

# BRAWNBAWER®

TECHNICAL & INDUSTRIAL & ELECTRICAL EQUIPMENT & POWER SYSTEM



MAIN PRODUCTS



OTHER PRODUCTS

designed by BRAWNBAWER  
MADE IN USA

## Company Profile

**BRAWNBAWER**, is a company focused on industrial control electric and mechanic field.

Company employees about 400 people, technical staff accounted for 10%; The company has sales network and offices all over the country provinces and cities, products cover, Germany, Britain, USA, Spain, Italy, Canada, Turkey, India, South / North Africa and more than 10 countries and regions.

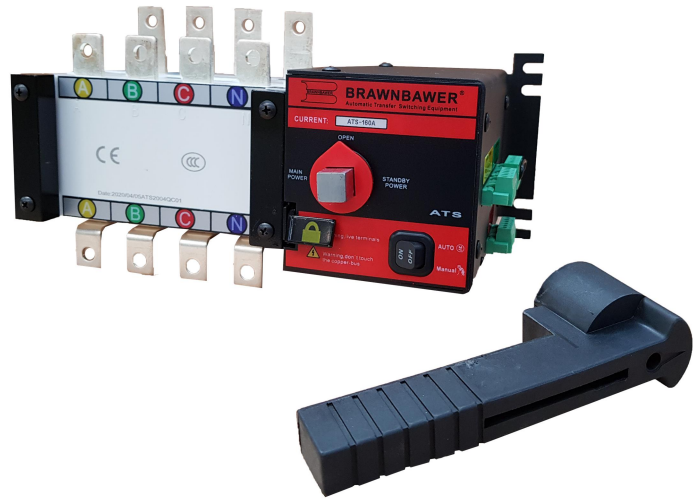
**BRAWNBAWER**, provide service for electricity, communications, chemical industry, mechanical engineering, rail transportation, industrial lighting and automation industries such as customers, product by European Union CE certification, ROHS, CB, IEC, CQC, UL, CCC, , etc.

**BRAWNBAWER**, self-developed **ATS** (Automatic Transfer Switching Equipment), **MCCB** (Moulded Case Circuit Breakers) , **ACB** (Air Circuit Breakers) , **MCB** (Miniature Circuit Breakers), Miniature Relays, PCB Relays, Automotive Relays, Solid Voltage Regulators, Micro Switchs, push button switchs, energy saving indicator lamp, warning lights, LED light-emitting devices, Buzzer, Emergency Push Buttons, Warning Light, Indicator Bulb, engine pre heaters, such as important areas are widely used and recognized.

**BRAWNBAWER**, always adhere to the "people- oriented, scientific and technological innovation" the management policy, with "integrity, pragmatic, efficient, innovation" service purposes, to provide intelligent industrial control of electric / mechanic field and reliable solutions.

# ATS

## Automatic Transfer Switch



### a) BBA Series PC Class (one-piece structure)

#### Features

- Voltage and Switch Working Conditions Indications Using LED
- External Replaceable Fuses, Easy For Maintenance
- Built-in Microprogrammed Control Unit Realise Voltage Detection Function
- Silver Plated High Purity Copper Bars
- Bridge Connect Structure on Load Side
- Three-Sections Design (I – 0 – II), Zero Position For Dual Powers Off
- Pluggable Wiring Terminals
- Mechanical Interlock & Electrical Interlock

#### II. Products Characteristics

Good installation performance.

Using the double composite contact, horizontal structure, micro motor pre storage and micro control technology, which basically realize the zero flying fox (no arc shield)

The reliable mechanical interlocking and electrical interlocks make a higher security.

Zero crossing technique, in case of emergency, which can be forced the ATS stop at the zero position (simultaneously cut off two power supply).

The obvious functions of on-off position indication, padlock, etc., realize the isolation between the power supply and the load.

High reliability, over 10000 times of service life.

Good electromagnetic compatibility, strong anti-interference ability, no interference to the outside.

High degree of automation.

With the multiple input / output interfaces, so it is convenient for remote PLC control and automation system.

Do not need to be connected with any control components.

Nice appearance, small size and light weight, and it is controlled by the different logic control board.

#### IV. Working Condition

Ambient air temperature : -25°C~+55°C

Installation location elevation : less than 2000m

Pollution degree: 3

Use category: AC33iB

Install method: horizontal or vertical

#### I. Introduction

ATS Series Automatic transfer switch is suitable for rated voltage 690V, rated frequency 50/60HZ, rated voltage 440V and below, rated current of 16A-4000A, the main power supply system for power supply, mainly used between in the two powers in the emergency case of the power supply system , in order to make sure the main load of emergency lighting, emergency elevator, lampblack machine to keep continuous and reliable work. It would be widely used for providing uninterrupted and normal power supply for high-rise buildings, hospitals, banks, highways, railways, etc..

#### Meet the standards:

- IEC60947-1/GB/T14048 (The General Provisions on Low-Voltage Switch and Control Equipment)
- IEC60947-3/GB 1404.8.3 (Low-Voltage Switch and Control Equipment, Low-Voltage Switches, Isolators ,Disconnecting Switches and Fuse Combinations)
- IEC60947-6-1/GB14048.11 (Automatic Transfer Switch Appliance)

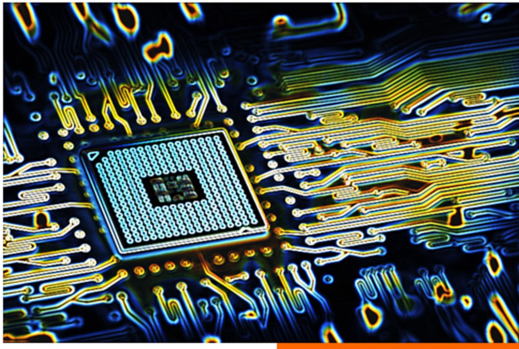
#### III. Types and Classification

MODEL	A	POLE
BBA-25/3	25	3
BBA-32/3	32	3
BBA-50/3	50	3
BBA-63/3	63	3
BBA-100/3	100	3
BBA-125/3	125	3
BBA-160/3	160	3
BBA-250/3	250	3
BBA-400/3	400	3
BBA-630/3	630	3
BBA-800/3	800	3
BBA-1000/3	1000	3
BBA-1250/3	1250	3
BBA-1600/3	1600	3
BBA-2000/3	2000	3
BBA-2500/3	2500	3
BBA-3200/3	3200	3

MODEL	A	POLE
BBA-25/4	25	4
BBA-32/4	32	4
BBA-50/4	50	4
BBA-63/4	63	4
BBA-100/4	100	4
BBA-125/4	125	4
BBA-160/4	160	4
BBA-250/4	250	4
BBA-400/4	400	4
BBA-630/4	630	4
BBA-800/4	800	4
BBA-1000/4	1000	4
BBA-1250/4	1250	4
BBA-1600/4	1600	4
BBA-2000/4	2000	4
BBA-2500/4	2500	4
BBA-3200/4	3200	4

PC CLASS: 25 TO 3200A

CB CLASS: 6 TO 1250A

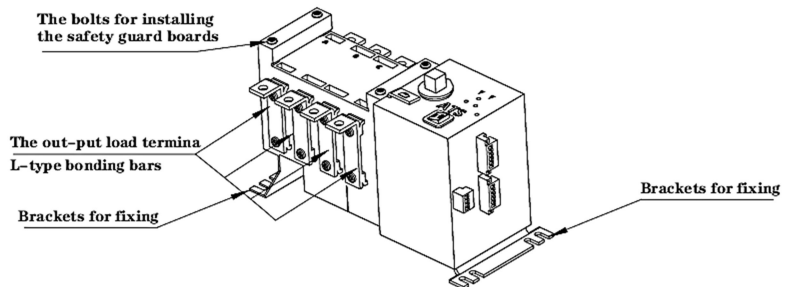
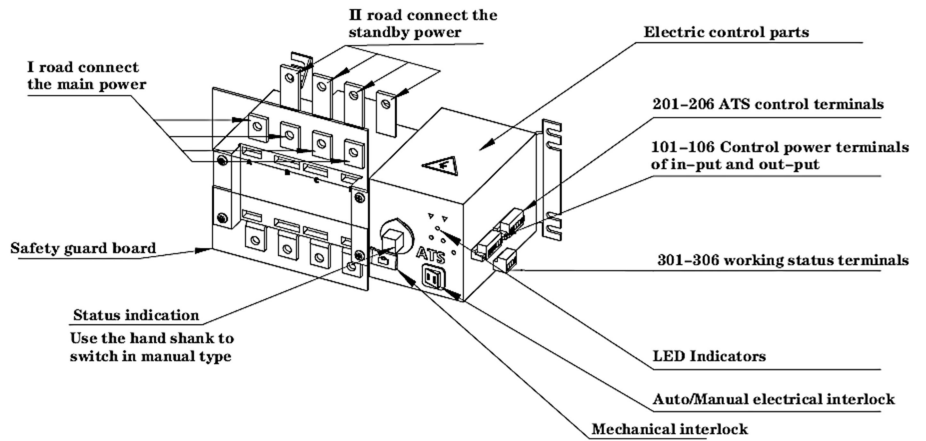


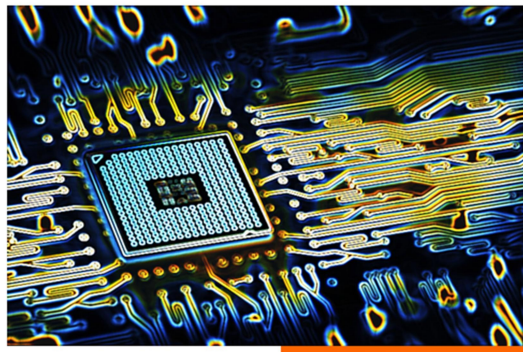
## V. Technical Parameters

Meet standard : IEC947-6-1/GB 14048. 11

Rated thermal current(Ith)	80A	100A	125A	160A	250A	400A	630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	
Rated isolation voltage (Ui)	750V					1000V									
Rated impulse withstand voltage(Uimp)	8KV					12KV									
Rated working voltage (Ue)	AC440V														
Rated working current(Ie)	AC-33IB	80	100	125	160	250	400	630	800	1000	1250	1600	2000	2500	3200
Rated making capacity	10Ie														
Rated breaking capacity	8Ie														
Rated limited breaking current	100KA					70KA	100KA			100KA	80KA				
Rated short-time withstand current	7KA			9KA		13KA		50KA				55KA			
Transfer time	≤0.45S			≤0.45S		≤0.6S		≤1.2S				≤1.4S			
Rated control supply voltage	Standard : AC 220V、Customization AC110V、AC380V、DC12V、DC24V														
Net weight	3.4	3.4	5.2	5.2	8.1	15.8	16.0	36.5	36.8	37	44	96	105	108	
Gross weight	4.0	4.0	6.0	6.0	9.6	19.0	19.0	42.0	42.5	43	50	102	111	114	

## VI. Structure Specification

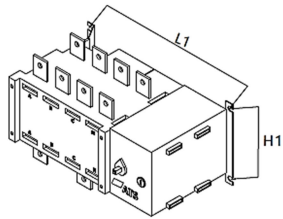
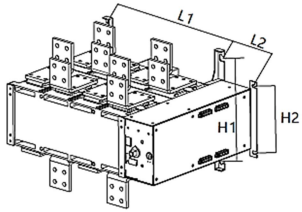




# BRAWNBAWER®

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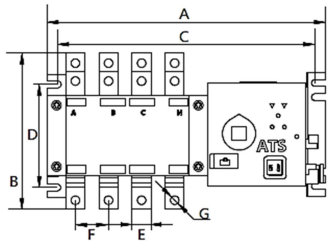
## VII. Mounting Dimension



Current (A)	Horizontal hole center distance L1 (mm)	Auxiliary horizontal hole center distance L2 (mm)	Lengthways hole center distance H1 (mm)	Auxiliary lengthways hole center distance H2 (mm)	Hole diameter (mm)
2000-3200	475	150	350	220	13
800-1600	610	/	220	/	11
400-630	425	/	180	/	9
200-300	335	/	80/110	/	7
125-160	278	/	80/110	/	7
20-100	233	/	84	/	7

**Note:**

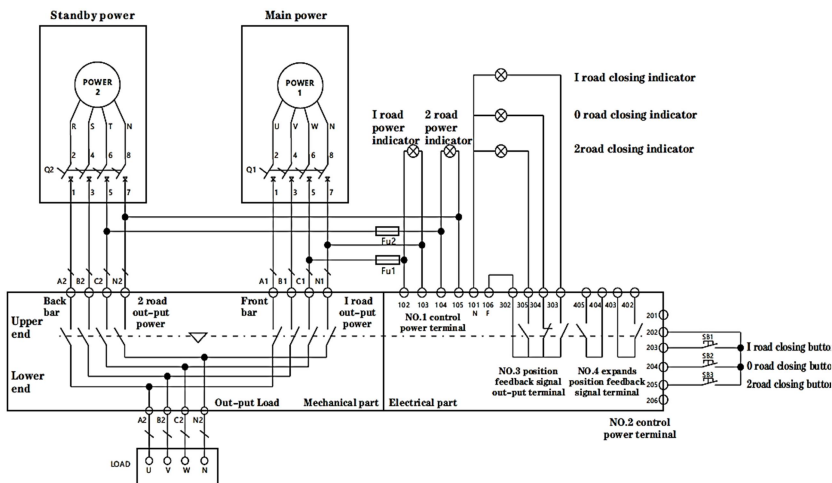
- The mounting brackets of the ATS must be fixed on the same flat plane, the installation hole size should be adjust according to the actual situation, take force to use of the wrong hole size for installation is prohibited , or it will be damaged.
- Recommend to add the busbars on the 2000A ATS or above, meanwhile use the cable installation will increase the installation support force , so there must increase effective reinforcement measures.
- The mounting dimension above is suitable for field installation of users. If need more detailed dimensional parameters , as



Specifications	A	B	C	D	E	F	G	H
ATS-20-100A	245	126	233	84	14	30	6	133
ATS-20-160A	290	166	278	80/110	20	36	9	184
ATS-200-300A	355	187	335	80/110	25	50	11	184
ATS-400-630A	445	260	425	180	40	65	13	262
ATS-800-1000A	635	350	610	220	63	120	9	321
ATS-1250A	635	350	610	220	63	120	11	321
ATS-1600A	635	375	610	220	80	120	13	321
ATS-2000-3200A	635	422	475	350	80	355	13	505

## VIII. Typical Wire Connection Mode

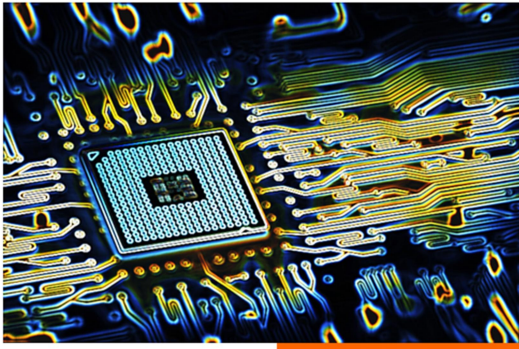
### ATS Series Typical Control Schematic Diagram



**Note: 1,**This drawing is only applicable to the standard ATS using which under the situation of the voltage is AC380V/220V (three phases four wires),and frequency is 50/60HZ.

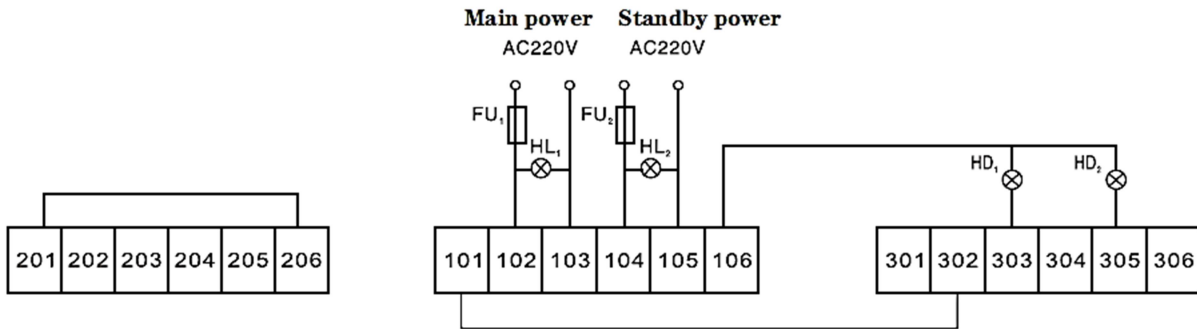
**Note: 2,**When using the intelligent controller ,please use the NO.3 terminal as the feedback port of the access control,and the NO.4 terminal as the port of the external indicator.

FU1/FU2 is 2A fuse 101-106,201-206,301-306 are the terminals of ATS 401-406, 501-506 terminals are used for 630A ATS (Mark) This diagram is suitable for 2, 3, 4, 5 connection modes



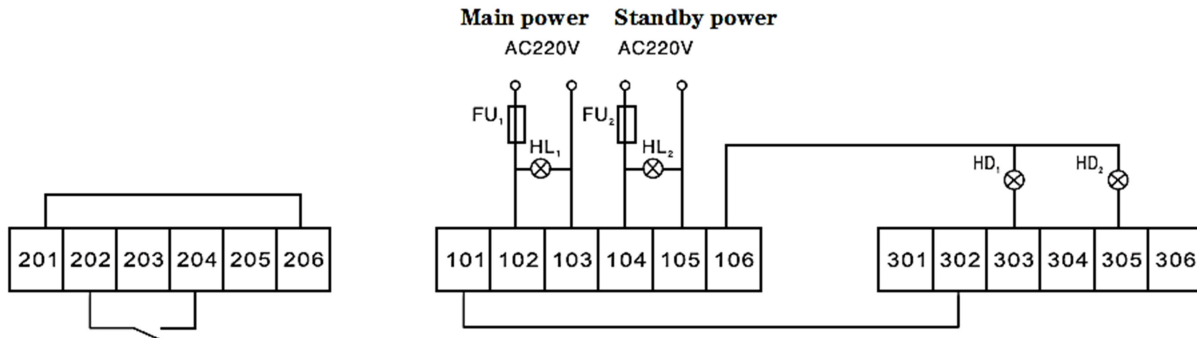
## ATS Series Connection Modes

### ATS Automatic-type connection mode



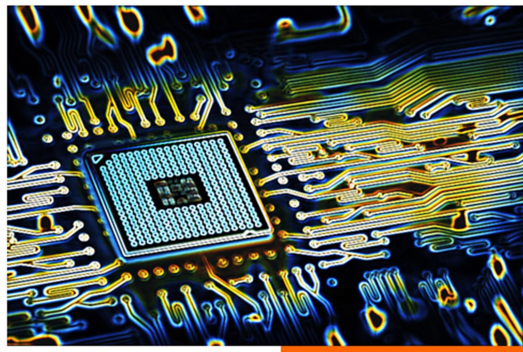
**Note:**  
 HL1 and HL2 are common power supply and standby power indicating instructions respectively  
 HD1 and HD2 are common power supply and standby power input instructions respectively  
 FU1 and FU2 are 2A fuses 101-106, 201-206 and 301-306 are ATS connection terminals

### ATS Automatic-type + Force to O position type (Both powers are break off) connection mode

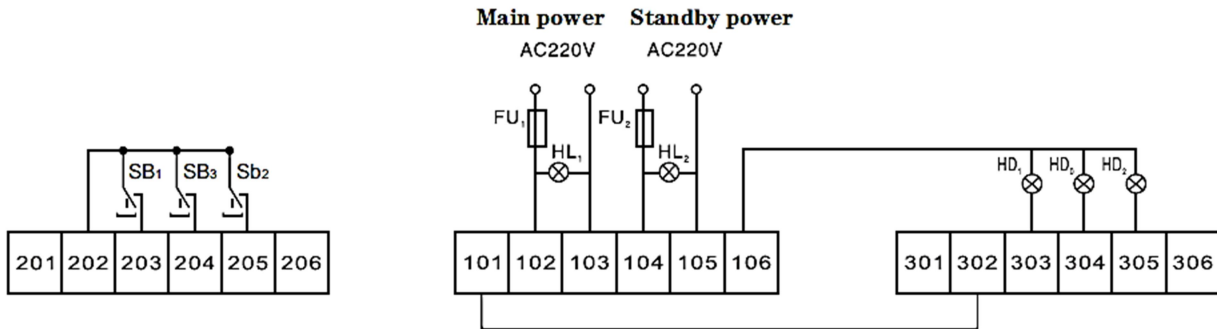


● Force to "O" position contact terminal (passive)

**Note:**  
 HL1 and HL2 are common power supply and standby power indicating instructions respectively  
 HD1 and HD2 are common power supply and standby power input instructions respectively  
 FU1 and FU2 are 2A fuses 101-106, 201-206 and 301-306 are ATS connection terminals

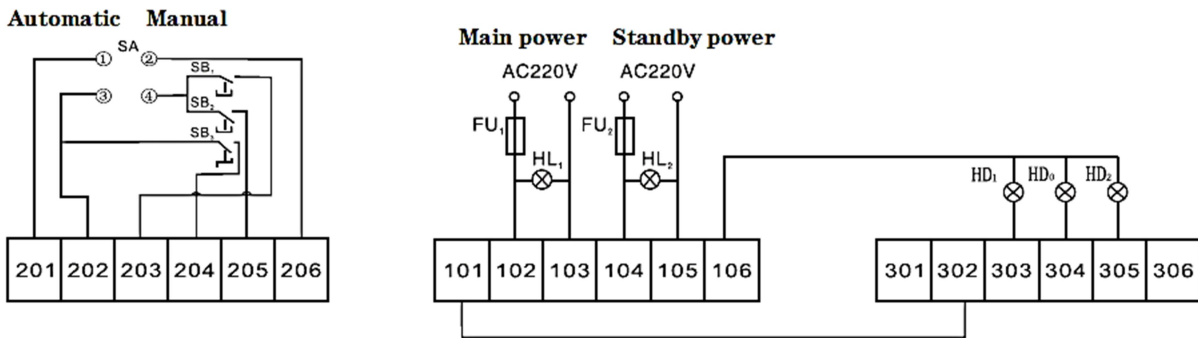


## Remote-type connection mode (two Main supply )



**Note:** SB1 is the manual power input button (passive contact) for main power supply  
 SB2 is the manual input button for standby power supply (passive contact)  
 SB3 is the force to "O" position button (passive contact) (need self lock)

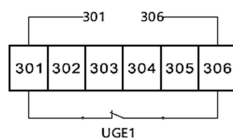
## Automatic-type+Manual-type (Remote-type) connection modes (two main supply)



**Note:** SA is the option button for choosing Automatic-type or Manual-type function / SB1 is the manual power input button (passive contact) for main power supply  
 SB2 is the manual input button for standby power supply (passive contact) / SB3 is the force to "O" position button (passive contact) (need self lock)

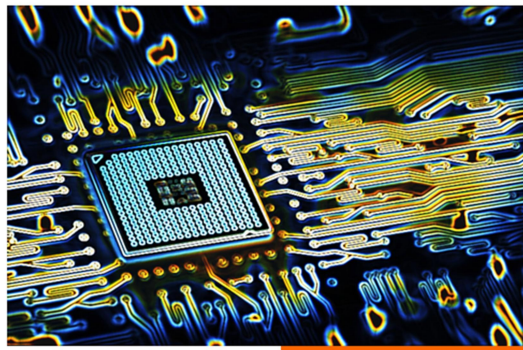
## Start signal for the generator connection mode

The generator interface has been supplied (301-306 terminals with the signal of 'UGE1' ), the wiring diagram is as follows:



**UGE1 passive contact connect generator interface**

**Note:** UGE1 is the generator interface inside of the ATS with the voltage 220V and relay 301-306.



## ATS

### Automatic Transfer Switch

#### b) BBA Series CB Class (Circuit Breaker Type)

#### Features

- Have Zero-position
- Reasonable structure, compact volume, beautiful appearance.
- Protective cover, much safer and more reliable
- Control part is designed for easy maintenance
- Complete protection functions, provided with protection of short-circuit, overload and etc.
- Noise-free operation, energy saving and consumption reducing, convenient in installation, easy in operation, reliable and stable in performance.
- The interior adopts D type miniature circuit breaker.

#### II. Overview

ATS Series Automatic Transfer Switch (ATS) is suitable for a three-phase four-wire double power supply system (AC 50/60Hz, rated voltage is 440V, rated current is 6A-1250A), it can connect one or several load circuits from one power supply to another automatically, to ensure the normal power supply of the load circuit. This Product are used in industrial sites, commercial spaces, high-rise buildings, residential buildings and other important places. The ATS meet IEC60947-6-1, GB/T14048.11 standards.

#### III. Service Conditions

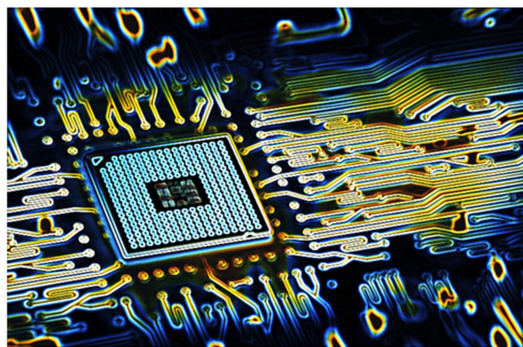
##### Ambient Air Temperature :

- Maximum Temperature: +40°C
- Minimum Temperature: -5°C
- Average Temperature in 24h: ≤+35°C
- Altitude: Installation altitude ≤2000m
- Atmospheric Conditions: when the maximum temperature is +40°C, the relative humidity is less than 50%, a high relative humidity is allowed when the temperature is low, for example, when the temperature is 20°C, the humidity is 90%. Users should take special measures for condensation caused by temperature changes.
- Pollution Level: 3

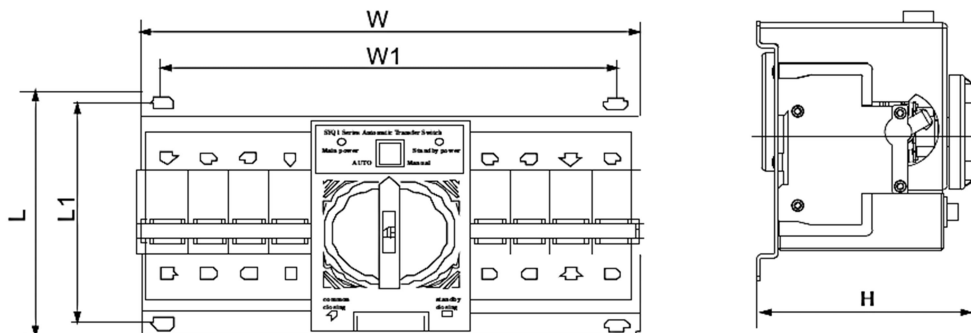
#### IV. Main Technical Parameters

Product Model	Circuit Breaker	Poles	Instantaneous Releaser Form	Rated Current of Circuit Breaker(A)	Rated Working Voltage of Circuit Breaker	Working Voltage of Control Loop
ATS	BBA-63CB	3P	C-type Lighting Protection (general lighting)	1,2,3,4 5(6),10	AC400V/AC230V	AC230V
			Tripping Current Range: 5In-10In	15(16),20		
		4P	D-type Power Protection: 10In-14In	25,32,40 50,63		

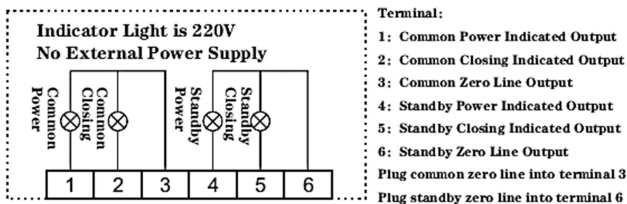
Notes: The input voltage is 230V, only connect to A phase (detection phase) of miniature circuit breaker (MCB).



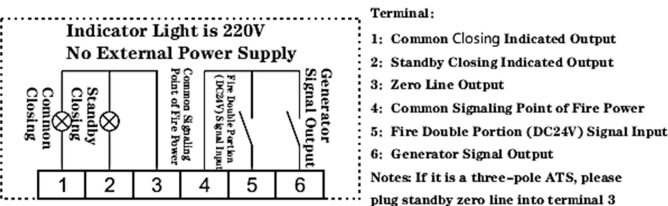
## V. Outline and Installation Dimension



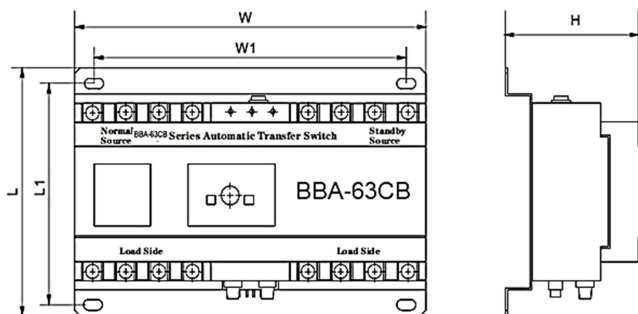
ATS-63 (basic type) terminal wiring principle



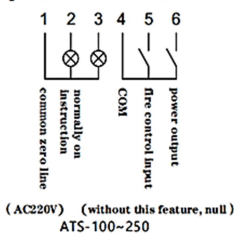
ATS-63 (fire, power type) terminal wiring principle



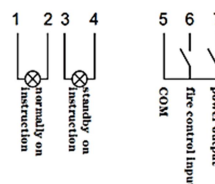
Specification	Dimension	W	W1	L	L1	H
ATS-63/2P		150	135	132	120	122
ATS-63/3P		185	165	132	120	122
ATS-63/4P		220	200	132	120	122



Note: If the ATS is two-pole, please connect zero line with 1



Specification	Dimension	W	W1	L	L1	H
ATS-100/3P		336	317	174	146.5	112
ATS-100/4P		366.5	347.5	174	146.5	112
ATS-225/3P		376.5	356	189	162	132
ATS-225/4P		411.5	391	189	162	132
ATS-400/3P		460	420	350	302	220
ATS-400/4P		510	470	350	330	220
ATS-630/3P		530	490	350	330	245
ATS-630/4P		590	550	350	330	245



Note: If the ATS is three-pole, please connect common zero line with 1, standby zero line with 3  
ATS-400~630