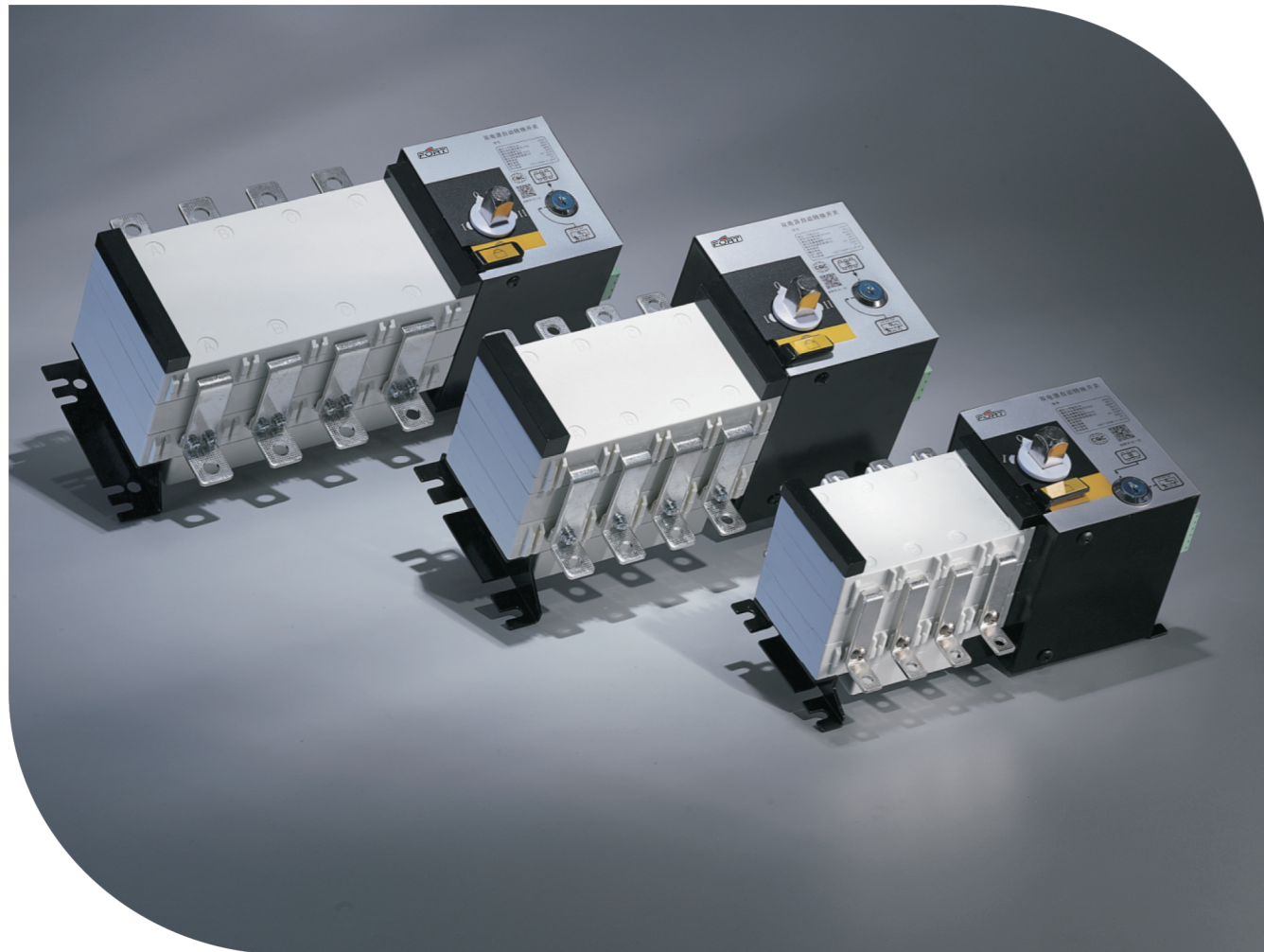




DUAL POWER AUTOMATIC TRANSFER SWITCH



GENERAL

Control device: built in controller
 Product structure: small volume, high current, simple structure, ATS integration
 Features: fast switching speed, low failure rate, convenient maintenance and reliable performance
 Wiring mode: front plate wiring
 Conversion mode: power grid to power grid, power grid to generator, automatic switching and self recovery
 Product frame: 100, 160, 250, 400, 630, 1000, 1250, 1600, 2000, 2500, 3200
 Product current: 20, 32, 40, 63, 80, 100, 125, 160, 200, 225, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3200A
 Product classification: load switch type
 Pole No.: 3, 4
 Standard: GB/T14048.11
 ATSE: PC class



DUAL POWER AUTOMATIC TRANSFER SWITCH

GGLD SERIES

Dual Power Automatic Transfer Switch

Summary

- ★ GGLD Automatic transfer switch (ATSE) is set the switches and control logic integrated without additional controller, achieve integration of automatic electromechanical switch, voltage detection, electrical, mechanical interlocking functions, automatic, electric remote emergency manual control.
- ★ This is the logical control panel from various logical order to manage the machines, operate with the gearbox to achieve, switching spring motor storage, instantaneous release of the acceleration, rapid access to sub-circuit or circuits conversion, it is obvious by the state security confinement, greatly improved the performance of various electrical and mechanical properties.
- ★ The switches overall design for the metal shell, compact solid. Control of the switch is mental shell and the switch has strong dielectric performance, protection ability and reliable operation safety.
- ★ Switch power supply system applicable to changeover the main power supply and backup power supply automatically or two sets load equipment and safety isolation automatically.
- ★ Switch appearance is beautiful, creative, simple, small size, the entire function is an ideal choice in different occasions.

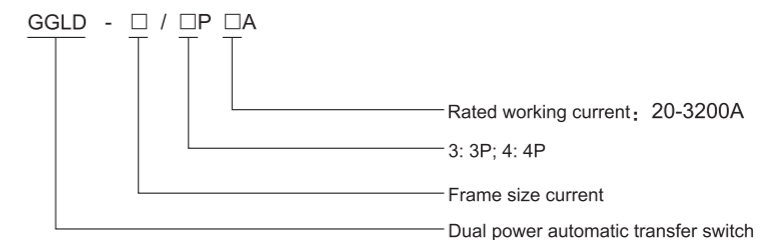


GGLD-100/4P

Meeting the standards

- ★ IEC60947-1(1998)/GB/T14048.1-2002 "Low voltage switchgear and control equipment General rules"
- ★ IEC60947-3(1999)/GB14048.3-2002 "Low voltage switchgear and control equipment, low voltage switch, isolator, disconnecter and fuse combination apparatus"
- ★ IEC60947-6(1999)/GB14048.11-2016 "Low voltage switchgear and controlgear multifunction electrical apparatus part 1: automatic transfer switchgear"

Model and Meaning



Application

- ★ GGLD series dual power automatic transfer switch is mainly applicable to the AC 50 Hz, rated voltage AC400V, working voltage 220V, rated current 16A to 3200A distribution or generator network. There is a primary and standby power, or as the utility to generator in loading changeover. At the meanwhile, it can be used for isolation of infrequently connecting and breaking circuits and lines.
- ★ This products are widely used in hospitals, banks, high-rise architecture and so on, which are very important place disallow the failure to supply, distribution and automation system.

Performance and characteristics

- ★ Adopt the double row type composite contact, side pull institutions, micro motor prestore and microelectronics control technology, come true zero flashover(no arcing chamber).
- ★ Reliable electrical and mechanical interlocking chain, the implement of the components independently with isolation switch, the use of safe and reliable.
- ★ Using over zero technology, the state of emergency can be enforced under the zero(cut down the 2 ways in the meanwhile) to meet the needs of fire fighting.
- ★ Executive load isolation switch using a single motor-driven, transfer reliable smooth, no noise, little impact.
- ★ Operators drive only in the implementation of the electrical load isolation by switching transient current, steady work without providing current, energy-saving significantly.
- ★ Executive load isolation switch with a mechanical device used to ensure that reliable standby power of non-interference in each other.



DUAL POWER AUTOMATIC TRANSFER SWITCH



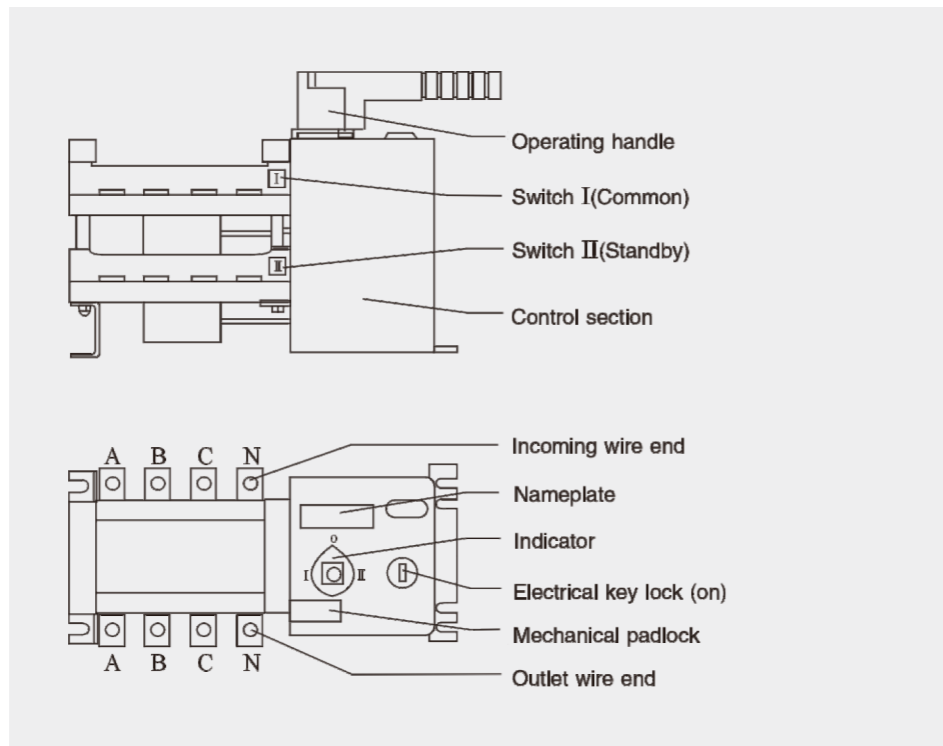
GGLD-100/4P

Performance and characteristics

- ★ Obvious on-off position indication, padlocks and other functions, high reliability and service life of more than 8000 times.
- ★ Mechatronics design, switching conversion accurate, flexible, smooth and adopt international advanced logic control technology, anti-interference capability, without external interference.
- ★ Cooperation with the main power on and standby power off, or the main power off and standby on, the main power and standby power are both off, three kinds stability working(I-O-II).
- ★ Easy installation, the control circuit return way adopt the connect and insert terminal connector.
- ★ Four operator models: emergency manual operation, electric remote control operation, emergency disconnected operation under the automatic stating, automatic control operations.

Switch structure description

1. Electrical key lock: control switch internal control circuit power supply, when the electrical lock is opened, the switch can realize full-automatic, force '0' and remote operation. When the electric lock is closed, the switch can only be operated manually.
2. Operating handle: when using the operating handle for manual operation, the electric lock must be closed first.
3. Mechanical padlock: it is a special padlock mechanism for maintenance. When repairing, turn the switch to "0" position, and then pull up the padlock mechanism put on the padlock. It can prevent any accident (pulling up the padlock will cut off the internal control power supply of the switch, and the switch can not automatically. At the same time, it can prevent the handle from being covered).
4. Indicator: indicating the three states (I, 0, II) of the switch.

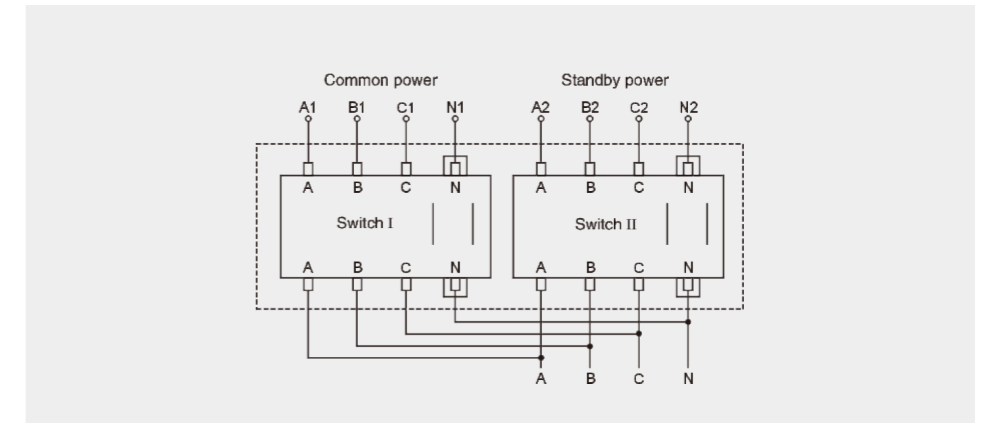


DUAL POWER AUTOMATIC TRANSFER SWITCH



GGLD-100/4P

Main circuit wiring diagram



Main technical parameters

■ Electrical and mechanical properties of dual power automatic transfer switch

Rated current		20 A	40 A	63 A	80 A	100 A	125 A	160 A	250 A	400 A	630 A	800 A	1000 A	1250 A	1600 A	
Rated insulation voltage		750V									1000V					
Rated impulse withstand voltage		8kV									12kV					
Rated working voltage		AC400V														
Rated working current I _e	AC-31A	20	40	63	80	100	125	160	250	400	630	800	1000	1250	1600	
	AC-35A	20	40	63	80	100	125	160	250	400	630	800	1000	1000	1600	
	AC-33A	20	40	63	80	100	125	160	250	400	400	630	800	800	1000	
Rated making capacity		10I _e														
Rated breaking capacity		8I _e														
Rated limited short circuit power supply		50kA									70kA			100kA	120kA	
Rated short time withstand power supply		7kA						9kA	13kA	26kA	50kA					
Conversion time I-II or II-I		0.45s									0.6s			1.2s		
Control voltage		AC220V														
Motor energy consumption																
Rated power	Start	300W						325W	335W	400W	440W					
	Normal	55W						62W	74W	90W	98W					
Weight (kg)		7.0	7.2	7.2	7.2	7.5	7.5	8.8	9.0	16.5	17	32	36	40	43	



DUAL POWER AUTOMATIC TRANSFER SWITCH

Switch wiring method

Note: The customers can choose one of the following 6 wiring methods, economical type users only need to import the copper power, then do not need another 2 lines, 302-305 is the indication of the switch, users can connect themselves if needed.



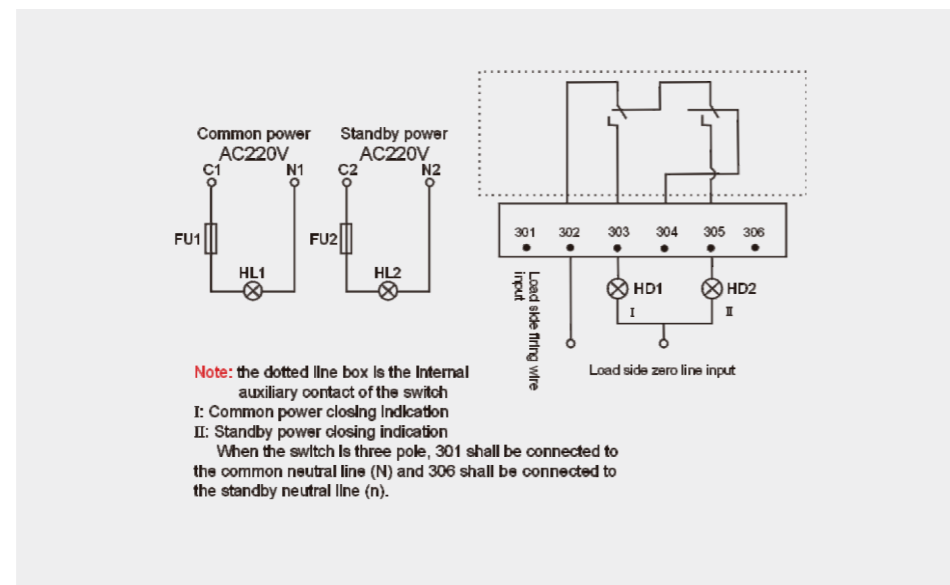
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■ Wiring method of economic type(only below 100A)

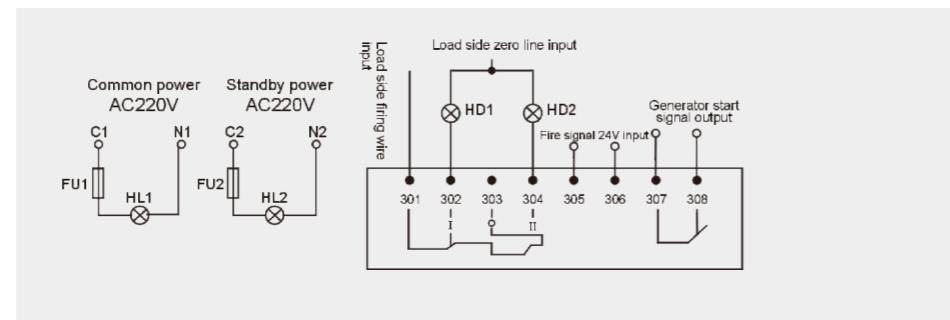
100A economic type automatic transfer switch, users connect the main power, standby power to the terminal rafts then it can work. When the two-way power switch are all normal access to the main power supply for the load. If the power supply is failure, then will transfer to standby power (standby power should be normal), it will change back to main power when the main power is normal again.

The economic type below 100A, control power directly from the mains supply by the manufacturer within the introduction. If users need the main power supply, standby power switch on instructions, wiring method see as below:

Terminal wiring method: Only a group of six terminal



■ 2、100 ~ 630 Passive signal + active fire terminal connection mode

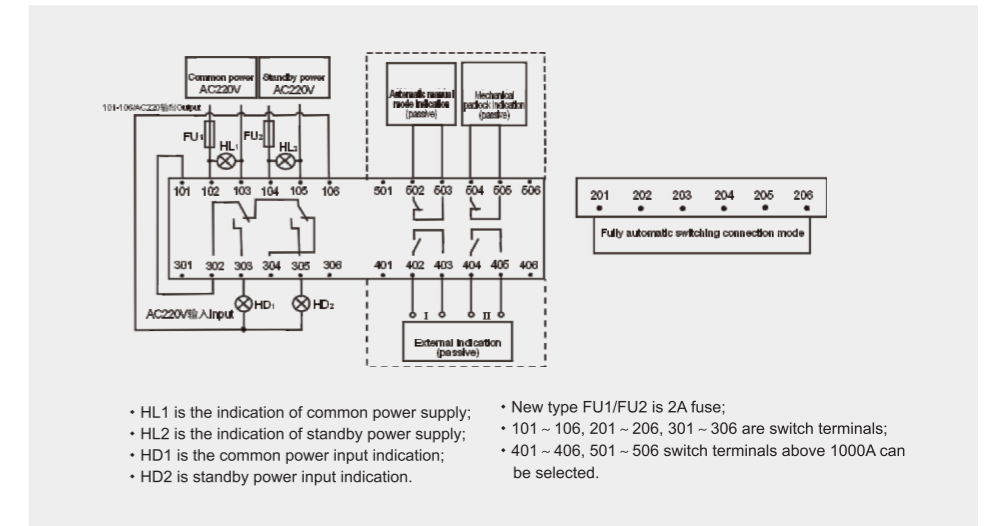


DUAL POWER AUTOMATIC TRANSFER SWITCH

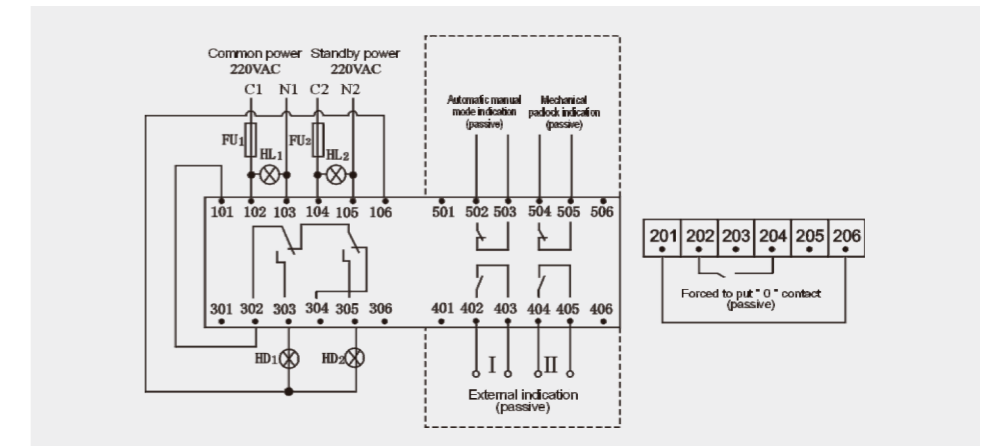


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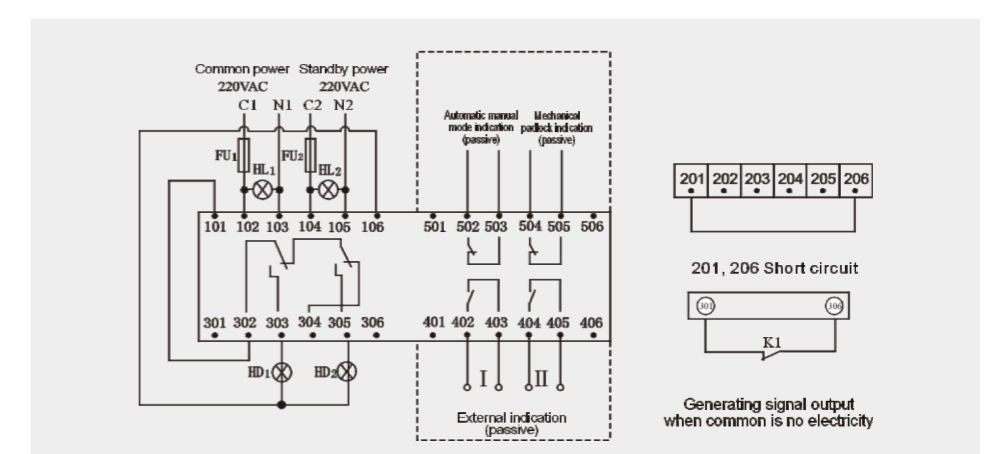
■ 3、Fully automatic connection mode (applicable to rated current 160A ~ 3200A)



■ 4、100 ~ 3200 Full automatic + forced setting "0" (both power sources are disconnected) connection mode



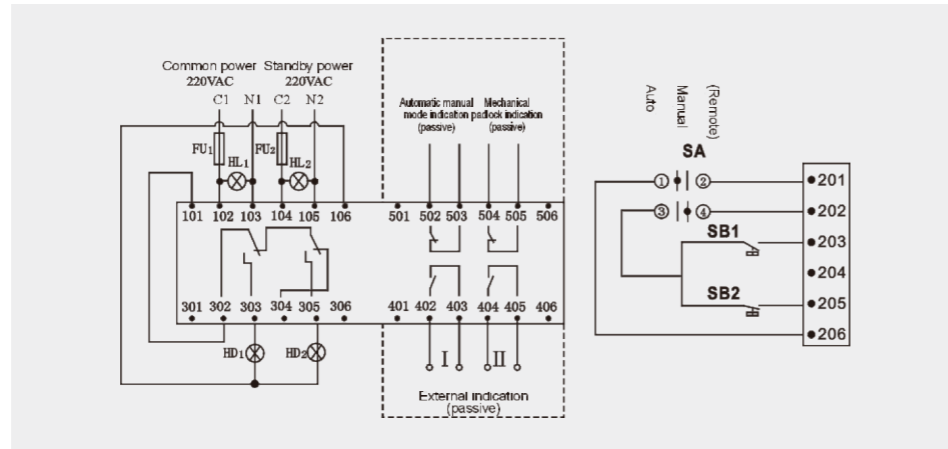
■ 5、100 ~ 3200 Fully automatic + generator signal output connection mode



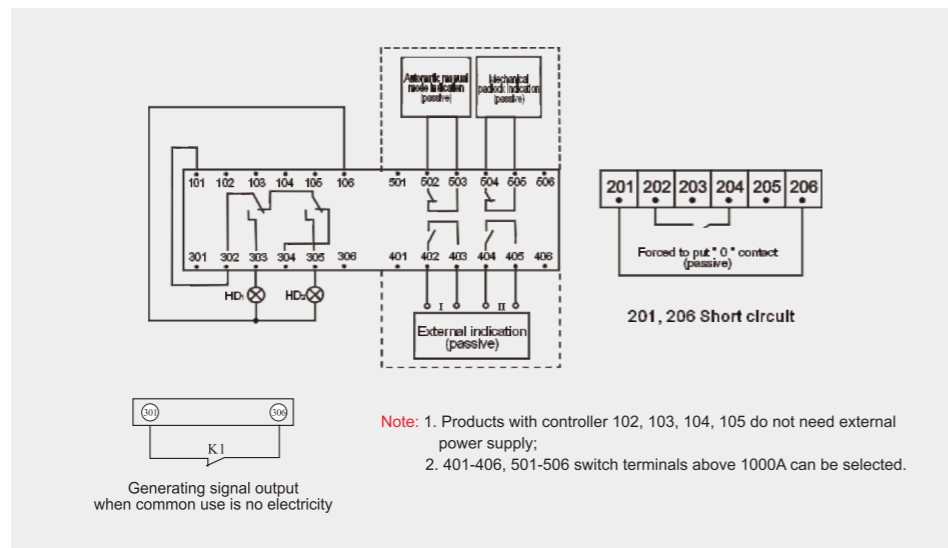
6、Fully automatic + Manual (remote control) connection mode



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7、100 ~ 3200 Wiring mode with controller



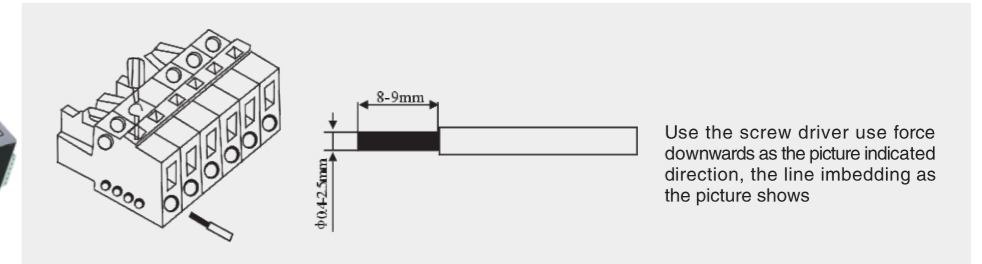
8、Letters and compliance notes

- (1) C1 and N1 are common power input firing line and zero line access, C2 and N2 are standby power input firing line and zero line access respectively. HL1 and HL2 are common power supply and standby power supply with electric indication. HD1 and HD2 are input indication of common power supply and standby power supply respectively. FU1 and FU2 are 2A fuses;
- (2) 101 ~ 106 and 201 ~ 206 are secondary terminals of automatic transfer switch;
- (3) 301 ~ 306 are external indicator light terminals of automatic transfer switch;
- (4) 401 ~ 406 and 501 ~ 506 automatic transfer switch terminals can be selected;
- (5) The fully automatic connection mode 201 and 206 must be short circuited;
- (6) The forced to put "0" contact (passive) can also input DC24 V power supply;
- (7) K1 is the output of power generation signal(when common use is no electricity);
- (8) SA is the automatic / manual function selection switch, SB1 and SB2 are the common power supply respectively, and the standby power supply manual input button (passive contact).

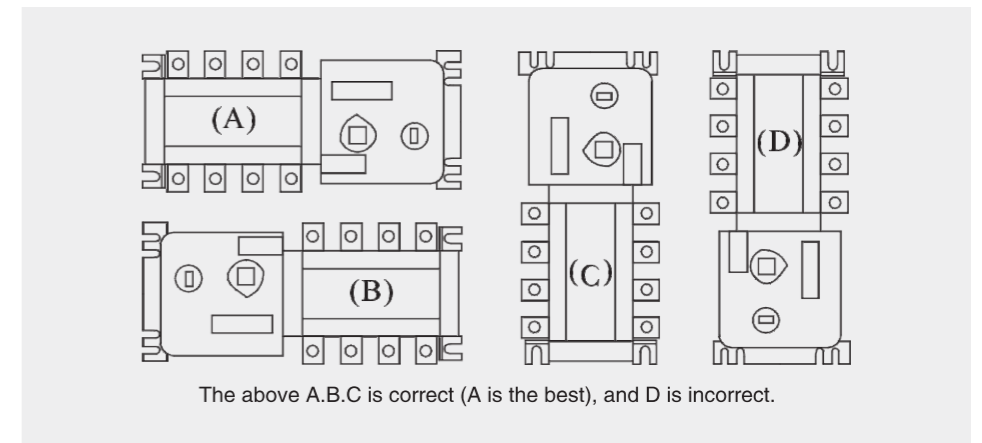
Method of terminal connection



GGLD-100/4P



Correct installation method of switch



Switch operating instructions

1. Please do not install it if you are not a professional. Do not disassemble it without permission of our company to avoid damage.
2. Please read this manual carefully before installation to avoid improper use.
3. The rated voltage of switch internal control power supply is 220V, which is taken from C1.N1 of common power supply and C2.N2 of standby power supply. In 85% - 110% of the rated control voltage range, the switch can work normally.
4. The power supply at the incoming end of the switch shall be protected against over-voltage to avoid damaging the internal circuit board or control motor due to high voltage.
5. The power supply at the outlet end of the switch shall be protected against short circuit, so as to avoid burning the switch body due to excessive current during short circuit.
6. When using and installing, please turn off the electric key lock and turn the switch to the "0" position.
7. When the switch is connected, please measure and distinguish the A.B.C.N of the power incoming line and connect it to the corresponding pole of the switch.