	2.6	3.3
GSM3E–250	3.8	3.3
GSM3E–400	3.7	2.7
GSM3E–630	2.3	2.7
GSM3E–800	2.5	2.8

注：在额定工作电压的35%～70%时，欠压脱扣器应可靠使断路器脱扣；
在额定工作电压的85%～110%时，欠压脱扣器应保证断路器能合闸；
在额定工作电压低于35%时，欠压脱扣器应防止断路器合闸。

Note：Under the voltage of 35% 70% of the rated voltage,the under–voltage release should make the breaker trip correctly;
Under the voltage of 85% 110% of the rated voltage,the under–voltage release should make the breaker close;
In case of the operation voltage less than 35% of the rated voltage,the release should prevent the breaker from closing.

警告：欠电压脱扣器必须先通电，断路器才能合闸。否则将损坏断路器！

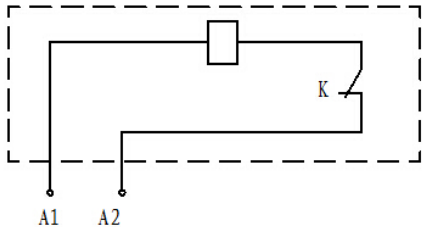
Note: Only the under–voltage release should be energized in advanced,the breaker could be recramped and turned–on,otherwise the breaker will be damaged.

分励脱扣器 Shunt release

△ 用途：远距离断开断路器 purpose:disconnect circuit breaker over a long distance

△ 接线图（虚线框内为断路器内部附件）

Scheme of wiring (the internal accessories in the dotted frame)



电源输入 power supply

K:分励脱扣器内部与线圈串联的微动开关为常闭触头，当断路器分闸后，该触头自行断开，合闸时闭合。

“K” is the slow motion switch normal contact connected the coil in series in the shunt release.It turns–on or turns–off voluntarily as soon as the breaker on or off.

△ 电压规格Us：AC50Hz 110V、220V(230V)、380V(400V)、DC 220V、DC110V、DC24V

在额定控制电源电压的70%～110%之间时，分励脱扣器应可靠使断路器脱扣。

The shunt release should make the breaker trip reliably when the operation voltage is 70% 110% of the rated control voltage.

△ 注：当采用额定控制电源电压DC24V规格分励脱扣器时，铜导线最大长度（两根中的每根长度）须满足下表要求

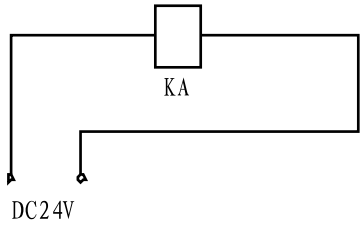
Note: While selecting DC24V(the rated control power–supply voltage) release,the maximum copper wire length(single copper wire)must satisfy the table 8:

表(Table) 8

额定控制 电源电压Us（DC24V） The ratedcontrol voltage ＼ 导线截面积 Wire area	1.5mm	2.5mm
100%Us	150m	250m
85%Us	100m	160m

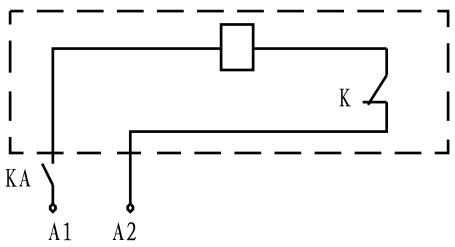
△ 注：当不满足上述表中要求时，推荐使用下图进行分励控制回路设计。

Note：While don`t satisfy the table, it`s recommended to design the shunt circuit according to the following diagrammatic sketch.



KA：为DC24V中间继电器，触点电流容量为1A

KA: stands for intermediate of DC24V, the current capacity of its contact is 1A



电源输入 power supply

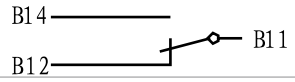
报警触头 Alarm contact

△ 用途：用于断路器脱扣故障状态指示

△ 表9：报警触头接线图

Table 9: Wiring diagram of the alarm contact

表(Table)9

断路器处于“分”“合”时的位置 The position of the breaker in “off” or “on”	
断路器处于“自由脱扣”（报警）时的位置 The position of the breaker in "free release"(alarm)	B11、B12接通状态转为断开状态，B11、B14断开状态转为接通状态。 B11 and B12 switch from “close” to “open”, status of B11 and B14 switch from “open” to “close”.

△ 报警触头工作电流见下表10

Rated current of alarm contact see following Table 10

表(Table) 10

壳架等级电流（A） Shell frame level current	约定发热电流Ith（A） Agreed heating current	额定工作电流Ie（A） Rated working current(Ie)	
		AC380V	DC220V
Inm≤250	3	0.3	0.15
Inm≥400	3	0.4	0.15

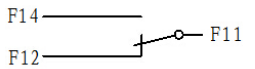
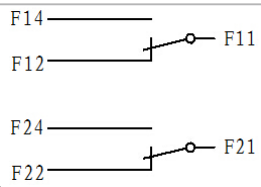
辅助触头 Auxiliary contact

△ 用途：指示断路器合闸、分闸状态

△ 表11：辅助触头接线图

Table 11: Wiring diagram of the auxiliary contact

表(Table) 11

断路器处于 “分”时的位置 When the breaker is in “off”		单辅助触头 single auxiliary contact
		双辅助触头 double auxiliary contact
断路器处于 “合”时的位置 When the breaker is in “on”	“分”时接通状态的触头转为断开状态，“分”时断开状态的触头转为接通状态。 When the breaker is in “off”,the contacts switch from “close” to “open”. When the breaker is in “off”，the contacts switch from “open” to “close”.	

△辅助触头工作电流见下表12

Rated current of the auxiliary contact see following Table 12

表(Table)12

壳架等级电流（A） Shell frame level current	约定发热电流Ith（A） Agreed heating current	额定工作电流Ie（A） Rated working current(Ie)	
		AC380V	DC220V
Inm≤250	3	0.3	0.15
Inm≥400	3	0.4	0.15

△ 辅助触头的通电操作性能及相应的试验条件见表13

Electrical performance of auxiliary contact and the corresponding test condition see Table 13

表(Table)13

使用类别 use classes	接通 ON			分断OFF			通电操作循环次数 Electrical operation times	每分钟操作循环次数 Operation times per minute	通电时间 Duration under current
	I/Ie	U/Ue	cosΦ 或T0.95	I/Ie	U/Ue	cosΦ 或T0.95			
AC-15	10	1	0.3	1	1	0.3	6050	6	≥0.05s
DC-13	1	1	6Pe	1	1	6Pe			≥T0.95

△ 辅助触头的非正常条件下接通与分断能力见表14

The on-off ability of the auxiliary contact under improper condition see following Table 14

表(Table)14

使用类别 use classes	接通 ON			分断OFF			通电操作循环次数 Electrical operation times	每分钟操作循环次数 Operation times per minute	通电时间 Duration under current
	I/Ie	U/Ue	cosΦ 或T0.95	I/Ie	U/Ue	cosΦ 或T0.95			
AC-15	10	1.1	0.3	10	1.1	0.3	10	2	≥0.05s
DC-13	1.1	1.1	6Pe	1.1	1.1	6Pe			≥T0.95

注：上述二表1)$T_{0.95}$=6Pe是经验公式，其中Pe以“瓦”单位，$T_{0.95}$毫秒单位。

2)当断路器的操作性能总次数小于6050次时，则辅助触头的通电操作性能次数可与断路器操作性能总次数相等。

3)操作频率和通电时间允许与断路器主电路的一致。

Note：for the above two tables:

1）“$T_{0.95}$=6Pe” is a traditional formula in which watt is unit of “Pe” and mini-second is unit of “T0.95”.

2）If the total operation times of the breaker is less than 6050,the operation times of electrical performance of the auxiliary contact will be equal to that of the breaker.

3）Frequency and duration under current of the auxiliary contact could be same as that of the main circuit of the breaker.

辅报触头 Auxiliary and alarm contact

△ 辅报触头为一组辅助触头加一组报警触头，接线图如下：

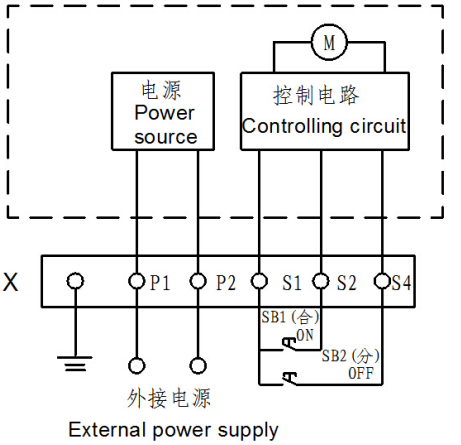
The auxiliary and alarm contacts are consisted of auxiliary contacts and alarm contacts.

断路器外部附件 电动操作机构（CD2型）

Motor-driven operation device(CD2)

△ 用途：实现断路器电动合闸、分闸、再扣操作 CD2电动操作机构接线图见下图（虚线框内为断路器外部附件接线图）

Wiring diagram of type CD2 motor -driven operation device see the following drawing (wiring diagram of the external accessories of the breaker in the dotted frame)



符号说明：SB1、SB2为操作按钮（用户自备）

X为接线端子排

P1,P2为外接电源（直流电源不分正负极）

Code description: SB1、SB2 stand for push button（provides by users themselves)

“X” stand for line connection terminals.

P1、P2 stand for external power supply（not differentiating positive pole and negative pole for DC power.

注：S1、S2、S4为无源节点，禁止接入电源

Note:The S1,S2,S4 is electrical independent contact, prohibition access to power

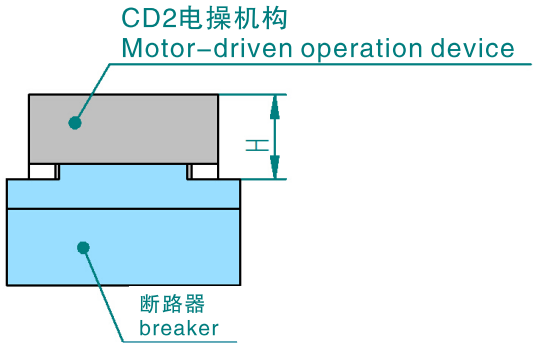
电压规格 Voltage rating：AC110V、220V(230V)、380V(400V)　DC24V、110V、220V

CD2电动操作机构的动作电流、功率、寿命及高度见下表15

Pickup current,power ,electrical life and height of the CD2 motor-driven operation device see following Table15 .

表(Table)15

配有断路器 Fitting breaker	启动电流（A） Pickup current	启动功率（W） Motor power	寿命（次） Life（time）	电操高度H Height（mm）
GSM3E-125	≤0.5	14	10000	90
GSM3E-250	≤0.5	14	8000	93
GSM3E-400	≤2	35	5000	142
GSM3E-630	≤2	35	5000	153
GSM3E-800	≤2	35	5000	153



转动手柄操作机构 Turning handle operation device

△ 用途：

本机构专用于GSM3E系列塑壳断路器，通过转动手柄实现抽屉柜、配电柜、动力箱等在面板上操作的要求，并保证断路器处于合闸时柜体门板不能开启（即与门联锁），合闸位置和分闸位置可加装挂锁，防止人员误操作。

△ Usage：

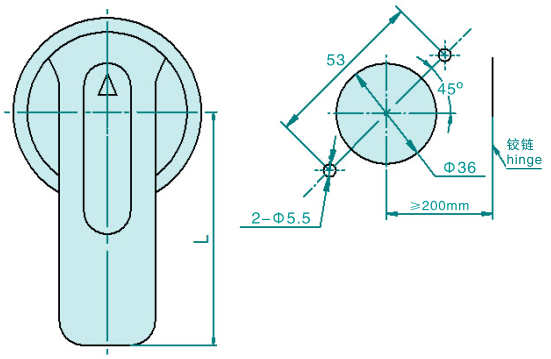
The mechanism is used specially in GSM3E series moulded case breakers, to operate the draw-out panel, power distribution panel and power supply box outside the panel by turning the handle, and to ensure the door of panel would not be opened when the breaker being on(i.e. interlock with the door),The closing position and the opening position can be added with a padlock , preventing from operation mistakes.

△ 分类：

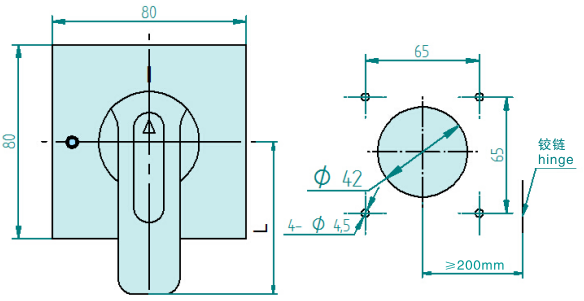
手操机构可配用三种操作手柄：“A”型圆型手柄，“F1”型方形手柄，“F2”型方形手柄（仅配用GSM3E-125，GSM3E-250），其开孔尺寸见下图：

The hand-drive mechanism can be equipped with three types of operation handles: one is model “A” round handle, the second is model “F1” square handle,The third is “F2” square handle(only for GSM3E-125，GSM3E-250) , aperture dimension on the panel sheet see the following drawings.

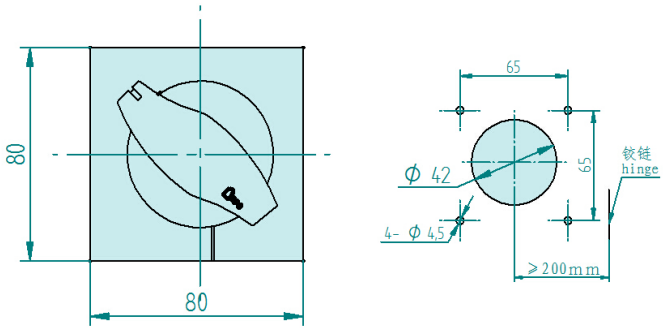
手操机构尺寸图



CS1-A型圆形手柄外形及门板开孔尺寸
Contour of model"A"round handle and
the aperture dimension on the panel sheet



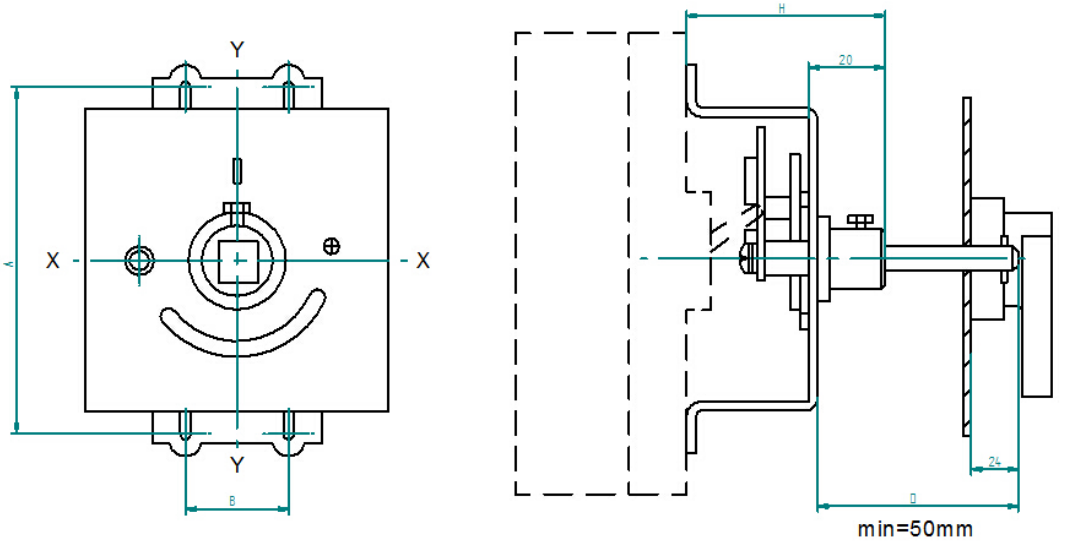
CS1-F1型方形手柄外形及门板开孔尺寸
Contour of model "F1"square handle and
the aperture dimension on the panel sheet



CS1-F2型方形手柄外形及门板开孔尺寸
（仅配用GSM3E-125,GSM3E-250）
Contour of model "F2"square handle and the
aperture dimension on the panel sheet(only for GSM3E-250)

手动操作机构安装示意图

The mounting drawing of the hand-drive mechanism



注：方轴的标准长度D有150mm、250mm、450mm 三种系列，若订货时不注明方轴长度，则按D＝150mm长度提供，若长度大于150mm，须在订货时注明。

Note: The normal length of the square axis (D) has three series: 150mm,250mm and 450mm. If don`t note the length of the square while making order,will supply the length of 150mm.In case of the length more 150mm,please note while making order.

手操机构安装尺寸见表16

The mounting dimensions of the hand-drive mechanism see table 16

表(Table)16

手操机构型号 Type of external accessories	配用断路器型号 Type of the fitting breaker	安装尺寸（mm） Mounting dimensions（mm）			
		A	B	H	L
CS1-100	GSM3E-125 M、H/3/4	103	30	54	95
CS1-225	GSM3E-250 M、H/3/4	143	35	54	95
CS1-400/3	GSM3E-400 M、H/3	194	138	86	125
CS1-400/4	GSM3E-400 M、H/4	194	186	86	125
CS1-630/3	GSM3E-630 M、H/3	200	168	86	125
CS1-630/4	GSM3E-630 M、H/4	200	226	86	125
CS1-800/3	GSM3E-800 M、H/3	243	198	97	125
CS1-800/4	GSM3E-800 M、H/4	243	268	97	125

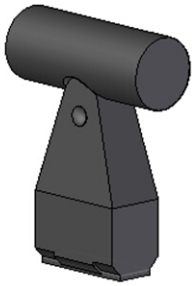
加长手柄 Extended handle

△ 用途

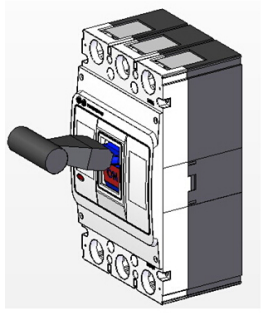
加长手柄专用于GSM3E-400、630、800、1250系列塑壳断路器，加长手柄卡接在塑壳断路器本体手柄上进行合闸、分闸、再扣操作，操作 省力，使用后可取下。

Usage：

The extended handle is used specially in GSM3-400、630、800、1250 series moulded case breakers, to operate extended handles clamp in handle of molded case circuit breaker to switch on, switch off, reset, operation economical, After use, take down.



加长手柄
Extended handle



安装示意图
The mounting drawing

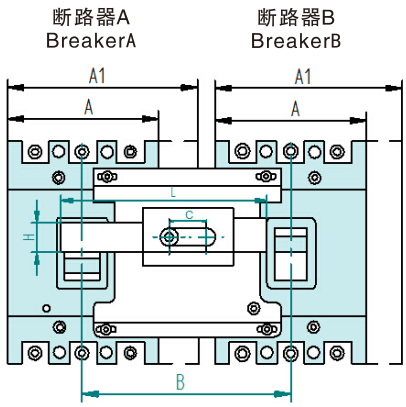
联锁机构

△ 用途:LS3系列联锁机构可实现两台同壳架电流的GSM3E系列塑壳断路器的机械联锁，防止两台塑壳断路器同时合闸。

Usage：LS3 series interlock mechanism can make two GSM3 series molded case circuit breakers of same frame current mechanical interlock, to prevent two breakers closing at the same time.

△ 安装示意图，尺寸下表17

The mounting drawing, and dimensions see table 17



注：安装LS系列机械联锁机构后，断路器不能带分励、欠压脱扣器、电操、手操机构任一附件。

Note: While installation of LS mechanical interlock mechanism, the breaker can not equip with anyone of the accessories such as shunt release, under-voltage release ,motor-driven operation or turning handle operation device.

表(Table)17

联锁机构型号 Interlocking mechanism model	配用断路器型号 Type of the fitting breaker	安装尺寸（mm） Mounting dimensions（mm）					
		A	A1	B	L	C	H
LS3-125/3	GSM3E-125 M、H/3/4	92		120	118	46	22
LS3-125/4	GSM3E-250 M、H/3/4		122	152	150	46	22
LS3-250/3	GSM3E-400 M、H/3	107		135	138	46	22
LS3-250/4	GSM3E-400 M、H/4		142	173	168	46	22
LS3-400/3	GSM3E-630 M、H/3	150		190	187	58	30
LS3-400/4	GSM3E-630 M、H/4		198	240	225	58	30
LS3-630/3	GSM3E-800 M、H/3	182		220	240	58	30
LS3-630/4	GSM3E-800 M、H/4		240	280	258	58	30
LS3-800/3	GSM3E-800 M、H/3	210		240	280	58	30
LS3-800/4	GSM3E-800 M、H/4		240	280	280	58	30

不同额定电流的连接导线的截面积见表18、19

Cross-sectional area of connecting wire with different current rating see Table 18, 19

表(Table)18

额定电流（A） Rated current（A）	10	16 20	25	32	40 50	63	80	100	125 140	160	180 200 225	250	315 350	400
导线截面积（mm） Cross-sectional area of wire（mm）	1.5	2.5	4	6	10	16	25	35	50	70	95	120	185	240

表(Table)19

额定电流（A） Rated current（A）	电缆 Cable		铜排 Copper bar	
	数量 Number	截面积（mm） Area of wire（mm）	数量 Number	尺寸（mm×mm） Dimension（mm×mm）
500	2	150	2	30×5
630	2	185	2	40×5
700	2	240	2	50×5
800	2	240	2	50×5

使用说明 USE DESCRIPTIONS

△ 断路器采用螺钉安装，既可垂直安装，亦可水平安装；

△ 断路器手柄可分别处于闭合、断开、自由脱扣三种状态。当手柄处于脱扣位置时，应扳动手柄，实现再扣，然后才能合闸；

△ 接线处螺钉必须拧紧；

△ 断路器各种性能及附件由制造公司整定，用户在使用中不得自行调整；

△ 四极断路器的中性极在产品右侧。

△ The breakers can be installed vertically or horizontally by bolts

△ The handle of the breaker has three positions: close-up ,cut-off or released state respectively，When thehandle at the “released” position, it should be pulled backward to make the breaker “recramped” ,then to switching-in the circuit.

△ The binding screws must be screwed down.

△ All the performance of the breaker and accessories have been set on by the company, and it could not be adjusted casually when using.

△ The “N” pole of four poles breakers is sited at the right of the product.

订货规范 ORDER NOTICE

GSM3E–630 M P / 4 300 2 B 500A 固定式板后接线 AC220V
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

①—壳架等级电流:125，250，400，630，800，1250
Frame current125，250，400，630，800，1250.

②—额定极限短路分断能力：分M型、H型
Limiting short–circuit breaking ability: Type “M” and Type “H”.

③—操作方式：直接操作无代号；电动操作用“P”表示；转动手柄操作用“Z”表示
Operation means：handle operating directly； “P” stand for motor–driven operation； “Z” stand for turning handle operation

④—极数：分3极、4极两种
Number of the pole：three poles and four poles

⑤—脱扣方式及附件代号：见表1
Release pattern and inner accessories code： see Table 1

⑥—用途代号：配电用无代号；保护电动机用代号为2
Code of usage：no code for power distribution； “2” for motor protection

⑦—极断路器中性极代号：A或B（仅四极产品有此代号）
Neutral pole code for four poles breakers：Type “A” and Type “B” （having the code only for four poles breakers)

⑧—断路器额定工作电流：见表2
Rated current of breakers： see Table 2

⑨—接线方式：固定式板前接线（基本接线方式）、固定式板后接线、插入式板前接线、插入式板后接线、抽出式板前接线、抽出式板后接线（仅GSM3–400,630,800有抽出式接线方式）六种；
Wiring in front of the board； Wiring on back of the board； Insertion connection in front of the board ; Insertion connection on back of the board; Draw–out connection (only GSM3–400,630,800 have this type)

⑩—附件额定工作电压
Rated working voltage of accessories