YANGZHOU SUYANG ELECTRIC CO., LTD.

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Service hotline: +86 400-888-5848
Web site: http://www.yzsuyang.cn

SUYANG®

SUYANG®

Automatic Transfer Switches

Innovation

Excellence

Integrity

YANGZHOU SUYANG ELECTRIC CO.,LTD.

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We provided power protection system to three stadiums of Nanjing YOG

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YANGZHOU SUYANG ELECTRIC CO., LTD.

Content

To Meet The Needs Of Different Places

SYK series dual power automatic transfer switch is suitable for power system of insulation volt 750V, rated frequency 50HZ/60HZ, rated working volt 440V and below, rated current 20A~3200A.
SYK series ATS let the power supply system transfer between two power in emergency, the minimum conversion time is 0.3s to make sure the main load (emergency lighting, emergency staircase, fire-fighting system, etc) working continuously and reliably.

Widely used in high-rise buildings, telecommunications, industrial and mining, shipping, power stations, hospitals, banks and other places need uninterrupted power supply..

Note: The conversion time of transferring between two power in emergency≤0.3s.

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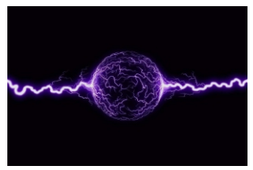
Features



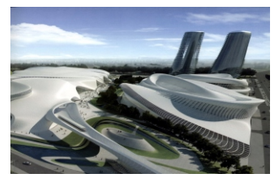
Products with higher short-term tolerance, ensuring continuity of supply.

Products with manual, automatic and other modes, can adapt to the needs of different places.

Products can select different operate modes of automatic change and automatic recovery, automatic change without automatic recovery, mutual back up. It makes the product to be used more widely.

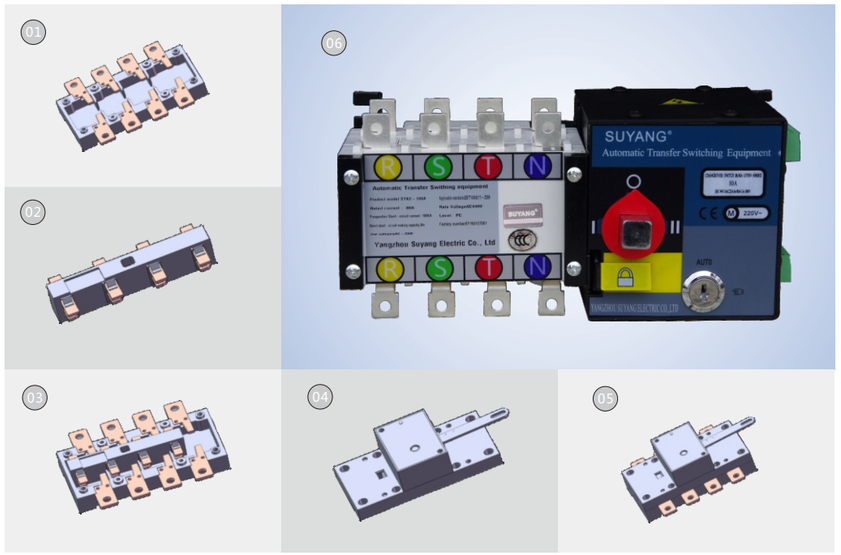
Small size, light weight, small installation space can reduce the cost of complete sets effectively.

Two into one and two into two makes the product to be used more widely.



Configure a variety of control modes to meet different needs.

Combined Multi-technology Instruments



1.The static contact
2.The movable contact
3.The combination of dynamic and static sliding mechanism
4.The switch-storage mechanism
5. The whole mechanism of #I/#II
6. Dual power switch

The body uses double row composite contact, separated static and movable contact and horizontal pull-out mechanism. Basically achieve zero arcing (no arc chute).
The rod mechanism use spring energy storage, instantaneous release, open and close fast to reduce arcing effectively when opening.
The closing mechanism equips with a mechanical interlock and electrical interlock to prevent simultaneous closure of the two-way power.
Surface of wiring cooper using 99.9% pure silver plating process, coating 12 microns thick to reduce rising copper temperature.

Multi Series For Selection

SYK2/SYK1 Automatic Transfer Switch	 SYK2-20-100A	 SYK1-20-160A	
 SYK1-200-300A	 SYK1-400-630A	 SYK1-800-1000A	
 SYK1-1250A	 SYK1-1600A	 SYK1-2000-3200A	

Controller

SYKZ-F

SYKZ-B

Model and Meaning

SY K □ □ □/□

- Quantity of poles
- A (auto), S (remote control) E (generator), L (double load type)
- Rated current
- Serial number
- Automatic transfer switch
- Yangzhou Suyang Electric Co.,Ltd

Menu

Model	Main Function	Remark
SYK (basic type)	Fully automatic	
SYK (fire fighting type)	Automatic/manual/remote control, forced to set"0", interlock	
SYK (intelligent type +controller B)	Automatic/manual/remote control, forced to set"0", interlock, voltage/frequency transfer delay adjustment, fault alarm and status indication	The controller B
SYK (oil machine type+ controller F)	Automatic/manual/remote control, forced to set"0", interlock, voltage/frequency transfer delay adjustment, the oil machine start (signal), fault alarm	The controller F
SYSD (manual)	Manual Switch	

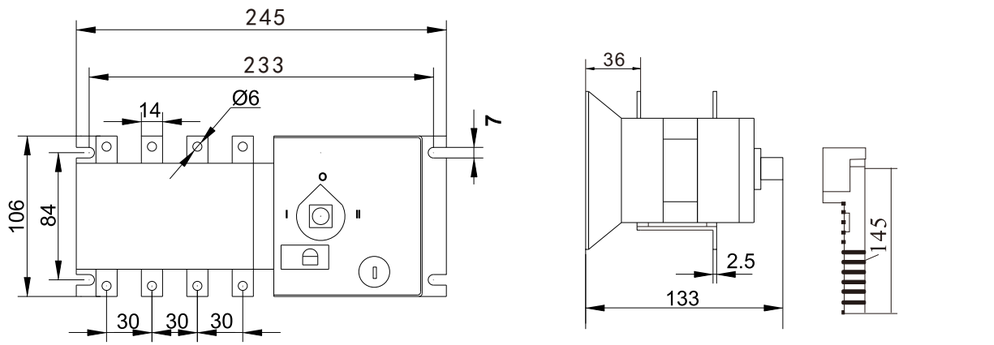
SYK2 SERIES Automatic Transfer Switch 20-100A

SYK2-20-100A

◆Main Technical Parameters

Conventional heating current	20A	40A	63A	80A	100A
Rated insulation voltage	750V				
Rated impulse withstand voltage	8KV				
Rated voltage	440V				
Rated working current	20A	40A	63A	80A	100A
Nature of the load	AC-33IB				
Rated making ability	10Ie				
Rated breaking capacity	8Ie				
Rated conditional short-circuit current	100KA				
Rated short-time withstand current	7KA				
Transfer time	≤3S				
Input voltage	AC220V				

◆Installation Dimension



Unit : mm

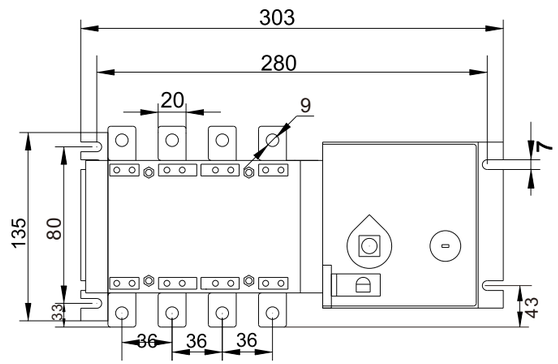
SYK1 SERIES Automatic Transfer Switch20-160A

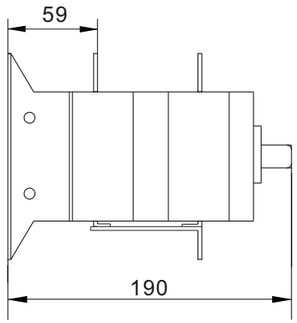
◆Main Technical Parameters

SYK1-20-160A

Conventional heating current	20A	40A	63A	80A	100A	125A	160A
Rated insulation voltage	750V						
Rated impulse withstand voltage	8KV						
Rated voltage	440V						
Rated working current	20A	40A	63A	80A	100A	125A	160A
Nature of the load	AC-33IB						
Rated making ability	10Ie						
Rated breaking capacity	8Ie						
Rated conditional short-circuit current	100KA						
Rated short-time withstand current	7KA						
Transfer time	≤3S						
Input voltage	AC220V						

◆Installation Dimension





Unit : mm

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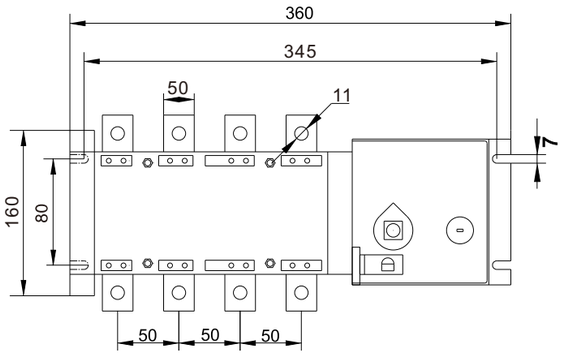
SYK1 SERIES Automatic Transfer Switch200-300A

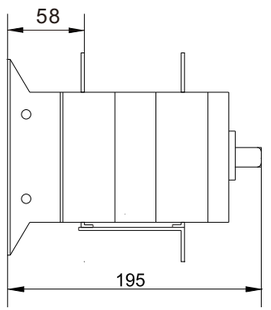
◆Main Technical Parameters

SYK1-200-300A

Conventional heating current	200A	250A	300A
Rated insulation voltage	750V		
Rated impulse withstand voltage	8KV		
Rated voltage	440V		
Rated working current	200A	250A	300A
Nature of the load	AC-33IB		
Rated making ability	10Ie		
Rated breaking capacity	8Ie		
Rated conditional short-circuit current	100KA		
Rated short-time withstand current	9KA		
Transfer time	≤0.4S		
Input voltage	AC220V		

◆Installation Dimension





Unit : mm

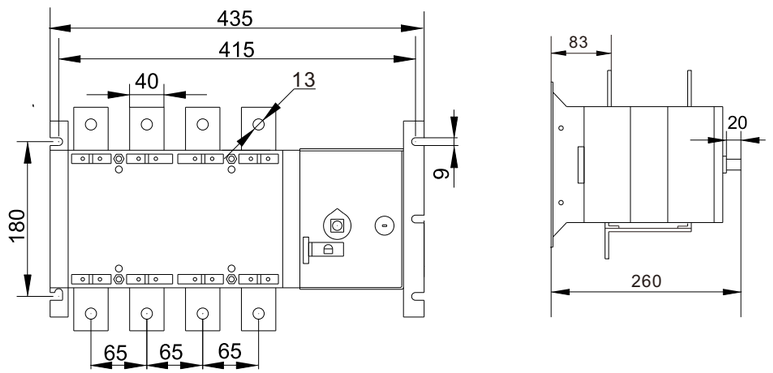
SYK1 SERIES Automatic Transfer Switch400-630A

◆Main Technical Parameters

SYK1-400-630A

Conventional heating current	400A	630A
Rated insulation voltage	750V	
Rated impulse withstand voltage	12KV	
Rated voltage	440V	
Rated working current	400A	630A
Nature of the load	AC-33IB	
Rated making ability	10Ie	
Rated breaking capacity	8Ie	
Rated conditional short-circuit current	70KA	
Rated short-time withstand current	13KA	
Transfer time	≤0.6S	
Input voltage	AC220V	

◆Installation Dimension



Unit : mm

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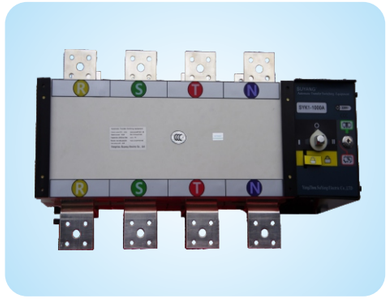
SYK1 SERIES Automatic Transfer Switch800-1000A

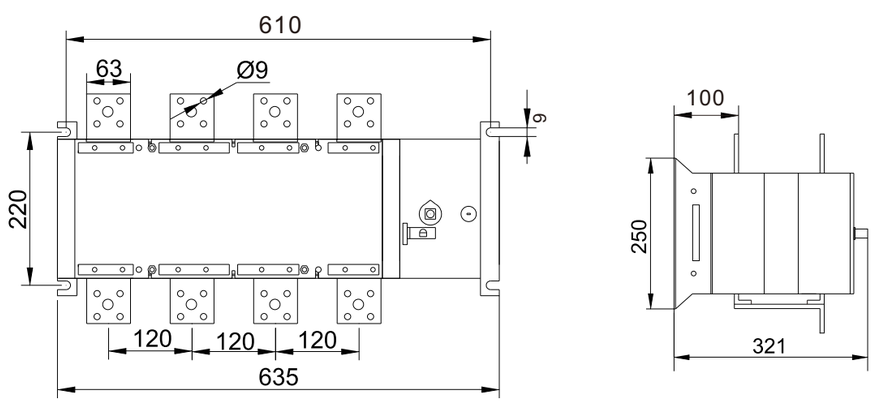
◆Main Technical Parameters



SYK1-800-1000A

Conventional heating current	800A	1000A
Rated insulation voltage	750V	
Rated impulse withstand voltage	12KV	
Rated voltage	440V	
Rated working current	800A	1000A
Nature of the load	AC-33IB	
Rated making ability	10Ie	
Rated breaking capacity	8Ie	
Rated conditional short-circuit current	100KA	
Rated short-time withstand current	50KA	
Transfer time	≤1.2S	
Input voltage	AC220V	

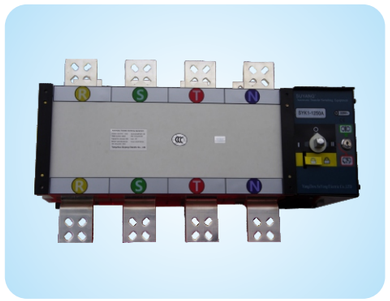
◆Installation Dimension



Unit : mm

SYK1 SERIES Automatic Transfer Switch1250A

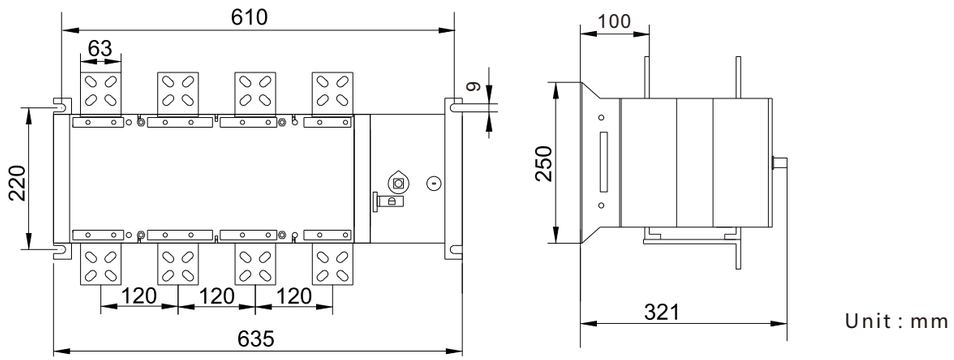
◆Main Technical Parameters



SYK1-1250A

Conventional heating current	1250A
Rated insulation voltage	750V
Rated impulse withstand voltage	12KV
Rated voltage	440V
Rated working current	1250A
Nature of the load	AC-33IB
Rated making ability	10Ie
Rated breaking capacity	8Ie
Rated conditional short-circuit current	100KA
Rated short-time withstand current	50KA
Transfer time	≤1.3S
Input voltage	AC220V

◆Installation Dimension



Unit : mm

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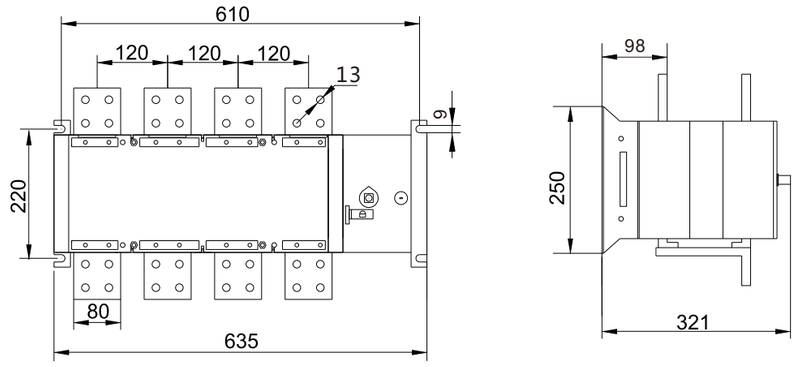
SYK1 SERIES Automatic Transfer Switch1600A

◆Main Technical Parameters

SYK1-1600A

Conventional heating current	1600A
Rated insulation voltage	750V
Rated impulse withstand voltage	12KV
Rated voltage	440V
Rated working current	1600A
Nature of the load	AC-33IB
Rated making ability	10Ie
Rated breaking capacity	8Ie
Rated conditional short-circuit current	120KA
Rated short-time withstand current	50KA
Transfer time	≤1.3S
Input voltage	AC220V

◆Installation Dimension



Unit : mm

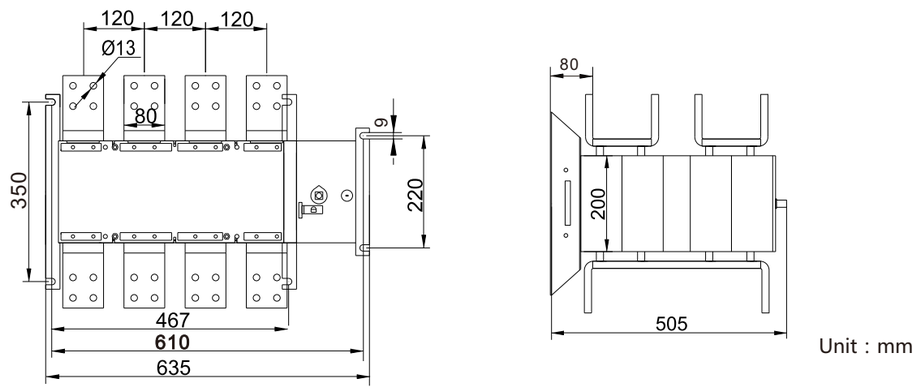
SYK1 SERIES Automatic Transfer Switch2000-3200A

SYK1-2000-3200A

◆Main Technical Parameters

Conventional heating current	2000A	2500A	3200A
Rated insulation voltage	750V		
Rated impulse withstand voltage	12KV		
Rated voltage	440V		
Rated working current	2000A	2500A	3200A
Nature of the load	AC-33IB		
Rated making ability	10Ie		
Rated breaking capacity	8Ie		
Rated conditional short-circuit current	80KA		
Rated short-time withstand current	55KA		
Transfer time	≤2.4S		
Input voltage	AC220V		

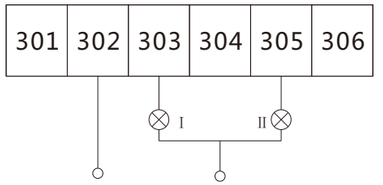
◆Installation Dimension



Unit：mm

Typical Connection Mode

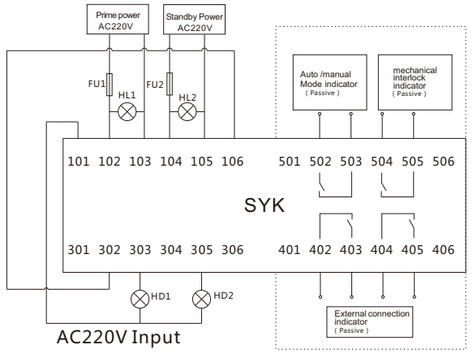
Note: users can choose one of the following connection modes. As to automatic switch, just connect copper wiring, a second connection is not necessary. 302-305 is switch status indicator.
Terminal method: only one set of six terminals.



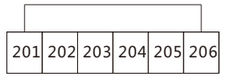
220V input load side switch status indicator

1. automatic wiring (basic)

Ⅰ commonly used power indicator
Ⅱ standby power indicator



2.Automatic Wiring



Automatic Wiring

HI1 is the indicator for the using of prime power.
HL2 is the indicator for the using of standby power,
HD1 is the indicator to connect the prime power,
HD2 is the indicator to connect standby power input
FU1 / FU2 is 2A fuse
101 to 106,201-206,301-306 for SYK switch terminals
401-406,501-506 are switch terminals optional for ATS above 630A.

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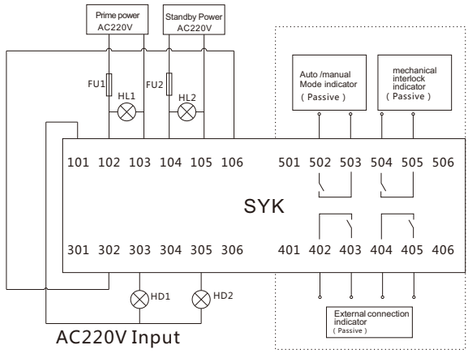
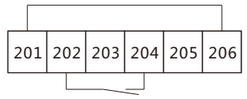


3. SYK automatic + forced zero protection (fire fighting, dual power supply are disconnected)

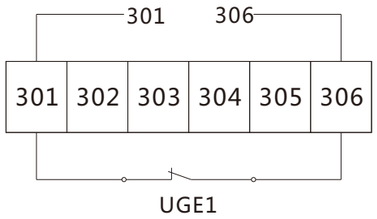


Forced zero contact (passive input)

HI1 is the indicator for the using of prime power.
HL2 is the indicator for the using of standby power,
HD1 is the indicator to connect the prime power,
HD2 is the indicator to connect standby power input
FU1 / FU2 is 2A fuse
101 to 106, 201-206, 301-306 are SYK switch terminals
401-406, 501-506 are switch terminals, optional for ATS above 630A.

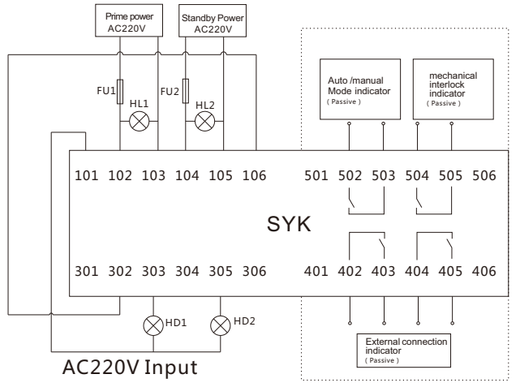
For ATS already have a generator interface (301-306 have words UGE1), wiring diagram as follows:

UGE1 is passive contact, connect generator interface.

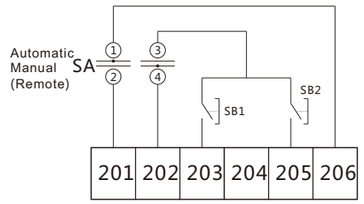


4. Connection mode of start a generator signal.

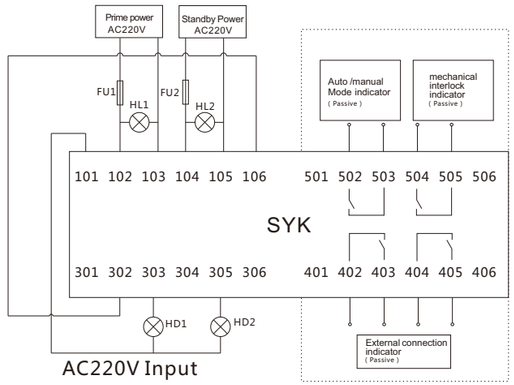
Note: UGE1 is AC220V relay inside the switch. 301-306 are interfaces to start the generator.



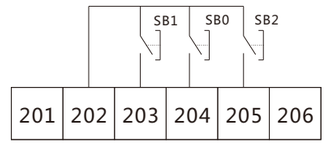
5.Automatic + Manual (remote control) Wiring



SA is the switch choose automatic or manual mode.
SB1 is the manually input button for prime power. (passive contact).
SB2 is the manually input button for standby power (passive contact).



6.Remote Control (manual only) Wiring



SB1 is the control button for input of prime power (passive contact).
SB0 is the control button for input of forced to zero power (passive contact).
SB2 is the control button for input of standby power (passive contact).

SYKZ-F Controller

Technical Parameters

Power Input

Controller AC power supply: AC230V±20%(50/60Hz)(A,N- phase voltage of line I,II)
Detection voltage: rated 380V (50/60Hz) three-phase four-wire, others please confirm with the manufacturer.

Setting Parameters

Overvoltage threshold: 264V(only be set by the PC).
Under voltage threshold: 172V(only be set by the PC).

Action Time

Closing time: 5s, if detecting closing signal during this period, disconnect at once.
Opening time: 3s, if detecting closing signal during this period, disconnect at once.

Normal power delay: (0-60) seconds(can be set by controller panel potentiometer).
Abnormal power delay: (0-60) seconds, factory value: 5s (can be set by controller panel potentiometer).
Start delay of genset: after linel abnormality confirmation, delay start (0s-60s , only be set via panel potentiometer).
Stop delay of genset: after linel normality confirmation, delay start (0s-60s , can be set via panel potentiometer or PC).
Line I/II closed state test (available to be programmed through the control panel buttons) factory settings: detection Line I/II closed state inputs, in other words the controller must be connected to a closed state signal.
Power consumption: power consumption of the voltage loop (under rated voltage) ≤2VA.
Ambient condition: temperature: (-30~+70)℃; humidity:（20~95）%。
Net Weight: 0.47kg.

The programmable parameters and range

No.	Items	Range	Default	Remark
1	normal delay of #I volt	(0-60)S	set by panel potentiometer	only set by panel potentiometer
2	normal delay of #II Volt	(0-60)S	set by panel potentiometer	only set by panel potentiometer
3	Start delay of genset	(0-60)S	set by panel potentiometer	set by panel potentiometer or PC
4	abnormal delay of #I volt	(0-60)S	5S	set by panel potentiometer or PC
5	abnormal delay of # II volt	(0-60)S	5S	set by panel potentiometer or PC
6	stop delay of genset	(0-60)S	60S	set by panel potentiometer or PC
7	Volt Upper Limit	(50-300)V	264V	only programmed through PC
8	Volt Lower Limit	(60-300)V	172V	only programmed through PC
9	Power Priority	#I power priority, #II power priority, no priority power	#I power priority	set by panel potentiometer or PC
10	detection of closed state input		detect	only set by panel potentiometer

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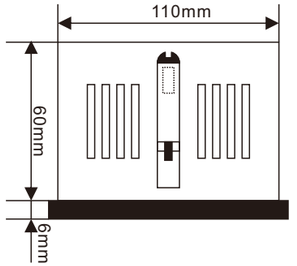
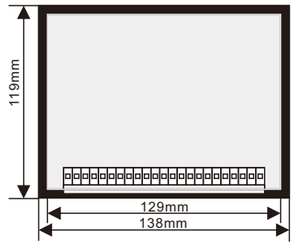
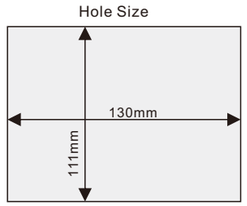
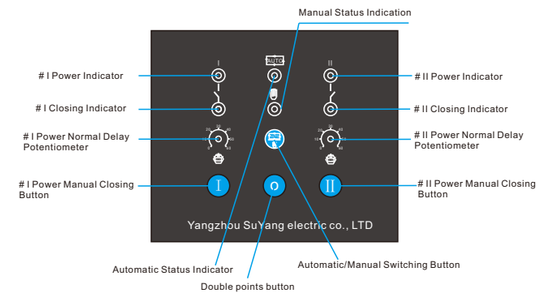
Mounting Dimensions



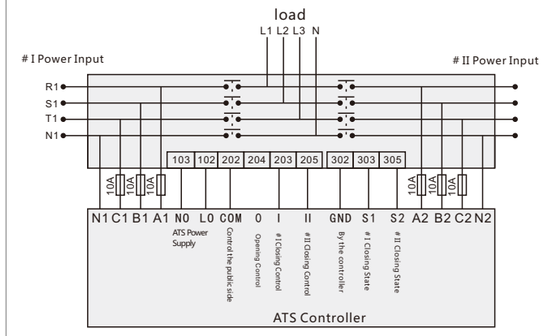




Operator Panel



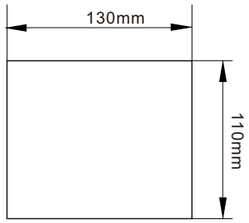
Typical Connection Mode Of ATS Cooperated With Controller-VE ATS



SYKZ-B Controller

SYKZ ATS controller is an intelligent dual-supply switching module with automated measurement. It combines with digital, intelligent and network. Automated measurement and automated control process make it reduce operational errors.

ATS controller is an automatic control module using microprocessor as core. It can accurately detect 2-way 3-phase voltage and judge voltage abnormal (such as, over voltage, under voltage and lack of phase), then control ATS will output passive to control the switch. SYKZ-B controller fully consider the application in various ATS (automatic transfer loading system), can be directly used for ATS, contactor ATS, air switch ATS, etc. Its compact structure, advanced circuits, simple wiring, high reliability, make it widely used in industry of electric power, telecommunications, oil and coal, metallurgy, railway, municipal, intelligent building to setup electrical, automatic control and debug system.



Total Depth: 73mm, Cabinet Inner Depth: 61mm

Hole Size

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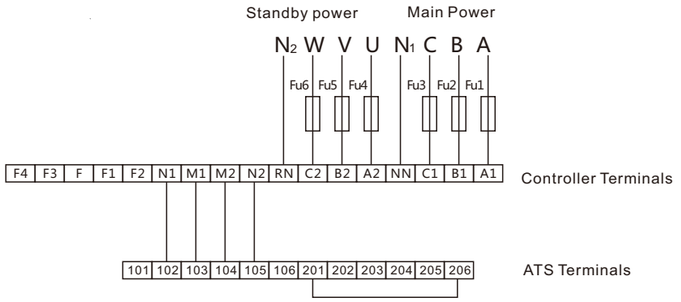
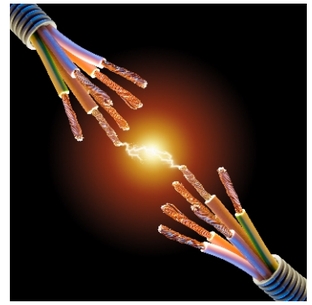
Installation And Use

The controller should be installed on its working position and connected according to the following diagram. An 0.035Ω constant value wire is required when connect to ATS. The wire between controller and ATS will be not too long to prevent installation problem of instability voltage. Because too long wire will cause power lose.

SYKZ controller and SYK ATS connection diagram





Note:

1.When commonly used power off, F and F1, F3 on, F and F2, F4 off.

2. When commonly used power on, F and F2, F4 on, F and F1, F3 off.

3.When main power closing, N1 and M1 output 220V power, the output connect to terminals 102,103 of ATS main power.

4.When standby power closing, M2 and N2 output 220V power, the output connect to terminals 104,105 of ATS standby power.

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CORPORATE PHILOSOPHY > > >

Our Service

Customer Focused, Deep Expertise, Valued Products & Service

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Best Solution, Superior Results, Search For Efficiency

Our Value

Best Team, Continuous Improvement Culture, Environmental And Community Responsibility

Sales hotline: +86 (0)514 82888885
Service hotline: +86 400 888 5848

Order Notice:

Please kindly provide item no., rated current, rated voltage, primary system diagram, the selected sub-line component name of inlet and outlet, technical specifications when ordering. Any other requirements, please contact with us in the first time.