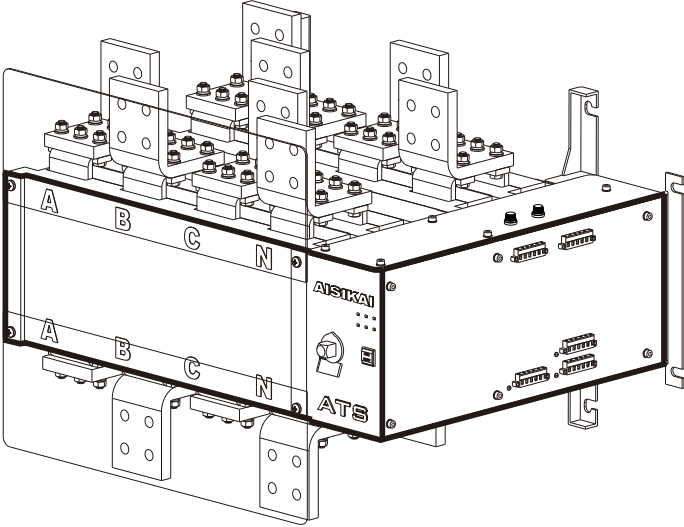




Professional manufacture

SKT SERIES ATS USER MANUAL V2.6



**AUTOMATIC TRANSFER SWITCH
400 828 8338**

Company Profile

Since established in 2007, JIANGSU AISIKAI ELECTRIC CO.,LTD has been committed to the manufacture, research, development and marketing of high-quality electric switch. AISIKAI has obtained the UKAS ISO9001 Quality Management System and SGS Global Qualified Supplier Authentication. We are awarded as the "National High-Tech Enterprise" and "Contract-respecting and Promise-keeping Enterprise". All products have China Compulsory Certification (CCC) and European Certification (CE).

The SKT series ATS is our company's own developed and produced PC Grade dual power automatic transfer switch. Its use category reaches the highest AC-33A frequent on load switching level. Its making and breaking capacity reaches the highest level (10 times of rated current). SKT series ATS owns several patents and is awarded the national high-tech product certification. Long service life and reliable quality are SKT series ATS advantages.

Model Description

SK
T
1
100A
4P
X

Company Name
AISIKAI ELECTRIC

Drive type of ATS
T: PC Grade Motor Driven

1.Standard Shell Type
(current range: 20A-3200A)

2.Ultra-thin Shell Type
(current range: 10A-100A)

Rated working current:
10A, 16A, 20A, 25A, 32A,
40A, 50A, 63A, 80A, 100A,
125A, 140A, 150A, 160A,
180A, 200A, 225A, 250A,
315A, 350A, 400A, 500A,
630A, 800A, 1000A, 1250A,
1600A, 2000A, 2500A,
3200A

Poles code: 2P, 3P, 4P

Function code
X: Fire-fighting type
(fire-fighting 0 position)
N: Intelligent type
(Built-in MCU program
control panel)

Technical Parameters

Type	SKT2 series			SKT1 series											
Shell frame grade current (Inm)	100A			160A	250A		630A		1600A		3200A				
Rated current (In)	100			125A	160	250	400	630	800	1000	1250	1600	2000	2500	3200
Conventional thermal current (Ith)	10,16,20,25, 32,40,50,63, 80,100A			63,80,100, 125,140, 150,160A		160,180,200, 225,250A		160,180,200, 225,250,315, 350,400,500, 630A		800,1000,1250, 1600A		2000,2500,3200A			
Rated insulation voltage of copper bar (Ui)	660V						800V								
Rated impulse withstand voltage (Uimp)	6KV						8KV								
Rated operating voltage of copper bar (Ue)	AC400V														
Use category	AC-33A														
Rated operating current of copper bar (Ie)	10,16,20,25,32,40,50,63,80,100,125,140,150,160,180,200,225,250,315,350,400,500,630									800,1000,1250,1600,2000,2500,3200					
Rated making capacity	10Ie														
Rated breaking capacity	10Ie														
Rated limit short-circuit current	7KA			13KA			35KA			50KA		75KA			
Transferring time I-II or II-I	1.2S						0.6S		1.2S		2.4S				
Rated operating voltage of the control power Us	AC220V (Special voltage DC24V、DC110V、DC220V、AC110V、AC280V)														
Start	40W						325W		355W	400W	440W	600W			
Normal	18W						62W		74W	90W	98W	120W			
Net weight(kg) 4 poles	3,5		5,3	5,5	7		17	17,5		37	44	98			

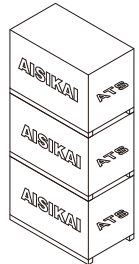
Note: SKT1 series 20A-100A is identical to SKT1 series 125A.

Operating Environment Requirements

- Operating temperature: -20 to 45℃. The average value for 24 hours shall not exceed +35℃ ;
- Operating humidity: The average humidity at +40℃ shall not exceed 50% without condensation;
- Altitude: Less than 2000 meters. If higher than 2000 meters, please use the product at lower ratings.
- Vibration and gas: There shall be no strong vibration or shock and no harmful gases to corrode the metals and to damage the insulation within the environment of its use;
- Surrounding material: There shall be no serious dust, conductive particles or explosive hazardous substances;
- Class of pollution: Class III;
- IP rating: IP20;
- Storage requirements: To be stored at -30 to 70℃ and in a dry environment without corrosion or saline. The longest period of storage is 1 year;
- Packing: 630A and below packed in cartons; 800A and above packed in wooden crates.
- Stacking: 630A and below stacked no more than 5 layers; 800A and above stacked no more than 3 layers.



Carton stacking diagram

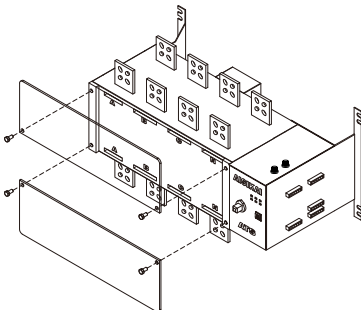


Wooden crates stacking diagram

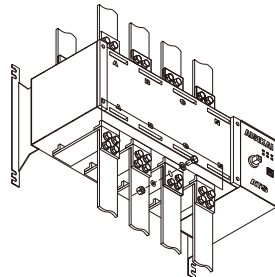
List of Accessories

Current(A)	Wiring terminals quantity (pcs)	Manual handle quantity/material	Safety guard plate quantity/material	Users Manual quantity	Cable fixing bolt specification/quantity(sets)
2000~3200	5	1 pcs/steel	2 pcs/PMMA	1 copy	M12 × 45/48
1600	5				M12 × 40/48
1250	5				M10 × 35/48
800~1000	5				M8 × 35/48
400~630	5	1 pcs/ABS			M12 × 30/12
250	3				M10 × 25/12
125~160	3				M8 × 25/12
10~100	3				M6 × 20/12

Schematic Diagram of Cable/Busbar Fixing

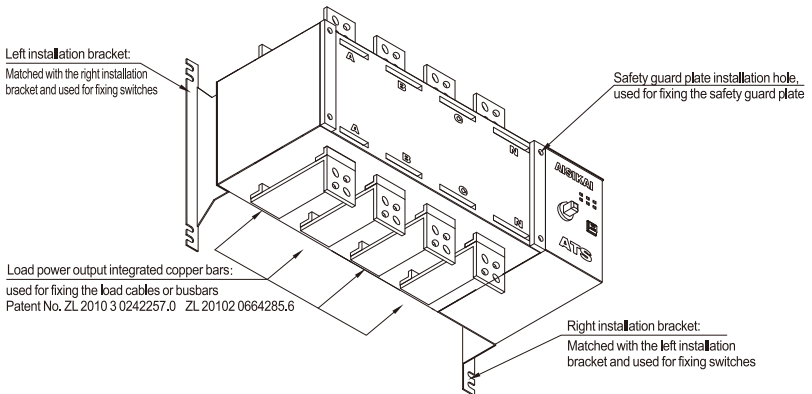
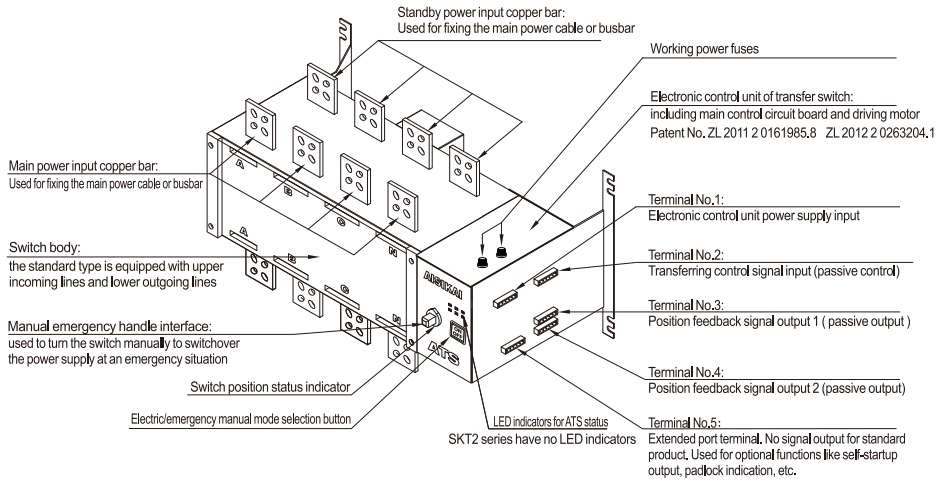


Schematic Diagram of Safety Guard Plate Installation



Schematic Diagram of Cable/Busbar Fixation

Structure Introduction

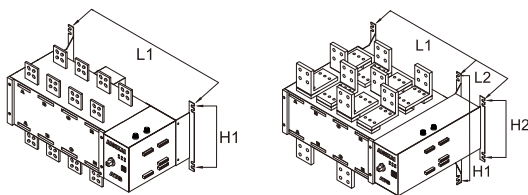


Quick Lookup Table for Installation Dimensions

Current(A)	Transverse distance of opening center L1(mm)	Transverse distance of auxiliary mounting bracket opening center L2(mm)	Longitudinal distance of opening center H1(mm)	Longitudinal distance of auxiliary mounting bracket opening center H2(mm)	Hole diameter(mm)
2000~3200	467	142	355	220	11
800~1600	609		220		11
400~630	413		180		9
250	339		110		7
125~160	267		110		7
10~100	267		110		7

Note:

- The left and right installation bracket must be fixed on the same flat plane. The installation opening hole dimensions shall be adjusted according to the actual situation. It's prohibited to use the wrong opening dimensions to install switch, which will cause the internal deformation or even destroy switch directly.
- For 2000A and above switches, it's recommended to use busbar for installation. Please increase the effective reinforcement measures if using cable installation, because the stress condition of installation bracket will be increased.
- The dimensions above are suitable for end users for the on-site installation. If more detailed dimensions are required, please call us or visit our website.

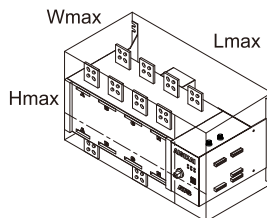


Fast Reading Diagram For Cabinet Body Installation

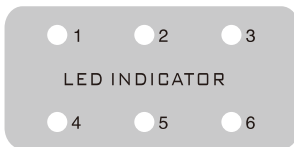
Current(A)	Switch maximum length Lmax (mm)	Switch maximum width Wmax (mm)	Switch maximum height Hmax (mm)	Recommended cabinet L*W*H (mm)	Compact cabinet L*W*H (mm)
2000~3200	633	500	470	800 × 800 × 2200	720 × 800 × 2000
1600	633	321	407	800 × 600 × 2200	720 × 600 × 2000
800~1250	633	321	350	800 × 600 × 2000	720 × 600 × 1800
400~630	433	262	270	600 × 500 × 1800	550 × 450 × 1600
250	359	195	170	500 × 400 × 800	500 × 250 × 600
125~160	290	195	142		
10~100	290	195	142		

Notes:

- Switch maximum length(Lmax) is the distance from the left elevation of the left installation bracket to the right installation bracket.
- Switch maximum width(Wmax) is the distance from the rear elevation of the installation bracket to the front elevation of the manual emergency handale interface.
- Switch maximum height(Hmax) is the distance from the top elevation of the upper copper bar to the bottom elevation of the bottom copper bar.
- For the cabinet body installation, please consider the actual situation of the space required for the operation and connection of the cables.



Instructions for LED Indicators



Model	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
SKT1-20~250A	Line I control power supply is powered-on. (There is AC 220V between the access points 102 and 103 of No. 1 terminal)	Line I control power supply fuse is normal	Line I control relay is normal (the relay is mounted on the internal circuit board. No. 3 light is used for this function, only when No. 4 light is not lit up).	Line II control power supply is powered-on (There is AC 220V between the access points 104 and 105).	Line II control power supply fuse is normal.	125A-250A switch, key lock or button is in AUTO position (the key lock or the button is mounted on the front side of the switch).
SKT1-400~3200A	If the light is on, the voltage of Line I power is normal (There is AC 220V between the access points 102 and 103 of No. 1 terminal). If the light flashes, the voltage of Line I power is abnormal.	If the light is on, the switch is in Automatic mode (key lock or button is in AUTO position)	If the light is on, the voltage of Line II power is normal (There is AC 220V between the access points 104 and 105 of No. 1 terminal, measure voltage range AC220V ±15%). If the light flashes, the voltage of Line II power is abnormal.	Light on indicates Line I closed	Light on indicates both Line I and Line II are open	Light on indicates Line II closed

Note: SKT2 series have no LED indicators

Quick Troubleshooting Method

Please refer to the instructions of LED indicators for quick fault determination or troubleshoot following the steps below:

1. Fuse detection:

First, check whether the fuse is normal with the multimeter. If the fuse burns out, please troubleshoot the external electrical fault first before inserting the fuse. Set the switch in Manual mode, turn the switch between position 1 and position 2 several times with the attached handle. Set the switch in Auto mode, test again whether each function is normal. The fuse capacity is shown in the table below:

Control voltage / Current	AC220V AC280V	DC12V DC24V
10A~250A	3A Tube fuse	3A Tube fuse
400A~3200A	5A Tube fuse	5A Tube fuse
Warning: please use the qualified fuses of correct capacity. It is prohibited to use fuses of large capacity or illegally short connect. For product damage due to the above wrong measures, our company do not provide warranty.		

2. Motor detection:

Connect 104 of terminal 1 with 220V live wire. Connect 105 of terminal 1 with 220V neutral wire. Short connect 202 (the common port of terminal 2) with 203, 204, 205 respectively, if the motor can work, the motor fault can be eliminated.

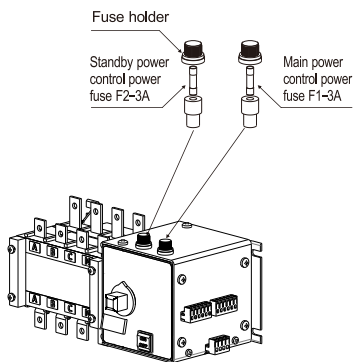
3. Main control board detection:

Connect 102 of terminal 1 with 220V live wire. Connect 103 of terminal 1 with 220V neutral wire. Short connect 202 with 203, 204, 205 respectively, if the switch can turn to position 1, 0, 2 correspondingly, the main control board fault can be eliminated.

Notice:

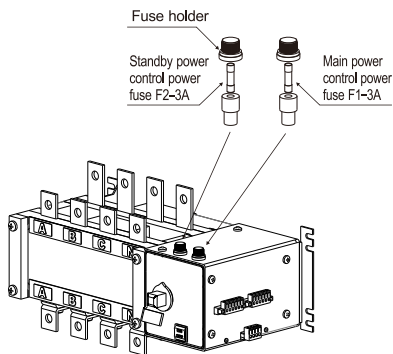
As the fuse burnout is usually caused by voltage leap or short-circuit of external power source, please make sure the external voltage is normal, and any fault of short-circuit should be excluded before inserting fuse and testing the switch in case of damage to the circuit board.

SKT2-10A~100A switch fuses configuration



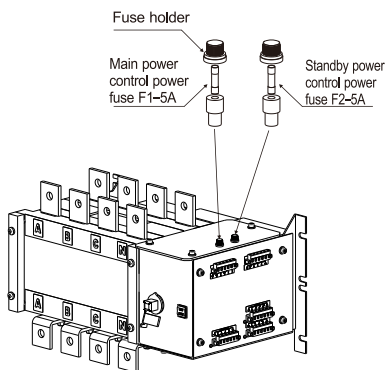
10A~100A

SKT1-20A~250A switch fuses configuration



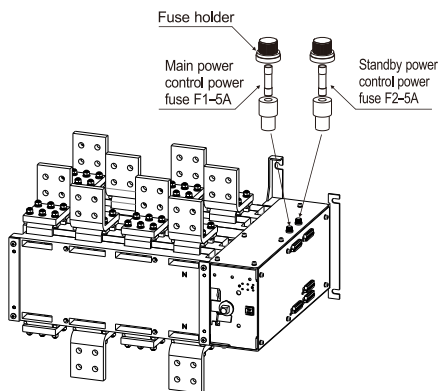
20A~250A

SKT1-400A~1600A switch fuses configuration



400A~1600A

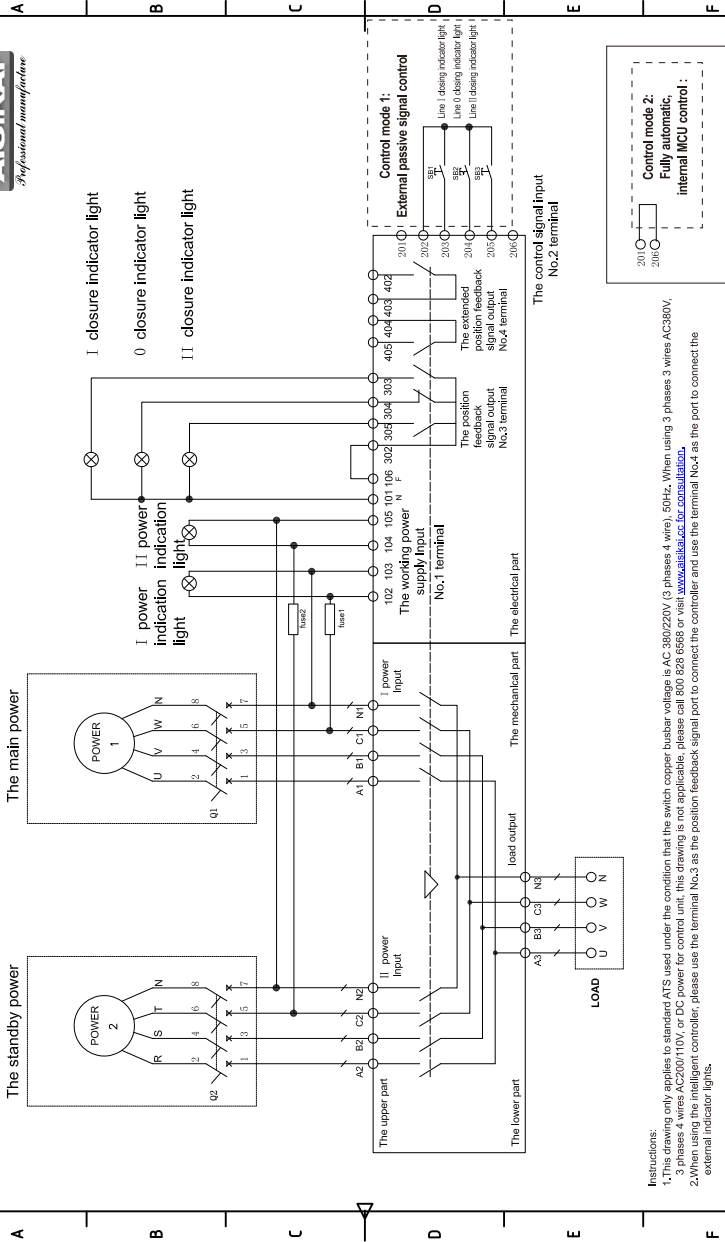
SKT1-2000A~3200A switch fuses configuration



2000A~3200A

The main control board of switch is mounted inside the shell. The fuses are mounted outside the shell and connected to the board through the terminal lines.

Typical Control Principle Diagram of SKT2-X/SKT1 Switches



Instructions:
 1. The only applied to standard ATS used under the condition that the switch control voltage is AC 200/220V (2 phases, 4 wires) 50Hz. When using 3 phases 3 wires AC380V, 3 phases 4 wires AC200/110V, or DC power for control unit, this drawing is not applicable, please call 800 628 6588 or visit www.asikai.cc for consultation.
 2. When using the intelligent controller, please use the terminal No.3 as the position feedback signal port to connect the controller and use the terminal No.4 as the port to connect the external indicator lights.

Notice: Please select control mode based on the on-site technical requirements.



AISIKAI-ATS2019HB-V2.6AC

PROFESSIONAL MANUFACTURER

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