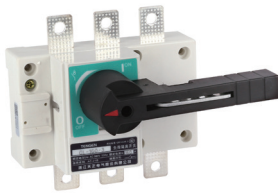


GL/C/Z Series Load-break Switch



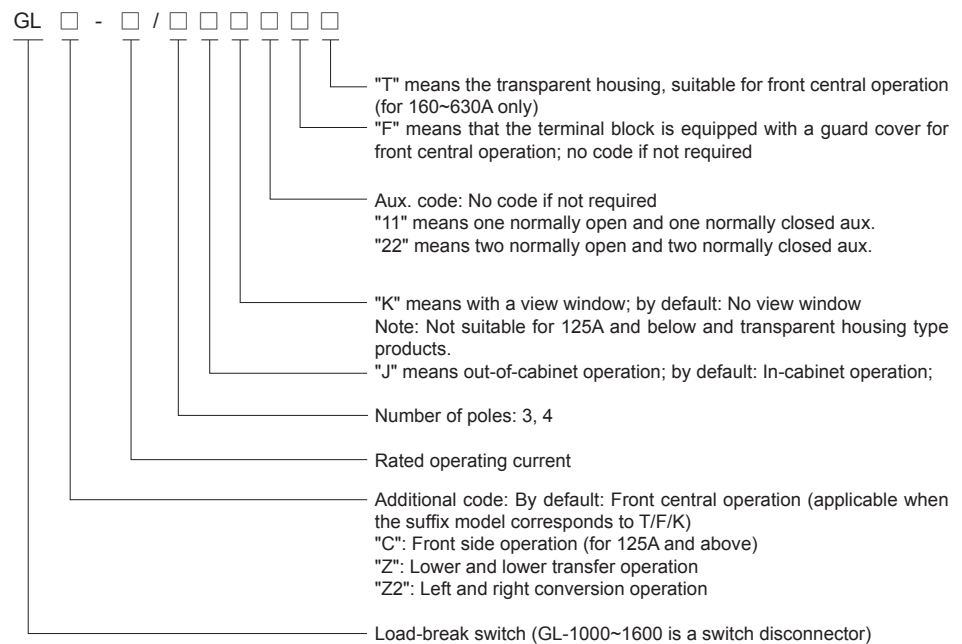
1 Overview

GL/C/Z series load-break switch is used in the AC 50Hz power distribution equipment with the rated voltage up to AC690V and the conventional thermal current up to 3150A in industries and enterprises for infrequent connection and disconnection of circuits and for electrical isolation, and the product is widely used in power distribution systems and automation systems in many industries such as construction, electric power, and petrochemical engineering.

GLZ load-break switch is composed of two GL load-break switches stacked up and down or assembled left and right together, suitable for switching between dual power supplies or for the conversion and safety isolation of two load devices.

This product complies with the GB/T 14048.3 standard.

2 Type Designation



3 Technical Parameters

Table 1

Main technical parameters													
Conventional thermal current Ith (A)	100	160	250	400	630	1600	3150						
Rated insulation voltage Ui (A)	690						1000						
Rated operating voltage (V)	380						415/690						
Rated impulse withstand voltage Uimp (kV)	6						12						
Rated operating current Ie (A)	63	100	125/160	250/200	400/315	630/425	800/1000	1250	1600	2000	2500	3150	
Use category	AC-21B						AC-22B						
Rated short time withstand current Icw (kA/1s)	2	2	4	5	20	20	30	30	30	50	50	50	
Rated short circuit making capacity Icm (kA peak)	2.84	5.88	7.65	40	40	63	63	63	105	105	105		
Mechanical life (times)	1700	1700	1400	1400	1400	800	800	500	500	500	500	500	300
Electrical life (times)	300	300	200	200	200	200	200	100	100	100	100	100	100

GL/C/Z Series Load-break Switch

4 Operating Conditions

- 4.1 The upper limit of ambient air temperature does not exceed +40°C, and the lower limit shall not be below -5°C.
- 4.2 The altitude of the installation site shall not exceed 2000mm.
- 4.3 Humidity: The relative humidity does not exceed 50% at a maximum temperature of +40°C, and a higher relative humidity is allowed at low temperatures, such as up to 90% at 20°C. Special measures should be taken for condensation occurred occasionally due to temperature changes.
- 4.4 The pollution degree of the ambient environment is Level 3.
- 4.5 The switch should be installed vertically in a place where there is no significant shaking, no shock vibration, and no rain or snow attacks, and there is no explosive hazard medium containing gas or dust sufficient to cause metal corrosion and insulation damage at the installation site.

5 Structure Features

The switch adopts a modular design, suitable for the connection and disconnection of circuits and for the electrical isolation, but it is only suitable for electrical isolation if 1000A and above.

The switch adopts an acceleration opening and closing mechanism with spring energy storage and instantaneous release and a dual-break contact structure that is closed and open simultaneously, greatly improving the electrical performance and mechanical performance of the product.

The switch is made of unsaturated polyester glass fiber reinforced molding plastic and its manual operating handle has high dielectric performance, protection capacity and reliable operational safety.

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

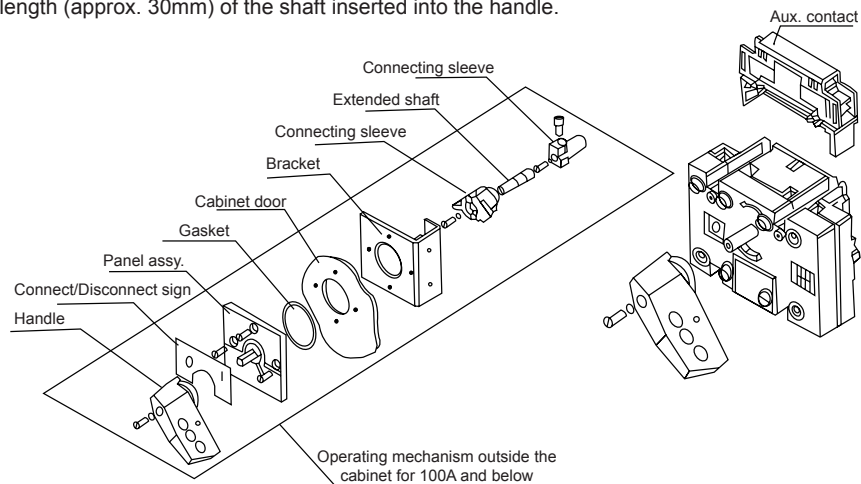
There is a marking window on the front of the switch to indicate the Closed / Open status of the contact, and a rear view window can be provided as needed to directly observe the Closed / Open status of the contact to ensure the reliability and safety of the switch operation.

The handle is directly installed on the switch for operation (referred to as in-cabinet operation), and can also be installed on the door of the distribution cabinet through the extended shaft (referred to as out-of-cabinet operation) for convenient operation.

The handle can be locked at the segment position "0" with two to three locks to prevent misoperation.

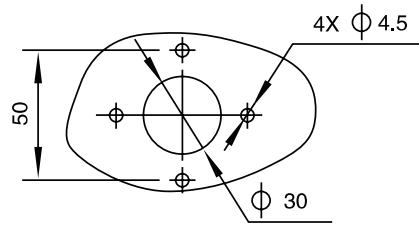
6 Installation Method

The installation method is illustrated in the figure. A long shaft is required for operation outside the cabinet, and it is required that the handle (shaft) installed on the panel (door) shall be coaxial (aligned) with the long shaft, otherwise the cabinet door is not easily open and closed and difficult to operate, resulting in damage to the operating mechanism. The length of the shaft can be determined according to the sum of the installation distance from the product to the door panel and the length (approx. 30mm) of the shaft inserted into the handle.

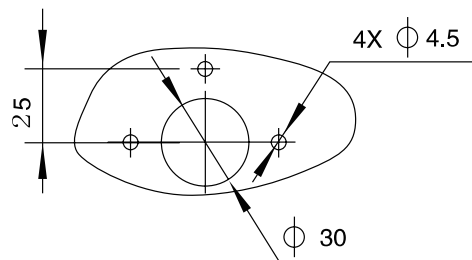
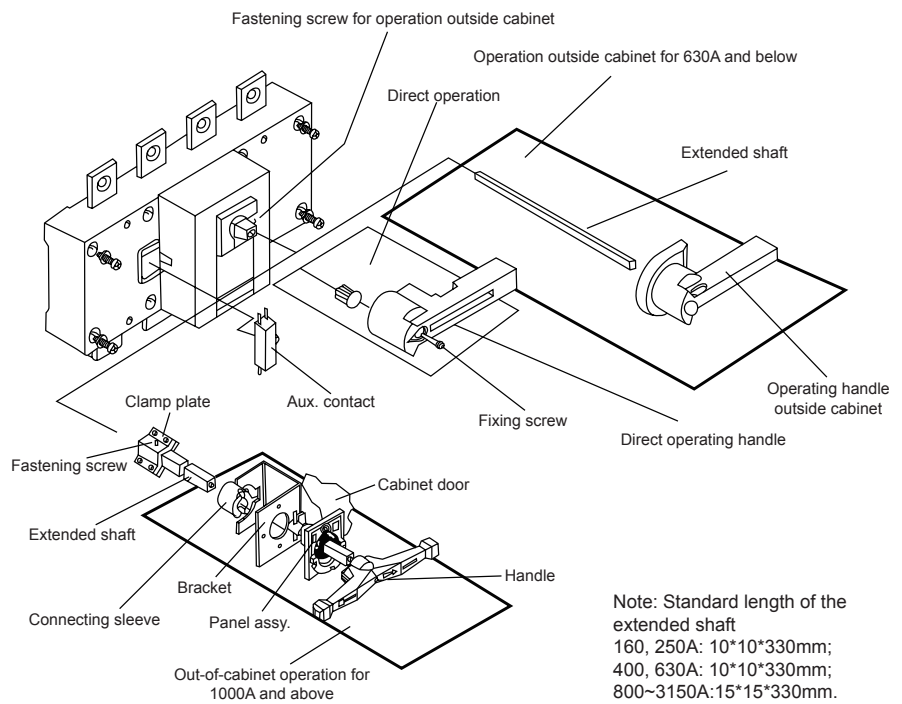


Shaft length 200mm outside the cabinet for GL-100

GL/C/Z Series Load-break Switch



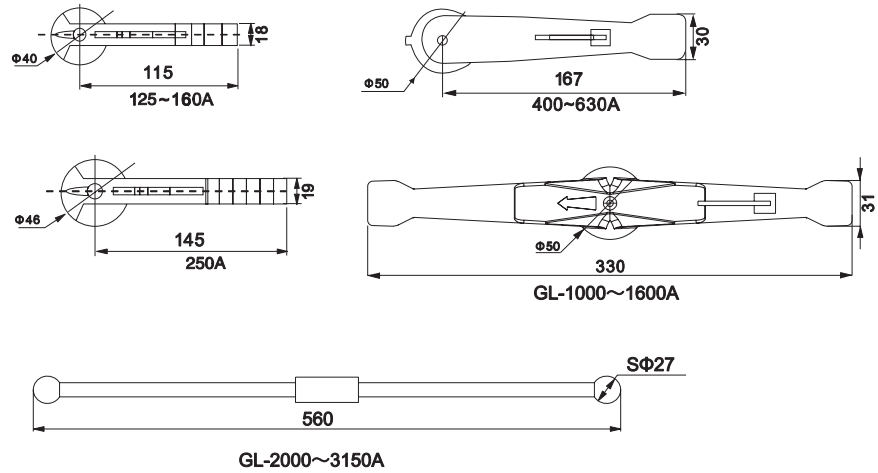
GL-100 out-of-cabinet operating handle panel installation dimensions drawing



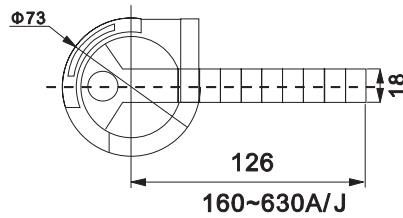
GL/C/Z-1000~315 out-of-cabinet operating handle panel installation dimensions drawing

GL/C/Z Series Load-break Switch

In-cabinet handle diagram

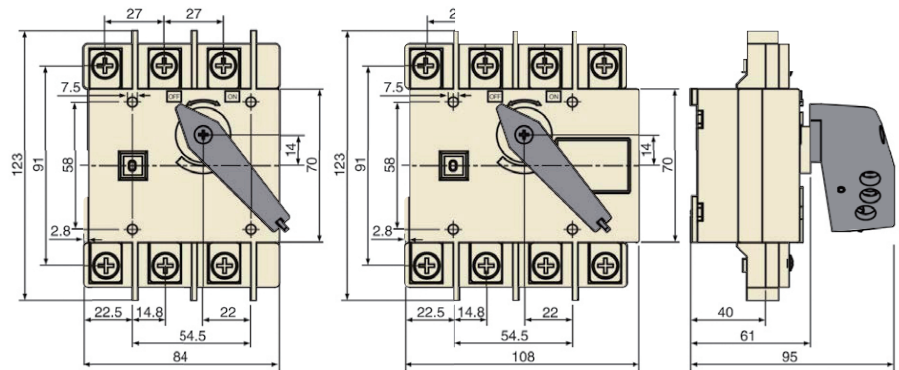


Out-of-cabinet handle diagram



7 Outline and Installation Dimensions

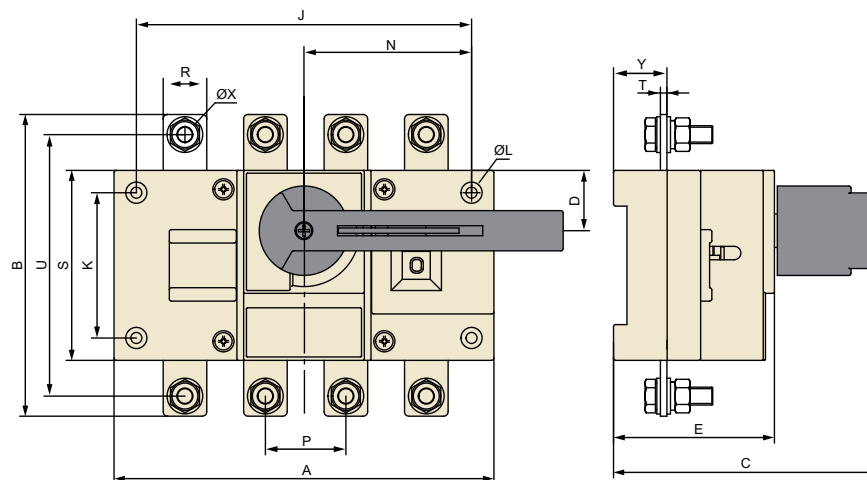
7.1 GL/C/Z-100/T switch disconnector outline and installation dimensions



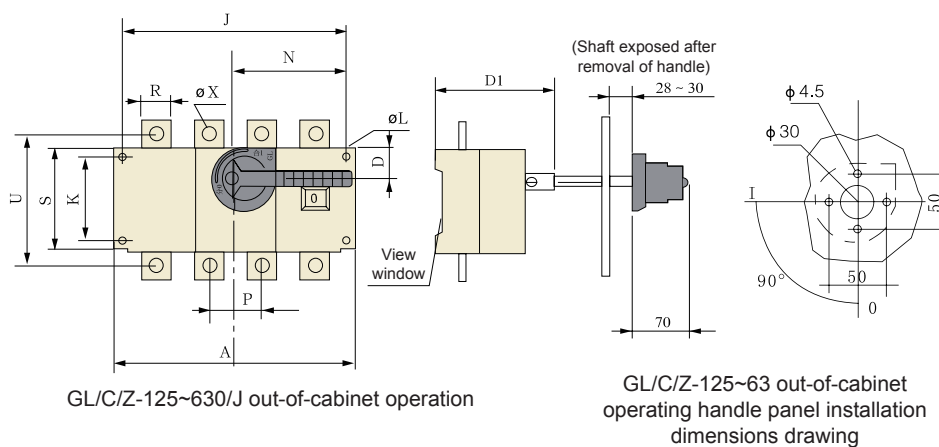
GL/C/Z-100 direct operation

GL/C/Z Series Load-break Switch

7.2 GL/C/Z-125~630/K load-break switch outline and installation dimensions



GL/C/Z-125~630/K direct operation



GL/C/Z-125~630/J out-of-cabinet operation

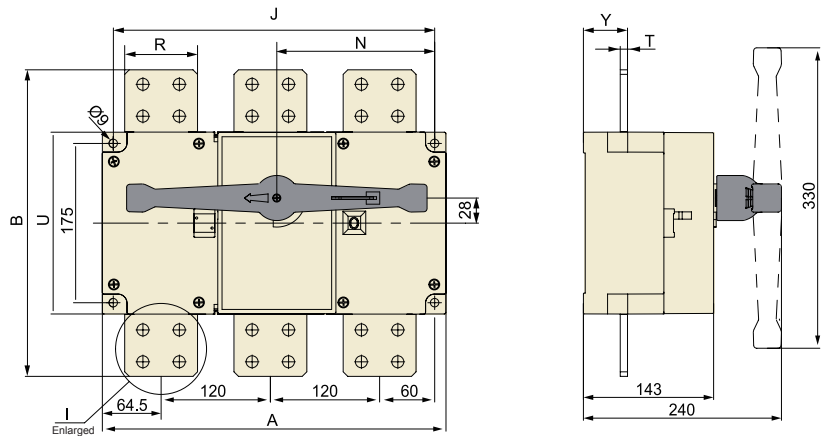
GL/C/Z-125~63 out-of-cabinet
operating handle panel installation
dimensions drawing

Table 2

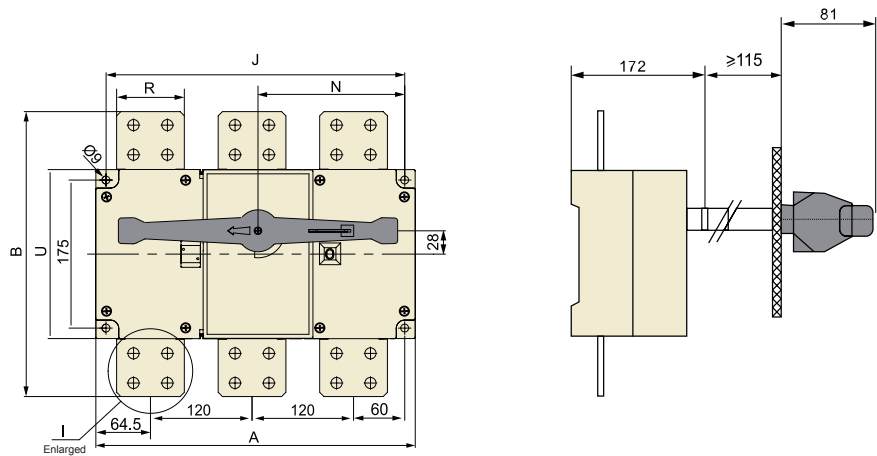
Spec.	Outline dimensions and installation dimensions (mm)																
Current	A	B	C	D	D1	E	φL	J	K	N	P	R	S	T	U	φX	Y
125, 160/3	140	135	125	27	92	73	5.5	120	65	75	36	20	85	3	117	9	24
125, 160/4	170	135	125	27	92	73	5.5	150	65	75	36	20	85	3	117	9	24
200, 250/3	180	170	138	35	98	86	5.5	160	90	105	50	25	110	3	140	11	26
200, 250/4	230	170	138	35	98	86	5.5	210	90	105	50	25	110	3	140	11	26
400/3	230	240	185	50	135	110	7	210	140	135	65	32	160	4.5	206	11	37
400/4	290	240	185	50	135	110	7	270	140	135	65	32	160	4.5	206	11	37
630/3	230	260	185	50	135	110	7	210	140	135	65	40	160	5	220	13	37
630/4	290	260	185	50	135	110	7	270	140	135	65	40	160	5	220	13	37

GL/C/Z Series Load-break Switch

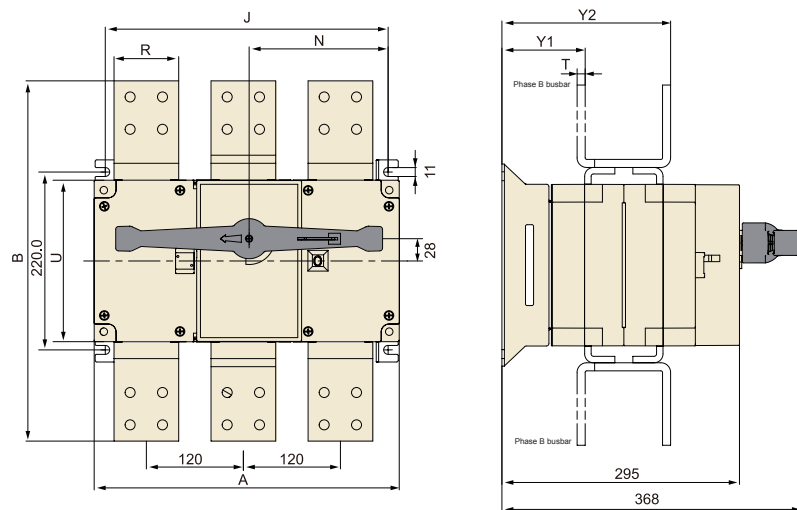
7.3 Switch disconnecter outline and installation dimensions



GL-1000~1600/TK direct operation

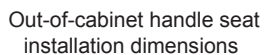
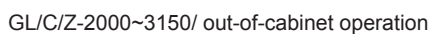


GL-1000~1600/TK out-of-cabinet operation



GL/C/Z-2000~3150/ direct operation

Power Distribution Electrics



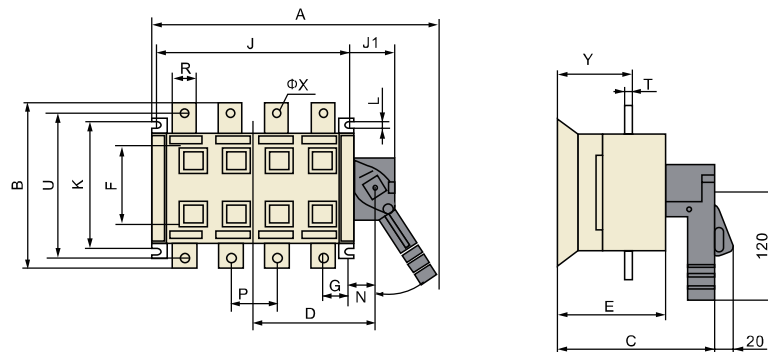
Spec.	Outline dimensions and installation dimensions (mm)										
Current	A	B	J	N	R	T	U	Y(Y1, Y2)	V	W	X
1000/3	378	310	353	176.5	60	8	200	48	35	20	16.5
1000/4	498	310	473	236.5	60	8	200	48	35	20	16.5
1250/3	378	336	353	176.5	80	8	200	48	40	35	16
1250/4	498	336	473	236.5	80	8	200	48	40	35	16
1600/3	378	336	353	176.5	80	10	200	49	40	35	16
1600/4	498	336	473	236.5	80	10	200	49	40	35	16
2000/3	378	405	353	176.5	80	10	200	109, 203	40	40	20
2000/4	498	405	473	236.5	80	10	200	109, 203	40	40	20
2500/3	378	405	353	176.5	80	10	200	109, 203	40	40	20
2500/4	498	405	473	236.5	80	10	200	109, 203	40	40	20
3150/3	378	460	353	176.5	120	12	200	104, 207	50	50	21
3150/4	498	460	473	236.5	120	12	200	104, 207	50	50	21
3150/3 customized	378	460	353	174	120	15	200	107, 210	50	50	21
3150/4 customized	498	460	471	235	120	15	200	107, 210	50	50	21

GL/C/Z Series Load-break Switch

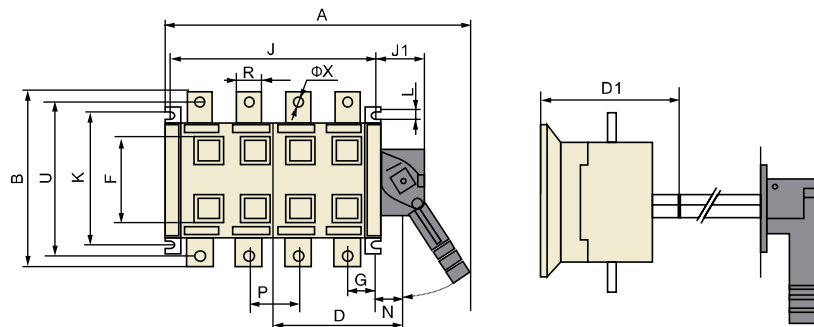
8 Side-Operated Load-break switch

- GLC(125~1600A) is suitable for the connection and disconnection of circuits or for electrical isolation, and there are three poles and four poles (three poles + ON/OFF neutral poles).
- Products with observation ports can be provided as needed to directly observe the ON-OFF status of the contact.
- In-cabinet operation: The handle is installed on the right side of the switch.
- Out-of-cabinet operation: The handle is installed on the door of the distribution cabinet.
- Two sets of aux. contacts can be provided as needed.
- The extended shaft is used for operation outside cabinet.
- Electrical and mechanical properties correspond to those of GL(125~1600A), respectively.

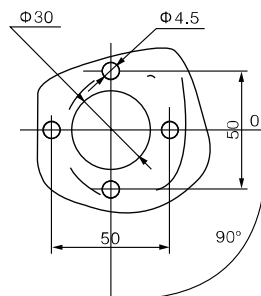
8.1 GLC-160~630 side-operated load-break switch outline and installation dimensions



GLC-160A direct operation



GLC-160~630A/K out-of-cabinet operation

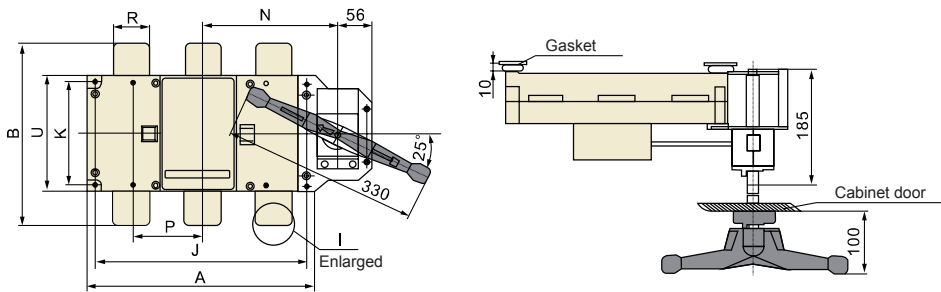


Out-of-cabinet handle seat installation dimensions

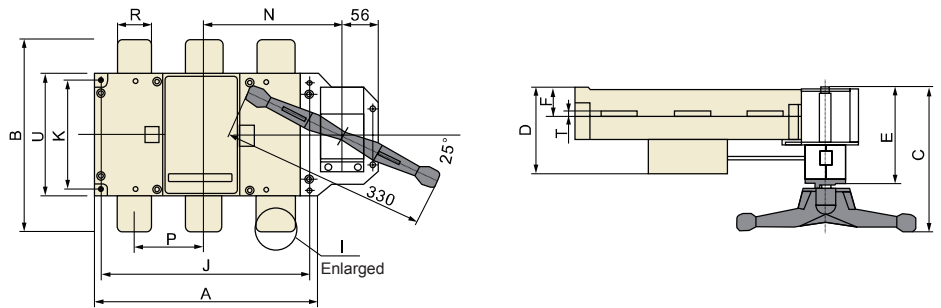
GL/C/Z Series Load-break Switch

Table 4

Spec.	Outline dimensions and installation dimensions (mm)																			
Current	A	B	C	D	D1	E	J	J1	K	N	P	R	T	U	φX	Y	L	F	S	G
125/3	267	135	147	89	125	88	120	65	95	29	36	20	3	115	9	25	7	50	25	28
125/4	297	135	147	104	125	88	150	65	95	29	36	20	3	115	9	25	7	50	25	22
160/3	267	135	147	89	125	88	120	65	95	29	36	20	3	115	9	25	7	50	25	28
160/4	297	135	147	104	125	88	150	65	95	29	36	20	3	115	9	25	7	50	25	22
200/3	308	170	167	110	134	98	160	65	116	30	50	25	3	140	11	25	9	79	30	33
200/4	358	170	167	135	134	98	210	65	116	30	50	25	3	140	11	25	9	79	30	33
250/3	308	170	167	110	134	98	160	65	116	30	50	25	3	140	11	25	9	79	30	33
250/4	358	170	167	135	134	98	210	65	116	30	50	25	3	140	11	25	9	79	30	33
400/3	420	240	208	150	166	129	210	77	179	45	65	32	4.5	206	11	37	11	95	40	42
400/4	490	240	208	180	166	129	270	77	179	45	65	32	4.5	206	11	37	11	95	40	38
630/3	420	260	208	150	166	129	210	77	179	45	65	40	5	220	13	37	11	94	50	42
630/4	490	260	208	180	166	129	270	77	179	45	65	40	5	220	13	37	11	94	50	38



GLC-1600A/3J out-of-cabinet operation



GLC-1600A/3 direct operation

GL/C/Z Series Load-break Switch

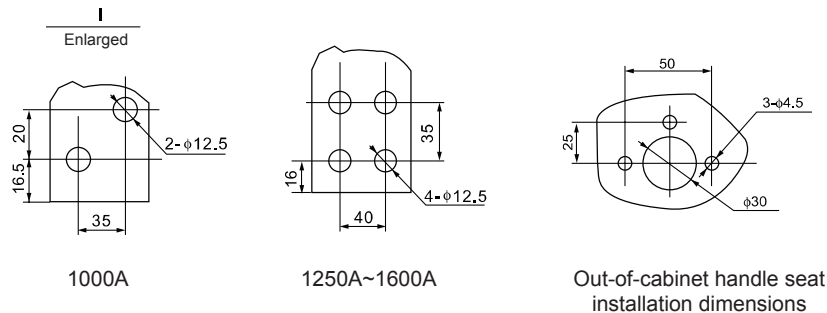


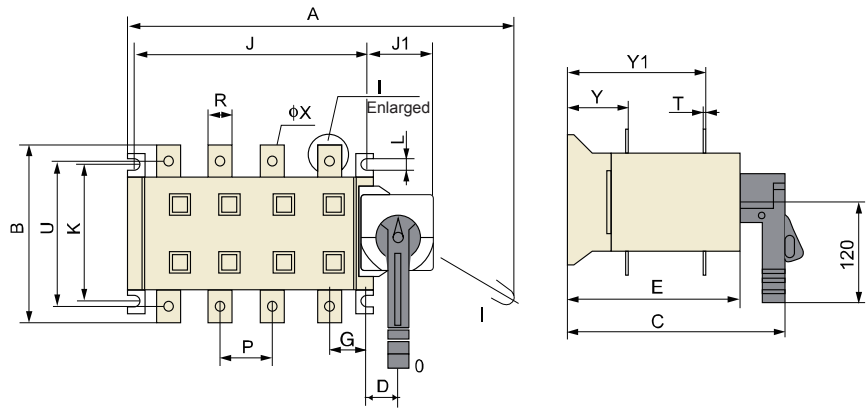
Table 5

Spec.	Outline dimensions and installation dimensions (mm)												
Current	A	B	C	D	E	F	J	K	N	P	R	U	T
1000/3	378	310	249	140.5	179	48	353	175	241.5	120	60	200	8
1000/4	498	310	249	140.5	179	48	473	175	301.5	120	60	200	8
1250/3	378	336	249	140.5	179	48	353	175	241.5	120	80	200	8
1250/4	498	336	249	140.5	179	48	473	175	301.5	120	80	200	8
1600/3	378	336	249	140.5	179	48	353	175	241.5	120	80	200	10
1600/4	498	336	249	140.5	179	48	473	175	301.5	120	80	200	10

9 Transfer Load-break switch

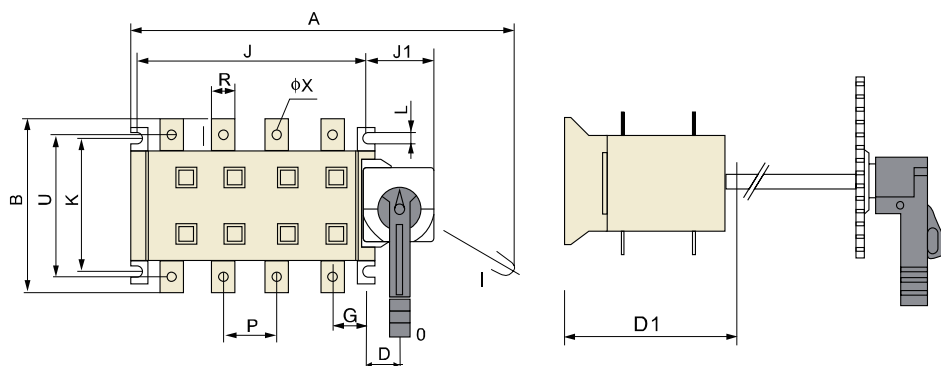
- GLZ-100~1600 is suitable for switching between two low-voltage circuits or for transferring or safety isolation of two load devices.
- Operation mode: The handle is installed on the switch.
- Out-of-cabinet operation: The handle is installed outside the distribution cabinet.
- The product with a view window can be provided as needed to directly observe the Open / Closed state of the contact.
- There are three-pole and four-pole types (three-pole + ON / OFF neutral pole)
- The extended shaft is used for operation outside cabinet.
- Two sets of aux. contacts are provided as needed.
- Electrical and mechanical properties correspond to those of GL-100~1600, respectively.

9.1 Outline and Installation Dimensions of GLZ upper and lower transfer load-break switch

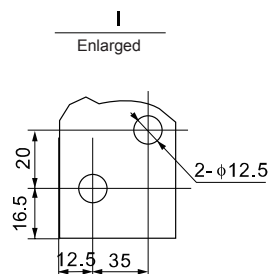


GLZ-100~1600A direct operation

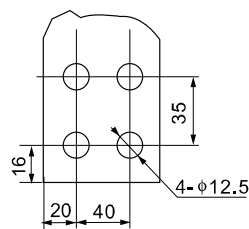
GL/C/Z Series Load-break Switch



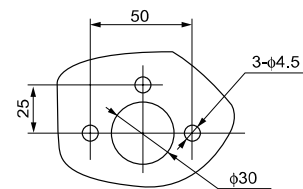
GLZ-100A~1600A out-of-cabinet operation



1000A



1250A~1600A

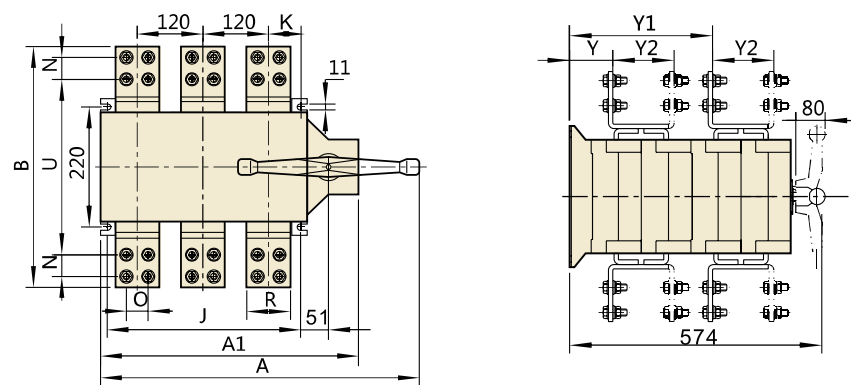


Out-of-cabinet handle seat
installation dimensions

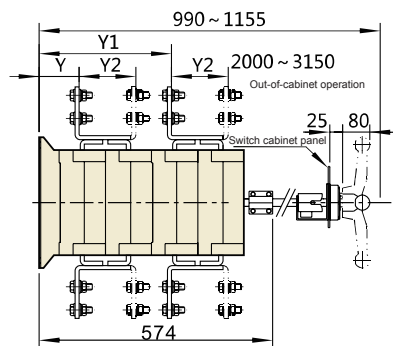
Table 6

Spec.	Outline dimensions and installation dimensions (mm)																	
Current	A	B	C	D	D1	E	J	J1	K	L	P	R	T	U	φX	Y	Y1	G
GLZ-100/3	277	110	170	39	149	120	115	75	85	7	30	14	2.5	90	6	41	92	12.5
GLZ-100/4	277	110	170	39	149	120	115	75	85	7	30	14	2.5	90	6	41	92	12.5
125~160/3	267	135	212	29	189	165	120	65	95	7	36	20	3	115	9	55	121	28
125~160/4	297	135	212	29	189	165	150	65	95	7	36	20	3	115	9	55	121	22
200~250/3	308	170	249	30	215	182	160	65	116	9	50	25	3	140	11	64	146	33
200~250/4	358	170	249	30	215	182	210	65	116	9	50	25	3	140	11	64	146	33
400/3	420	240	318	45	272	241	210	77	179	11	65	32	4.5	206	11	83	193	42
400/4	490	240	318	45	272	241	270	77	179	11	65	32	4.5	206	11	83	193	38
630/3	420	240	318	45	272	241	210	77	179	11	65	40	5	220	13	83	193	42
630/4	490	240	318	45	272	241	270	77	179	11	65	40	5	220	13	83	193	38
1000/3	578	312	392	52.5	340	309	353	108.5	220	11	120	60	8	235	13	107	251.5	53.5
1000/4	698	312	392	52.5	340	309	473	108.5	220	11	120	60	8	235	13	107	251.5	50.5
1250/3	578	338	392	52.5	340	309	353	108.5	220	11	120	80	8	235	13	107	251.5	53.5
1250/4	698	338	392	52.5	340	309	473	108.5	220	11	120	80	8	235	13	107	251.5	50.5
1600/3	578	338	392	52.5	340	309	353	108.5	220	11	120	80	10	235	13	108	251.5	53.5
1600/4	698	338	392	52.5	340	309	473	108.5	220	11	120	80	10	235	13	108	251.5	50.5

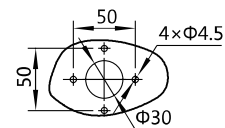
GL/C/Z Series Load-break Switch



GLZ-2000~3150 direct operation



GLZ-2000~3150A Out-of-cabinet operation

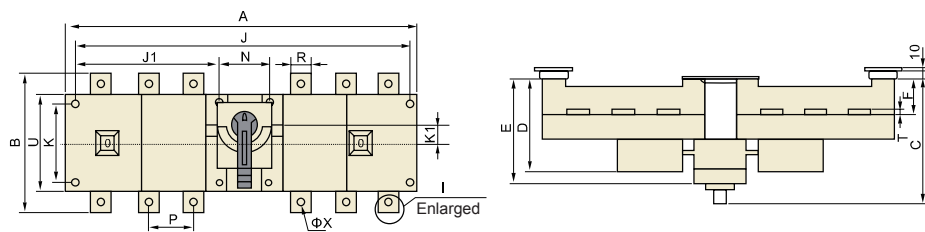


Out-of-cabinet operating handle panel installation dimensions drawing

Table 7

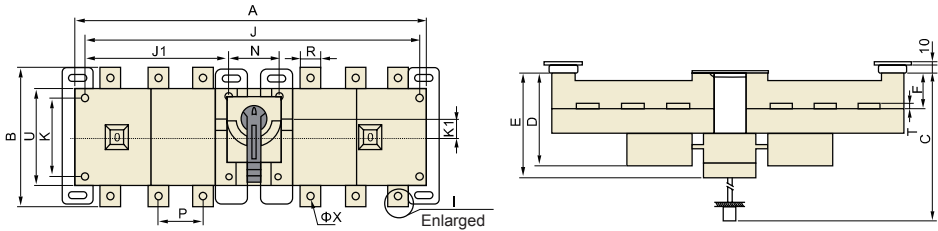
Spec.	Outline dimensions and installation dimensions (mm)											
Current	A	A1	B	K	R	J	U	O	N	Y	Y1	Y2
2000A/3	582	450	445	53.5	80	353	325	40	40	102	341	105
2500A/3	582	450	445	53.5	80	353	325	40	40	102	341	105
3150A/3	582	450	492	53.5	120	353	350	50	50	76	315	105
2000A/4	697	565	447	50.5	80	471	325	40	40	103	342	105
2500A/4	697	565	447	50.5	80	471	325	40	40	103	342	105
3150A/4	697	565	494	50.5	120	471	350	50	50	76	315	105

9.2 Outline and installation dimensions of GLZ2-160~1600 left and right transfer load-break switch



GLZ2-160A~1600A direct operation

GL/C/Z Series Load-break Switch



GLZ2-160A-1600A direct operation

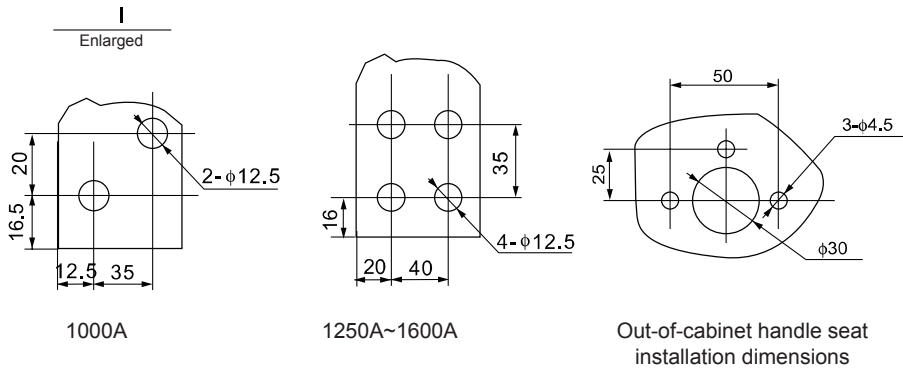
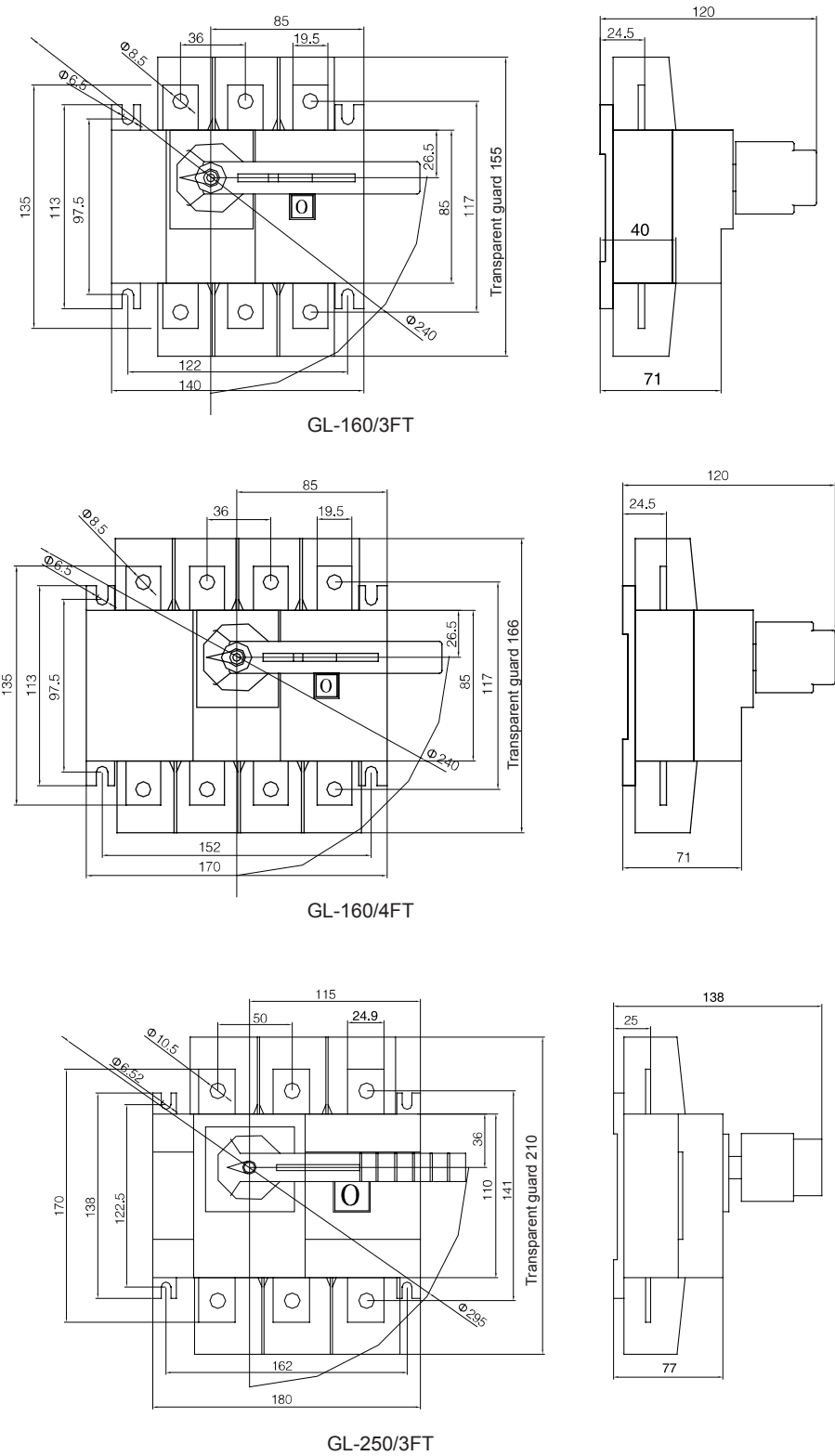


Table 8

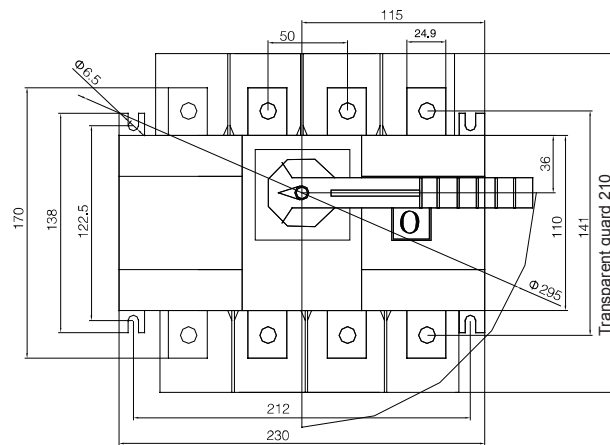
Spec.	Outline dimensions and installation dimensions (mm)																		
Current	A	B	C	D	E	F	J	J1	K	K1	M	N	P	Q	R	U	φX	T	W
125~160/3	319	135	125	67	89	24	299	120	65	16	5.5	59	36	218	20	85	9	3	190
125~160/4	379	135	125	67	89	24	359	150	65	16	5.5	59	36	218	20	85	9	3	190
200~250/3	405	170	134	79	104	25	385	160	90	20	5.5	65	50	218	25	110	11	3	190
200~250/4	505	170	134	79	104	25	485	210	90	20	5.5	65	50	218	25	110	11	3	190
400/3	535	240	166	108	131	37	515	210	140	30	6.5	95	65	270	32	160	11	4.5	240
400/4	655	240	166	108	131	37	635	270	140	30	6.5	95	65	270	32	160	11	4.5	240
630/3	535	240	166	108	131	37.5	515	210	140	30	6.5	95	65	270	40	160	13	5	240
630/4	655	240	166	108	131	37.5	635	270	140	30	6.5	95	65	270	402	160	13	5	240
1000/3	836	312	179	141	163	48	811	353	175	27	8.5	105	120	311	60	200	13	8	280
1000/4	1076	312	179	141	163	48	1051	473	175	27	8.5	105	120	311	60	200	13	8	280
1250/3	836	338	179	141	163	48	811	353	175	27	8.5	105	120	311	80	200	13	8	280
1250/4	1076	338	179	141	163	48	1051	473	175	27	8.5	105	120	311	80	200	13	8	280
1600/3	836	338	179	141	163	48	811	353	175	27	8.5	105	120	311	80	200	13	10	280
1600/4	1076	338	179	141	163	48	1051	473	175	27	8.5	105	120	311	80	200	13	10	280

GL/C/Z Series Load-break Switch

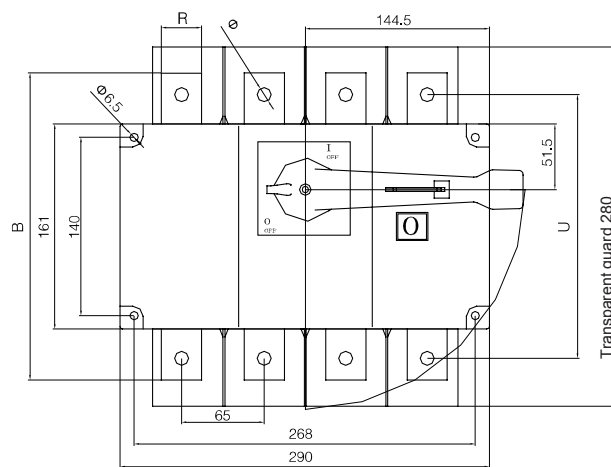
9.3 Outline and installation dimensions of GL-125~630/F/T load-break switch



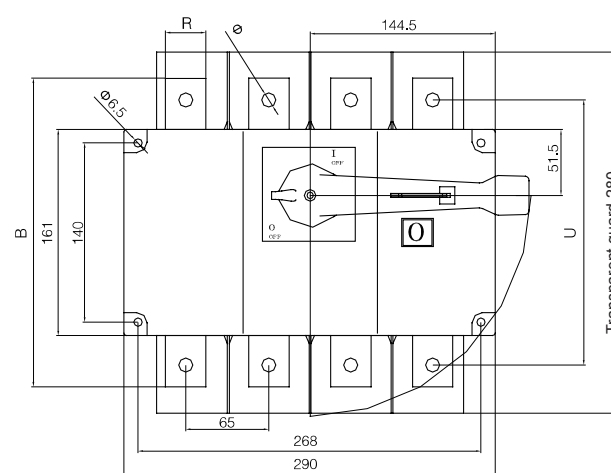
GL/C/Z Series Load-break Switch



GL-250/4FT



GL-400~630/3FT



GL-400~630/4FT

GL/C/Z Series Load-break Switch

Table 9

Spec.	Outline dimensions				
In	B	U	R	Y	φ
400A	241	207	32	37	11
630A	260	220	40	37.5	13

10 Operation and Maintenance

10.1 The switch should be installed vertically. Please check whether the contents of the nameplate meet the working requirements and confirm that the switch is in the OFF state before installation. Turn the switch operating handle until the arrow on the handle indicates the "I" and the view window also shows that the "I" switch is in the ON state.

10.2 The terminal block and bare bus bars on the switch should be wrapped with insulating materials to prevent short circuit between phases of the switch.

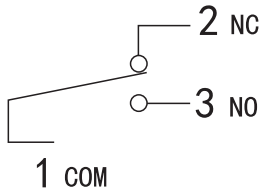
10.3 For switch that is operated outside the cabinet, if the extended shaft is not coaxial with the hole on the handle, do not turn the extended shaft to avoid damage to the internal parts. Be sure to adjust the switch position to ensure they are coaxial.

10.4 Switches should be maintained every about six months. If the rotating part is turning inflexibly, place apply MP-3 grease on it. Check whether the fasteners are loose, and they can be repaired according to the actual situations, and cannot be used if seriously damaged.

11 Aux. Switch and Wiring Diagram



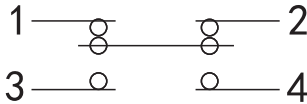
GL-100



GL-100 switch in the OFF position



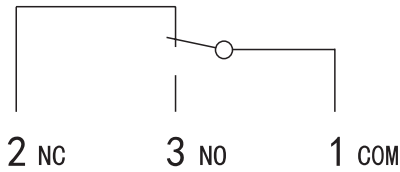
KW2-0Z



GL-160~630 switch in the OFF position



HR17N-100 micro



HR17N-100 switch in the OFF position

GL/C/Z Series Load-break Switch

12 Ordering Notice

Please specify the following contents when ordering:

12.1 Product name, model, specification and quantity.

12.2 If there are special installation conditions or special applications, please provide the corresponding technical data or contact our company.

12. Model Example

Load-break switch, out-of-cabinet operation, GLZ rated current 630A, 4-pole – 630/4J.