

# YYM-SY

## GLD(YPC) GLD(YCB) 系列自动转换开关(A.T.S.E)

GLD(YPC)  
GLD(YCB) Series Transfer Switching Equipment (A. T. S. E)



### 沈阳翼源盟电器有限公司

Shen Yang YiYuanMeng Electrical Equipment CO., LTD.

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- **概述:** 我公司生产的自动转换开关(ATSE)分为CB级和PC级两大系列。GLD(YCB)系列自动转换开关,是以塑壳断路器或小型断路器为主体开关;GLD(YPC)系列自动转换开关,是以负荷隔离开关为主体开关。两大系列产品都采用CPU为核心的智能化控制系统实现两路电源之间的自动切换,两路主体开关具有机械和电气双重互锁,以保证供电安全。控制系统自动监测两路供电电源是否正常,由供电不正常的一路电源自动切换到另一路正常供电的电源。能实现市电——市电的自投自复、自投不自复,市电——发电机的自投自复功能。该系列产品性能完善可靠、功能全、安装使用方便、智能化程度高。
- **适用范围:**适用于额定工作电压交流380V,频率50HZ的供电系统。主要用于医院、商场、银行、化工、冶金、高层建筑,军事设施和消防系统等不允许断电的重要场所。
- **符合标准:** GB/T14048.11-2008 《低压开关设备和控制设备 第6-1部分:多功能电器 转换开关电器》  
IEC60947-6 《低压开关设备和控制设备 第6-1部分:多功能开关 转换开关电器》
- **General:** The automatic transfer switching equipment (ATSE) produced by YYM is classified into two series of CB degree and PC degree. GLD(YCB) series ATSE takes a moulded case circuit breaker or small-size circuit breaker as the main switch; GLD(YPC) series ATSE takes a load switch-disconnector as the main switch. Both series of products realize the automatic switching between two power supplies by the intelligent control system taking CPU as the core. Both main switches have mechanical and electrical double interlocking to ensure the safe supply of power. The control system automatically monitors whether the two power supplies are normal, and automatically switches from abnormal power supply to the other abnormal power supply. It can realize the functions of automatic transfer and automatic recovery and automatic transfer but no automatic recovery of mains power supply - mains power supply, and the automatic transfer and automatic recovery of mains power supply - generator. The series product has perfect and reliable performances, complete functions, convenient installation and use, and high intelligent degree.
- **Range of application:** It is applicable for the power supply system with the rated working voltage of AC 380V and frequency of 50HZ. It is mainly used in important places requiring uninterrupted power supply, such as hospital, mall, bank, chemical industry, metallurgy, high-rise building, military facilities, fire-fighting system, etc.
- **Conforming standards:** GB/T 14048.11-2008 Low-voltage Switchgear and Controlgear Part 6-1: Multiple Function Equipment - Transfer Switching Equipment.  
IEC60947-6 Low-voltage Switchgear and Controlgear Part 6-1: Multiple Function Equipment - Transfer Switching Equipment

● 正常工作条件:

1. 海拔

安装地点的海拔高度不超过2000米;

2. 周围空气温度

周围空气温度不超过+40℃, 且24小时内平均温度不超过+35℃, 周围空气温度下限为-5℃;

3. 湿度

大气相对湿度不超过95%;

4. 污染等级

污染等级为III级;

5. 运行环境

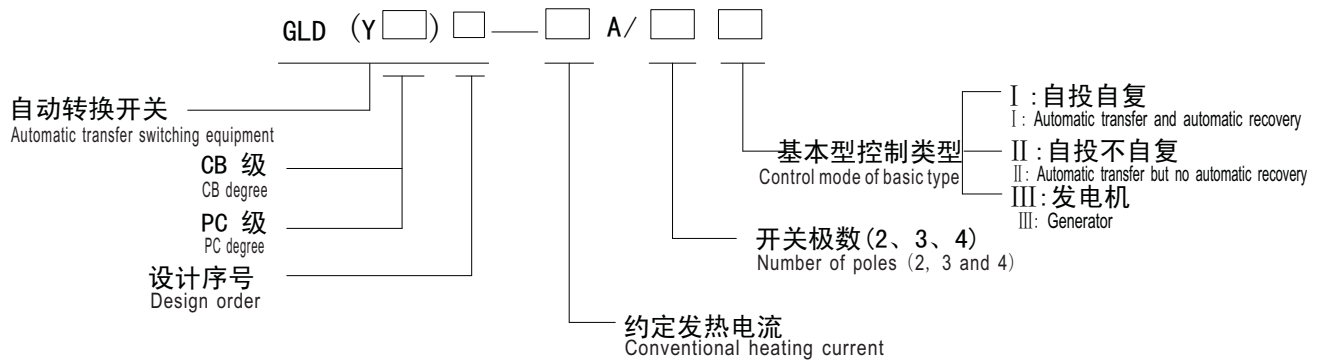
运行环境无强烈振动和冲击, 无爆炸危险的介质, 且介质无足以腐蚀金属和破坏绝缘的气体与尘埃, 无强磁场干扰。

Normal working conditions:

- Altitude  
Altitude not exceeding 2000m for installation site;
- Ambient air temperature  
Ambient air temperature not higher than +40℃, and the mean temperature within 24h not higher than +35℃; the lower limit of ambient air temperature as -5℃;
- Humidity  
Atmospheric relative humidity not exceeding 95%;
- Pollution degree  
Degree 3;
- Operating environment  
Operating environment without violent vibration or impact and explosive dangerous medium; medium without gas or dust which can corrode metal and destroy insulation; no interference of intense magnetic field.

● 型号说明:

Model description



● 结构与特点:

该系列产品分为基本型、末端型、经济型三种类型产品。

基本型、末端型两种产品具有手动、自动、电动三种操作方式, 为三段位产品; 经济型产品具有手动、自动两种操作形式, 为两段位产品, 自动状态下无双分。

Structure and features: The series product is classified into three types: basic type, end type and economic type. Products of both basic type and end type have three operation modes: manual, auto and electric, and belong to 3-segment product; product of economic type has two operation modes of manual and auto, belongs to 2-segment product, and has no double breaking in the automatic state.

# YYM-sy 翼源盟GLD(YCB)、GLD(YPC)系列自动转换开关(A.T.S.E)

YYM-sy GLD(YCB), GLD(YPC) Series Automatic Switching Equipment (A. T. S. E)

## ● GLD(YPC)系列自动转换开关性能参数

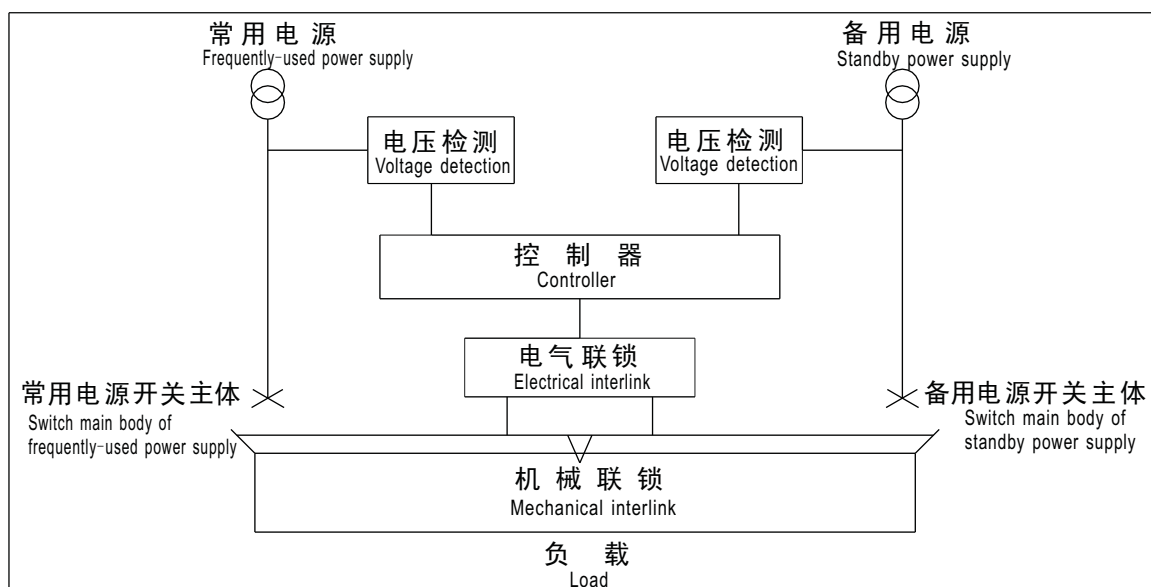
Performance parameters of GLD(YPC) series automatic transfer switching equipment

约定发热电流I <sub>th</sub> (A) Conventional thermal current	100		125		160	250	630		1600		3150	
额定工作电流I <sub>e</sub> (A) Rated working current	16 20 25 32 40 50 63	80	16 20 25 32 40 50 63	80 100 125	125 160	200 250	315 400	500 630	800 1000	1250 1600	2000 2500	3150
额定绝缘电压U <sub>i</sub> (V) Rated insulation voltage	690											
额定工作电压U <sub>e</sub> (V) Rated working voltage	380											
额定频率(Hz) Rated frequency	50											
额定冲击耐受电压U <sub>imp</sub> (kV) Rated impulse withstand voltage	6										8	
使用类别 Usage category	AC-35B cos φ=0.5				AC-31B cos φ=0.8				AC-33iB cos φ=0.5			
额定接通能力(A) Rated making capacity	3I <sub>e</sub>				1.5I <sub>e</sub>				6I <sub>e</sub>			
额定分断能力(A) Rated breaking capacity	3I <sub>e</sub>				1.5I <sub>e</sub>				6I <sub>e</sub>			
电器级别 Electrical degree	PC级 PC degree											
电磁兼容性(EMC) Electromagnetic compatibility	环境B Environment B											
额定短路接通能力I <sub>cm</sub> (kA) Rated short-circuit making capacity	8		17			25.2		67.2		105		
额定短时耐受电流I <sub>cw</sub> (kA) Rated short-time withstand circuit	5		10			12.6		32		50		
额定限制短路电流I <sub>q</sub> (kA) Rated short-circuit current limiting	20				50				120			
机械寿命 Mechan durability	8000				8000		6000		4000		3000	
电气寿命 Electrical durability	3000				2000		2000		1000		1000	
转换动作时间(s) Operating transfer time	1.5				3		1.5		3			
手动操作力(N) Actuating force	100				150				200		150	
重量(kg) 3极 Weight 3 poles	1.66		2.15		7.2	8	9	10	35	40	100	120
重量(kg) 4极 Weight 4 poles	2		2.75		7.5	9	10	11	40	45	120	150

● GLD (YCB) 系列自动转换开关主要技术参数  
Main technical parameters of GLD (YCB) series automatic transfer switching equipment

约定发热电流I <sub>th</sub> (A) Conventional thermal current	63	125	250	400	630	800	1600
额定工作电流I <sub>e</sub> (A) Rated working current	10 16 20 25 32 40 50 63	10 16 20 25 32 40 50 63 80 100 125	100 125 160 180 200 225 250	225 250 315 350 400	400 500 630	500 600 630 700 800	800 1000 1250 1600
额定绝缘电压U <sub>i</sub> (V) Rated insulation voltage	690						
额定工作电压U <sub>e</sub> (V) Rated working voltage	380						
额定频率(Hz) Rated frequency	50						
额定冲击耐受电压U <sub>imp</sub> (kV) Rated impulse withstand voltage	6						
使用类别 Usage category	AC-33iB cos φ=0.5						AC-33B cos φ=0.35
额定接通能力(A) Rated making capacity	6I <sub>e</sub>						10I <sub>e</sub>
额定分断能力(A) Rated breaking capacity	6I <sub>e</sub>						10I <sub>e</sub>
电器级别 Electrical degree	CB级 CB degree						
电磁兼容性(EMC) Electromagnetic compatibility	环境B Environment B						
额定短路接通能力I <sub>cm</sub> (kA) Rated short-circuit making capacity	≥8	≥30	≥52.5	≥67.2	参见具体断路器说明 Refer to instructions for circuit breakers of specific models		
额定短路分断能力I <sub>cn</sub> (kA) Rated short-circuit making capacity	≥5	≥17.5	≥25	≥32	参见具体断路器说明 Refer to instructions for circuit breakers of specific models		
机械寿命 Mechan durability	8000	8000	6000	4000			
电气寿命 Electrical durability	3000	2000	2000	1000			
转换动作时间(s) Operating transfer time	1.5					3	
手动操作力(N) Actuating force	100	150				200	
可选择执行断路器 Selectable executive circuit breaker	正泰NM系列、C65系列、ABB系列、NS系列、TM30系列、CM1系列、西门子系列、默勒系列 CHINT NM Series, C65 Series, ABB Series, NS Series, TM30 Series, CM1 Series, SIEMENS Series, MOELLER Series						

### ● 原理图 Schematic diagram



### ● 基本型产品的三种控制类型:

I 型产品, 市电—市电的自投自复。当常用电源发生异常(过压、欠压、失压、缺相等)时, 经设定的延时间后, 开关自动断开常用电源, 切换到备用电源供电; 当常用电源恢复正常后, 不管备用电源是否异常, 都自动转换至常用电源供电。

II 型产品, 市电—市电的自投不自复。当常用电源发生异常时, 经设定的延时后, 开关自动断开常用电源转换至备用电源供电, 直至备用电源异常(此时常用电源正常), 再自动转换至常用电源供电。

III 型产品, 市电—发电机的自投自复。市电为常用电源, 当常用电源异常, 开关首先发出启动发电机信号, 经延时后自动断开常用电源, 发电机经延时暖机后开关自动转换至发电机供电系统; 当常用电源恢复正常时, 开关自动转换至市电供电, 发电机经延时冷机后自动关闭。

● **末端型** 常用电源电路失压时, 开关自动转换向备用电源电路。当常用电源电路恢复正常时, 开关自动转换向常用电源电路。

● **经济型** 常用电源电路失压时, 开关自动转换向备用电源电路。当常用电源电路恢复正常时, 开关自动转换向常用电源电路; 经济型开关无远程控制, 为两段位产品。

### Three control types of basic type product:

Type I product is used for the automatic transfer and automatic recovery of mains power - mains power. When the frequently-used power supply has abnormality (over-voltage, under-voltage, loss of voltage, phase loss, etc.), after the set delay time, the switch will automatically cut off the frequently-used power supply and switch to the standby power supply to supply power; when the frequently-used power supply recovers to be normal, it will automatically transfer to the frequently-used power supply to supply power no matter the standby power supply is abnormal or not.

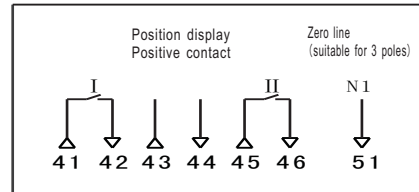
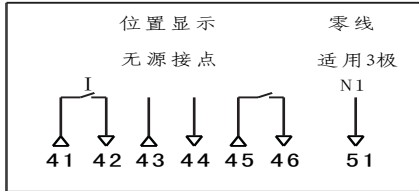
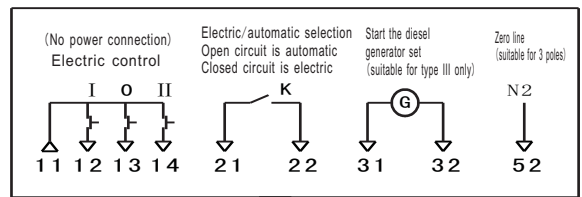
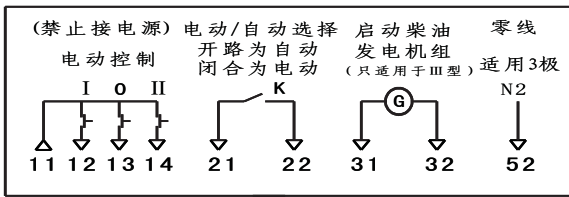
Type II product is used for the automatic transfer but no automatic recovery of mains power - mains power. When the frequently-used power supply has abnormality, after the set delay time, the switch will automatically cut off the frequently-used power supply and switch to the standby power supply to supply power; it will not automatically transfer to the frequently-used power supply to supply power until the standby power supply is abnormal (at that time, the frequently-used power supply is normal).

Type III product is used for the automatic transfer and automatic recovery of mains power - generator. When the mains power as the frequently-used power supply has abnormality, the switch will firstly give a signal to start the generator and then automatically cut off the frequently-used power supply, after the generator is heated after the delay time, the switch will automatically switch to the generator supply system; when the frequently-used power supply recovers to be normal, the switch will automatically transfer to the mains power to supply power, and the generator will shut down automatically after it is cooled down during the delay time.

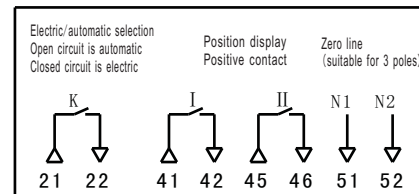
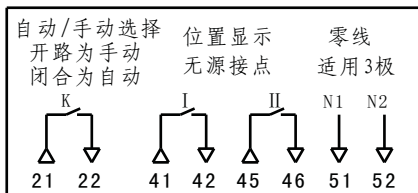
**End type:** When the frequently-used power supply is under-voltage, the switch will automatically transfer to the standby power supply circuit. When the frequently-used power supply recovers to be normal, the switch will automatically transfer to the frequently-used power supply.

**Economic type:** When the frequently-used power supply is under-voltage, the switch will automatically transfer to the standby power supply circuit. When the frequently-used power supply recovers to be normal, the switch will automatically transfer to the frequently-used power supply; the economic type product has no remote control and belongs to two-segment product.

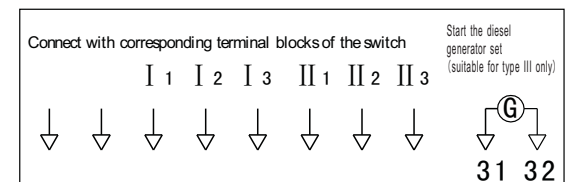
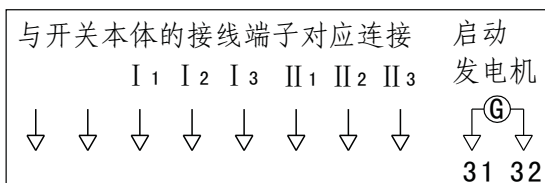
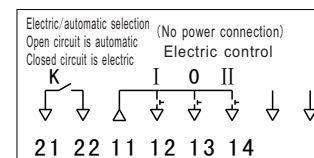
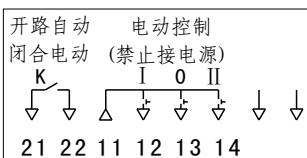
● 基本型、末端型接线端子图 Diagram of terminal block for basic type and end type



● 经济型接线端子图 Diagram of terminal block for economic type



● 分体控制器(2000A-3150A)接线端子图 Diagram of terminal blocks for Separate Controller



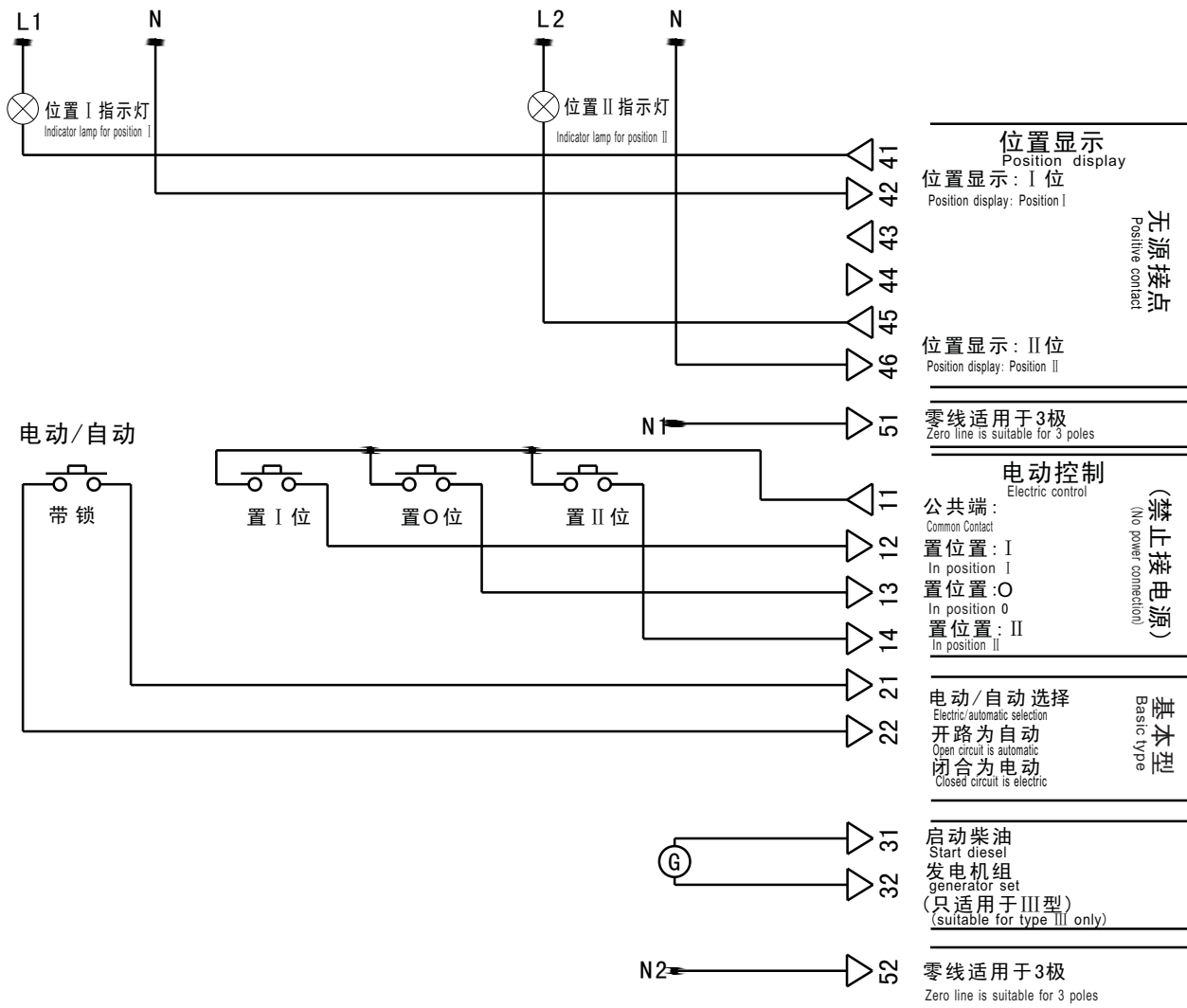


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## YYM-sy GLD (YCB), GLD(YPC) Series Automatic Switching Equipment (A. T. S. E)

### ● 基本型二次回路接线示意图

Wiring diagram of secondary circuit for basic type

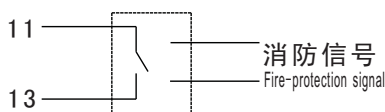


- 注: (1) 位置显示应外接电源, 开关内部为开点; (触点容量: 5A/AC250A)  
(2) N1接常用电源零线;  
N2接备用电源零线。  
(3) 经济型21、22开路为手动, 闭合为自动。

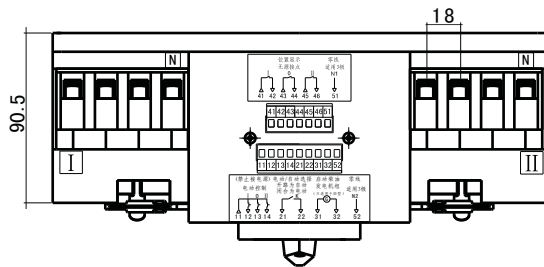
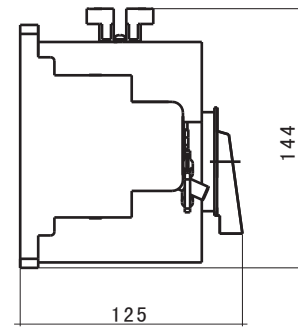
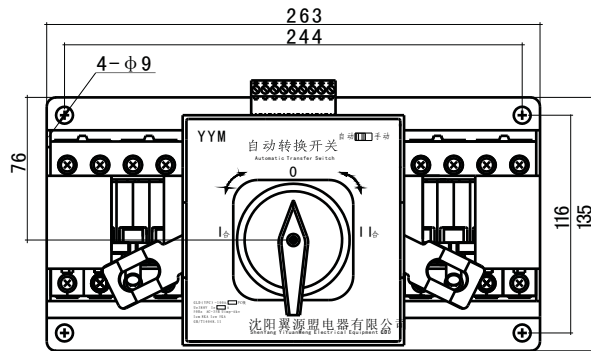
Note: (1) Position display shall externally connected to the power supply, and contacts inside the switch are open; (contact capacity: 5A/AC250A)  
(2) N1 is connected with the zero line of the frequently-used power supply;  
N2 is connected with the zero line of the standby power supply.  
(3) For economic type, open circuit of 21 and 22 is manual, and close circuit is automatic.

### ● 消防联动接线示意图

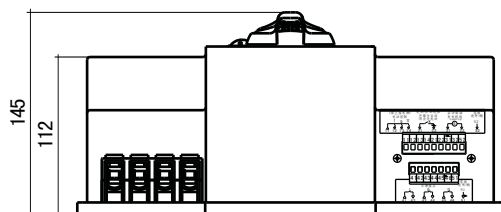
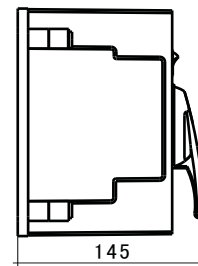
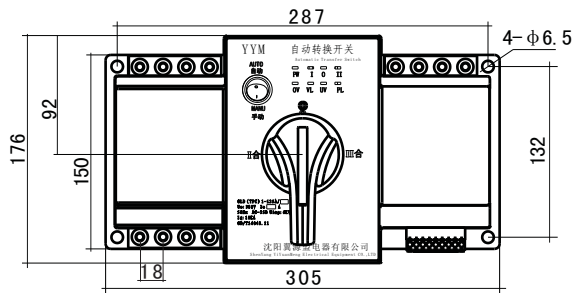
Wiring diagram for fire-protection intertrip



**GLD (YCB) -63A/GLD (YPC) -100A以下外形及安装尺寸图**  
 Diagram of outline and installation dimensions for GLD(YCB)-63A/GLD(YPC)-100A and below



**GLD (YPC) 1-125A以下外形及安装尺寸图**  
 Diagram of outline and installation dimensions for GLD (YPC) 1-125A and below

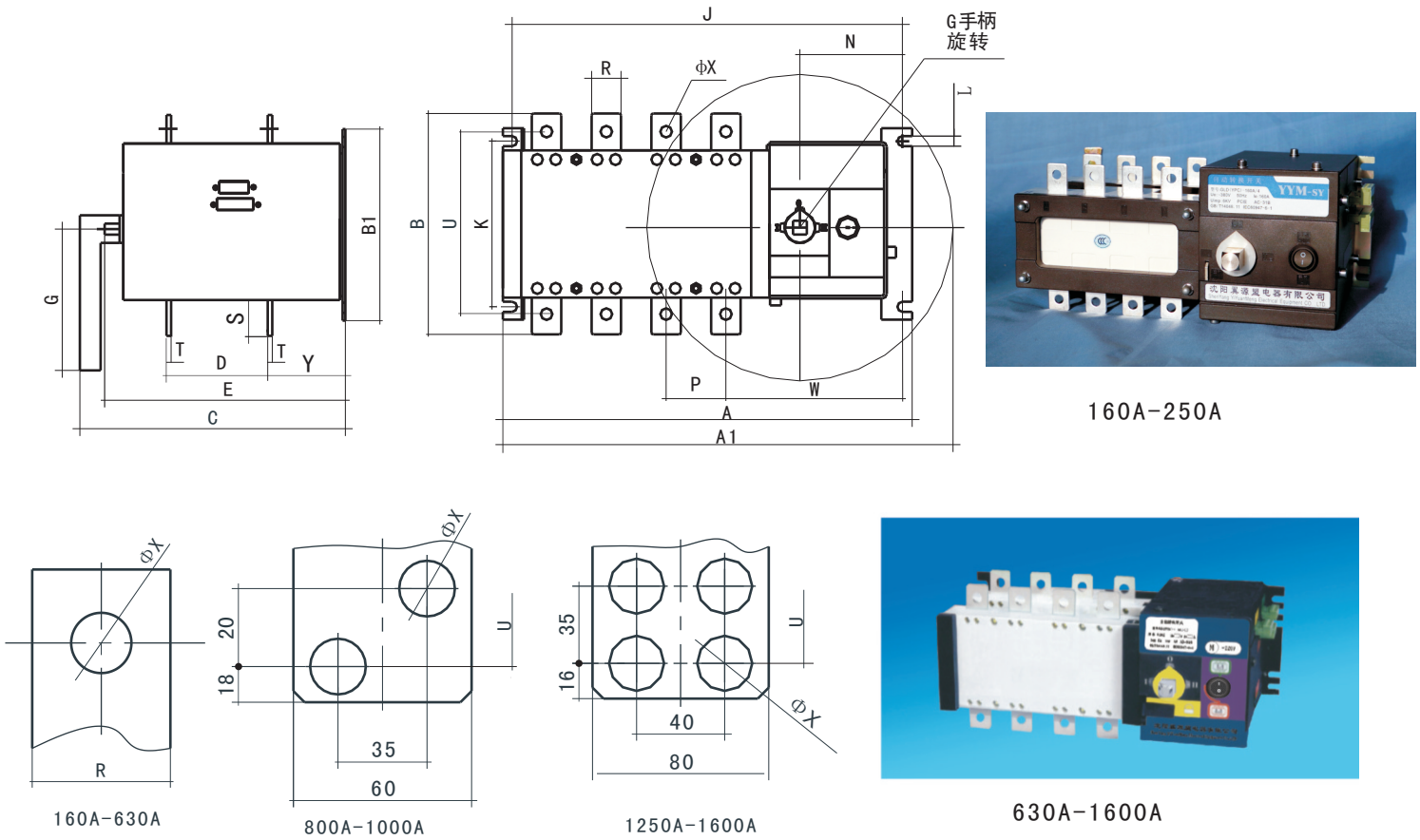


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### ● GLD(YPC)-160A~1600A外形及安装尺寸图

Diagram of outline and installation dimensions for GLD(YPC)-160A~1600A



规格 Specification	A1	A	B	B1	C	D	E	G	J	K	L	N	P	R	S	T	U	W	ΦX	Y
125A-160A/3	295	270	135	134	230	88	205	125	250	80/108	7	87	36	20	25	3.5	115	158	9	60
125A-160A/4	325	300	135	134	230	88	205	125	280	80/108	7	87	36	20	25	3.5	115	152	9	60
200A-250A/3	375	310	170	134	240	94	215	165	290	80/108	7	87	50	25	30	3.5	140	163	11	62
200A-250A/4	425	360	170	134	240	94	215	165	340	80/108	7	87	50	25	30	3.5	140	163	11	62
315A-400A/3	480	380	240	208	330	114	270	165	355	180	11	94	65	32	40	5	206	193	12	83
315A-400A/4	540	440	240	208	330	114	270	165	415	180	11	94	65	32	40	5	206	188	12	83
500A-630A/3	470	380	260	208	330	114	270	165	355	180	11	94	65	40	50	6	220	193	12	84
500A-630A/4	530	440	260	208	330	114	270	165	415	180	11	94	65	40	50	6	220	188	12	84
800A-1000A/3	700	560	312	250	380	146	325	270	538	220	11	126.5	120	60	56	8	280	236	12.5	110
800A-1000A/4	820	674	312	250	380	146	325	270	652	220	11	126.5	120	60	56	8	280	232	12.5	110
1250A/3	700	560	338	250	380	146	325	270	538	220	11	126.5	120	80	69	8	308	236	13	110
1250A/4	820	674	338	250	380	146	325	270	652	220	11	126.5	120	80	69	8	308	232	13	110
1600A/3	700	560	338	250	380	146	325	270	538	220	11	126.5	120	80	69	10	308	236	13	111
1600A/4	820	674	338	250	380	146	325	270	652	220	11	126.5	120	80	69	10	308	232	13	111

**GLD (YPC) 3-3150A外形及安装尺寸图**  
Diagram of outline and installation dimensions for GLD (YPC) 3-3150A

**开关特点:**

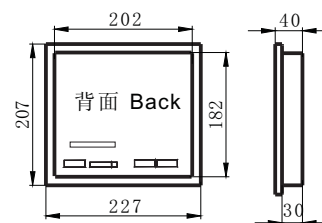
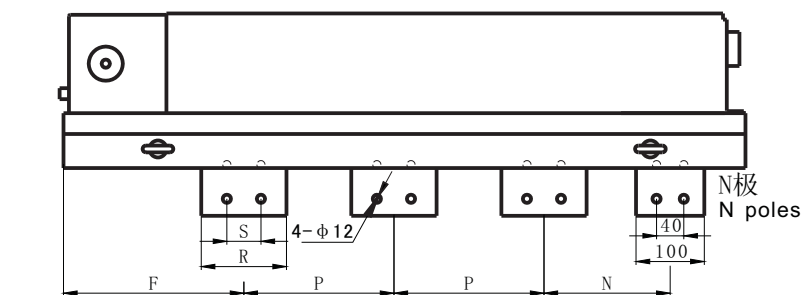
1. 专业非派生PC级开关, 专用触头, 专用灭弧系统
2. 电磁线圈驱动, V形机械连锁结构
3. 多片式主触头和弧触头采用耐电弧的银合金等材料
4. 分体式控制器带有合闸、故障、优选等状态指示灯  
两路电源三相电压数码显示, 过、欠电压设定  
动作延时设定、优选设定, 电动操作按键



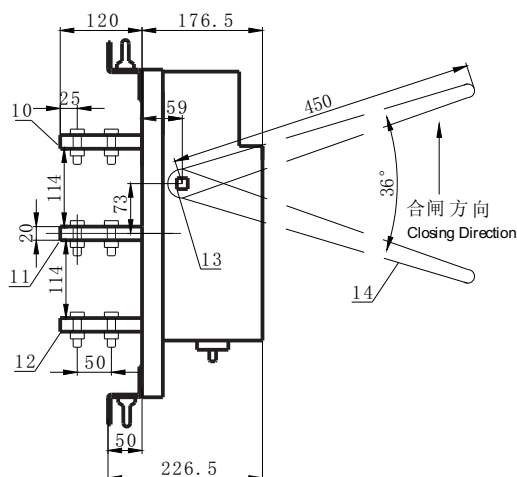
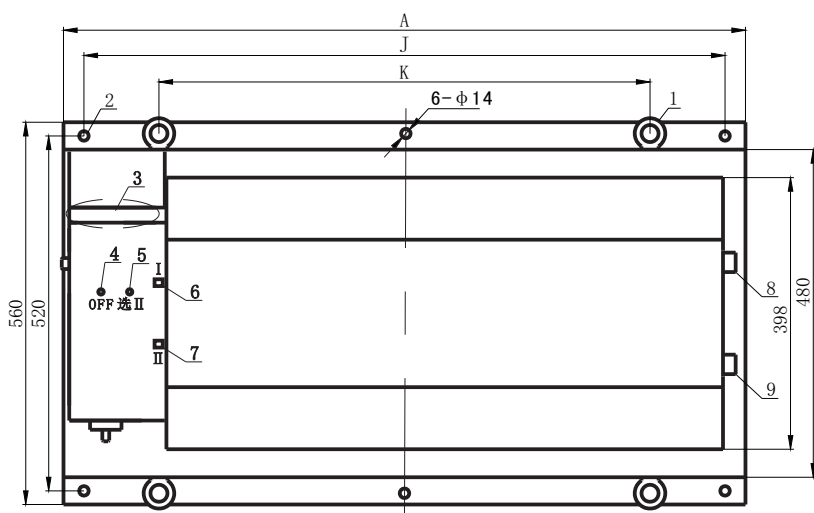
**Features:**

1. Professional non-derived PC switch, special contacts, and special arc extinguishing system;
2. Driven by electromagnetic coil, V-shaped mechanical linking structure;
3. Multi-slice contact and arcing contact made of silver alloy or other materials with high arc resistance;
4. Separate controller with indicators for closed, trouble, optimum states, etc.; Two circuits of power supply and three-phase voltage digital display, over-voltage and under-voltage settings, action delay setting, optimum setting, electrically operated button.

规格 Specification	A	J	K	N	P	R	S	F
3150A/3	860	810	580	—	220	125	50	265
3150A/4	1000	940	720	185	220	125	50	273
2000A-2500A/3	700	650	420	—	160	100	40	253
2000A-2500A/4	860	810	580	160	160	100	40	253



分体控制器  
Separate Controller



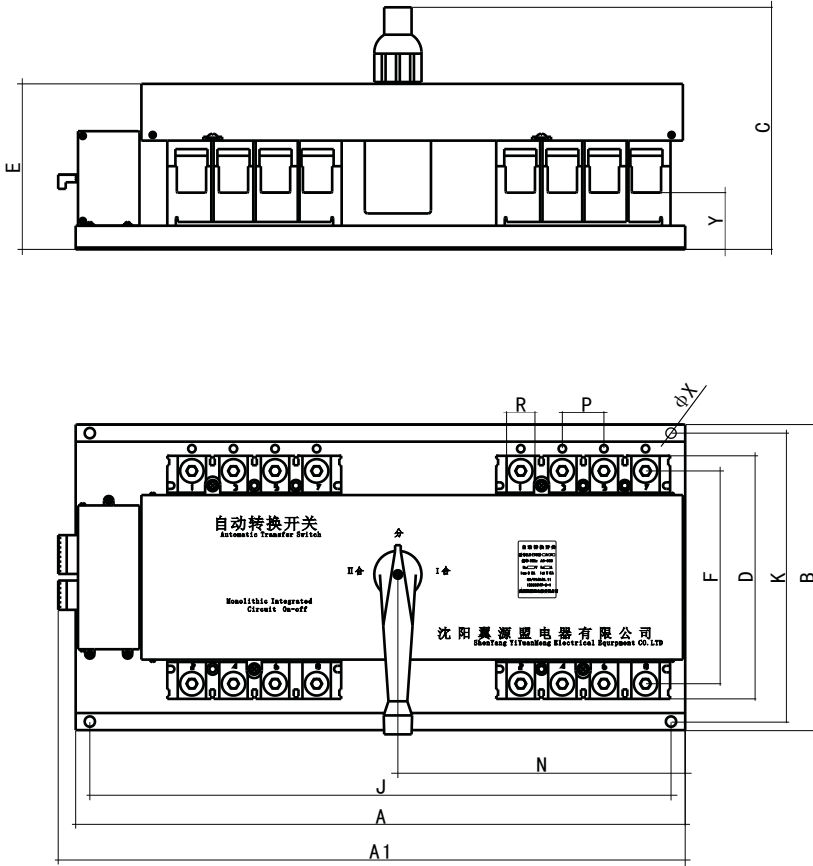
1. 吊环
2. 安装孔
3. 二次回路接线端子
4. 手动分闸
5. 选择 II 路电源合闸
6. I 路电源合闸指示窗
7. II 路电源合闸指示窗
8. I 路电源辅助触点: 一常开一常闭
9. II 路电源辅助触点: 一常开一常闭
10. I 路电源主回路进线端子
11. 主回路出线端子
12. II 路电源主回路进线端子
13. 手动合闸操作轴
14. 合闸操作手柄

1. Ring
2. Mounting hole
3. Terminal block
4. Manual breaking
5. Select to close power supply II
6. Indicator window for power supply I closed
7. Indicator window for power supply II closed
8. Auxiliary contacts for power supply I : one normally open and one normally closed
9. Auxiliary contacts for power supply II: one normally open and one normally closed
10. Input terminal for main circuit of power supply I
11. Output terminal for main circuit
12. Input terminal for main circuit of power supply II
13. Operating shaft for manual closing
14. Operating handle for closing

# YYM-sy 翼源盟GLD (YCB)、GLD (YPC) 系列自动转换开关(A.T.S.E)

## YYM-sy GLD (YCB), GLD (YPC) Series Automatic Switching Equipment (A. T. S. E)

● GLD (YCB) -125A以上外形及安装尺寸图  
Diagram of outline and installation dimensions for GLD (YCB) -125A and above



规格 Specification	A1	A	B	C	D	E	F	J	K	N	P	R	Y	ΦX
125A/3.4	434	424	220	145	155	125	136	404	200	187	30	16	50	10
250A/3.4	455	442	230	165	165	145	144	420	200	199	35	22	50	10
400A/3.4	575	575	323	265	256	190	225	545	305	304	44	25	65	11
630A/3.4	660	660	346	275	270	197	234	630	323	354	58	30	70	11
800A/3	635	635	353	270	280	200	243	600	333	318	70	40	62	11
800A/4	710	710	460	270	280	200	243	675	334	389	70	40	62	11
1600A/3	750	750	550	325	406	255	250	720	433	350	70	50	74	11
1600A/4	800	800	550	325	406	255	228	770	433	365	70	50	74	11

## ● 安装说明：

安装本体固定后根据开关主体的额定电流，选用适合标准要求的导线将开关主体的上端输入、下端输出接好。用户在接线时应特别注意以下几点：

- 1、两台开关主体回路的相序必须一致、两路的N线不能接错，否则控制器将不能正常工作。
- 2、对四极开关主体,不需要再另外接N线。但对于三极开关主体则必须将N线可靠地接到接线端子上。
- 3、接地线必须可靠，以确保使用安全。

## ● Installation instructions:

After the main body is installed and fixed, conducting wires conforming to the standard requirements shall be selected according to the rated current of the switch main body to properly connect the upper input end and lower output end of the switch main body. Users shall pay special attention to the followings while connecting wires:

1. The phase orders of the circuits for the two switch main bodies must be the same, and the N lines of the two circuits can't be connected by mistake, otherwise, the controller will not work normally.
2. For the switch main body with 4 poles, it is unnecessary to connect the N line additionally. But for the switch main body with 3 poles, the N line must be reliably connected to the terminal.
3. The ground wire must be reliable in order to ensure the safety in use.

## ● 订货须知：

- 1、用户根据样本内容提供准确产品名称、型号、规格及数量。
- 2、如有特殊安装条件或特殊场所使用，应提供相关的技术资料或与本公司联系。
- 3、如有需要特殊功能或接线方式的产品，请提前与我公司联系。

## ● Ordering notes:

1. User shall provide accurate product name, model, specification and quantity according to the sample book.
2. In case of special installation conditions or application in special places, please provide the related technical data or contact us.
3. If products with special function or wiring methods are needed, please contact us in advance.

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商务总部:沈阳市皇姑区天山路22号1门  
电 话:024-86711117  
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