

LOAD ISOLATION SWITCH

OPERATING INSTRUCTION

Product Certificate

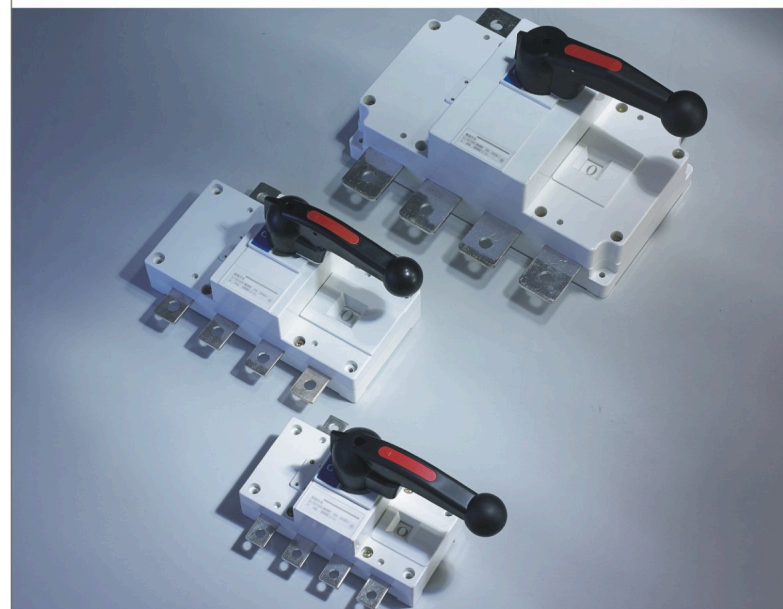
Model :

Name: Load isolation switch

The product is qualified after inspection and meets the standard GB/T 14048.3, and it is allowed to leave the factory.

Inspector :

Inspection date: see product packaging



Please read the instructions carefully, when product acceptance and installation, and retain it for future reference.

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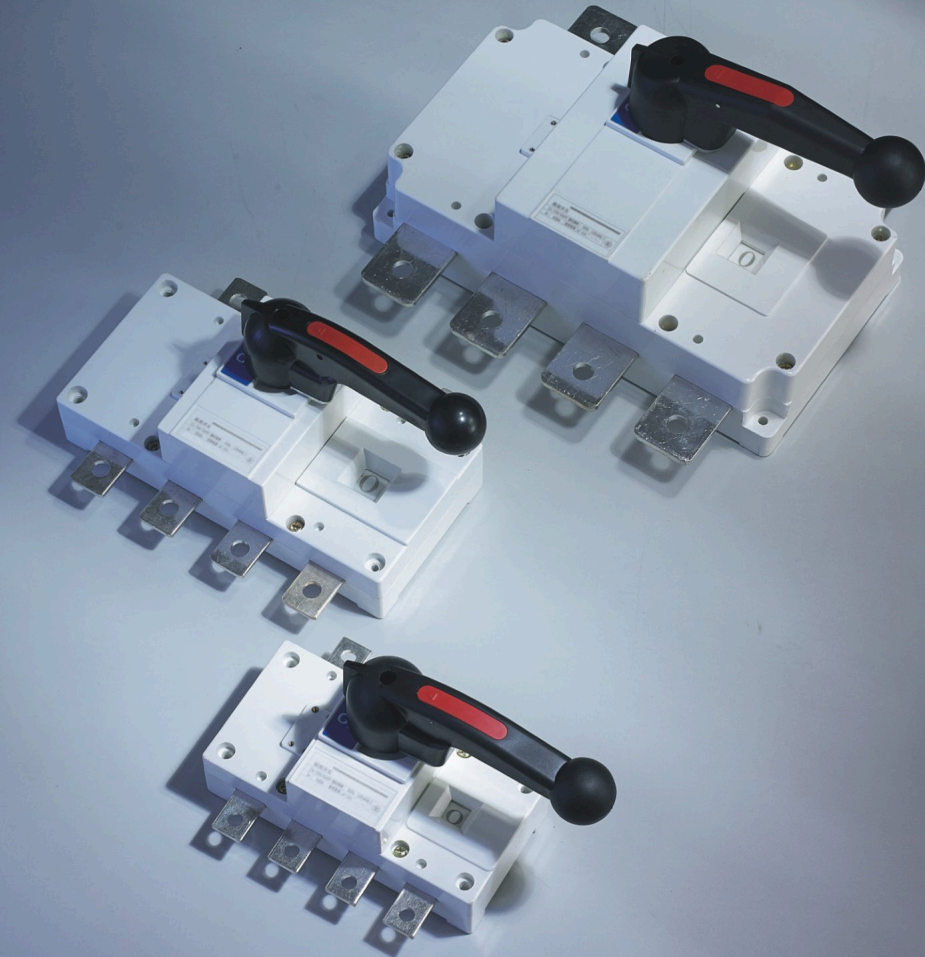
PREFACE

Dear user:

Thank you for using our products, we believe this product will give your work and life benefits and convenience, welcome your valuable suggestions and comments in the use course, we will continue to provide you with enthusiastic and attentive service. Or if you have any questions, please contact the manufacturer directly with our vendors.

This manual is for reference only. If the product or version upgrades to change without notice. Paid product to prevail. Thank you for your cooperation and support.

LOAD ISOLATION SWITCH



1. General

Load isolation (hereinafter referred to as switch) is developed by our company by introducing advanced technology from Europe. This product has the international advanced level in the late 1990s, and it is an ideal replacement product among similar domestic products. Switch is widely used in power distribution system and automation system of construction, power, petrochemical and other industries.

Modular design structure, flexible and diverse combination, using glass fiber reinforced unsaturated polyester resin with very high dielectric properties, protection and reliable operation safety. The operating mechanism is an acceleration mechanism with spring energy storage and instantaneous release. It has a double breakpoint contact structure of instantaneous connection and breaking, which has nothing to do with the speed of the operating handle. The switch has a variety of structures and operation modes. There are windows for directly observing the on-off status of the contact, inside, outside and behind the cabinet, front and side operation, and wiring in front of and behind the board.

The switch has beautiful shape, novel, simple, small volume and full function, which is the best choice among the similar products.

The product has obtained 3C certification.

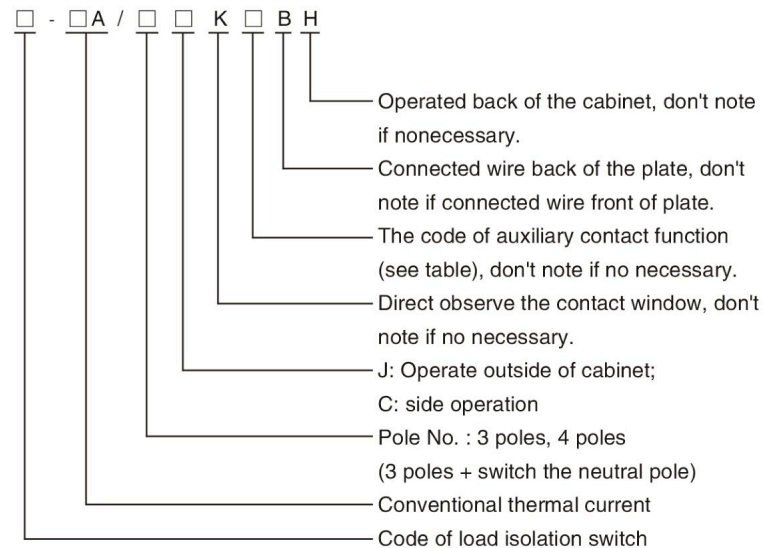
2. Application

Load isolation switch is mainly used for AC 50 Hz, rated voltage 660V, DC rated voltage 440V, rated current 3150A. It is used for isolation of infrequently connecting and breaking circuits and lines

3. Product features

- The acceleration mechanism of instantaneous release of spring energy storage realizes fast on or off (13.8m/s), which is independent of the speed of the operating handle, which greatly improves the ability of extinguishing arc.
- The shell made of glass fiber reinforced unsaturated polyester resin has good flame retardant, dielectric, carbonation and impact resistance.
- The parallel double breakpoint contact has the function of self cleaning.
- All contact materials are copper silver alloy, with two separate contact surfaces.
- The isolation distance is large.
- When in "O" position, the handle can be locked with three locks at the same time, so as to avoid misoperation reliably.

4. Model and meanings



One NO and one NC	F11	F1NO+F1NC
Two NO and Two NC	F22	F2NO+F2NC

5. Meet the standard

● International standard

IEC60947-1(1998) "Low voltage switchgear and controlgear Part 1 General"

IEC60947-3(1999) "Low voltage switchgear and control equipment, switches, isolators, isolation switches and fuse combinations"

● National standard

GB/T14048.1-2000 "Low voltage switchgear and controlgear General"

GB/T14048.3-2002 "Low voltage switchgear and control equipment, switches, isolators, isolation switches and fuse combinations"

6. Usage environment

Load isolation switch can operate under the following conditions:

- Altitude not more than 2000m;
- The ambient temperature shall not be higher than 40°C, not lower than -5°C, and the relative humidity shall not more than 95%;
- The environment without any explosive medium;
- The environment without any rain or snow attacking.

Note: If the product is expected to be used in the environment where temperature is over +40°C or below -5°C ~ 45°C, user's shall tell it to the manufacturer.

7. Electrical and mechanical properties of 63 ~ 3150A

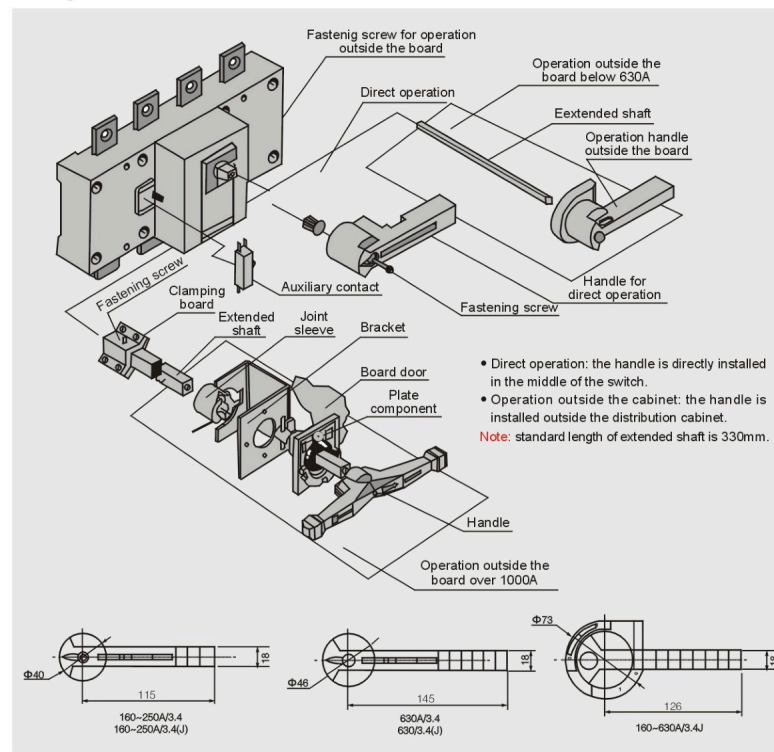
Conventional heating current Ith		63A	100A	160A	250A	400A	630A	1000A	1250A	1600A	2000A	2500A	3150A	
Rated insulation voltage Ui(V)		750		800		1000								
Dielectric strength(V)		3000				3500								
Rated impulse withstand voltage Uimp(kV)		6		8		12								
Rated working voltage Ue(V)		AC400、600												
Rated frequency		50Hz												
Utilization category		AC-21、22、23												
Rated working current Ie(A)	AC440V	AC-21	63	100	160	250	400	630	1000	1250	1600	2000	2500	3150
		AC-22	63	100	160	250	400	630	1000	1250	1600	2000	2500	3150
		AC-23	50	80	160	250	400	630	800	1000	1250	1250	2000	2500
	AC660V	AC-21	63	100	160	250	400	630	1000	1250	1600	2000	2500	3150
		AC-22	63	80	100	200	315	400	630	630	800	1000	1000	1250
		AC-23	40	63	63	125	200	250	250	400	500	/	/	/
Rated making capacity(A)		10Ie												
Rated breaking capacity(A)		8Ie												
Rated short-circuit making capacity Icm(kA)		1.7	1.7	12	17	30	40	70				70		
1s short time withstand current Iow(kA)		3	3	10	12	20	25	50				50		
Mechanical life(times)		5000	5000	5000		3000		2000			1000			
Electrical life(times)		1000	1000	1000		600		300			/			
Operating torque(N.m)		3.5	3.5	6.5	10	15		27			60			
Weight (kg) (Without handle)	3P	0.32	0.39	0.88	1.6	3.8	4.2	10.5	10.5	16	31	31	42	
	4P	0.34	0.41	1.1	2	4.6	5	13	13	20	40	40	49	

8. 63 ~ 3150A Load isolation switch

● Load isolation switch can be divided into 7 specs from 63A to 3150A, it is the basic type of module design, it has three poles and four poles (three poles + switch neutral pole), applied to make and break circuit or electric isolate, over 1000A is only for electric isolation.

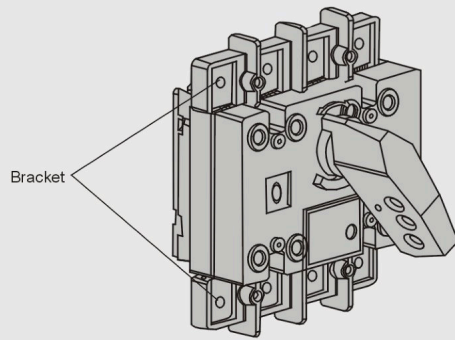
- Symbol window on front face indicates the contact on-off state.
- According to the needs, the rear observation window can be provided to directly observe the contact on-off status and window style. See operating load isolation switch behind 160A ~ 1600A/H cabinet.
- It can be equipped with two sets of auxiliary contacts.
- It can be equipped with cable insulation cover.

9. Operation mode

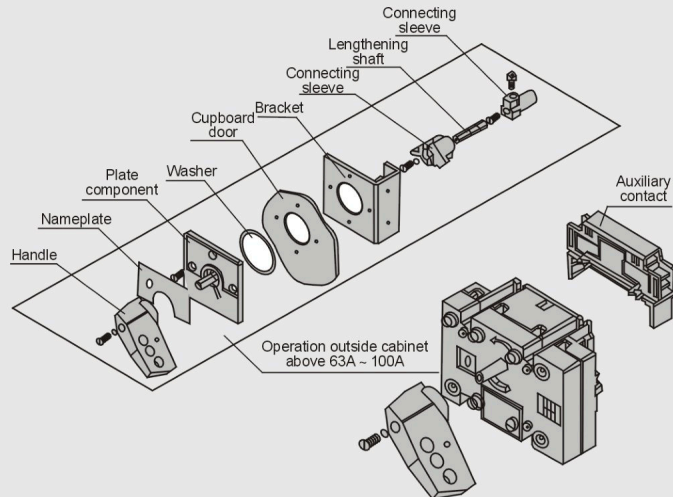


10. 63 ~ 100A Load isolation switch

- 63A ~ 100A is suitable for making and breaking circuit or electrical isolation.
- 63A ~ 100A has three poles and four poles (three poles + switch neutral poles).
- It can be equipped with two sets of auxiliary contacts as required.
- It can provide inside and outside operation of side cabinet as required.

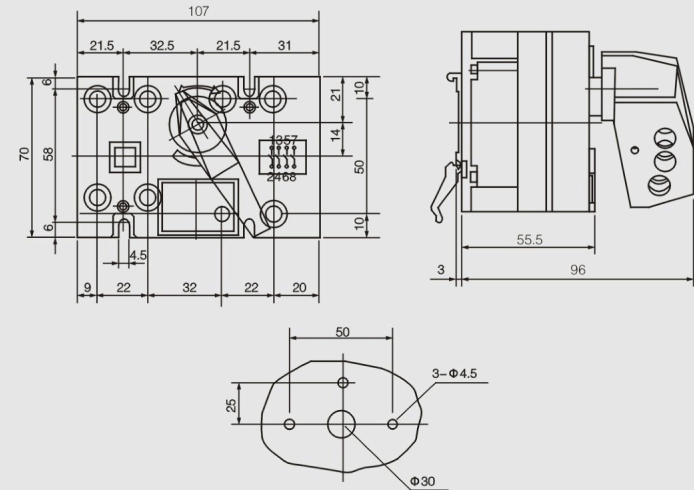


Note: removed from the bracket, which is 40A ~ 63A load isolation switch



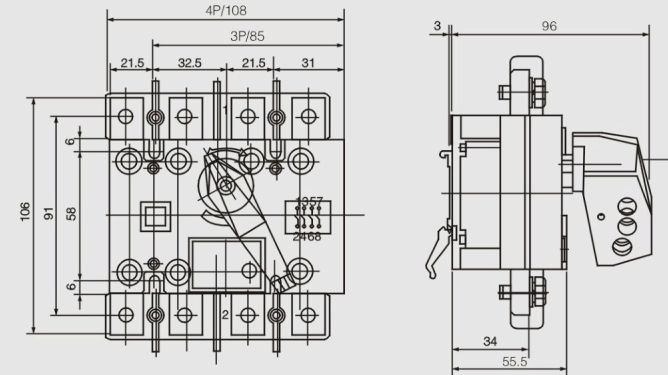
11. Overall and installation dimension of 63 ~ 100A load isolation switch

■ 63A Direct operation

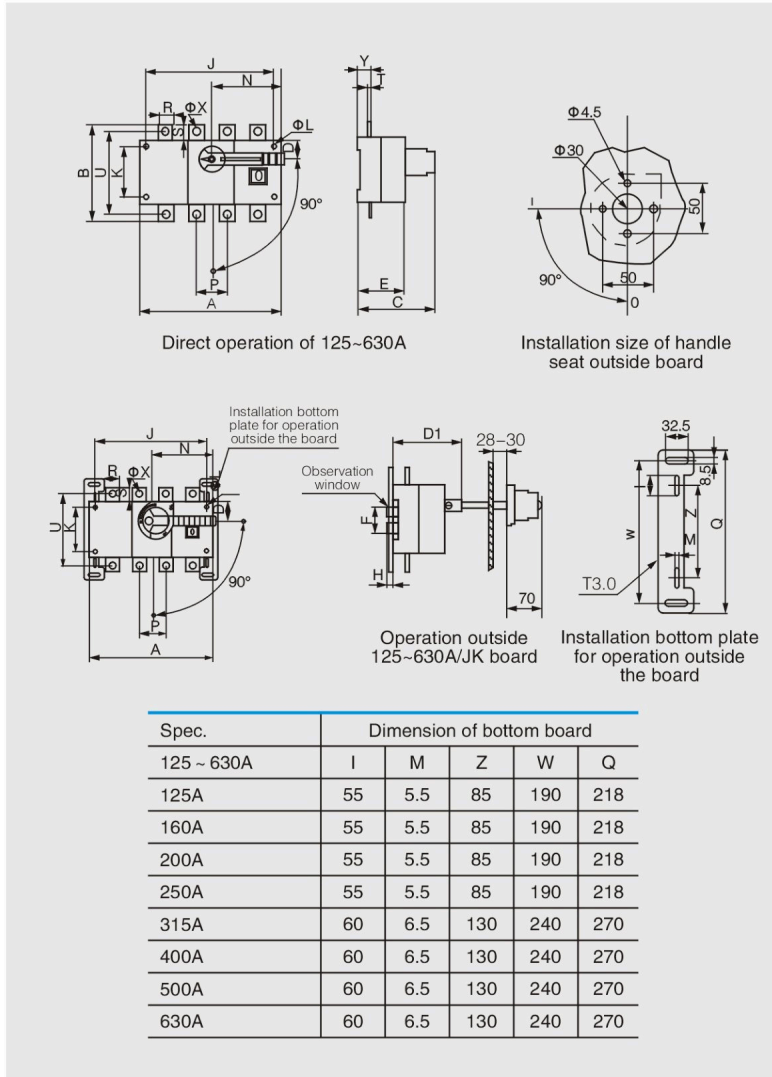


Installation dimensions and operation outside the cabinet

■ 100A Direct operation

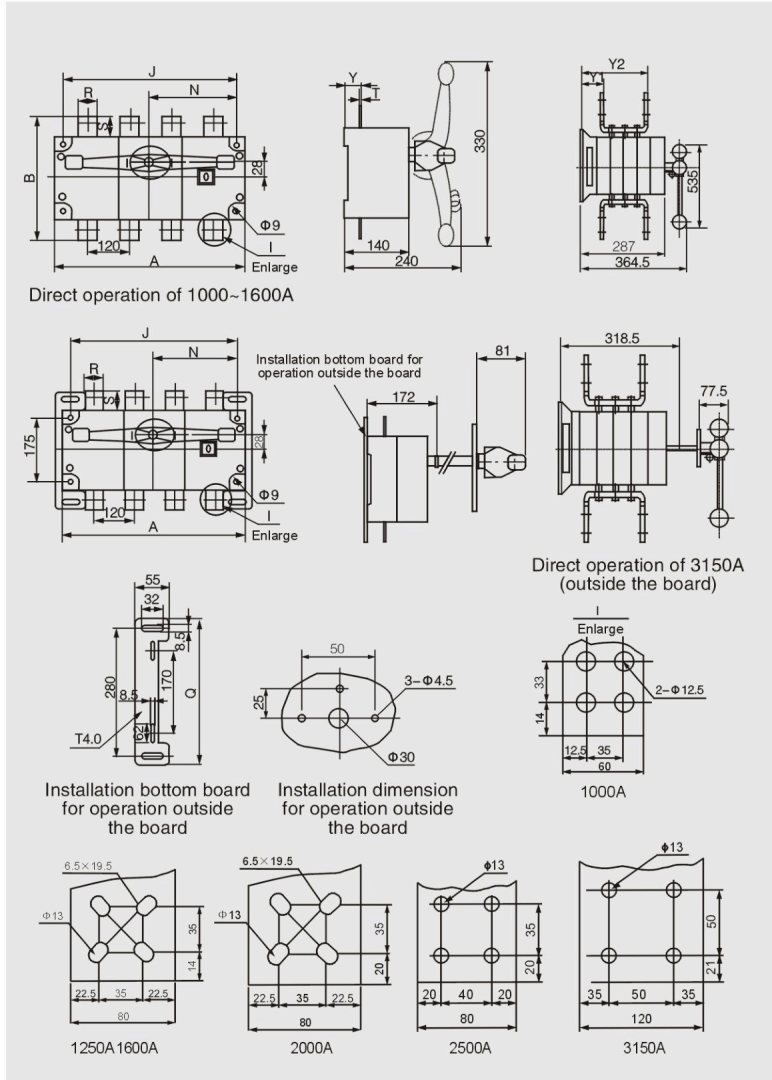


12. Overall and installation dimension of 125 ~ 630A load isolation switch



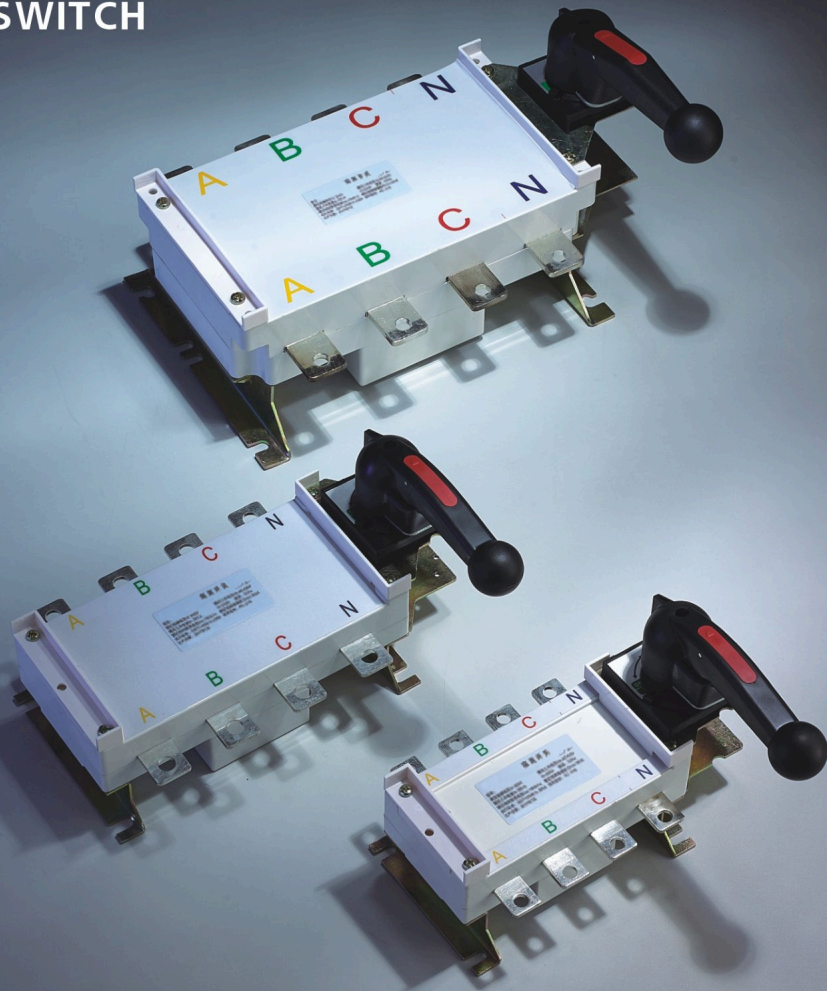
Spec.	Overall and installation dimension																						
	In	A	A1	B	C	D	D1	E	ΦL	J	J1	K	N	P	R	S	T	U	ΦX	Y	F	H	
125A/3	140	50	50	135	116	27	92	71	5.5	120	120	65	85	36	20	235	3.5	85	9	24	52	10	
125A/4	170	50	50	135	116	27	92	71	5.5	150	150	65	85	36	20	235	3.5	85	9	24	52	10	
160A/3	140	50	50	135	116	27	92	71	5.5	120	120	65	85	36	20	235	3.5	85	9	24	52	10	
160A/4	170	50	50	135	116	27	92	71	5.5	150	150	65	85	36	20	235	3.5	85	9	24	52	10	
200A/3	180	60	60	170	128	35	104	83	5.5	160	160	90	115	50	25	290	3.5	110	11	25	79	13	
200A/4	230	60	60	170	128	35	104	83	5.5	210	210	90	115	50	25	290	3.5	110	11	25	79	13	
250A/3	180	60	60	170	128	35	104	83	5.5	160	160	90	115	50	25	290	3.5	110	11	25	79	13	
250A/4	230	60	60	170	128	35	104	83	5.5	210	210	90	115	50	25	290	3.5	110	11	25	79	13	
315A/3	230	85	85	240	169	50	133	113	7	210	210	140	145	65	30	400	5	160	11	36	100	24	
315A/4	290	85	85	240	169	50	133	113	7	270	270	140	145	65	30	400	5	160	11	36	100	24	
400A/3	230	85	85	240	169	50	133	113	7	210	210	140	145	65	30	400	5	160	11	36	100	24	
400A/4	290	85	85	240	169	50	133	113	7	270	270	140	145	65	30	400	5	160	11	36	100	24	
500A/3	230	85	85	260	169	50	133	113	7	210	210	140	145	65	40	400	6	160	12	36	100	24	
500A/4	290	85	85	260	169	50	133	113	7	270	270	140	145	65	40	400	6	160	12	36	100	24	
630A/3	230	85	85	260	169	50	133	113	7	210	210	140	145	65	40	400	6	160	12	36	100	24	
630A/4	290	85	85	260	169	50	133	113	7	270	270	140	145	65	40	400	6	160	12	36	100	24	

13. Overall and installation dimension of 1000 ~ 3150A load isolation switch



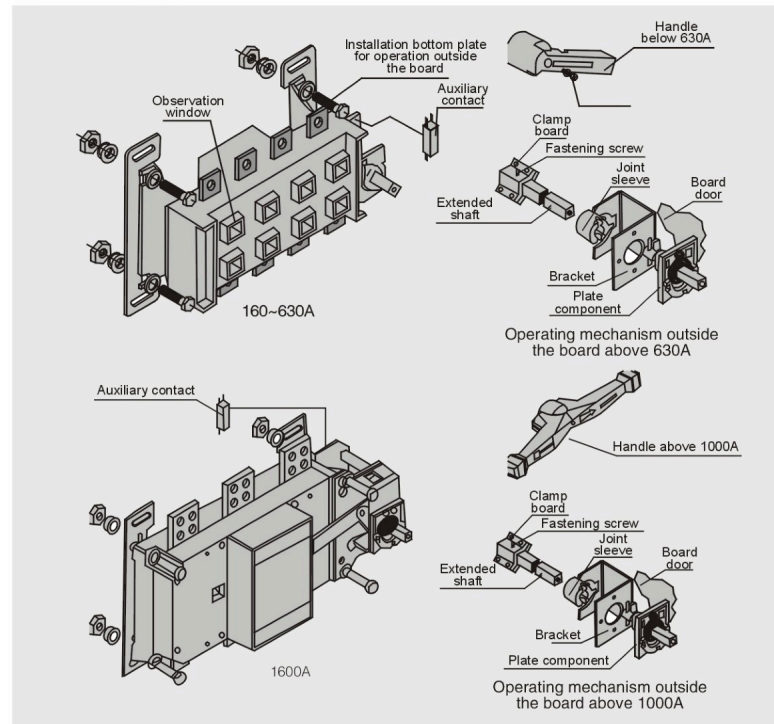
Spec.	Overall and installation dimension																		
	In	A	A1	B	D	E	F	G	J	J1	N	R	S	T	U	Y	Y1	Y2	Q
1000A/3	378	105	105	312	-	-	-	-	353	353	186	60	480	8	200	48	-	-	311
1000A/4	492	105	105	312	-	-	-	-	467	467	246	60	480	8	200	48	-	-	311
1250A/3	378	105	105	338	20	40	16	35	353	353	186	80	480	8	200	48	-	-	311
1250A/4	492	105	105	338	20	40	16	35	467	467	246	80	480	8	200	48	-	-	311
1600A/3	378	105	105	338	20	40	16	35	353	353	186	80	480	10	200	49	-	-	311
1600A/4	492	105	105	338	20	40	16	35	467	467	246	80	480	10	200	49	-	-	311
2000A/3	378	-	-	455	20	40	20	40	353	353	186	80	560	10	200	-	75.5	227.5	311
2000A/4	492	-	-	455	20	40	20	40	467	467	246	80	560	10	200	-	75.5	227.5	311
2500A/3	378	-	-	455	20	40	20	40	353	353	186	80	560	10	200	-	75.5	227.5	311
2500A/4	492	-	-	455	20	40	20	40	467	467	246	80	560	10	200	-	75.5	227.5	311
3150A/3	378	-	-	505	25	50	25	50	353	353	186	100	560	14	200	-	78	230	311
3150A/4	492	-	-	505	25	50	25	50	467	467	246	100	560	14	200	-	78	230	311

SIDE OPERATION LOAD ISOLATION SWITCH

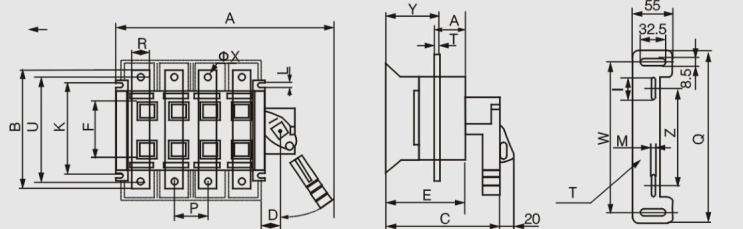


1. 160 ~ 1600A Side operation load isolation switch

- The load isolation switch of 160~1600A is suitable for the on and off of circuit or electric insulation. The products have three pole, four pole, and (three poles+switch neutral pole). Over 1000A is only for electric isolation.
- Products with observation windows can be provided according to the demand to observe directly the on and off state of contact.
- Operation mode
 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 set of auxiliary contact can be assembled according to the demand.
- Extended shaft is used for the operation outside the board.
- Mechanical property and electric property correspond to the mechanical property and electric property of 160~1600A.
- It can be equipped with cable insulation cover.

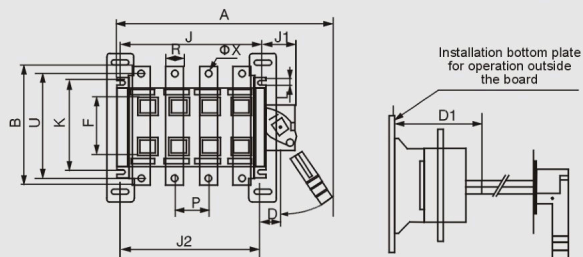


2. Overall and installation dimension of 160 ~ 630A side operation load isolation switch

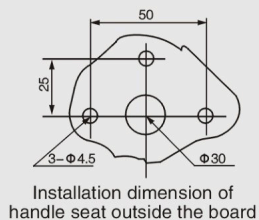


Direct operation of 125-630A/K

Installation bottom plate for operation outside the board



Operation outside 160-630A/JK board

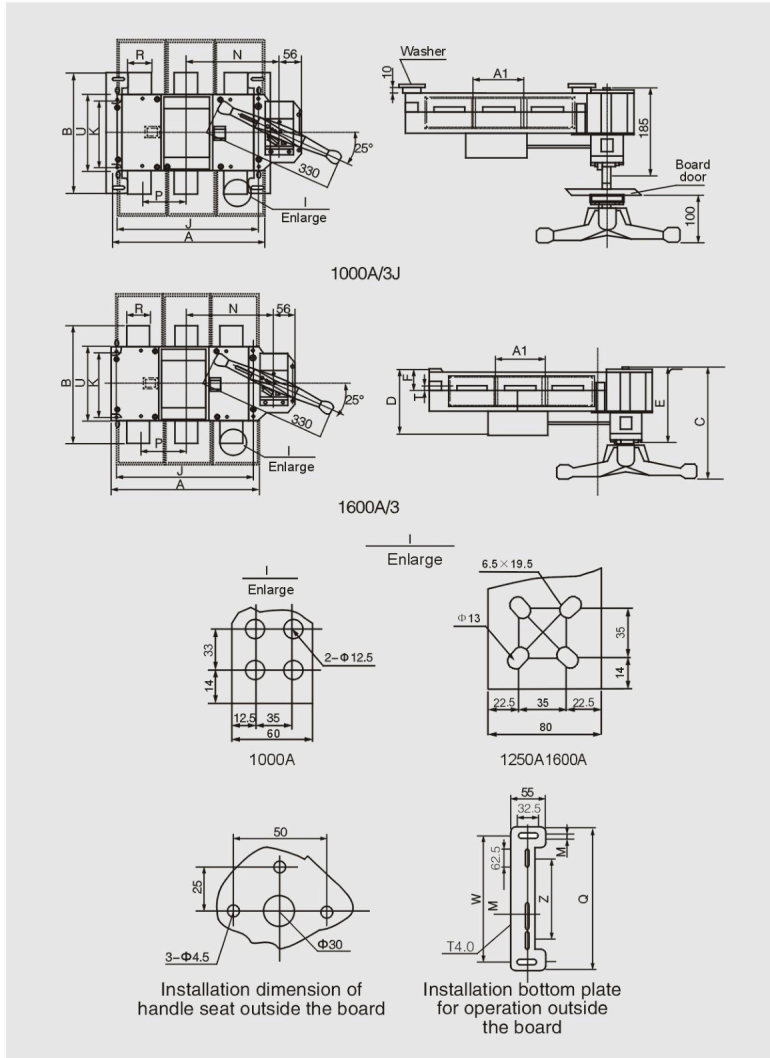


Installation dimension of handle seat outside the board

Spec.	Dimension of bottom board					
	I	M	Z	W	Q	T
125 ~ 630A						
125A	55	6.5	110	216	244	3
160A	55	6.5	110	216	244	3
200A	55	6.5	110	216	244	3
250A	55	6.5	110	216	244	3
315A	60	8.5	170	280	311	4
400A	60	8.5	170	280	311	4
500A	60	8.5	170	280	311	4
630A	60	8.5	170	280	311	4

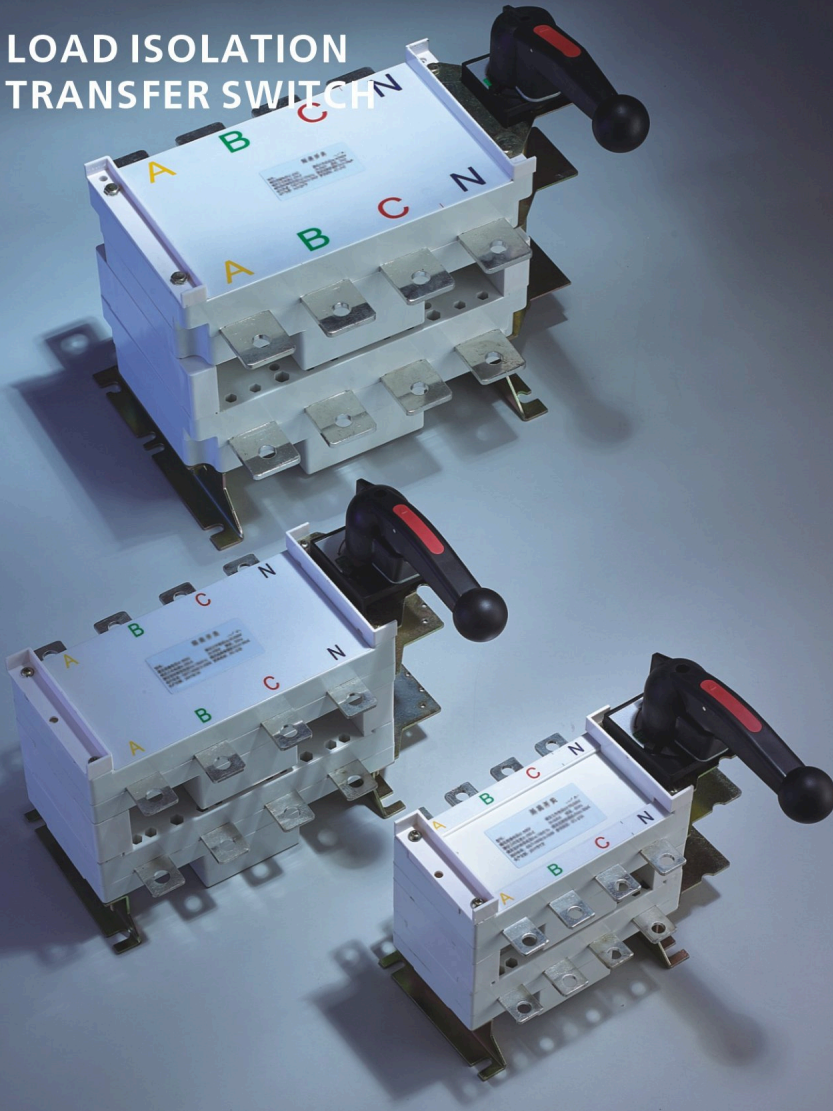
Spec.	Overall and installation dimension																			
	In	A	A1	B	C	D	D1	E	J	J1	J2	K	P	R	T	U	ΦX	Y	L	F
125A/3	267	267	50	135	146	29	123	88	120	65	120	95	36	20	3.5	85	9	55	7	52
125A/4	297	297	50	135	146	29	123	88	150	65	150	95	36	20	3.5	85	9	55	7	52
160A/3	267	267	50	135	146	29	123	88	120	65	120	95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

3. Overall and installation dimension of 1000 ~ 1600A side operation load isolation switch



Spec.	Overall and installation dimension																	
	In	A	A1	B	D	E	F	J	K	M	N	P	Q	R	U	T	W	Z
1000A/3	378	105	105	312	140.5	163	353	357	175	8.5	226	120	311	60	200	8	280	224
1000A/4	492	105	105	312	140.5	163	467	467	175	8.5	286	120	311	60	200	8	280	224
1250A/3	378	105	105	338	140.5	163	353	357	175	8.5	226	120	311	80	200	8	280	224
1250A/4	492	105	105	338	140.5	163	467	467	175	8.5	286	120	311	80	200	8	280	224
1600A/3	378	105	105	338	140.5	163	353	357	175	8.5	226	120	311	80	200	20	280	224
1600A/4	492	105	105	338	140.5	163	467	467	175	8.5	286	120	311	80	200	20	280	224

LOAD ISOLATION
TRANSFER SWITCH



1. 63 ~ 3150A Load isolation transfer switch

● The load isolation switch of 63~3150A is suitable for the changeover of two sets of low voltage electric circuit or the changeover of 2 sets of on-load devices or safety insulation.

● Operation mode:

Direct operation: handle is installed on the switch.

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

● Products with observation windows can be provided according to the demand to observe directly the on and off state of contact.

● Products with observation windows can be provided according to the demand to observe directly the on and off state of contact.

● The products have three poles, four poles, and (three poles+switch neural pole).

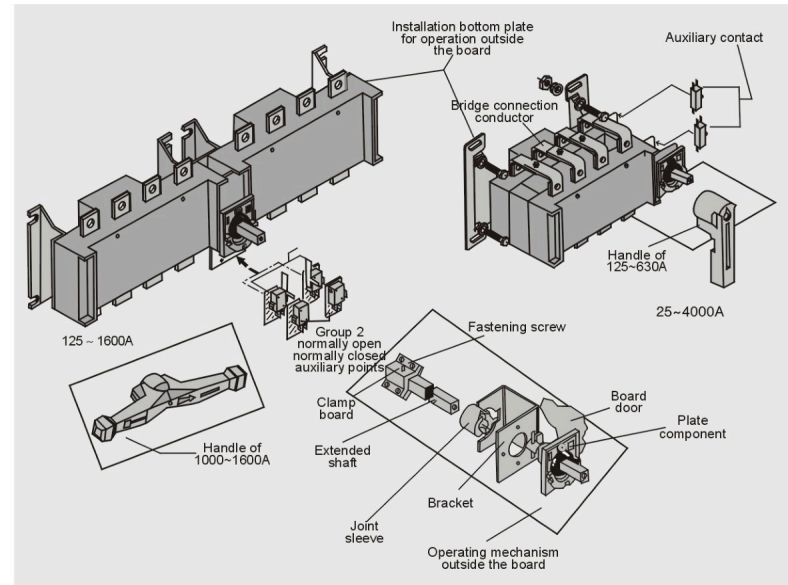
● Extended shaft is used for the operation outside the board.

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

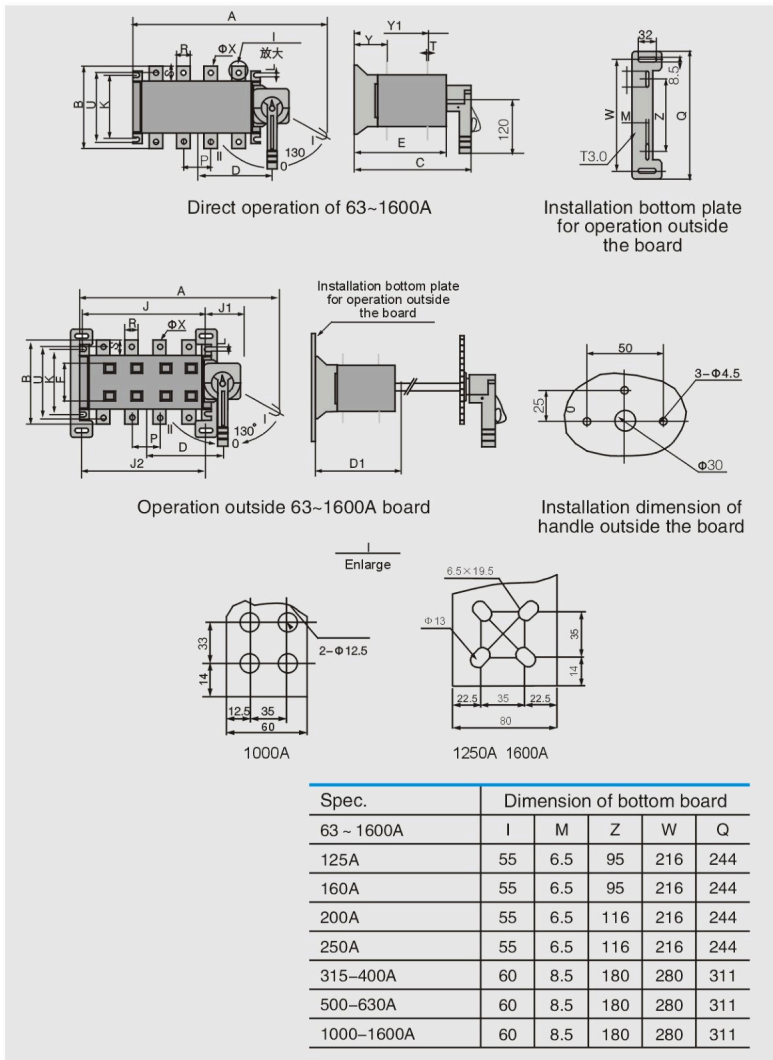
● Mechanical property and electric property correspond to the mechanical property and electric property of 63~3150A.

● A bridge can provided to connect the inlet or outlet terminal of the switch.

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

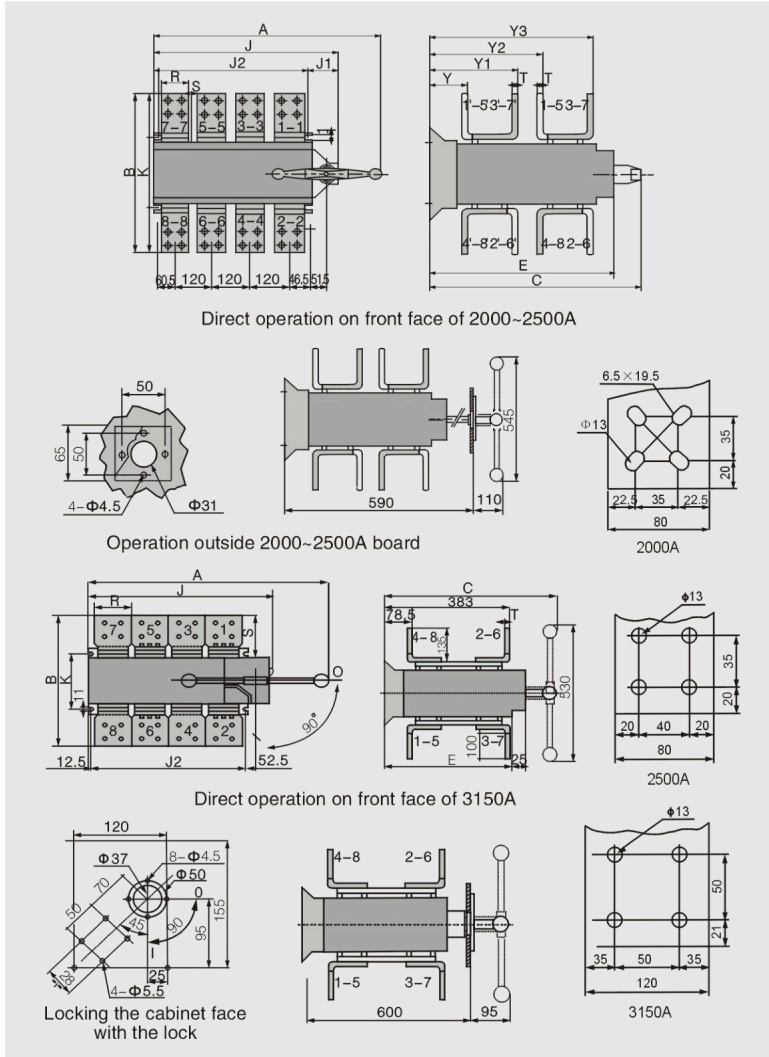


2. Overall and installation dimension of 63 ~ 1600A load isolation transfer switch



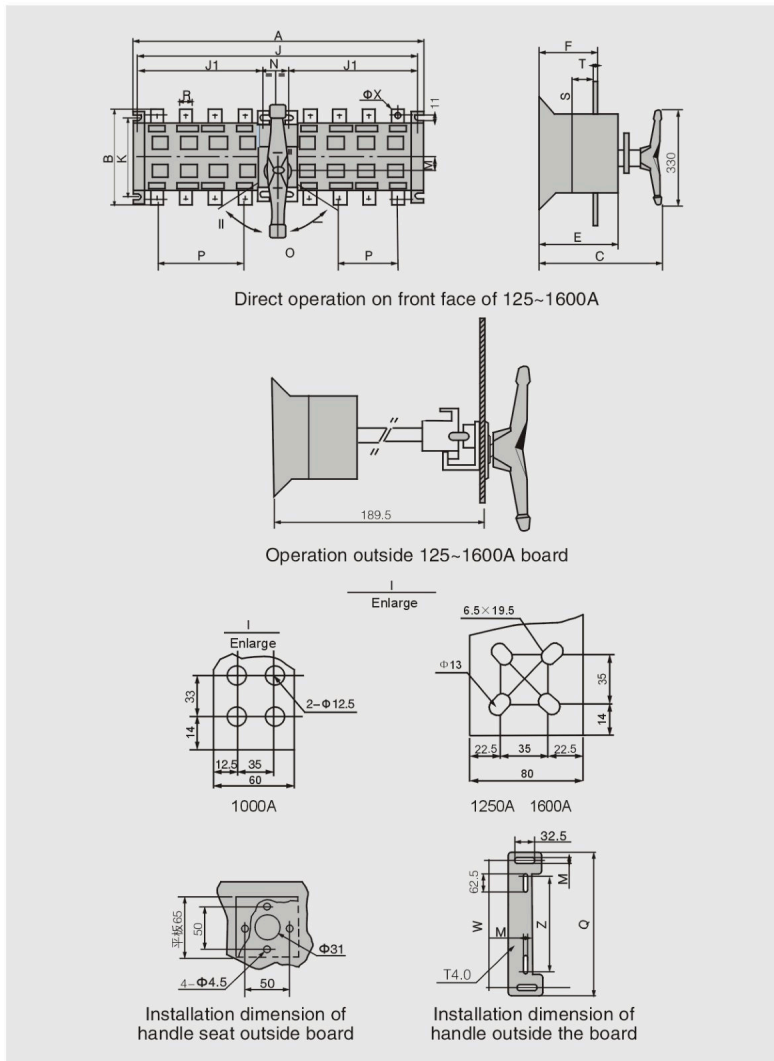
Spec.	Overall and installation dimension																			
	A	B	C	D	D1	E	J	J1	J2	K	L	P	R	S	T	U	ΦX	Y	Y1	F
63 ~ 1600A	190	108	157	57	134	119	111	61	111	84	7	30	13	18	3	106	6	40	93	44
63A-100A/3	209	108	157	89	134	119	127	61	127	84	7	30	13	18	3	106	6	40	93	44
63A-100A/4	270	135	212	89	195	150	120	65	120	95	7	36	20	25	3.5	115	9	55	121	59
125A-160A/3	300	135	212	104	195	150	150	65	150	95	7	36	20	25	3.5	115	9	55	121	59
125A-160A/4	307	170	260	110	215	172	160	65	160	115	11	50	25	30	3.5	140	11	70	140	76
200A-250A/3	357	170	260	135	215	172	210	65	210	115	11	50	25	30	3.5	140	11	70	140	76
200A-250A/4	372	240	297	150	275	236	210	77	210	180	13	65	32	40	5	206	11	83	192	94
315A-400A/3	432	240	297	180	275	236	275	77	275	180	13	65	32	40	5	206	11	83	192	94
315A-400A/4	372	240	297	150	275	236	210	77	210	180	13	65	32	40	6	206	11	83	192	94
500A-630A/3	432	240	297	180	275	236	275	77	275	180	13	65	32	40	6	206	11	83	192	94
500A-630A/4	432	240	297	180	275	236	275	77	275	180	13	65	32	40	6	206	11	83	192	94

3. Overall and installation dimension of 2000 ~ 3150A load isolation transfer switch



Spec.	Overall and installation dimension																			
	A	B	C	D	D1	E	J	J1	J2	K	P	R	S	T	ΦX	Y	Y1	Y2	Y3	
1000 ~ 3150A																				
1000A/3	638	312	374	229	340	302	355	108.5	355	220	120	60	56	8	12.5	99	243.5	-	-	456.5
1000A/4	758	312	374	289	340	302	473	108.5	473	220	120	60	56	8	12.5	99	243.5	-	-	456.5
1250A/3	638	338	374	229	340	302	355	108.5	355	220	120	80	69	8	12.5	99	243.5	-	-	456.5
1250A/4	758	338	374	289	340	302	473	108.5	473	220	120	80	69	8	12.5	99	243.5	-	-	456.5
1600A/3	638	338	374	229	340	302	355	108.5	355	220	120	80	69	10	12.5	99.5	244	-	-	456.5
1600A/4	758	338	374	289	340	302	473	108.5	473	220	120	80	69	10	12.5	99.5	244	-	-	456.5
2000A/3	576	455	603	603	700	495	347	88	355	220	120	80	127.5	10	12.5	78.5	225.5	309.5	309.5	456.5
2000A/4	696	455	603	603	700	495	467	88	473	220	120	80	127.5	10	12.5	78.5	225.5	309.5	309.5	456.5
2500A/3	576	455	603	603	700	495	347	88	355	220	120	80	127.5	10	12.5	78.5	227.5	309.5	309.5	456.5
2500A/4	696	455	603	603	700	495	467	88	473	220	120	80	127.5	10	12.5	78.5	227.5	309.5	309.5	456.5
3150A/3	576	505	603	603	700	495	347	88	355	220	120	120	152.5	12	12.5	78.5	227.5	309.5	309.5	458
3150A/4	696	505	603	603	700	495	467	88	473	220	120	120	152.5	12	12.5	78.5	227.5	309.5	309.5	458

4. Overall and installation dimension of 125 ~ 1600A changeover isolation switch



Spec.	Overall and installation dimension																
	A	B	C	E	F	J	J1	K	M	N	P	Q	R	S	T	W	Z
125 ~ 1600A	319	85	141	89	24	299	120	65	6.5	59	36	244	20	25	3.5	216	95
125A~160A/3	379	85	141	89	24	359	150	65	6.5	59	36	244	20	25	3.5	216	95
125A~160A/4	405	110	146	101	25	385	160	90	6.5	65	50	244	25	30	3.5	216	116
200A~250A/3	505	110	146	101	25	485	210	90	6.5	65	50	244	25	30	3.5	216	116
200A~250A/4	535	160	191	126	37	515	210	140	8.5	95	65	311	32	40	5	280	180
315A~400A/3	655	160	191	126	37	515	210	140	8.5	95	65	311	32	40	5	280	180
315A~400A/4	535	160	191	126	37.5	515	210	140	8.5	95	65	311	40	50	6	280	180
500A~630A/3	655	160	191	126	37.5	515	210	140	8.5	95	65	311	40	50	6	280	180
500A~630A/4	863	200	272	163	48.5	811	355	220	8.5	105	120	311	60	56	8	280	180
1000A/3	1072	200	272	163	48.5	1051	473	220	8.5	105	120	311	60	56	8	280	180
1000A/4	836	200	272	163	48.5	811	355	220	8.5	105	120	311	80	69	8	280	180
1250A/3	1072	200	272	163	48.5	1051	473	220	8.5	105	120	311	80	69	8	280	180
1250A/4	836	200	272	163	49.5	811	355	220	8.5	105	120	311	80	69	10	280	180
1600A/3	1072	200	272	163	49.5	1051	473	220	8.5	105	120	311	80	69	10	280	180
1600A/4	1072	200	272	163	49.5	1051	473	220	8.5	105	120	311	80	69	10	280	180