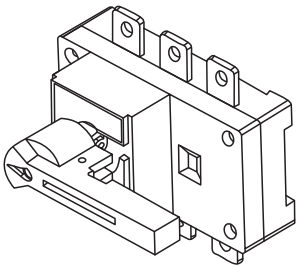


Operating Manual for
Switch Disconnector and Changeover Switch



P.R.I. PRODUCTS CO., LTD

Operating Manual for Switch Disconnector and Changeover Switch

1.Application and service environment

HYCG1 series load isolation switch (Hereinafter referred to as the switch) is used in AC 50Hz, rated voltage 750V and below, DC rated voltage 440V and below , rated current from 100A-4000A. It is used for making and breaking circuit and isolating circuit infrequently. For above 1000A only as isolating circuit.

The products are in conformity with IEC60947-1/3 Low-voltage switchgear and controlgear Part 3: Switches disconnectors switchdisconnectors and fuse-combination units.

HYCG1 Load- isolation switch can operate under the following conditions.

- Altitude not more than 2000m.
- The range of ambient temperature is from -5℃ to 40℃.
- Relative humidity not more than 95%.
- The environment without any explosive medium.
- No significant tilt and shock vibration place
- The environment without any rain or snow attacking.

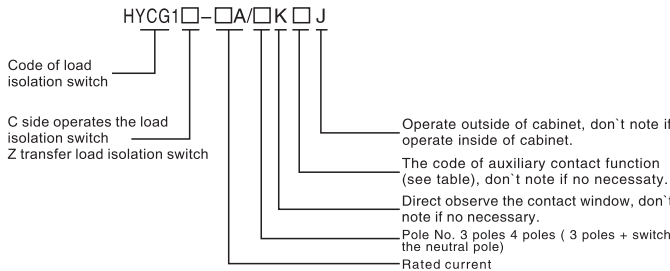
Note: If the product is expected to be used in the environment where temperature is over +40℃ or below -5℃, users shall tell it to themanufacturer.

2.Structure and characteristics

Switch have glass fiber reinforced unsaturated polyester resin shell, spring energy storage acceleration mechanism can quickly achieve making and breaking, parallel two separate prominent contact of double breakpoint. The plate spring ensure contact pressure and auto determine the limit position of the make and break, and also has the obvious make and break mark, which instruct make and break position.

3.The main parameters

3.1 model meaning



Operating Manual for Switch Disconnector and Changeover Switch

Table

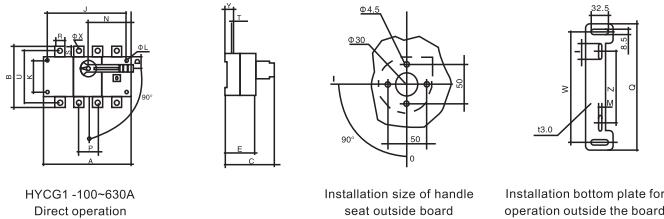
One NO and one NC	11	NO+NC	Be indicated for HYCG1
Two NO and Two NC	22	2NO+2NC	Be indicated for HYCG1
Four NO and Four NC	44	4NO+4NC	Be indicated for HYCG1

3.2 See the table below main parameters

Rated current (A)	100	125	160	200	250	315	400	500	630	1000	1250	1600	2000	2500	3150	4000
Dielectric strength (V)	4000	5000	5000	5000	5000	8000	8000	8000	8000	10000	10000	10000	10000	10000	10000	10000
Rated insulation voltage (V)	750	750	750	750	750	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated breaking capacity (A)	600	1000	1000	1600	1600	2500	3200	3200	3200	8000	8000	8000	8000	8000	8000	8000
rated making capacity (A)	600	1250	1250	2000	2000	3150	4000	4000	4000	10000	10000	10000	10000	10000	10000	10000
mechanical life (times)	1000	10000	10000	10000	10000	5500	5500	5500	5500	4000	4000	3000	2500	2500	1500	1500

4.appearance and installation dimensions

HYCG1-100~630A Series-isolating switch appearance and installation dimensions



Specification	Dimension of Bottom Board							
HYCG1-100~630A	I	M	Z	W	Q			
100A	55	5.5	54	50	123			
125A	55	5.5	85	190	218			
160A	55	5.5	85	190	218			
200A	55	5.5	85	190	218			
250A	55	5.5	85	190	218			
315A	60	6.5	130	240	270			
400A	60	6.5	130	240	270			
500A	60	6.5	130	240	270			
630A	60	6.5	130	240	270			

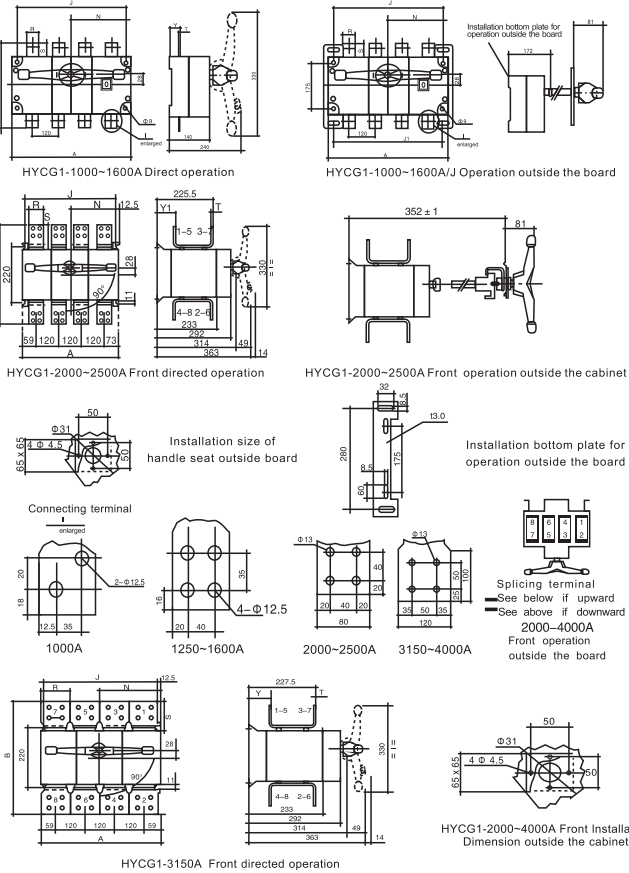
Operating Manual for Switch Disconnector and Changeover Switch

specification	External Dimension and Installation Dimension										
HYCG1-100~630A	A	B	C	D	D1	E	ΦL	J	J1	K	
100A/3	83.5	110	97	21	60	55	4.5	76	26.5	50	
100A/3	106.5	110	97	21	60	55	4.5	76	26.5	50	
125A/3	140	135	125	27	92	73	5.5	120	120	65	
125A/4	170	135	125	27	92	73	5.5	150	150	65	
160A/3	140	135	125	27	92	73	5.5	120	120	65	
160A/4	170	135	125	27	92	73	5.5	150	150	65	
200A/3	180	170	138	35	98	86	5.5	160	160	90	
200A/4	230	170	138	35	98	86	5.5	210	210	90	
250A/3	180	170	138	35	98	86	5.5	160	160	90	
250A/4	230	170	138	35	98	86	5.5	210	210	90	
315A/3	230	240	165	50	135	110	7	210	210	140	
315A/4	290	240	165	50	135	110	7	275	275	140	
400A/3	230	240	165	50	135	110	7	210	210	140	
400A/4	290	240	165	50	135	110	7	275	275	140	
500A/3	230	260	165	50	135	110	7	210	210	140	
500A/4	290	260	165	50	135	110	7	275	275	140	
630A/3	230	260	165	50	135	110	7	210	210	140	
630A/4	290	260	165	50	135	110	7	275	275	140	

specification	External Dimension and Installation Dimension										
HYCG1-100~630A	N	P	R	S	T	U	ΦX	Y	F	H	
100A/3	30.5	26.5	14	16	2.5	91	7	39		8	
100A/3	54.5	26.5	14	16	2.5	91	7	39		8	
125A/3	85	36	20	25	3.5	115	9	25	59	10	
125A/4	85	36	20	25	3.5	115	9	25	59	10	
160A/3	85	36	20	25	3.5	115	9	25	59	10	
160A/4	85	36	20	25	3.5	115	9	25	59	10	
200A/3	115	50	25	30	3.5	140	11	25	76	15	
200A/4	115	50	25	30	3.5	140	11	25	76	15	
250A/3	115	50	25	30	3.5	140	11	25	76	15	
250A/4	115	50	25	30	3.5	140	11	25	76	15	
315A/3	145	65	32	40	5	206	11	37	94	20	
315A/4	145	65	32	40	5	206	11	37	94	20	
400A/3	145	65	32	40	5	206	11	37	94	20	
400A/4	145	65	32	40	5	206	11	37	94	20	
500A/3	145	65	40	50	6	220	13	37	94	20	
500A/4	145	65	40	50	6	220	13	37	94	20	
630A/3	145	65	40	50	6	220	13	37	94	20	
630A/4	145	65	40	50	6	220	13	37	94	20	

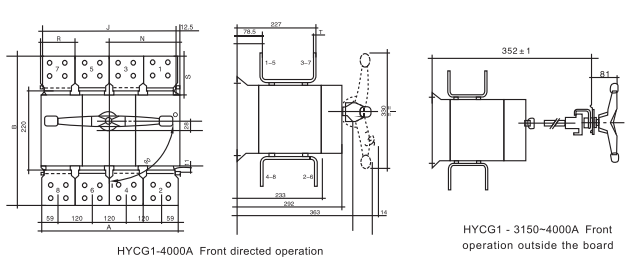
Operating Manual for Switch Disconnector and Changeover Switch

HYCG1-1000~4000A Series-isolating switch appearance and installation dimensions



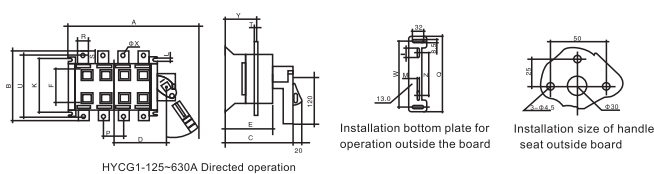
Operating Manual for Switch Disconnector and Changeover Switch

HYCG1-1000~4000A Series-isolating switch appearance and installation dimensions



Specification	External Dimension and Installation Dimension							
HYCG1-1000~1600A	A	B	J	J1	N	R	S	Y
1000A/3	378	312	355	355	186	60	56	8 48
1000A/4	492	312	470	370	248	60	56	8 48
1250A/3	378	338	355	355	186	80	69	8 48
1250A/4	492	338	470	470	248	80	69	8 48
1600A/3	378	338	355	355	188	80	69	10 49
1600A/4	492	338	470	470	248	80	69	10 49
2000A/3	378	455	355	355	186	80	127	10 78.5
2000A/4	492	455	470	470	248	80	127	10 78.5
2500A/3	378	455	355	355	186	80	127	10 78.5
2500A/4	492	455	470	470	248	80	127	10 78.5
3150A/3	378	514	355	355	186	120	157	12 78.5
3150A/4	492	514	470	470	248	120	157	12 78.5
4000A/3	378	514	355	355	186	120	157	78.5
4000A/4	492	514	470	470	248	120	157	78.5

HYCG1-100~630A Series-isolating switch appearance and installation dimensions



Operating Manual for Switch Disconnector and Changeover Switch

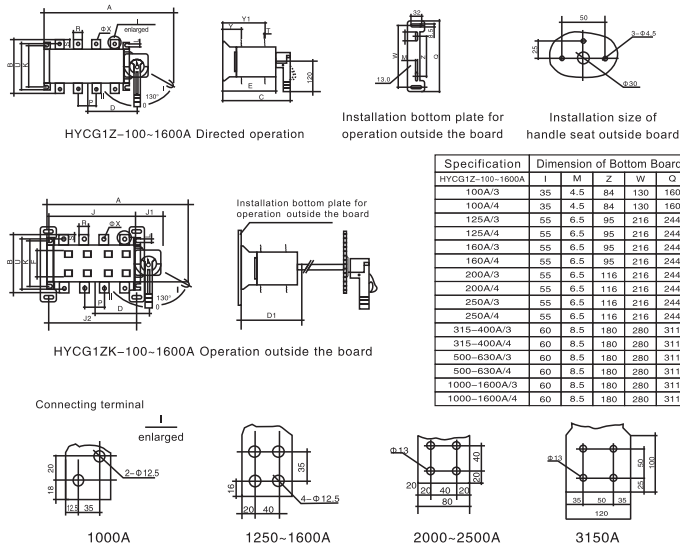
HYCG1-100~630A Series-isolating switch appearance and installation dimensions

Specification	External Dimension and Installation Dimension										
HYCG1-100~630A	A	B	C	D	D1	E	J	J1	J2	K	
100A/3	83.5	106	97	1	56	58	54	31	54	64	
100A/4	106.5	106	97	1	56	58	54	31	54	64	
125A/3	267	135	146	89	110	89	120	65	120	95	
125A/4	297	135	146	104	110	89	150	65	150	95	
160A/3	267	135	146	89	110	89	120	65	120	95	
160A/4	297	135	146	104	110	89	150	65	150	95	
200A/3	330	170	156	110	120	101	160	65	160	115	
200A/4	380	170	156	135	120	101	210	65	210	115	
250A/3	330	170	156	110	120	101	160	65	160	115	
250A/4	380	170	156	135	120	101	210	65	210	180	
315A/3	400	240	196	150	150	126	210	77	160	180	
315A/4	465	240	195	180	150	126	275	77	210	180	
400A/3	400	240	195	150	150	126	210	77	210	180	
400A/4	465	240	195	180	150	126	275	77	275	180	
500A/3	400	260	195	150	150	126	210	77	210	180	
500A/4	465	260	195	180	150	126	275	77	275	180	
630A/3	400	260	195	150	150	126	210	77	210	180	
630A/4	465	260	195	180	150	126	275	77	275	180	

Specification	External Dimension and Installation Dimension								
HYCG1-100-630A	P	R	S	T	U	ΦX	Y	L	F
100A/3	27	14	16	2.5	91	7		4.5	
100A/4	27	14	16	2.5	91	7		4.5	
125A/3	36	20	25	3.5	115	9	55	7	59
125A/4	36	20	25	3.5	115	9	55	7	59
160A/3	36	20	25	3.5	115	9	55	7	59
160A/4	36	20	25	3.5	115	9	55	7	59
200A/3	50	25	30	3.5	140	11	65	11	76
200A/4	50	25	30	3.5	140	11	65	11	76
250A/3	50	25	30	3.5	140	11	65	11	76
250A/4	50	25	30	3.5	140	11	65	11	76
315A/3	65	32	40	5	206	11	85	13	94
315A/4	65	32	40	5	206	11	85	13	94
400A/3	65	32	40	5	206	11	85	13	94
400A/4	65	32	40	5	206	11	85	13	94
500A/3	65	40	50	6	220	13	85	13	94
500A/4	65	40	50	6	220	13	85	13	94
630A/3	65	40	50	6	220	13	85	13	94
630A/4	65	40	50	6	220	13	85	13	94

Operating Manual for Switch Disconnecter and Changeover Switch

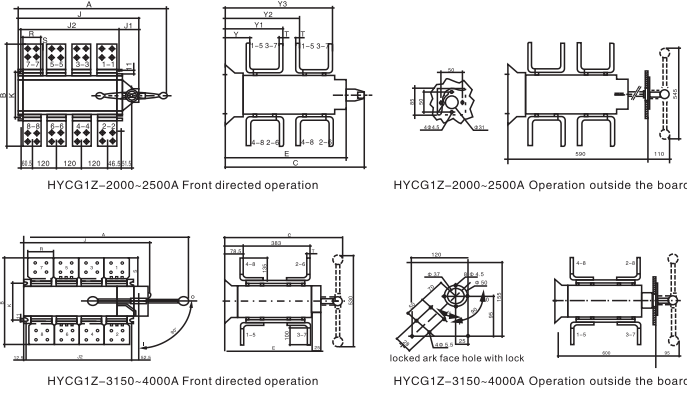
HYCG1Z-100~630A Series changeover switch appearance and installation dimensions



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Operating Manual for Switch Disconnecter and Changeover Switch

HYCG1Z-1000~4000A Series changeover switch appearance and installation dimensions



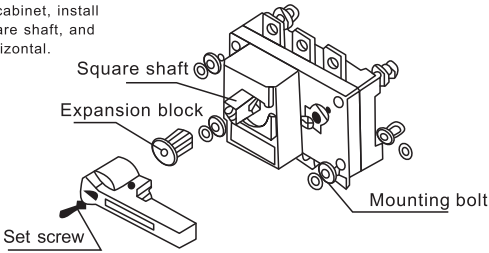
-9-

Operating Manual for Switch Disconnecter and Changeover Switch

5 Installation diagram

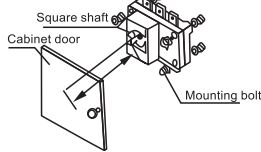
5.1 Installation diagram of HYCG1-100A~630A series load isolation switch operated inside the cabinet

Set the switch in "OFF", fix it on the mounting plate in the cabinet, install the handle on the square shaft, and keep the handle in horizontal.

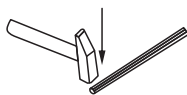


5.2 Installation diagram of HYCG1-100A~630A series load isolation switch operated outside the cabinet

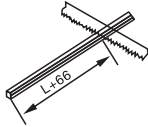
(1) Set the switch in "OFF", fix it on the mounting plate in the cabinet, measure the distance L from the top of square shaft to inner side of cabinet door.



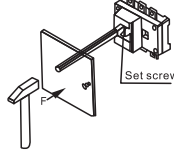
(3) If the cabinet door needs to be locked, you may knock the two black cotter pins into the extension shaft, make sure that the pins reach the designated positions, the pin near the end shall be lower than the other one. The cotter pins can be left unused if the cabinet door is not required to be locked.



(2) Saw off the extension shaft.



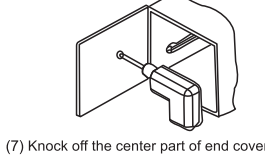
(4) Knock the top contact part of extension shaft of the cabinet door with the hand hammer gently to determine the drilling center.



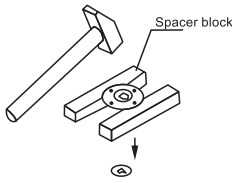
-10-

Operating Manual for Switch Disconnecter and Changeover Switch

(5) Drill a hole of $\Phi 6$ and broaden to $\Phi 30$

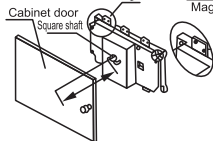


(7) Knock off the center part of end cover.

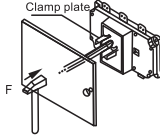


5.3 Installation diagram of HYCG1-1000A~1600A series load isolation switch operated outside the cabinet

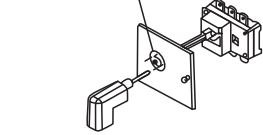
(1) Set the switch in "OFF", measure the distance L from the top of square shaft to inner side of cabinet door.



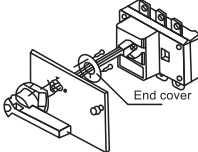
(3) Make use of clamp plate to connect the extension shaft to the square shaft of switch, tightened with screw, let its top contact with the cabinet door by adjusting the locating shaft, then use hand hammer to knock gently to determine the center



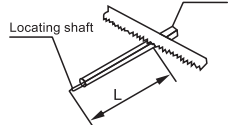
(6) hole 4- $\Phi 4$ with end cover positioning.



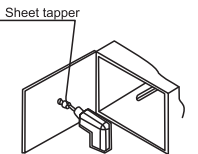
(8) Unscrew the two ST 4x16 tapping screws on the chassis of handle, while, press the chassis to prevent the parts in the handle going out. Fasten the end cover and handle with the tapping screws according to the drawing position, notice that the handle indicating ON/OFF position shall be identical with the indication on load switch body.



(2) Screw in the thread part of locating shaft into the extension shaft, measure off the L value according to the diagram and saw off the extended part.



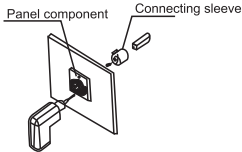
(4) Remove the locating shaft, drill a hole of $\Phi 6$ and broaden to $\Phi 30$.



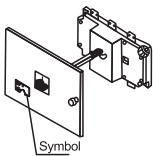
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Operating Manual for Switch Disconnecter and Changeover Switch

(5) Place the panel components on the cabinet door, set the connecting sleeve on the extension shaft with screw M4x16, direction of convex rib of connecting sleeve should be in the same direction with that of panel component pointer. Close the cabinet door and drill hole 3- $\Phi 5.5$.

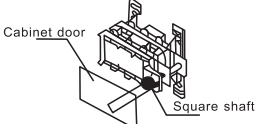


(7) Stick the symbol on the panel according to the diagram.

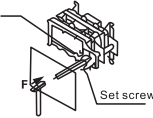


5.4 Installation diagram of HYCG1Z-100A~630A conversion operation-load isolation switch (vertical type) operated outside the cabinet

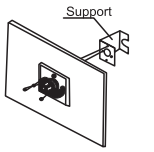
(1) Set the switches I and II in OFF, measure the distance L from the top of square shaft to inner side of cabinet door.



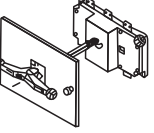
(3) Make use of clamp plate to connect the extension shaft to the square shaft of switch, tightened with screw, let its top contact with the cabinet door by adjusting the locating shaft, then use hand hammer to knock gently to determine the center.



(6) Panel components and support (the U-shaped mouth of the support on the right hand door is directed to the right, and the one on the left hand door is directed to the left) should be installed on the cabinet door with screws 3-M5x16, and equipped with locknuts.

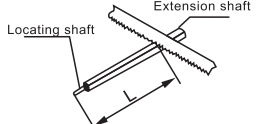


(8) Install the handle on the square shaft according to the diagram, tightened with screw M4x25, handle arrow should be in the same direction with that of panel pointer.

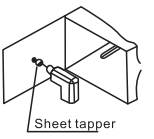


5.4 Installation diagram of HYCG1Z-100A~630A conversion operation-load isolation switch (vertical type) operated outside the cabinet

(2) Screw in the thread part of locating shaft into the extension shaft, measure off the L value according to the diagram and saw off the extended part.



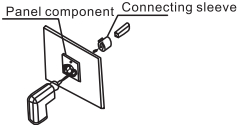
(4) Remove the locating shaft, drill a hole of $\Phi 6$ and broaden to $\Phi 30$.



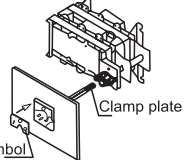
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Operating Manual for Switch Disconnecter and Changeover Switch

(5) Place the panel components on the cabinet door, set the connecting sleeve on the extension shaft with screw M4x16, direction of convex rib of connecting sleeve should be vertical to the panel component pointer, convex rib of the right hand door is directed to the left, convex rib of the left hand door is directed to the right. Close the cabinet door and drill hole 3- $\Phi 5.5$.



(7) Stick the symbol on the panel according to the diagram.



5.4 Installation diagram of HYCG1Z-100A~630A conversion operation-load isolation switch (vertical type) operated outside the cabinet

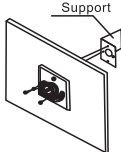
(2) Screw in the thread part of locating shaft into the extension shaft, measure off the L value according to the diagram and saw off the extended part.



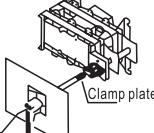
(4) Remove the locating shaft, drill a hole of $\Phi 6$ and broaden to $\Phi 30$.



(6) Panel components and support (the U-shaped mouth of the support on the right hand door is directed to the right, and the one on the left hand door is directed to the left) should be installed on the cabinet door with screws 3-M4x16, and equipped with locknuts.



(8) Install the handle on the square shaft according to the diagram, tightened with screw M4x25, handle arrow should be in the same direction with that of panel pointer.



5.4 Installation diagram of HYCG1Z-100A~630A conversion operation-load isolation switch (vertical type) operated outside the cabinet

(2) Screw in the thread part of locating shaft into the extension shaft, measure off the L value according to the diagram and saw off the extended part.



(4) Remove the locating shaft, drill a hole of $\Phi 6$ and broaden to $\Phi 30$.



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