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樂清市樂怡電器有限公司
YUEQING LEYI ELECTRIC CO., LTD.

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Brief Introduction

YUEQING LEYI ELECTRIC CO., LTD. is one of the biggest manufacturer and exporter of automatic and manual change over switches in Wenzhou China. We manufacture 20~3150A full series change over switches. All the switches are as per IEC60947-1, IEC60947-3 and IEC60947-6 standards.

salzer is our registered brand.

Now YUEQING LEYI ELECTRIC CO., LTD. has established long term business connection with over 76 countries. With superior quality and excellent service, YUEQING LEYI ELECTRIC CO., LTD. will be one of the most significant and dynamic company in electrical products area.

Thank you for choosing our **salzer** brand products!

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Automatic Change Over Switch SAD Series

Product Outline

SAD automatic change over switch (ATSE) integrates switch and logic control, thus it is not necessary to provide external controller. This truly electromechanically integrated automatic change over switch has the following functions such as voltage detection, frequency detection, communication interface, electrical and mechanical interlocking etc., so, automatic control, electrical remote control and emergency manual control can be performed.

The operation is carried out through the logic control board, which gives various commands to control the motor and gear-box. The motor drives the accelerator which can take switch-spring power accumulating and instantaneous release, swiftly turns making and breaking the circuit or makes circuit switching. The visible operation status can help you to perform safe separation, increasing extremely the various electrical and mechanical performance.

The shell of switch SAD is made of different materials: its control section is made of metal, but the switch section is made of glassfibre unsaturated polyester resin, having stronger dielectric property and protective capability as well as safe operation performance.

This kind of switch is suitable for the automatic change over of the main supply and the standby supply of the power supply system or the automatic change over and safe separation of the two sets of load equipment.

This kind of switch has a beautiful, novel and simple structure, a small volume but complete functions, being the best choice among congeneric of products.

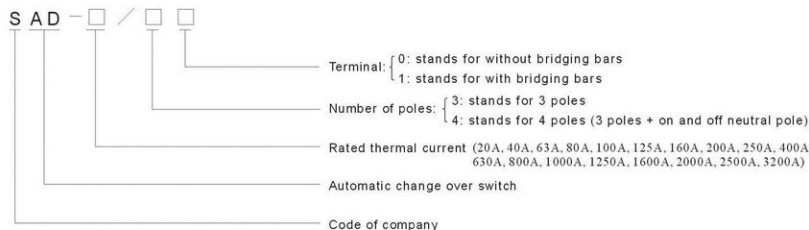


SAD-100 series
automatic change over switch



SAD-160~1600 series
automatic change over switch

Ordering Information



Automatic Change Over Switch SAD Series

Example for model selection:

SAD-100/40:

Automatic change over switch, rated thermal current is 100A, 4 poles (3 poles + on and off neutral pole), without bridging bars.

Performance and Characteristic

- Adopt double complex contact, horizontal and vertical type framework, Micro motor pre-saving and Micro electronic control technical, basically, it have come to 'zero' arc (No Arc Chute);
- Adopt reliable machine interlock and electric interlock, the executive union parts adopt independency load isolation switch, it makes more reliable and safety;
- Adopt 'zero' technique, it can force to set 'zero' under emergency situation (isolation off two way power supply at the same time), meet the requirement of fire protection linkage;
- Operation load isolation switch change over adopt singleness electromotor drive, switch over smoothly and reliably, no noise, little wallop;
- Operation machine drive motor use only under the executive load isolation switch change over instantaneous current across, outstanding energy saving;
- Performance load isolation switch with mechanism interlock device, it ensure the main supply, standby supply working reliable and not interference;
- Distinct On and Off position indicator, padlock function etc., safe realize the disconnect between electric power and overload;
- High security, high automatization, high reliable, use life more than 8000 times;
- Machine & Electricity perfect design, On-Off change over nicely, agility, smooth, adopt international advanced logical control technique, high anti-interference and no interference outside;
- It include main supply close, standby supply separate; main supply separate; standby supply close; main, standby supply all isolation off and steady working(I-O-II);
- Easy installation, control loop adopt terminal connection and insert;
- Four kinds of operation functions: emergency manual operation, electromotion remote control operation, automatic control state emergency off operation, automatic control operation.

Product Usage

SAD series automatic change over switch mainly suitable for distribution or electromotor network, which under AC 50Hz, rated voltage 380V, rated thermal current 20~3200A, main supply and standby supply or mutual standby supply change over system or city power and generator group overload switch over. At the same time, it can be operated under un-frequency On and Off circuit act as disconnecter.

Such products are widely used at the field of important power supply site, which transport, distribution power supply system and automatization system, for fire prection, hospital, bank, building etc., which doesn't allowed power off.

Control Characteristic

The switch has 3 poles or 4 poles (3 poles + on and off neutral pole).

18 current grades can be divided into 20A, 40A, 63A, 80A, 100A, 125A, 160A, 200A, 250A, 400A, 630A, 800A, 1000A, 1250A, 1600A, 2000A, 2500A, 3200A.

Suitable for two way main and standby supply system, self-cast and self-reset.

It can expand function by outer connection.

Main Technical Parameters

1.SAD-20~630A series automatic change over switch electrical properties and mechanical properties

Rated thermal current Ith A			100A			100A			160A		250A		630A	
Rated current In (A)			20A	40A	63A		80A	100A	125A	160A	200A	250A	400A	630A
Rated impulse withstand voltage Ui (V)			500	500	500		500	500	500	500	500	500	500	500
Dielectric strength (V)			5000	5000	5000		5000	5000	5000	5000	5000	5000	8000	8000
Rated surge-resistant voltage Uimp KV (installed category IV)			8	8	8		8	8	8	8	8	8	12	12
Rated working current Ie (A)	380V	AC-31	20	40	63		80	100	125	160	200	250	400	630
		AC-33	20	32	40		63	80	125	160	200	250	340	536
		AC-35	20	40	63		80	100	125	160	200	250	400	630
	220V	DC-31	20	40	63		80	100	125	160	200	250	400	630
		DC-33	20	32	40		63	80	100	125	160	200	315	500
		DC-35	20	40	63		80	100	125	160	200	250	400	500
Motor power P(380V) KW			10	20	25		30	32	63	80	100	132	220	280
Rated short-time withstand current (KA Rms) 0.1S/1.0S			9/5	9/5	9/5		9/5	9/5	20/10	20/10	25/12	25/12	40/20	50/25
Rated breaking capability (ARms)AC33 380V			160	320	500		640	800	1000	1000	1600	1600	3200	3200
Rated making capability (ARms)AC33 380V			200	400	630		800	1000	1250	1250	2000	2000	4000	4000
Rated short-current making capability Icm (KA peak value)			8	8	10		10	10	12	12	17	17	30	30
Mechanical durability (number of cyclic operation)			10000	10000	10000		10000	10000	10000	10000	10000	10000	5500	5500
Electric durability COS φ=0.65 AC33			1500	1500	1500		1500	1500	1000	1000	1000	1000	500	500
Change over time	I-0-II or II-0-I (S)		0.5	0.5	0.5		0.5	0.5	1.0	1.0	1.1	1.1	1.2	1.2
	I-0 or II-0(S)		0.3	0.3	0.3		0.3	0.3	0.6	0.6	0.7	0.7	0.8	0.8
Power consumption of electrical control 220V (AC) (W)			50	50	50		50	50	75	75	75	75	90	90
Moment of operation (Nm)			15	15	15		15	15	22	22	30	30	45	45
Weight (kg)	3 poles								8.2	8.2	10.4	10.4	17.8	19
	4 poles		4.2	4.3	4.4		4.5	4.5	8.7	8.7	11.3	11.3	20.2	22

Automatic Change Over Switch SAD Series

2.SAD -800~3200A series automatic change over switch electrical properties and mechanical properties

Rated thermal current Ith A			800A	1000A	1250A	1600A	2000A	2500A	3200A
Rated impulse withstand voltage UI (V)			1000V						
Rated surge-resistant voltage Uimp KV			12KV						
Rated working voltage UI (V)			AC440V						
Rated working current Ie (A)	AC-31		800	1000	1250	1600	2000	2500	3200
	AC-33		800	1000	1000	1000	1250	1250	1250
	AC-35		800	1000	1000	1250	2000	2000	2500
Rated making capability			10Ie						
Rated breaking capability			8Ie						
Rated restrict short circuit current KA			100		120		80		
Rated short-time withstand current I _t			26KA		50KA		55KA		
Change over time I-0-II or II-0-I (S)			1.2S				2.4S		
Power supply voltage control			DC24V, 48V, 110V				AC220V		
Power consumption of motor	Rated control voltage	Start up	400W	440W			600W		
		In gear	90W	98W			120W		
Weight (kg)		4 poles	32	36	40	49	95	98	135

SAD series automatic change over switch having:

- ①. The functions of automation, remote control and manual control.
- ②. Remote control "0" position.
- ③. The key switch to select control modes.

Operation Environment

SAD series automatic change over switch can work reliably under the following conditions:

Height above sea level does not exceed 2,000m;

Ambient temperature is not higher than 40°C and not lower than -5°C;

Relative humidity is not larger than 95%;

No explosive dangerous medium environment;

No rain and snow attack environment;

Note: If the automatic change over switch is expected to be used in the condition that the ambient temperature is higher than +40°C or is lower than -5°C~-45°C, customers should inform the manufactory.

Automatic Change Over Switch SAD Series

SAD-20~3200A automatic change over switch control and operation

The logic control board will send out different logic commands to control the operation of the gear-motor directly assembled in the switch to ensure the position of the switch.

The gear motor is made of neoprene to insulate wetness and heat, has a safety device. It will trip off when the temperature is over 110°C and when it is under over-current state, when the trouble disappeared, the device will automatically resumes its work, the reversible reduction gear adopts straight tooth gear.

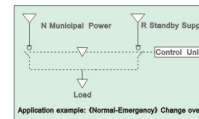
Operation



When the key is under automatic state, SAD will self-cast and self-reset. Once manual handle is used for emergency, SAD will return after delay-time 60s. Through terminals 102, 103 to optimum selection of switches. 202, 204 remote control force turn to "0" position.



Emergency manual operation: To use emergency operation handle to turn 90° at each position.



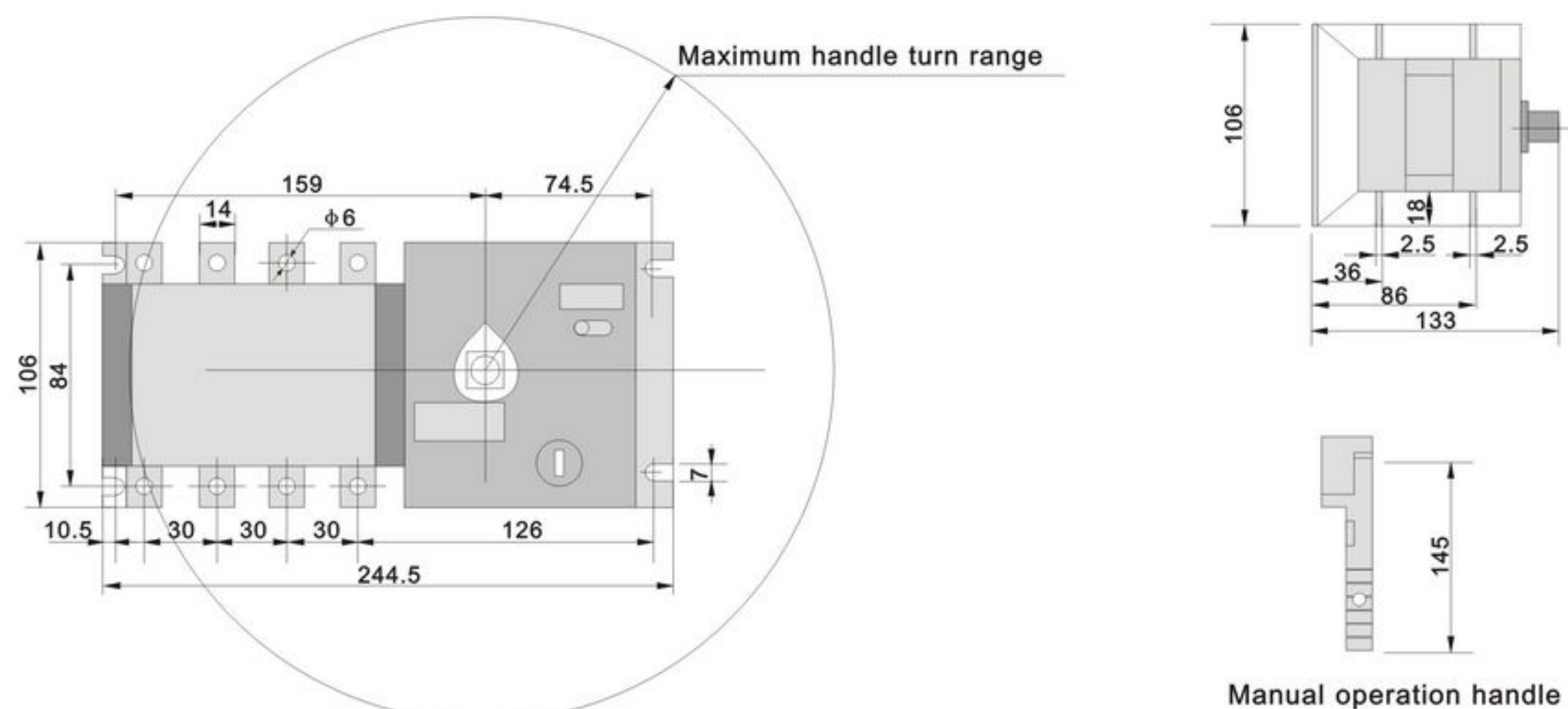
When the key is at manual operation position, to use connection terminals 202-205 to perform remote electric control.



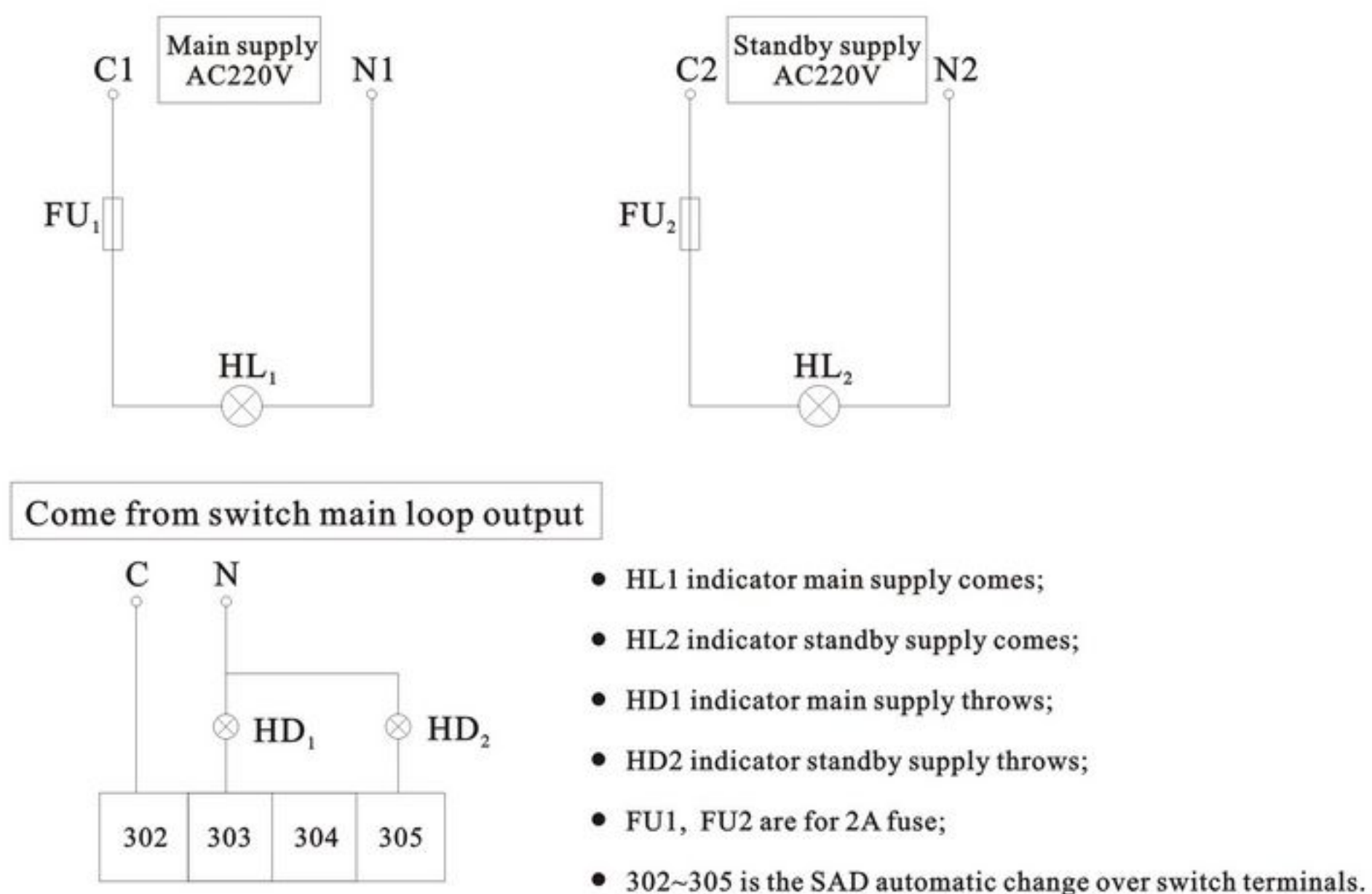
To use 1-3 locks to lock in: To keep position status, to prevent the emergency handle from being held on.

SAD-100 (20-100A) automatic change over switch

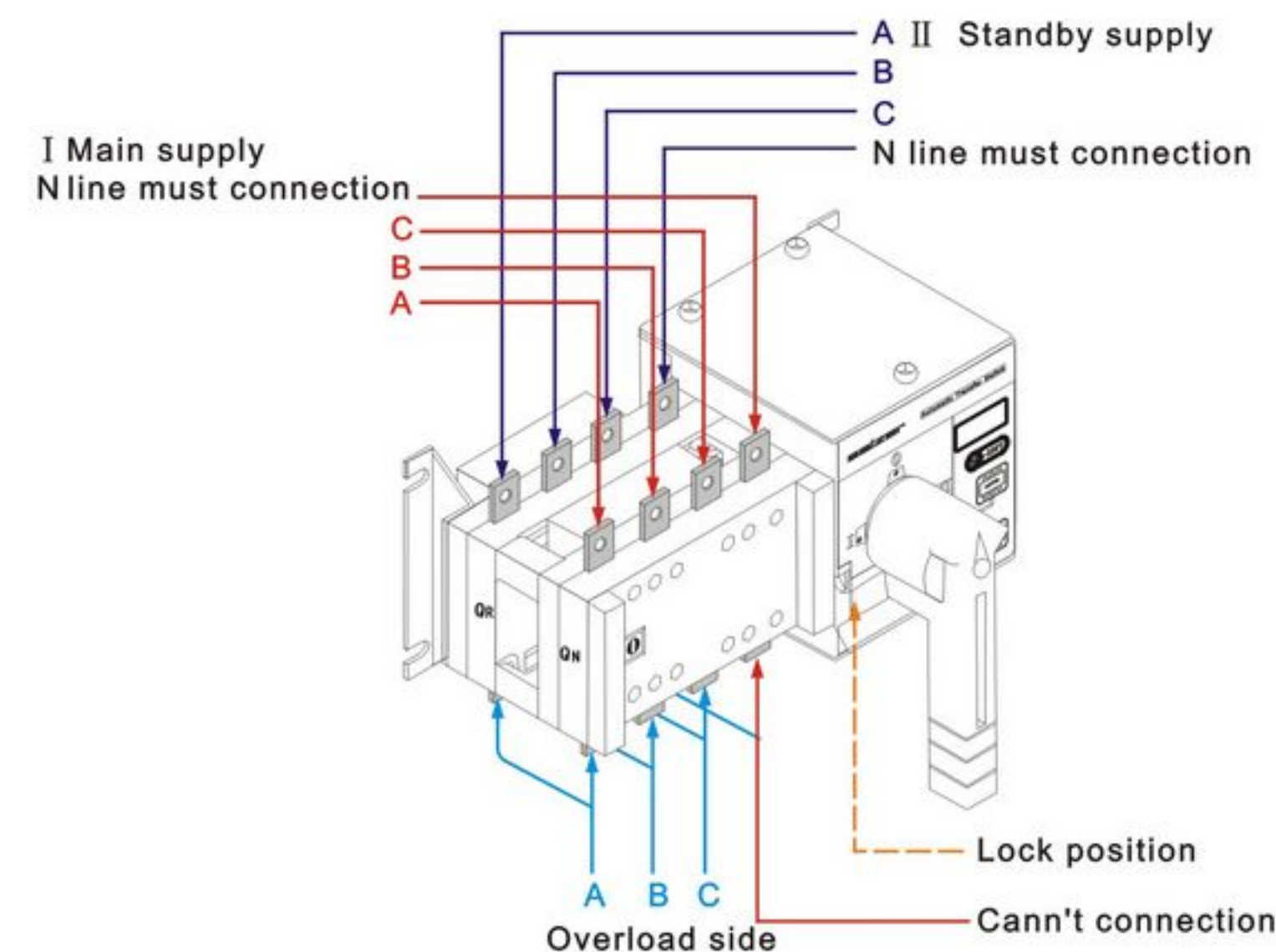
1.External Dimension and Installation Dimension(20~100A)



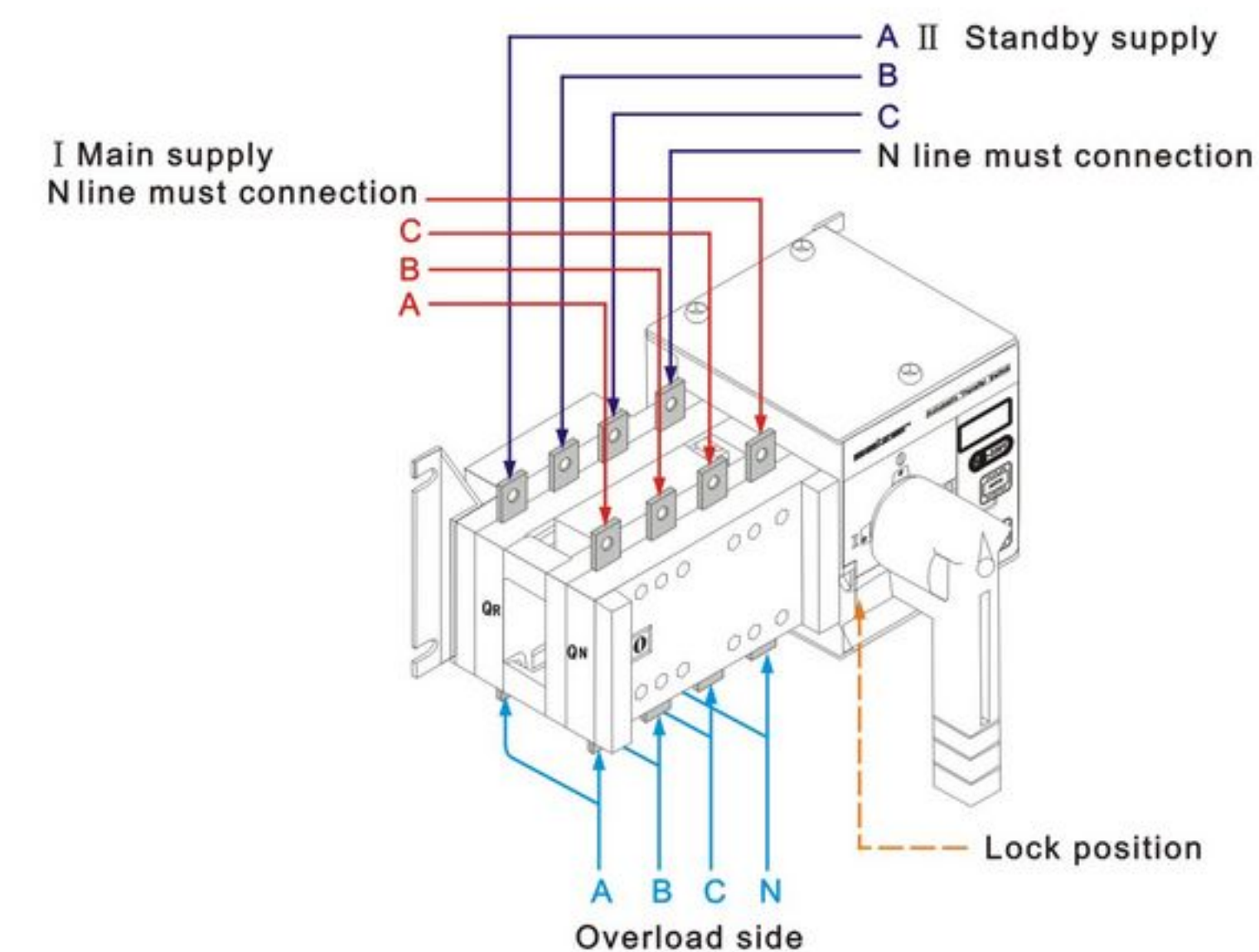
2.Connection Method (20-100A)



3.Connection Chart (20-100A)



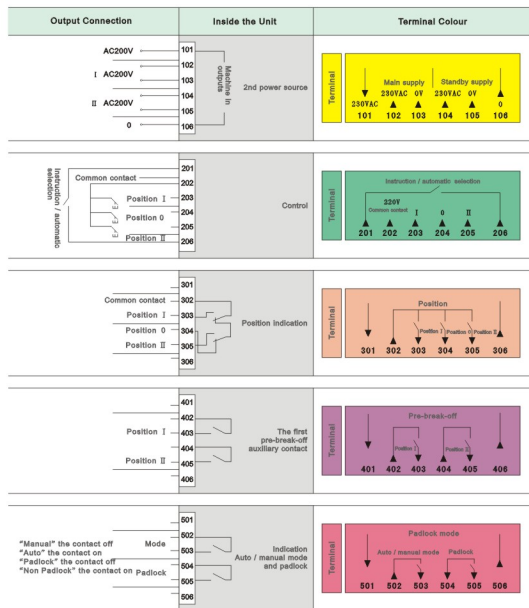
SAD-100A/3 Connection Chart



SAD-100A/4 Connection Chart

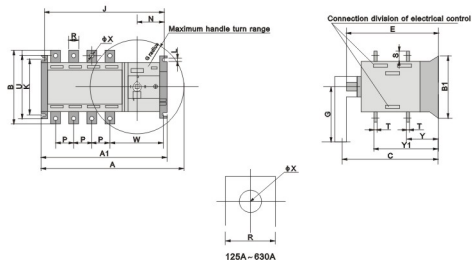
Automatic Change Over Switch SAD Series

Terminal Diagram of SAD-125~3200A



Automatic Change Over Switch SAD Series

SAD-125~630A automatic change over switch external dimension and installation dimension

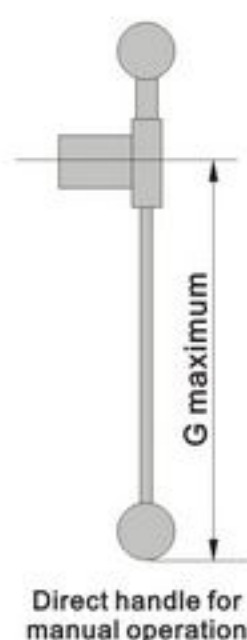


125A - 630A

Note: The quantity of connection bridging hole and output hole is consistent.

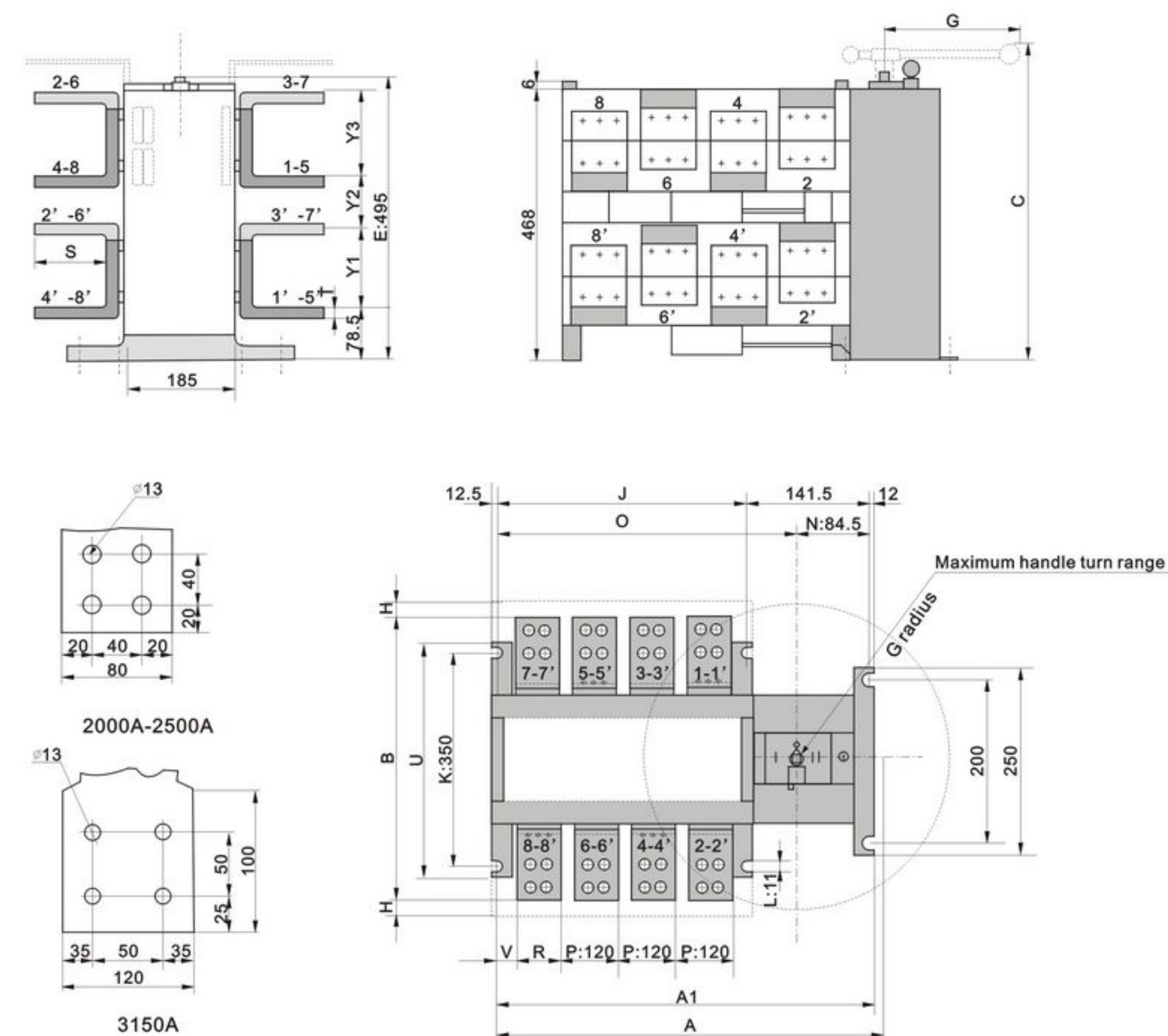
Specification	External Dimension and Installation Dimension																			
In	A	A1	B	B1	C	E	G	J	K	L	N	P	R	S	T	U	W	ΦX	Y	Y1
125A/3	376	283.5	135	134	261	208	166	262.5	78/108	7	87	36	20	25	3.5	134	155	9	56	141
125A/4	406	316	135	134	261	208	166	295	78/108	7	87	36	20	25	3.5	134	155	9	56	141
160A/3	376	283.5	135	134	261	208	166	262.5	78/108	7	87	36	20	25	3.5	134	155	9	56	141
160A/4	406	316	135	134	261	208	166	295	78/108	7	87	36	20	25	3.5	134	155	9	56	141
200A/3	416	323.5	170	134	261	208	166	302.5	78/108	7	87	50	25	30	3.5	134	164	11	60	145
200A/4	466	373.5	170	134	261	208	166	353	78/108	7	87	50	25	30	3.5	134	164	11	60	145
250A/3	416	323.5	170	134	261	208	166	302.5	78/108	7	87	50	25	30	3.5	134	164	11	60	145
250A/4	466	373.5	170	134	261	208	166	353	78/108	7	87	50	25	30	3.5	134	164	11	60	145
400A/3	455	378.5	240	208	333	270	166	358.5	176	11	103.5	65	32	40	5	208	197	12	83	193
400A/4	515	438.5	240	208	333	270	166	418.5	176	11	103.5	65	32	40	5	208	197	12	83	193
630A/3	455	378.5	260	208	333	270	166	358.5	176	11	103.5	65	40	50	6	208	197	12	84	194
630A/4	515	438.5	260	208	333	270	166	418.5	176	11	103.5	65	40	50	6	208	197	12	84	194

1.SAD-800~1600A External Dimension and Installation Dimension



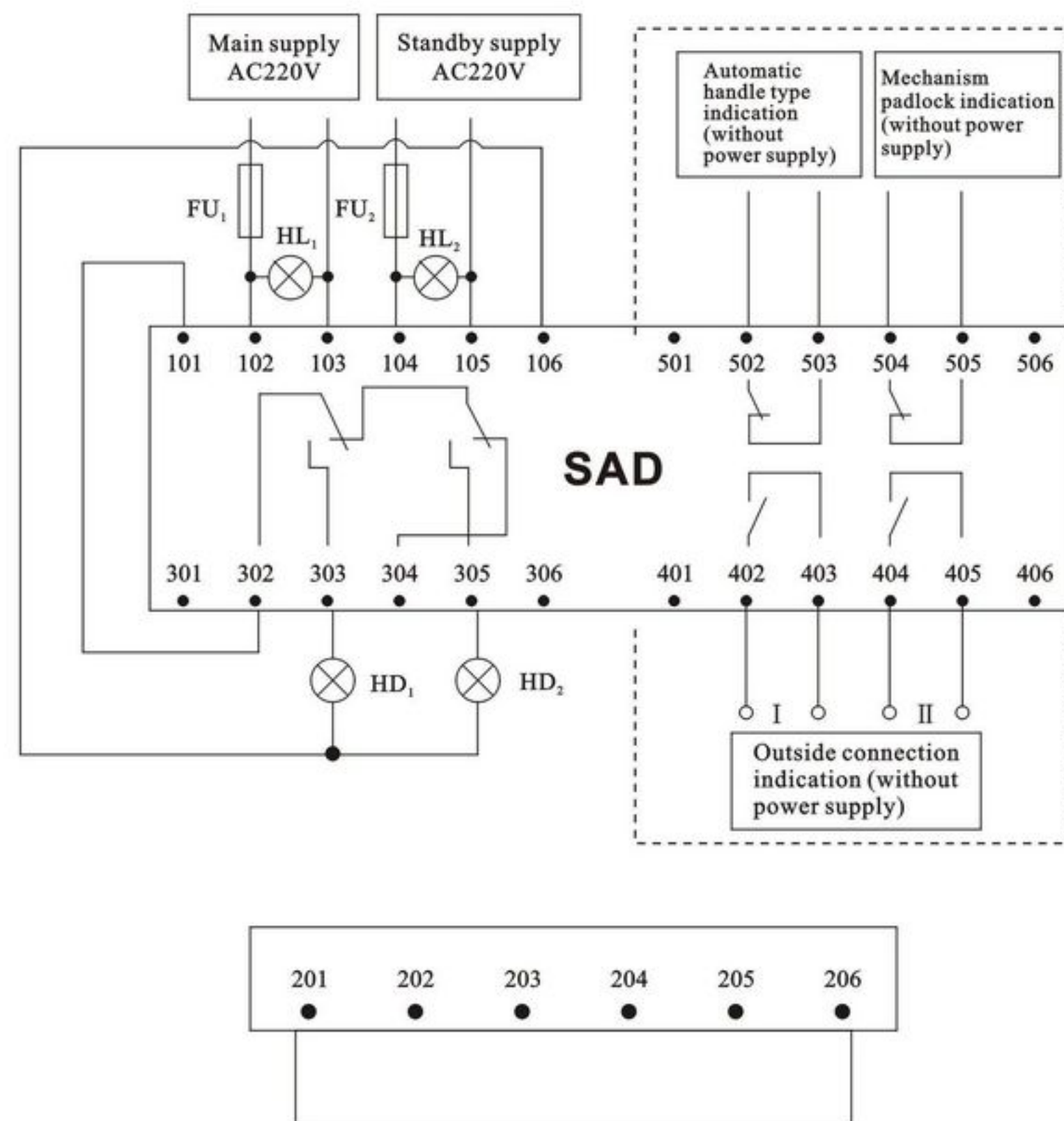
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2.SAD-2000~3200A External Dimension and Installation Dimension



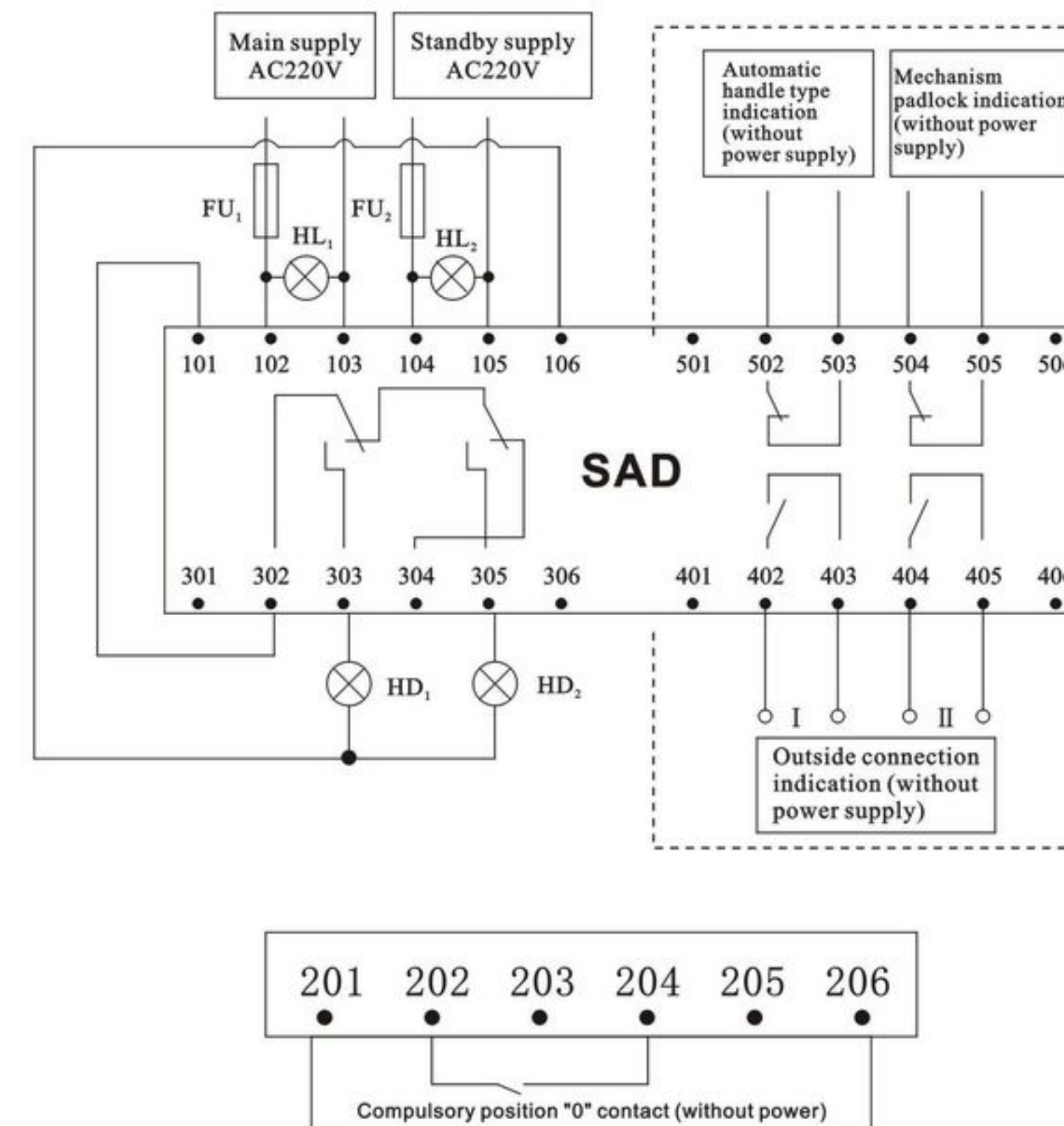
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1. Automatic Connection Mode



- HL1 indicator main supply comes;
- HL2 indicator standby supply comes;
- HD1 indicator main supply throws;
- HD2 indicator standby supply throws;
- FU1, FU2 are the fuse for 2A;
- 101~106, 201~206, 301~306 is SAD automatic change over switch terminals;
- 401~406, 501~506 the switch terminals could be choosed.

2. Automatic + Compulsory Position "0" Connection Mode (Both of the two lines power off)



- HL1 indicator main supply comes;
- HL2 indicator standby supply comes;
- HD1 indicator main supply throws;
- HD2 indicator standby supply throws;
- FU1, FU2 are the fuse for 2A;
- 101~106, 201~206, 301~306 is SAD automatic change over switch terminals;
- 401~406, 501~506 the switch terminals could be choosed.

Performance Function

1. Power supply change over:

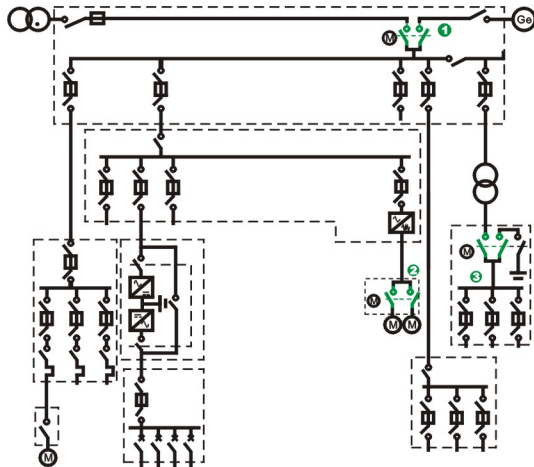
Main supply change over to standby supply.

2. Change over, reverse:

Change over between two load equipment (Emergency standby motor). Reversion by two phases change over.

3. Cut off + the grounding:

One operation of grounding and short circuit realizes the Isolation (*) ($U_e > A_c$).



Middle Operated Load Isolation Switch SPB Series

Introduction



SPC series load isolation switch (hereinafter called switch for short) is manufactured by our company with the up-to-date technique imported from Europe. This product meets the international technical level in the late 1990s, being the most ideal renewal of domestic congeneric products.

This kind of load isolation switch is widely used in the distribution system and automatic system of architecture, electrical power, petrochemical, and other industries.

This kind of load isolation switch possesses flexible structure of modularized design, possesses flexible and versatile combination, it adopts the shell made by unsaturated polyester resin reinforced by glassfibre. It has very high dielectric performance, protective capability, and safe operation performance.

The operating mechanism is an elastic-accumulating accelerating mechanism for instant release, which makes instant on and off of the double break point contact. It has no relationship with the speed of operating handle, increasing greatly various electric properties and mechanical properties.

There are operations inside and outside the board. There are middle and side operations.

This kind of switch has a good-looking outline and various functions, being very novel, simple and small dimensioned, and the best choice among the congeneric products.

Ordering Information

S P □ - □ / □ □ □ □

0 stands for without bottom installation plate
1 stands for with bottom installation plate

0 stands for without auxiliary contact
1 stands for with 1NO+1NC auxiliary contact
2 stands for with 2NO+2NC auxiliary contact

0 stands for without bridging bars
1 stands for with bridging bars

1 stands for operation inside the board
2 stands for operation outside the board

Number of poles: { 3: stands for 3 poles
4: stands for 4 poles (3 poles + on and off neutral pole)
Rated thermal current (40A, 63A, 80A, 100A, 125A, 160A, 200A, 250A, 315A, 400A, 500A, 630A, 1000A, 1250A, 1600A, 2000A, 2500A, 3150A)

B: stands for middle operated load isolation switch
C: stands for side operated load isolation switch
L: stands for side operated onload change over switch
M: stands for middle operated onload change over switch

Manual switch

Code of company

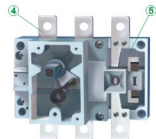
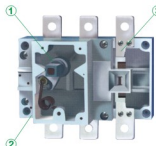
Middle Operated Load Isolation Switch SPB Series



Example for model selection

SPB-160/32010

Middle operated load isolation switch, rated thermal current is 160A, 3 poles, operation outside the board, auxiliary contact 1NO+1NC.



Characteristics of Products

1. The elastic-accumulating accelerating mechanism for instant release realizes the rapid making and breaking (13.8m/s), having no relationship with the speed of the operating handle, and increasing greatly the capability of extinguishing electric arc.
2. The shell made of unsaturated polyester resin reinforced by glassfibre possesses excellent performance of flame resistant, dielectric performance, safe operation, resist carbonic performance and resist impact performance.
3. Parallel double breakpoint contact possesses self-cleaning functions.
4. All the contact materials are copper alloy plated with silver, and possess two separation contact surfaces.
5. Large distance of insulation.
6. Be on "O" position, the switch handle can be locked with three locks at the same time and thus can avoid error operation.

Product Usage

SPC series load isolation switch is mainly suitable for AC 50Hz, rated voltage to 660V, rated thermal current up to 3150A. The switch is used for the infrequent making and breaking circuit, or electric isolation.

SPB-63A~3150A electrical properties and mechanical properties

Rated thermal current Ith A			63A		100A		160A				250A		630A			1600A			3150A			
Rated current In (A)			40	63	80	100	125	160			200	250	315	400	500	630	1000	1250	1600	2000	2500	3150
Rated impulse withstand voltage Ui (V)			750	750	750	750	750	750			750	750	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Dielectric strength (V)			5000	5000	5000	5000	5000	5000			5000	5000	8000	8000	8000	8000	10000	10000	10000	10000	10000	10000
Rated surge-resistant voltage Uimp KV (installed category IV)			6	6	6	6	8	8			8	8	12	12	12	12	12	12	12	12	12	12
Rated working current Ie (A)	380V	AC-21	40	63	80	80	125	160			200	250	315	400	500	630	1000	1250	1600	2000	2500	3150
		AC-22	40	63	80	80	125	160			200	250	315	400	500	630	1000	1250	1600	2000	2000	3150
		AC-23	40	50	80	80	125	160			200	250	315	340	425	536						
	660V	AC-21	40	50	80	80	125	160			200	250	315	400	400	500	1000	1000	1600	2000	2500	2500
		AC-22	32	32	50	50	125	160			160	160	315	315	315	315	800	800	800	1000	1000	1000
		AC-23	25	25	40	40	80	80			100	125	125	125	125	125						
	220V	DC-21	32	63	80	100	125	160			200	250	315	400	500	630	1000	1250	1600	2000	2500	2500
		DC-22	40	63	80	80	125	160			200	250	315	400	400	500	1000	1250	1250	1600	1600	1600
		DC-23	40	63	63	63	125	125			160	200										
	440V	DC-21					100	125			160	200	315	400	400	500	1000	1250	1250	2000	2000	2000
		DC-22					100	125			160	200	315	400	400	500	1000	1250	1250	1250	1250	1250
		DC-23					100	125			160	200	315	400	400	500	1000	1000	1000			
Motor power P (KW)		380V	18.5	25	40	40	63	80			100	132	160	220	280	315	560	560	560	710	710	710
		660V	22	22	33	33	75	75			90	110	185	185	185	185	475	475	475	750	750	750
Rated short-time withstand current Icw (KA Rms) 0.1S/1.0S							20/10		20/10		30/12	30/12	45/20	45/20	50/25	50/25	90/50	90/50	90/50	90/50	90/50	90/50
Rated breaking capability Icm (A Rms) AC23 380V			320	504	640	800	1000	1000			1600	1600	2500	2500	3200	3200						
Rated making capability Icm (A Rms) AC23 380V			400	630	800	1000	1250	1250			2000	2000	3150	4000	4000	4000						
Rated short-current making capability Icm (KA peak value)			7.5	7.5	10	10	12	12			17	17	30	30	40	40						
Mechanical durability (number of cyclic operation)			10000	10000	10000	10000	10000	10000			10000	10000	5500	5500	5500	5500	4000	4000	3000	2500	2500	2500
Electric durability (number of cyclic operation) Rated voltage Ue =660V, Rated current Ie	COSφ=0.95 AC21		1700	1700	1700	1700	1500	1500			1500	1500	750	750	750	750	600	600	450			
	COSφ=0.65 AC22		100	100	100	100	1000	1000			1000	1000	500	500	500	500	400	400	300			
	COSφ=0.35 AC23		500	500	500	500	500	500			500	500	250	250	250	250	200	200	150			
Moment of operation (Nm)			1.2	1.2	1.2	1.2	6.5	6.5			10	10	14.5	14.5	14.5	14.5	37	37	60	60	60	60
Weight (kg)	3 poles		0.37	0.37	0.37	0.37	1.3	1.3			2.2	2.2	4.3	4.3	4.7	4.7	10.5	10.5	16	25.5	25.5	31
	4 poles		0.41	0.41	0.41	0.41	1.5	1.5			2.6	2.6	5.4	5.4	6	6	13	13	20	37.5	37.5	51.5

Operation Environment

SP□ series load Isolation switch can work reliably under the following condition:

Height above sea level does not exceed 2,000m;

Ambient temperature is not higher than 40°C and not lower than -5°C, relative humidity is not larger than 95%;

No explosive dangerous medium environment;

No rain and snow attack environment;.

Note: If the load isolation switch is expected to be used in the condition that the ambient temperature is higher than +40°C or is lower than -5°C ~ -45°C, customers should inform the manufactory.

SP□-63~3150A load isolation switch

7 specifications of SP□ load Isolation switch from 63A to 3150A: Basic model of modularized design, 3 poles, 4 poles (3 poles + on and off neutral pole). It is suitable for the making and breaking operation of electric circuit or electric isolation.

Switches over 1000A are only suitable for electric isolation.

Mark window is set in the front side to indicate the on and off state of the contact.

Two group of auxiliary contacts can be assembled.

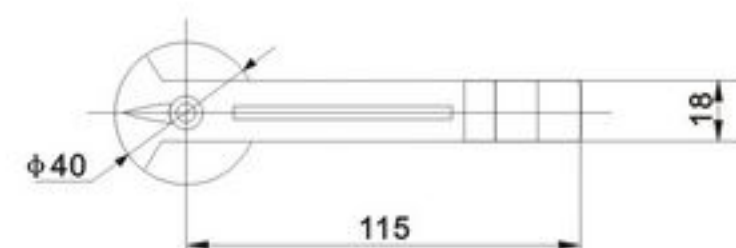
Operation mode

Direct operation:

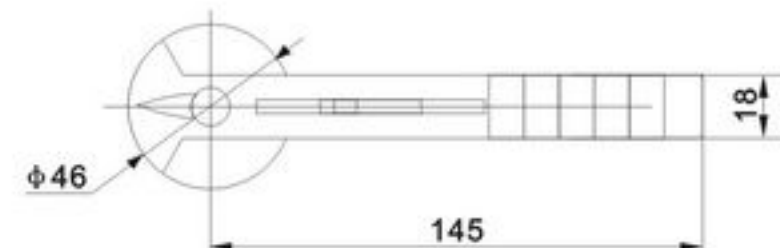
The handle is installed directly in the middle of the switch.

Operation outside the board:

The handle is installed outside the door of distributing board.



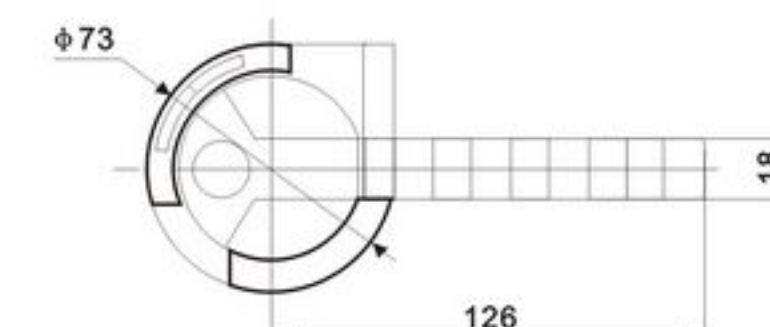
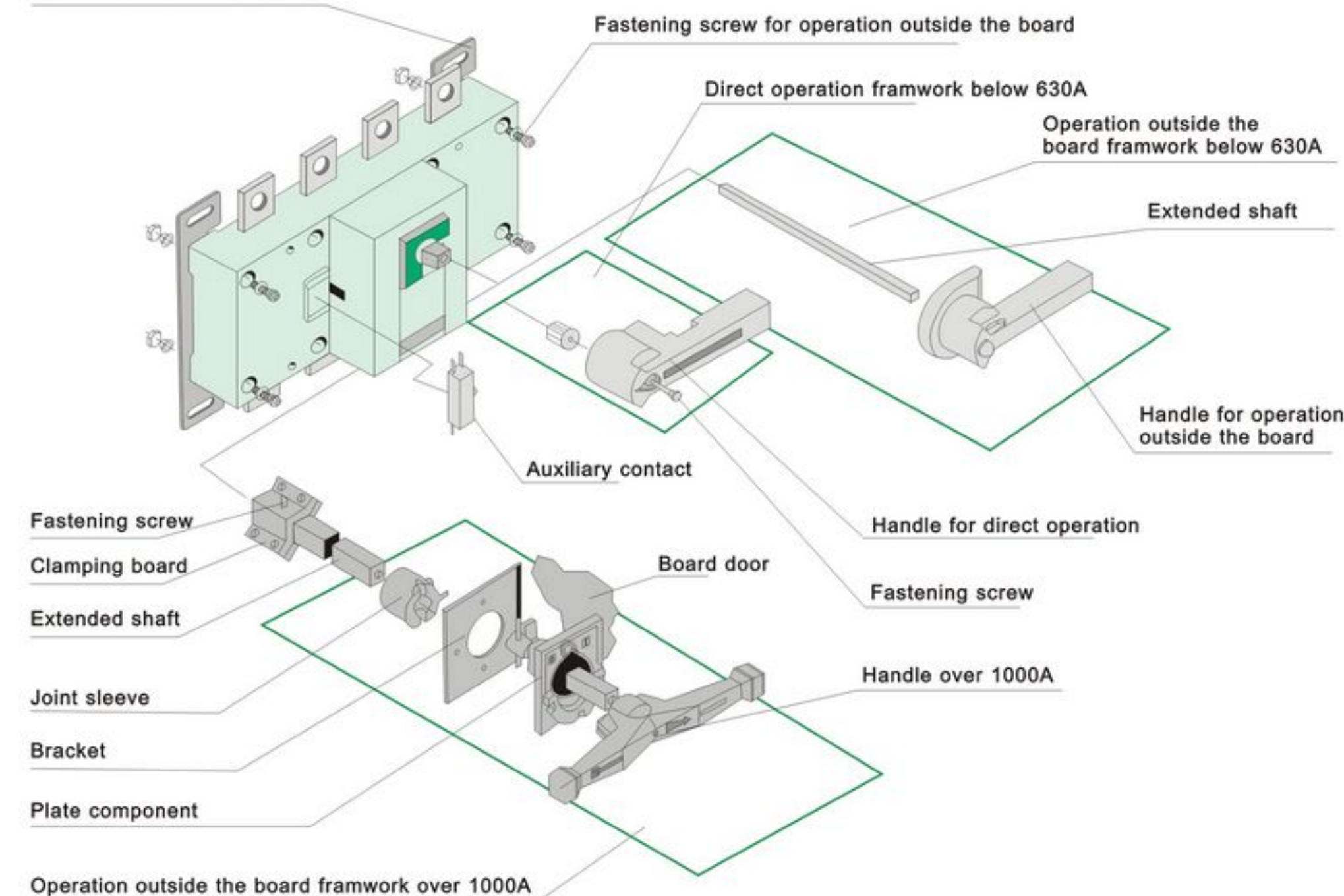
SPB-160~250A/3.4
SPC-160~250A/3.4
SPL-160~250A/3.4
SPM-160~250A/3.4



SPB-630A/3.4
SPC-630A/3.4
SPL-630A/3.4
SPM-630A/3.4

Handle for operation directly

Bottom installation board used for operation outside the board.



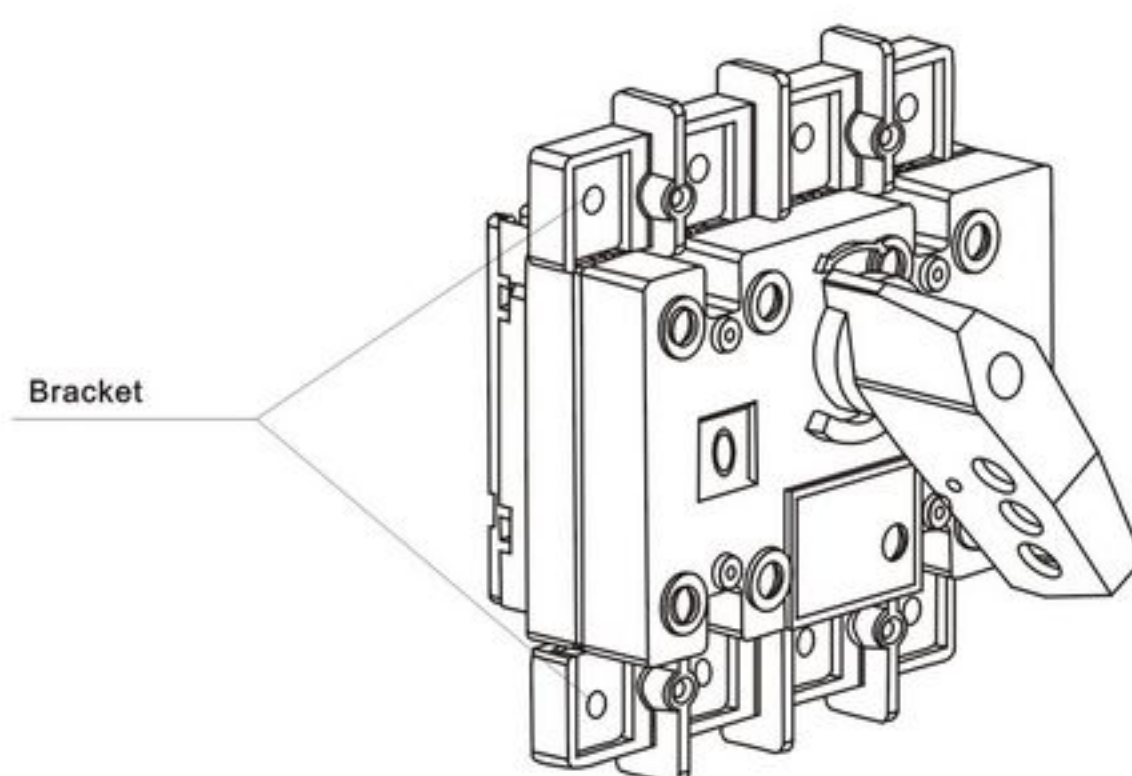
SPB-160~630A/3.4
SPC-160~630A/3.4
SPL-160~630A/3.4
SPM-160~630A/3.4

Handle for operation outside the board

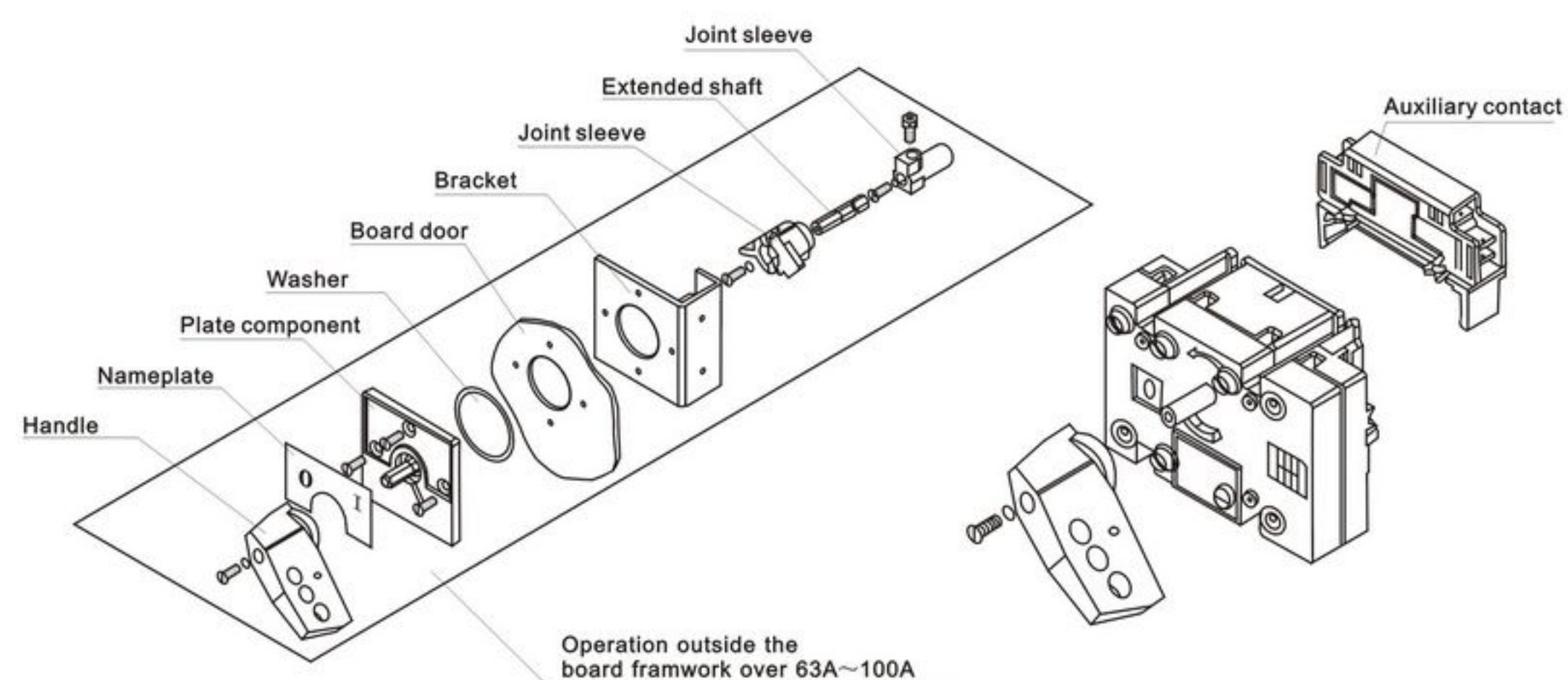
SP□-160~3150A Load Isolation Switch
Note: Standard length of extended shaft is
160A, 250A: 330mm;
630A: 300mm;
1600A, 3150A: 330mm.

SPB-63A~100A middle operated load isolation switch

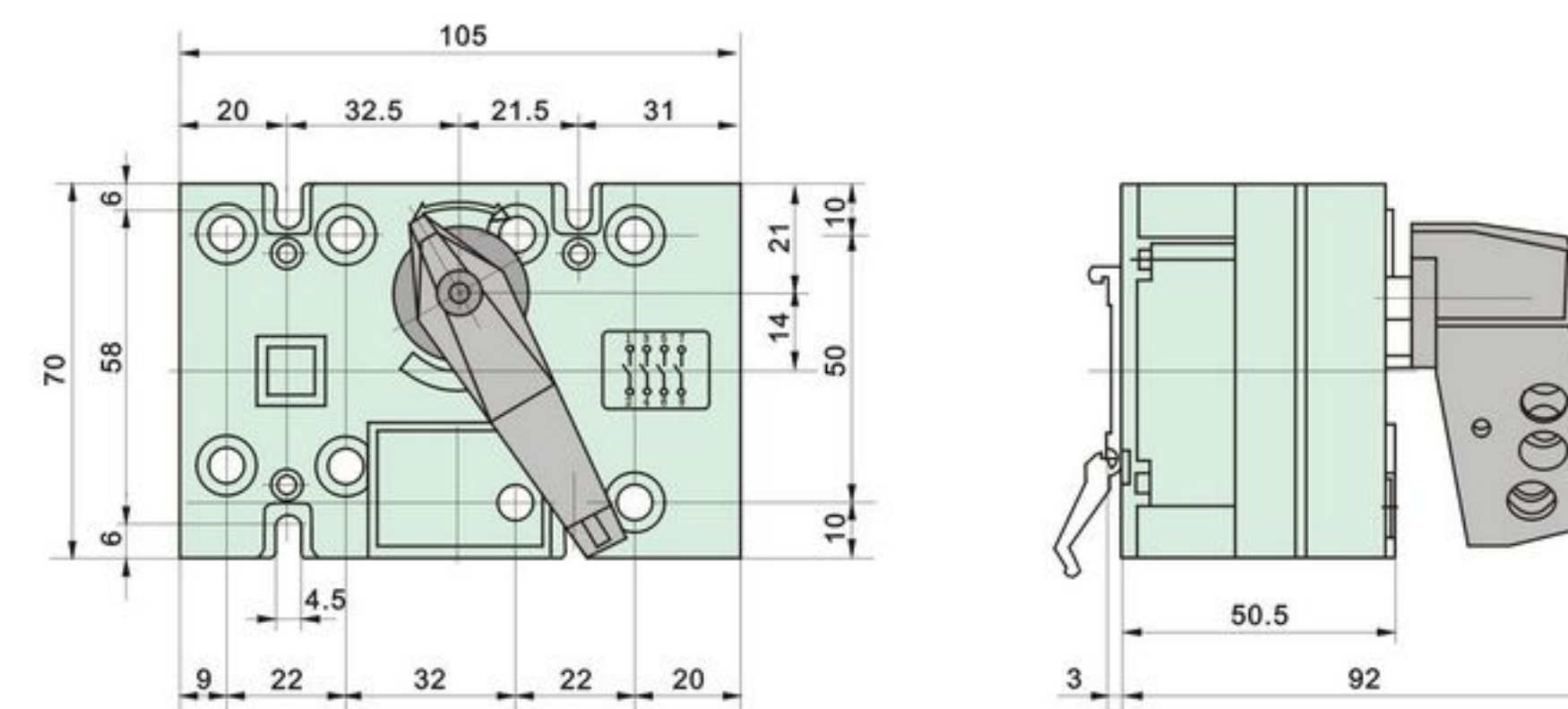
63A~100A is suitable for the making and breaking of circuit or electric isolation.
63A~100A possesses 3 poles, and 4 poles (3 poles + on and off neutral pole).
Two sets of auxiliary contacts can be assembled according to the demand.
Side operation, operation outside, the board can be assembled according to the demand.



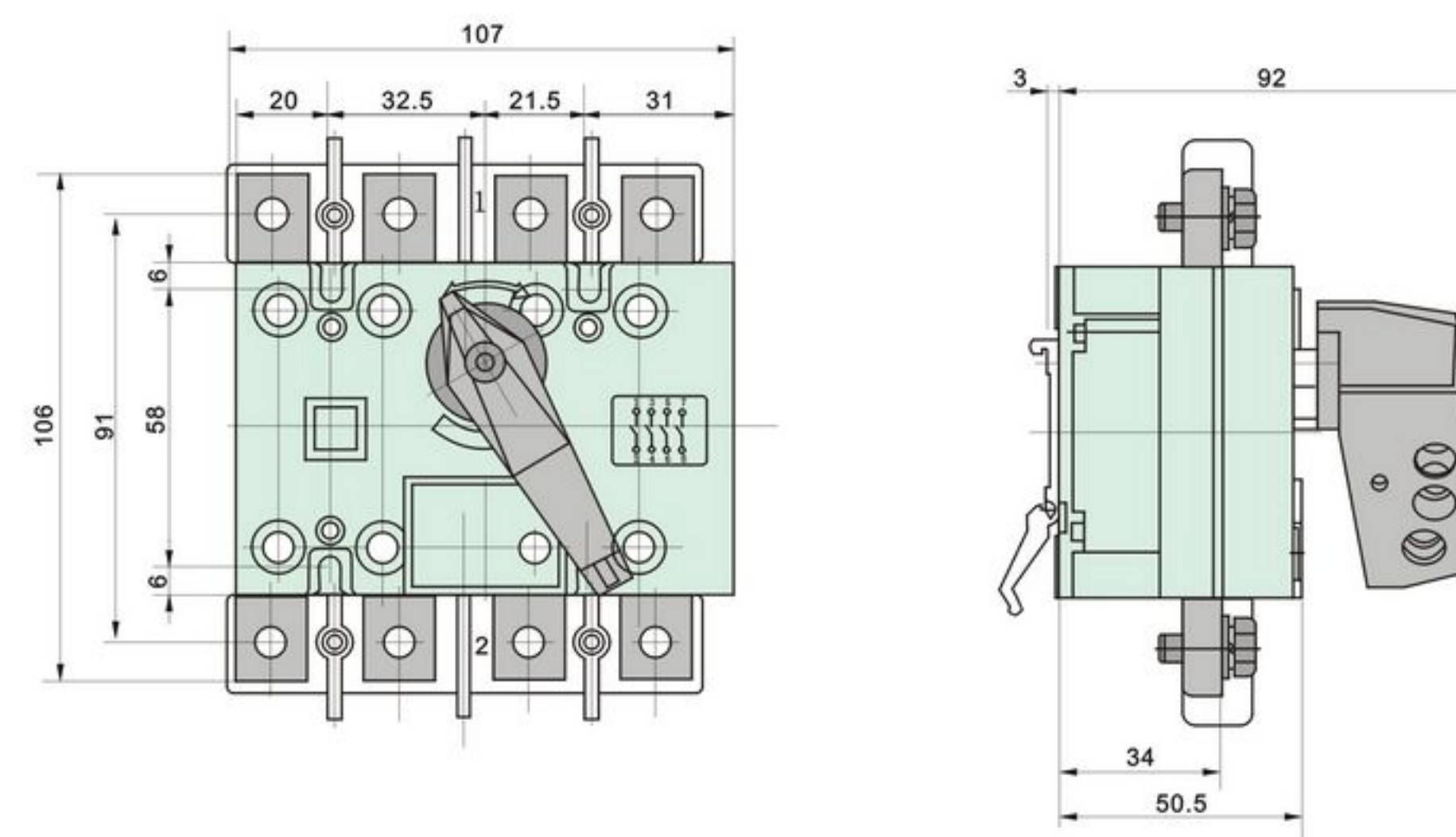
Attention: It's SPB-40A~63A load isolation switch which is no bracket



External dimension and installation dimension of SPB-63A~100A middle operated load isolation switch



Direct operation of SPB-63A



Direct operation of SPB-100A

SPC-125A~1600A side operation load isolation switch

SPC-125A~630A the load isolation switch is suitable for the making and breaking of circuit or electric isolation. The products have 3 poles, 4 poles (3 poles + on and off neutral pole). Switches over 1000A are only suitable for electric isolation.

Mode of operation:

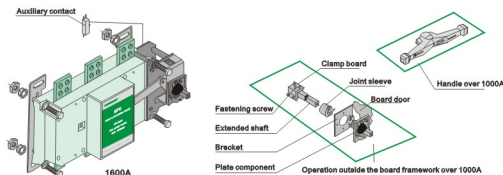
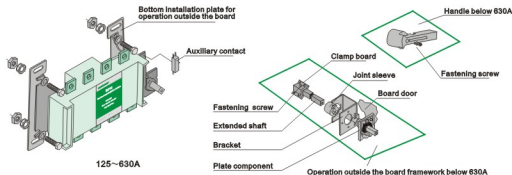
Direct operation: handle is installed on the right side of switch.

Operation outside the board: handle is installed outside the door of distributing board.

Two sets of auxiliary contacts can be assembled according to the demand.

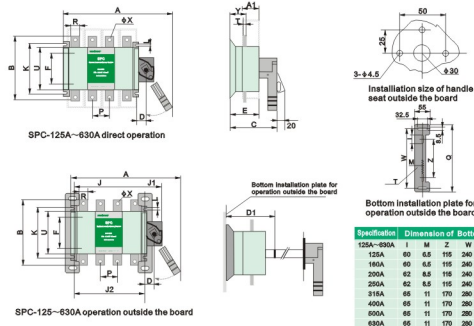
Extended shaft is used for the operation outside the board.

Mechanical property and electric performance correspond to the mechanical performance and electric performance of SP□-125A~1600A.



Side Operated Load Isolation Switch SPC Series

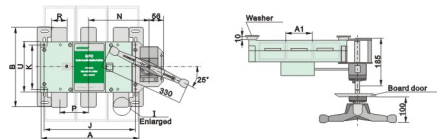
External dimension and installation dimension of SPC-125A~630A side operation load isolation switch



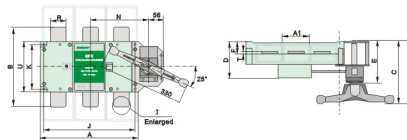
Specification	Dimension of Bottom board					
125A-630A	I	M	Z	W	Q	T
125A	60	6.5	115	240	270	3
160A	60	6.5	115	240	270	3
200A	62	8.5	115	240	270	3
250A	62	8.5	115	240	270	3
315A	65	11	170	280	311	4
400A	65	11	170	280	311	4
500A	65	11	170	280	311	4
630A	65	11	170	280	311	4

Specification	External Dimension and Installation Dimension																				
	In	A	A1	B	C	D	D1	E	F	J	J1	J2	K	P	R	T	U	ΦX	Y	L	F
125A/3	267	50	135	146	29	123	88	120	65	120	95	36	20	3.5	85	9	55	7	52		
125A/4	297	50	135	146	29	123	88	150	65	150	95	36	20	3.5	85	9	55	7	52		
160A/3	267	50	135	146	29	123	88	120	65	120	95	36	20	3.5	85	9	55	7	52		
160A/4	297	50	135	146	29	123	88	150	65	150	95	36	20	3.5	85	9	55	7	52		
200A/3	300	60	170	154	30	133	98	160	65	160	116	50	25	3.5	110	11	64	9	79		
200A/4	350	60	170	154	30	133	98	210	65	210	116	50	25	3.5	110	11	64	9	79		
250A/3	300	60	170	154	30	133	98	160	65	160	116	50	25	3.5	110	11	64	9	79		
250A/4	350	60	170	154	30	133	98	210	65	210	116	50	25	3.5	110	11	64	9	79		
315A/3	400	85	240	199	45	162	127	210	77	210	180	50	32	5	160	11	83	11	100		
315A/4	460	85	240	199	45	162	127	270	77	270	180	50	32	5	160	11	83	11	100		
400A/3	400	85	240	199	45	162	127	210	77	210	180	65	32	5	160	11	83	11	100		
400A/4	460	85	240	199	45	162	127	270	77	270	180	65	32	5	160	11	83	11	100		
500A/3	400	85	260	199	45	162	127	210	77	210	180	65	40	5	160	12	83	11	100		
500A/4	460	85	260	199	45	162	127	270	77	270	180	65	40	5	160	12	83	11	100		
630A/3	400	85	260	199	45	162	127	210	77	210	180	65	40	5	160	12	83	11	100		
630A/4	460	85	260	199	45	162	127	270	77	270	180	65	40	5	160	12	83	11	100		

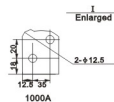
External dimension and installation dimension of SPC-1000A~1600A side operation load isolation switch



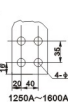
SPC-1000A/3 operation outside the board



SPC-1600A/3



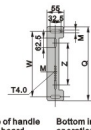
1000A



1250A~1600A



Installation size of handle seat outside the board



Bottom installation plate for operation outside the board

Specification	External Dimension and Installation Dimension																		
I n	A	A1	B	D	E	F	J	K	M	N	P	Q	R	U	T	W	Z		
1000A/3	378	105	312	140.5	163	47.5	353	175	8.5	228	120	311	60	200	8	280	224		
1000A/4	492	105	312	140.5	163	47.5	467	175	8.5	286	120	311	60	200	8	280	224		
1250A/3	378	105	338	140.5	163	47.5	353	175	8.5	228	120	311	80	200	8	280	224		
1250A/4	492	105	338	140.5	163	47.5	467	175	8.5	286	120	311	80	200	8	280	224		
1600A/3	378	105	338	140.5	163	47.5	353	175	8.5	228	120	311	80	200	10	280	224		
1600A/4	492	105	338	140.5	163	47.5	467	175	8.5	286	120	311	80	200	10	280	224		

SPL-125A~1600A side operated and SPM-125A~1600A middle operated onload change over switch

SPL (SPM) -125A~1600A the onload change over switch is suitable for the change over of two sets of low voltage electric circuit or the change over of two sets of load devices or safety isolation.

Mode of operation:

Direct operation: handle is installed on the switch.

Operation outside the board: handle is installed outside the door of distributing board.

The products have 3 poles, 4 poles (3 poles + on and off neutral pole) .

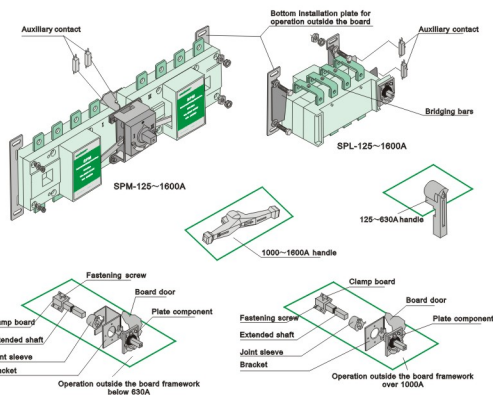
Extended shaft is used for the operation outside the board.

Two sets of auxiliary contacts can be assembled according to the demand.

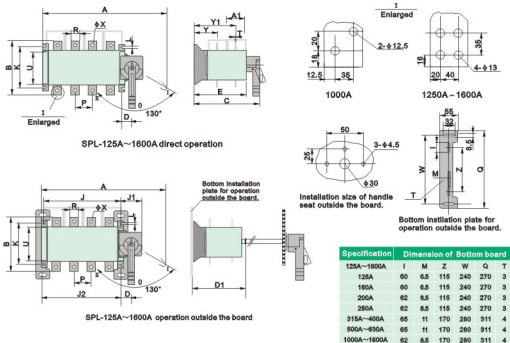
Mechanical performance and electrical performance correspond to the mechanical property of SPC-125A~1600A.

Bridging bars can be provided to connect the inlet or outlet terminal of the switch.

Note: The bridging bars connection is chosen, an explanation is needed to indicate the inlet or outlet connected with it.

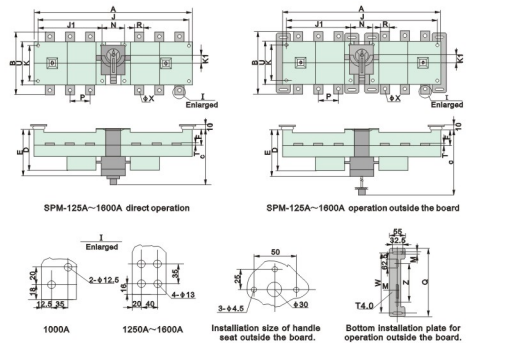


External dimension and installation dimension of SPL-125A~1600A side operated onload change over switch



Specification	External Dimension and Installation Dimension																		
	In	A	A1	B	C	D	D1	E	J	J1	J2	K	L	P	R	T	U	+X	Y
125A~160A/3	287	50	135	212	29	189	154	120	65	120	95	7	36	20	3.5	85	9	55	121
125A~160A/4	297	50	135	212	29	189	154	150	65	150	95	7	36	20	3.5	85	9	55	121
200A~250A/3	300	60	170	236	30	215	180	160	65	160	116	9	50	25	3.5	110	11	64	146
200A~250A/4	350	60	170	236	30	215	180	210	65	210	116	9	50	25	3.5	110	11	64	146
315A~400A/3	400	85	240	309	45	272	237	210	77	210	180	11	65	32	5	160	11	83	193
315A~400A/4	460	85	240	309	45	272	237	270	77	270	180	11	65	32	5	160	11	83	193
500A~630A/3	400	85	260	309	45	272	237	210	77	210	180	11	65	32	6	160	12	83	193
500A~630A/4	460	85	260	309	45	272	237	270	77	270	180	11	65	32	6	160	12	83	193
1000A/3	574	105	312	389	52.5	340	307	353	108.5	353	212	18	120	60	8	200	12.5	107	251.5
1000A/4	685	105	312	389	52.5	340	307	467	108.5	467	212	18	120	60	8	200	12.5	107	251.5
1250A/3	574	105	338	389	52.5	340	307	353	108.5	353	212	18	120	80	8	200	13	107	251.5
1250A/4	685	105	338	389	52.5	340	307	467	108.5	467	212	18	120	80	8	200	13	107	251.5
1600A/3	574	105	338	389	52.5	340	307	353	108.5	353	212	18	120	80	10	200	13	108	251.5
1600A/4	685	105	338	389	52.5	340	307	467	108.5	467	212	18	120	80	10	200	13	108	251.5

External dimension and installation dimension of SPM-125A~1600A middle operation onload change over switch



Specification	External Dimension and Installation Dimension																		
	In	A	B	C	D	E	E1	F	J	J1	K	K1	M	N	P	Q	R	U	+X
125A~160A/3	319	135	141	67	89	117.5	24	299	120	65	8.5	5.5	59	36	218	20	85	9	3.5
125A~160A/4	379	135	141	67	89	117.5	24	359	150	65	8.5	5.5	59	36	218	20	85	9	3.5
200A~250A/3	405	170	146	79	94	122.5	25	385	160	90	18	5.5	65	50	218	25	110	11	3.5
200A~250A/4	505	170	146	79	94	122.5	25	485	210	90	18	5.5	65	50	218	25	110	11	3.5
315A~400A/3	535	240	191	108	130	157	36	515	210	140	25	6.5	95	65	270	32	160	11	5
315A~400A/4	655	240	191	108	130	157	36	635	270	140	25	6.5	95	65	270	32	160	11	5
500A~630A/3	635	260	191	108	130	157	36.5	515	210	140	25	6.5	95	65	270	40	160	12	6
500A~630A/4	655	260	191	108	130	157	36.5	635	270	140	25	6.5	95	65	270	40	160	12	6
1000A/3	836	312	239.5	141	163	190.5	48	811	353	175	10	8.5	105	120	311	60	200	12.5	8
1000A/4	1064	312	239.5	141	163	190.5	48	1039	467	175	10	8.5	105	120	311	60	200	12.5	8
1250A/3	836	338	239.5	141	163	190.5	48	811	353	175	10	8.5	105	120	311	60	200	13	8
1250A/4	1064	338	239.5	141	163	190.5	48	1039	467	175	10	8.5	105	120	311	60	200	13	8
1600A/3	836	338	239.5	141	163	190.5	48	811	353	175	10	8.5	105	120	311	60	200	13	8
1600A/4	1064	338	239.5	141	163	190.5	48	1039	467	175	10	8.5	105	120	311	60	200	13	8

Performance Function

1. Power supply change over:

Main supply change over to standby supply.

2. Change over, reverse:

Change over between two load equipment (Emergency standby motor). Reversion by two phases change over.

3. Bypass circuit:

Full bypassing isolates the equipment.

From upstream and downstream currents (With one operation).

4. Cut off + the grounding:

One operation of grounding and short circuit realizes the isolation (*) ($U_e > A_c$).

