

Secondary Distribution

HUH1

Series Load Switch



I. Overview

The HUH1 Series Disconnecting Switch (hereinafter referred to as "switch") is suitable for industrial and commercial power distribution equipment with AC 50 Hz, rated voltage up to 690 V, DC voltage up to 440 V and conventional thermal current up to 3,200 A, and is used for frequent making and breaking circuits and galvanic isolation (above 1,000 A is only for galvanic isolation). The switch is widely applied to power distribution systems and automation systems of the construction, electric power, petrochemical industry and other industries.

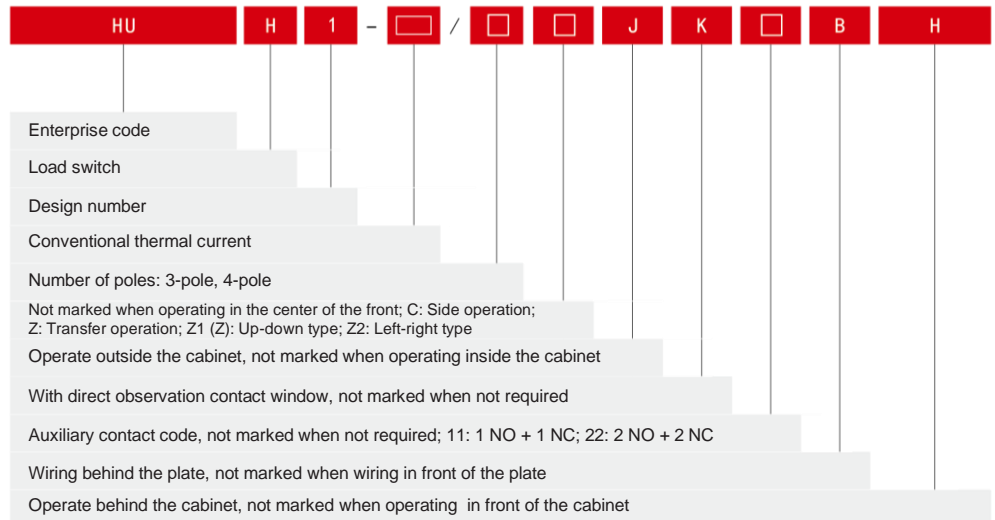
The HUH1/C Side Operation Disconnecting Switch is equipped with an additional side operation mechanism on the basis of the front central operation disconnecting switch of the HUH1, which is suitable for the making/breaking circuit of the side operation and galvanic isolation.

The HUH1/Z Double-throw Transfer Disconnecting Switch is composed of two HUH1 Disconnecting Switches stacked up and down or assembled side by side in the left-right direction. It is suitable for the switching of the two-way power supply or the switching and safety isolation of two load devices.

The switch is beautiful in shape, novel and concise, simple in structure and easy to operate.

The product complies with IEC60947-3 and GB/T14048.3.

II. Model Description



III. Structural Features

1. The switch adopts the accelerating closing mechanism of spring energy storage and instantaneous release and the contact structure of parallel double breakpoints with simultaneous making and breaking, which greatly improves the electrical and mechanical properties of the switch.
2. The switch adopts glass fiber reinforced unsaturated polyester molding compound and manual operation handle, which has high dielectric performance, protective ability and reliable operation safety.
3. The switch has 3 poles type and 4 poles (3 poles + making/breaking neutral pole) type.
4. The front of the switch is provided with a marking window to indicate the making/breaking state of the contact. The rear observation window can be provided as required to directly observe the making/breaking state of the contact, thus ensuring the reliability and safety of the switch operation.
5. The operating handle can be directly installed on the switch for operation (referred to as "in-cabinet operation"), or it can be operated outside the power distribution cabinet by the extension shaft (referred to as "out-of-cabinet operation"), provided with two operation methods.
6. The normally-open and normally-closed auxiliary contacts, special mounting base plate and wiring modes in front of the plate and behind the plate can be provided as required to meet various needs of users.
7. For the breaking position of "0", two or three locks can be used to lock the handle to prevent malfunction.

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IV. Main Technical Parameters

1. See Table 1 for the main technical parameters of the switch
Table 1

Product model		HUH1 - 160			HUH1 - 250		HUH1 - 630				HUH1 - 1600				HUH1 - 3200				
		100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3200		
Conventional thermal current I _{th} (A)		160			250		630				1600				3200				
Rated insulation voltage U _i (V)		1000					1140												
Rated impact withstand voltage: U _{imp} (kV)		12																	
Rated working current I _e (A)	AC 400 V	AC- 21 B	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3200	
		AC- 22 B	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3200	
		AC- 23 B	100	125	160	200	250	315	400	500	500	800	1000	1000	1000	1250	1250	1250	
	AC 690 V	AC- 21 B	100	125	160	200	250	315	400	400	500	800	1000	1250	1600	2000	2500	2500	
		AC- 22 B	100	100	120	160	160	315	315	315	315	630	800	800	800	1000	1000	1000	
		AC- 23 B	40	60	80	100	125	200	200	200	200	250	500	500	500	800	800	800	
	DC 220 V	DC- 20 B	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3200	
		DC- 21 B	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	2500	
		DC- 22 B	100	125	160	200	250	315	400	500	500	800	1000	1250	1250	1600	1600	1600	
		DC- 23 B	45	60	80	160	200	315	400	400	500	800	1000 ⁽²⁾	1250 ⁽²⁾	1250 ⁽²⁾	1250 ⁽²⁾	1250 ⁽²⁾	1250 ⁽²⁾	
	DC 440 V	DC- 20 B	80	100	125	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3200	
		DC- 21 B	80	100	125	200	200	315	400	400	500	630	1000	1250	1250	1250	1250	1250	
		DC- 22 B	80	100	125	160	200	315	400	400	500	500	1000 ⁽²⁾	1250 ⁽²⁾	1250 ⁽²⁾	1250 ⁽²⁾	1250 ⁽²⁾	1250 ⁽²⁾	
		DC- 23 B	40	50	100	100	200 ⁽²⁾	250	250	250	500 ⁽²⁾	400	630	1000 ⁽²⁾	1000 ⁽²⁾	1000 ⁽²⁾	1000 ⁽²⁾	1000 ⁽²⁾	
	Rated limited short-circuit current (kA)	400 V	50					70				100							
		690 V	50																
Rated short-term withstand current I _{cw} (kA/s)		9					13				50								
Service life (number of operation cycles)	Operating frequency (times/h)	120					60				20				10				
	Total times	1600					1000				600				400				
	On-load times	200					200				100				100				
	No-load times	1400					800				500				300				
Operating torque (n. m)		10					14.5				37				50		60		

2. The main parameters of the disconnecting switch such as side operation, operation outside the cabinet, operation behind the cabinet, wiring behind the plate and direct observation of the contact window all correspond to the HUH1.

3. The main parameters of the HUH1 Double-throw Transfer Disconnecting Switch correspond to the HUH1.

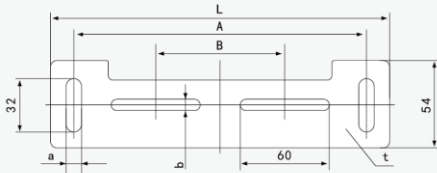
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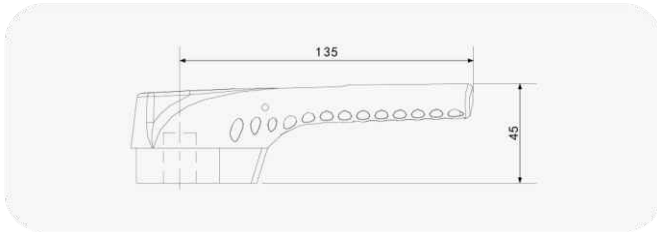
V. Outline and Installation Dimensions

1. Special mounting base plate

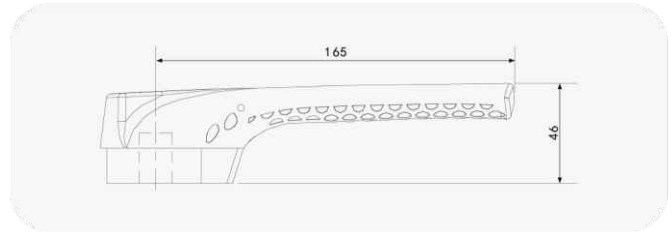


Current specification	L	A	B	a	b	t
160 A	218	190	85	8.5	6.5	3
250 A	245	220	110	8.5	6.5	3
400. 630 A	270	240	135	8.5	6.5	4
800 A above	310	280	175	8.5	8.5	5

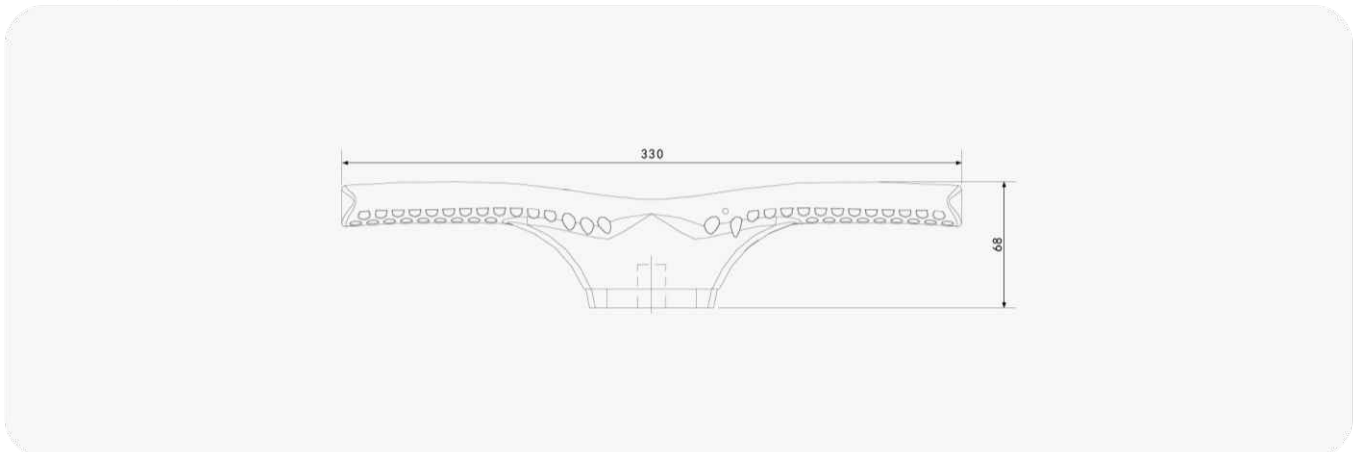
2. Operating handle in the cabinet
HUH1-160, 250, in the cabinet



HUH1-630, in the cabinet



HUH1-1600, 3200, in the cabinet

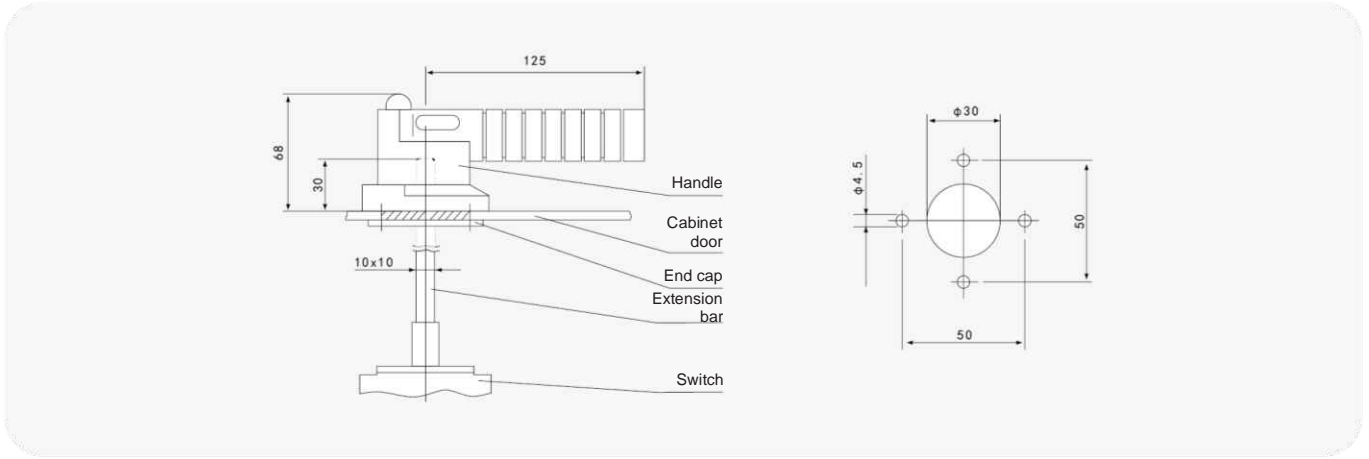


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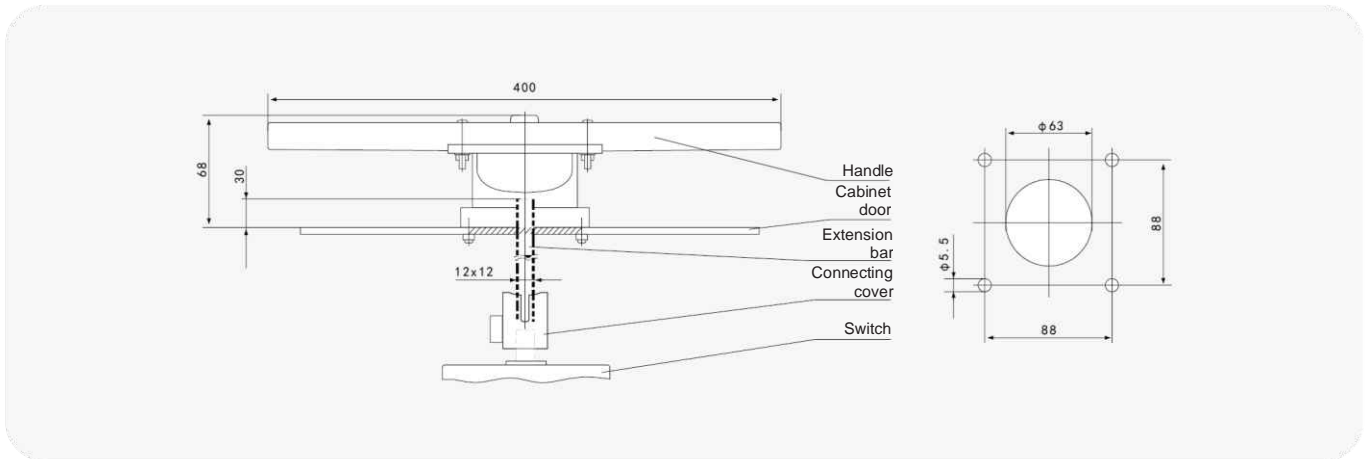
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3. Operating handle outside the cabinet and panel opening dimension
HUH1-630A below, outside the cabinet



HUH1-1600, 3200, outside the cabinet, Type A; HUH1/C, HUH1/Z, outside the cabinet, Type A

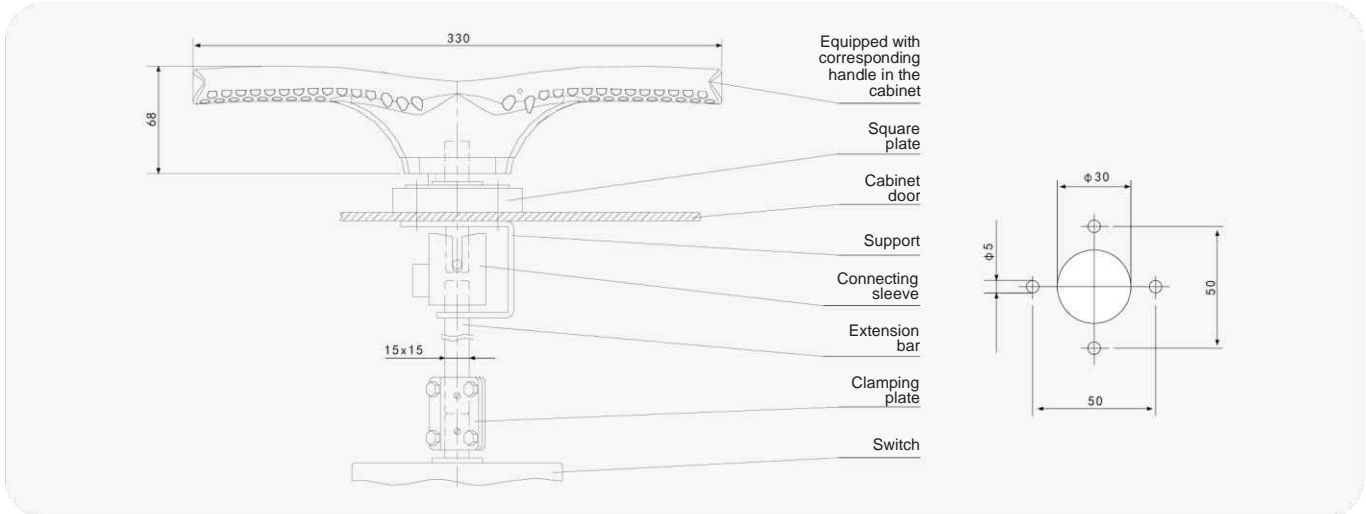


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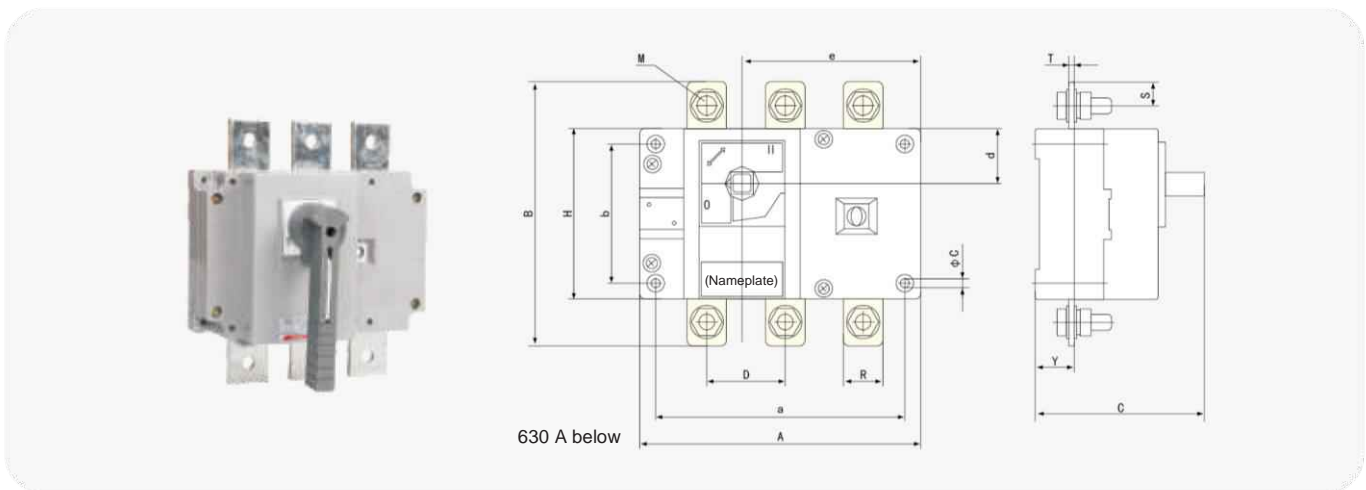
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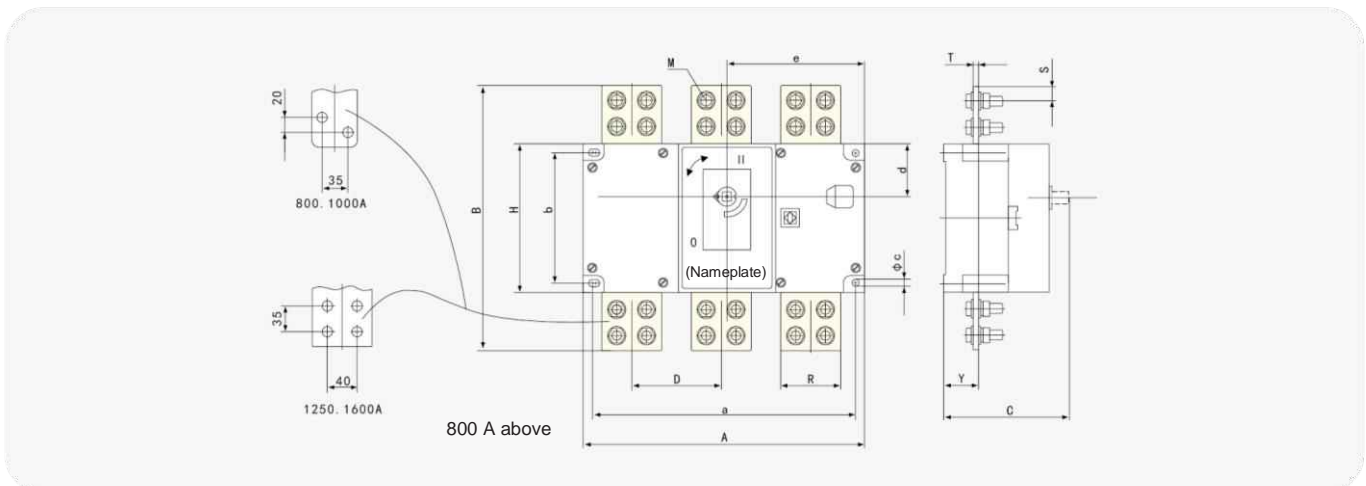
HUH1-1600, 3200, outside the cabinet, Type B; HUH1/C series, outside the cabinet, Type B; HUH1/Z series, outside the cabinet, Type B (Type B by default)



4. Outline and installation dimensions of HUH1-160~1600 A
HUH1 - 160~630 A



HUH1 - 800~1600 A



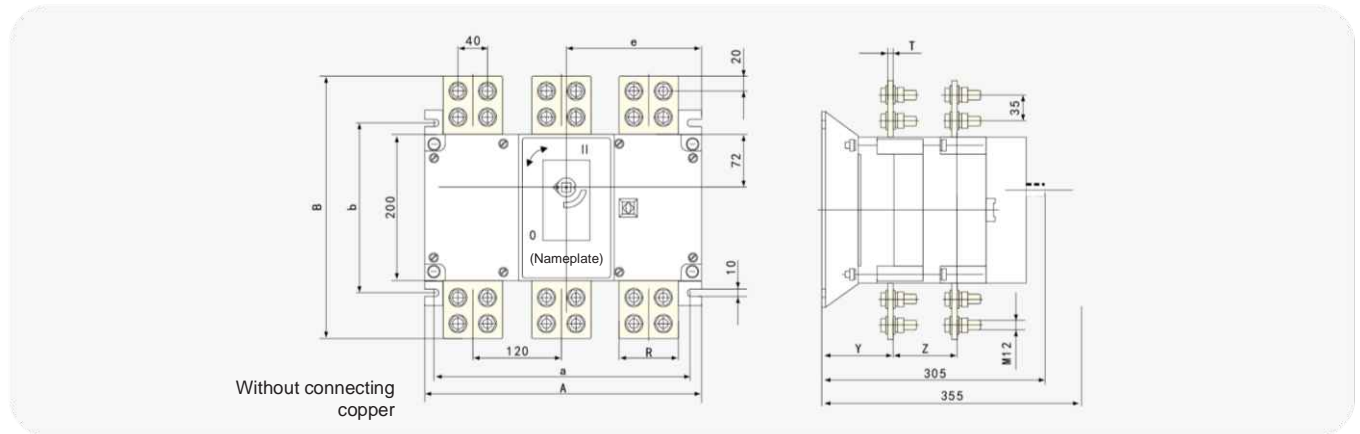
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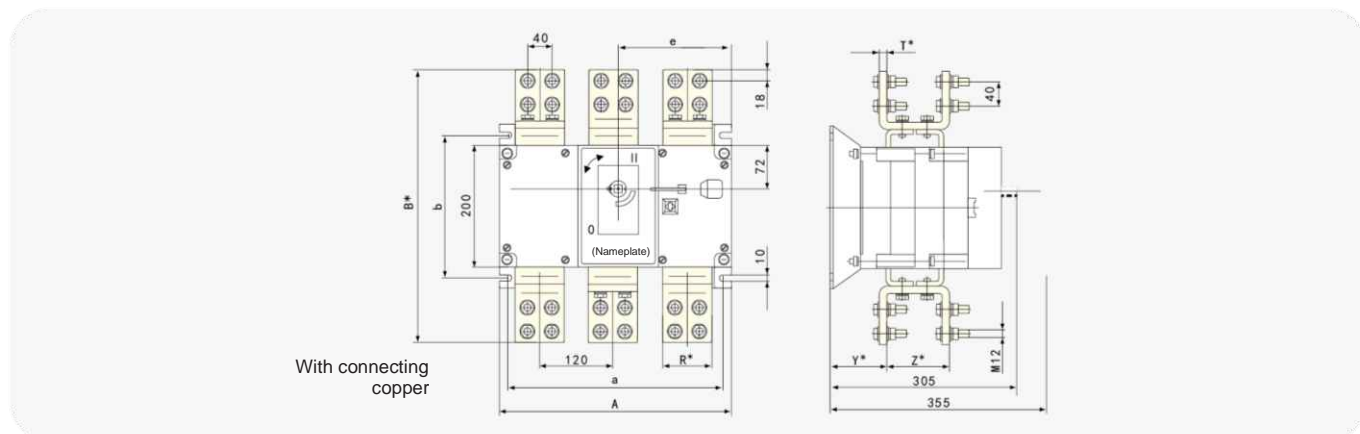
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Product model	Current	Number of poles	Outline dimension					Installation dimension					Terminal dimension				
			A	B	C	D	H	a	b	Φc	d	e	R	S	T	Y	M
HUH1 - 160	100 A	/ 3	140	135	92	36	85	120	65	5.5	27	85	20	10	3.5	25	8
	125 A	/ 4	170					150									
HUH1 - 250	200 A	/ 3	180	160	102	50	100	160	80	5.5	30	115	25	15	3.5	25	10
	250 A	/ 4	230					170			110						
HUH1 - 630	315 A	/ 3	230	235	135	65	160	210	140	7	50	145	32	15	5	37	10
		/ 4	290					240						270			
	500 A	/ 3	230	260	135	65	160	210	140	7	50	145	45	20	5	37	12
		630 A	/ 4					290					270		40		
HUH1 - 1600	800 A	/ 3	378	312	170	120	200	353	175	9	72	185	60	20	8	48	12
		1000 A	/ 4					498				473					
	1250 A	/ 3	378	356	170	120	200	353	175	9	72	185	60	20	8	48	12
		1600 A	/ 4					498				473					
	1600 A	/ 3	378	356	170	120	200	353	175	9	72	185	80	20	10	49	12
		1600 A	/ 4					498				473					

5. Outline and installation dimensions of HUH1-2000~3200 A
HUH1-2,000~3,200 A, without connecting copper



HUH1-2,000~3,200 A, with connecting copper



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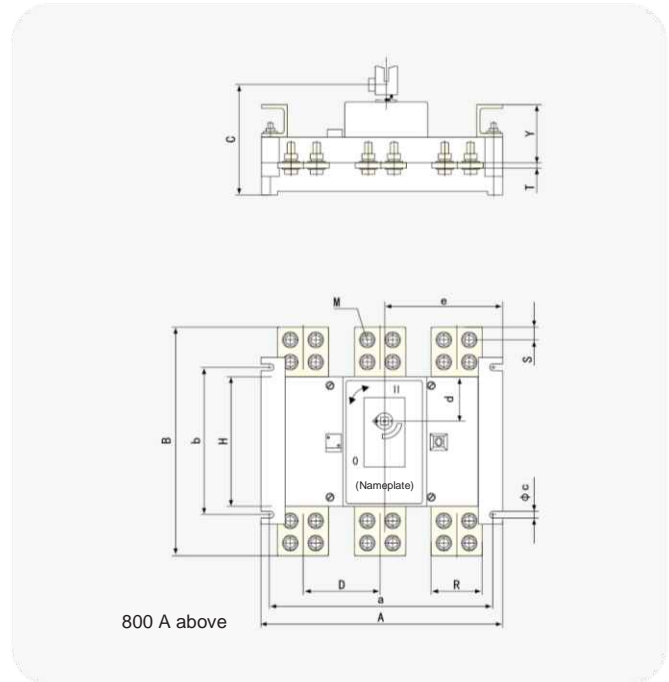
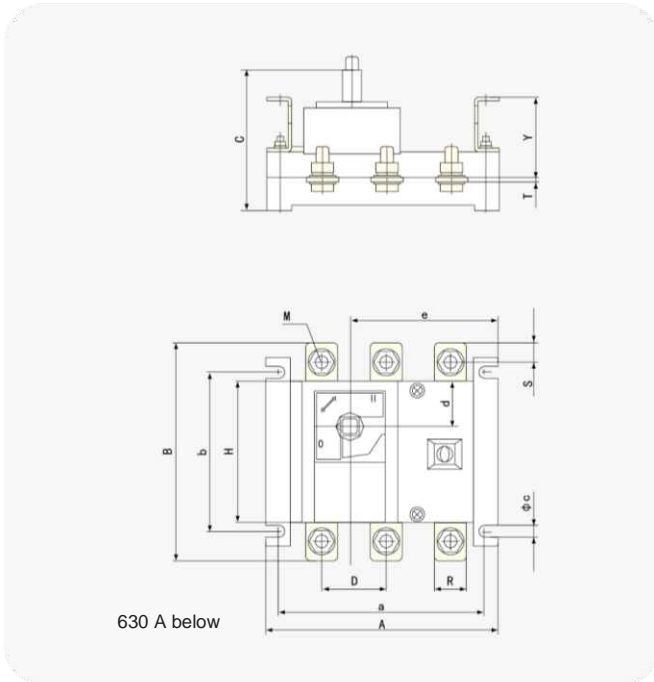
Product model	Current	Number of poles	Outline dimension		Installation dimension			Terminal dimension			
			A	B / B*	a	b	e	R / R*	T / T*	Y / Y*	Z / Z*
HYGL-3200	2000A	/ 3	378	356 / 502	350	230	185	80 / 80	8 / 10	98 / 85	88 / 115
		/ 4	498	356 / 502	470	230	249				
	2500A	/ 3	378	356 / 502	350	230	185	80 / 80	8 / 12	98 / 85	88 / 115
		/ 4	498	356 / 502	470	230	249				
	3200A	/ 3	378	356 / 502	350	230	185	80 / 100	10 / 15	99 / 83	88 / 120
		/ 4	498	356 / 502	470	230	249				

Note: Sizes with * refer to those with connecting coppers.

6. Outline and installation dimensions of HUH1-160~1600/H (operation behind the cabinet)

HUH1 - 160~630 / H

HUH1 - 800~1600 / H



Product model		Installation dimension			
		a	b	Φc	Y
HUH1 - 160	/ 3 H	120	95	7	52
	/ 4 H	150			
HUH1 - 250	/ 3 H	160	115	9	60
	/ 4 H	210			
HUH1 - 630	/ 3 H	210	180	11	80
	/ 4 H	270			
HUH1 - 1600	/ 3 H	350	230	10	90
	/ 4 H	470			

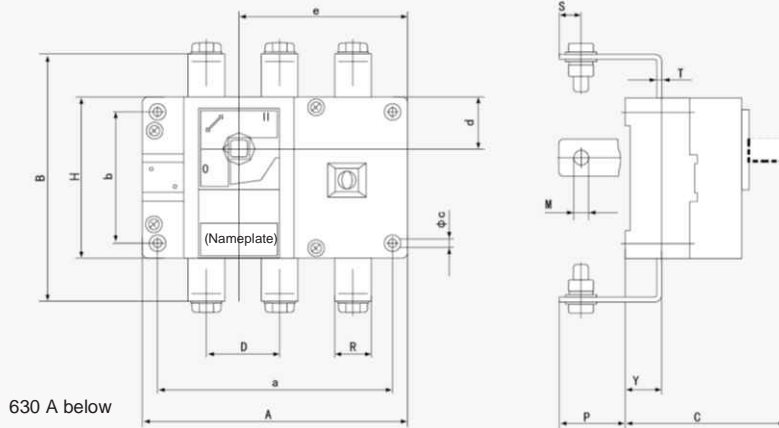
Note: Other dimensions correspond to HUH1.

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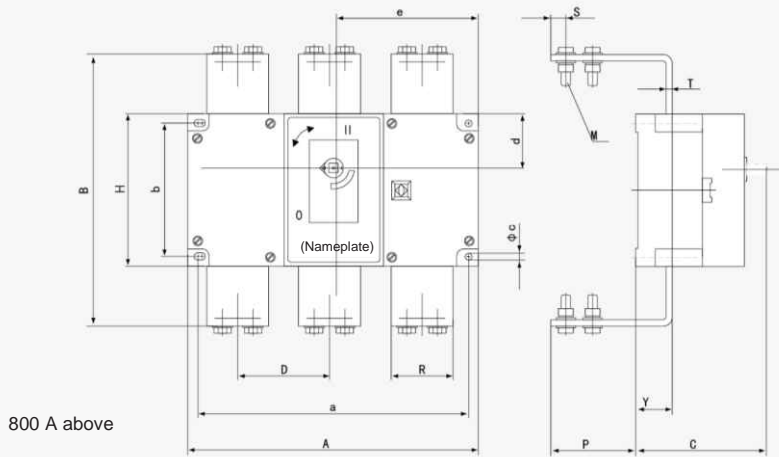
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7. Outline and installation dimensions of HUH1-160~1600/B (wiring behind the plate)
 HUH1 - 160~630 / B



HUH1 - 800~1600 / B



Product model	Current	Terminal dimension				
		R	S	T	Y	P
HUH1 - 160 / B	160 A	20	10	3.5	25	70
HUH1 - 250 / B	250 A	25	15	3.5	25	75
HUH1 - 630 / B	400 A	32	17	5	37	84
	630 A	40	20	6	37	84

Product model	Current	Terminal dimension				
		R	S	T	Y	P
HUH1 - 1600 / B	800 A	60	20	8	48	108
	1000 A	60	20	8	48	108
	1250 A	80	20	8	48	108
	1600 A	80	20	10	49	108

Note: Other dimensions correspond to HUH1.

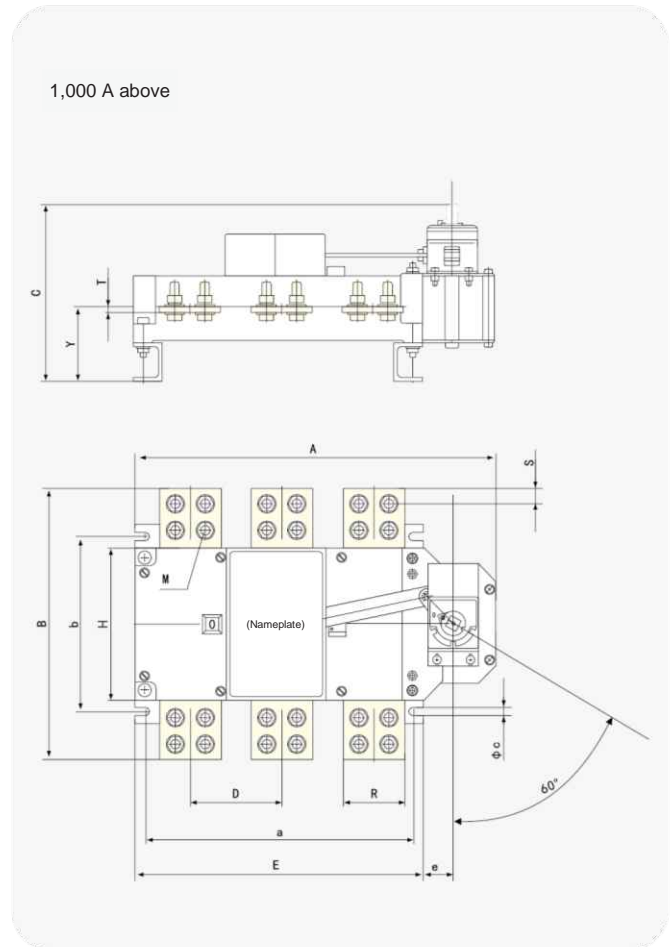
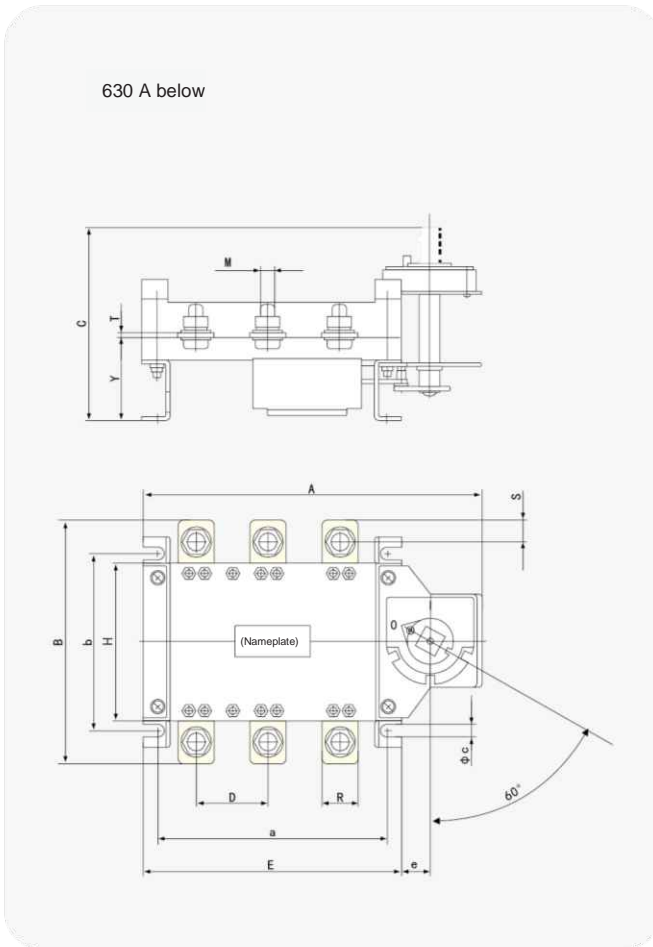
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8. Outline and installation dimensions of HUH1-160~1600/C (side operation)
 HUH1 - 160~630 / C

HUH1 - 1000~1600 / C



Product model	Current	Number of poles	Outline dimension						Installation dimension				Terminal dimension				
			A	B	C	D	E	H	a	b	ϕc	e	R	S	T	Y	M
HUH1 - 160	100A	/ 3C	195	135	124	36	140	85	120	95	7	20	20	10	3.5	52	8
	125A	/ 4C	225				170		150								
HUH1-250	200A	/ 3C	235	170	132	50	180	110	160	115	9	20	25	15	3.5	60	10
	250A	/ 4C	285				230		210								
HUH1-630	315A	/ 3C	300	240	164	65	230	160	210	180	11	35	32	17	5	80	10
		/ 4C	360				290		270								
	500A	/ 3C	300	260	164	65	230	160	210	180	11	35	40	20	6	80	12
		/ 4C	360				290		270								
HUH1-1600	800A	/ 3C	473	312	232	120	378	200	350	230	10	40	60	20	8	98	12
		/ 4C	593				498		470								
	1250A	/ 3C	473	356	232	120	378	200	350	230	10	40	80	20	8	98	12
		/ 4C	593				498		470								
	1600A	/ 3C	473	356	232	120	378	200	350	230	10	40	80	20	10	99	12
		/ 4C	593				498		470								

Note: The hole size of the wiring board corresponds to HUH1.

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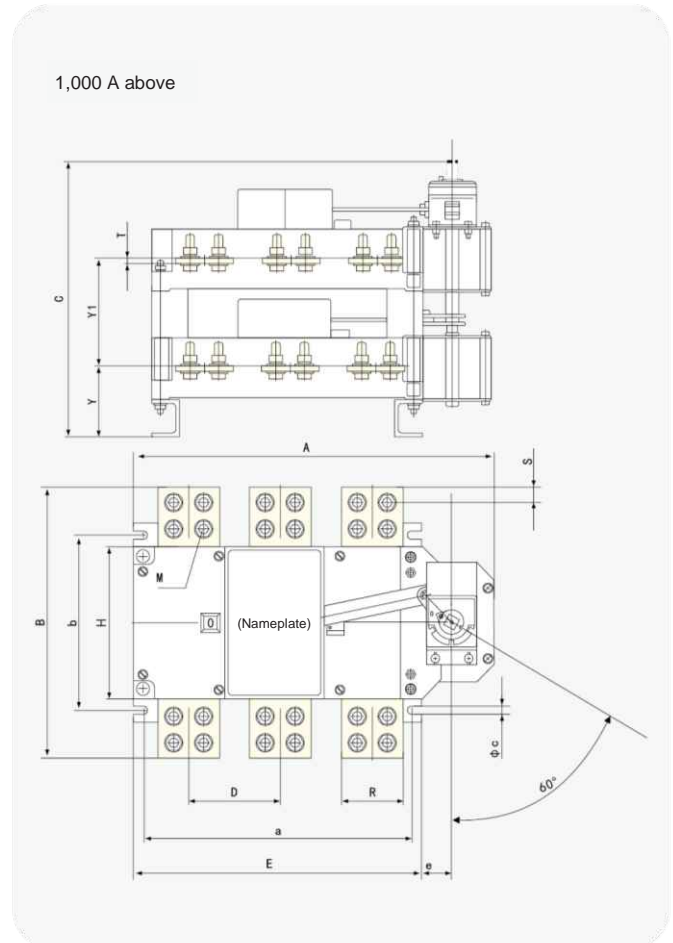
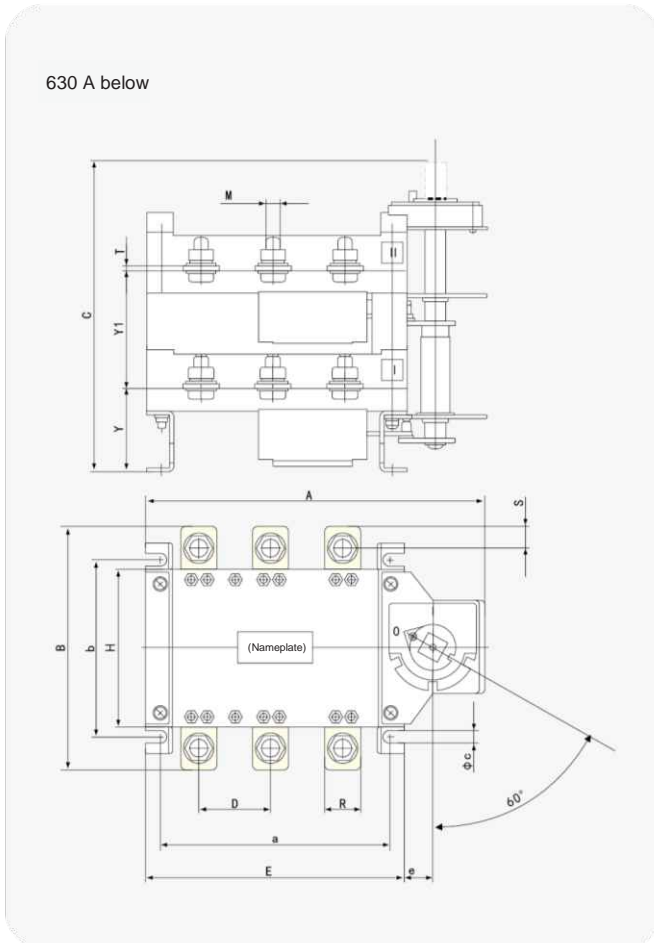
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9. Outline and installation dimensions of HUH1-160~1600/Z (transfer switch)

HUH1 - 160~630 / Z

HUH1 - 1000~1600 / Z



Product model	Current	Number of poles	Outline dimension						Installation dimension				Terminal dimension					
			A	B	C	D	E	H	a	b	Φc	e	R	S	T	Y	Y1	M
HUH1 - 160	100A 125A 160A	/ 3Z	195	135	196	36	140	85	120 150	95	7	20	20	10	3.5	52	72	8
		/ 4Z	225				170											
HUH1 - 250	200A 250A	/ 3Z	235	170	215	50	180	110	160 210	115	9	20	25	15	3.5	60	82	10
		/ 4Z	285				230											
HUH1 - 630	315A 400A	/ 3Z	300	240	278	65	230	160	210 270	180	11	35	32	17	5	80	114	10
		/ 4Z	360				290											
	500A 630A	/ 3Z	300	260	278	65	230	160	210 270	180	11	35	40	20	6	80	114	12
		/ 4Z	360				290											
HUH1 - 1600	800A 1000A	/ 3Z	473	312	380	120	378	200	353 473	230	10	40	60	20	8	98	156	12
		/ 4Z	593				498											
	1250A	/ 3Z	473	356	380	120	378	200	353 473	230	10	40	80	20	8	98	156	12
		/ 4Z	593				498											
	1600A	/ 3Z	473	356	380	120	378	200	353 473	230	10	40	80	20	10	99	156	12
		/ 4Z	593				498											

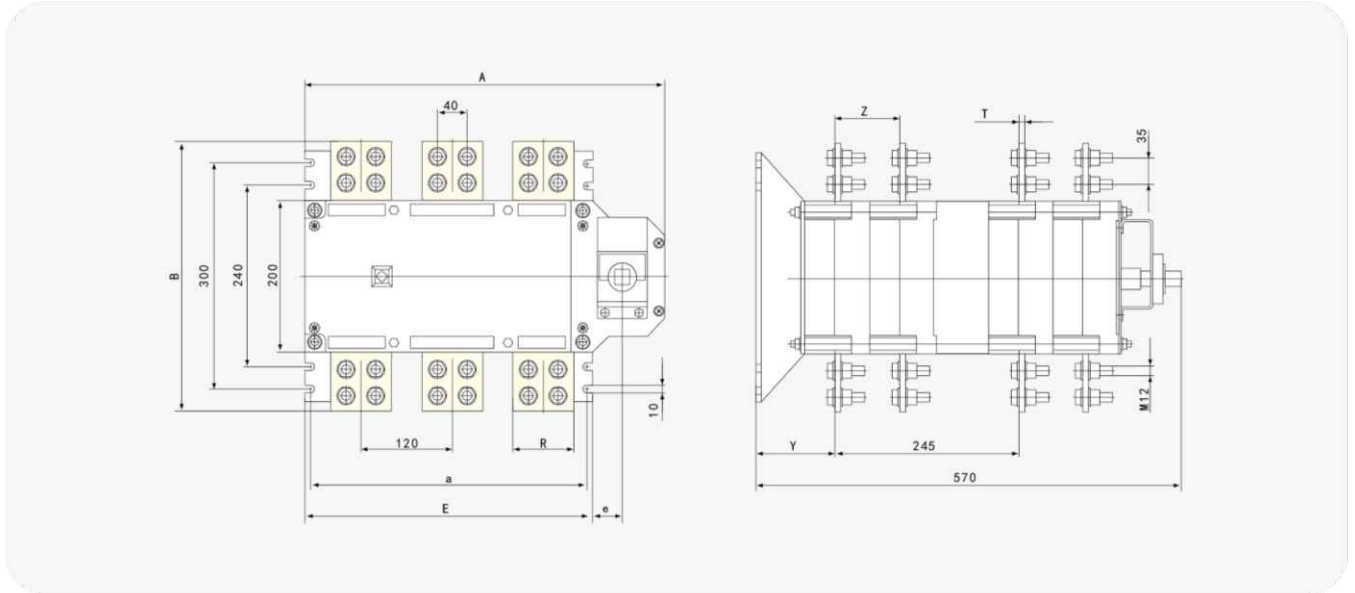
Note: The hole size of the wiring board corresponds to HUH1.

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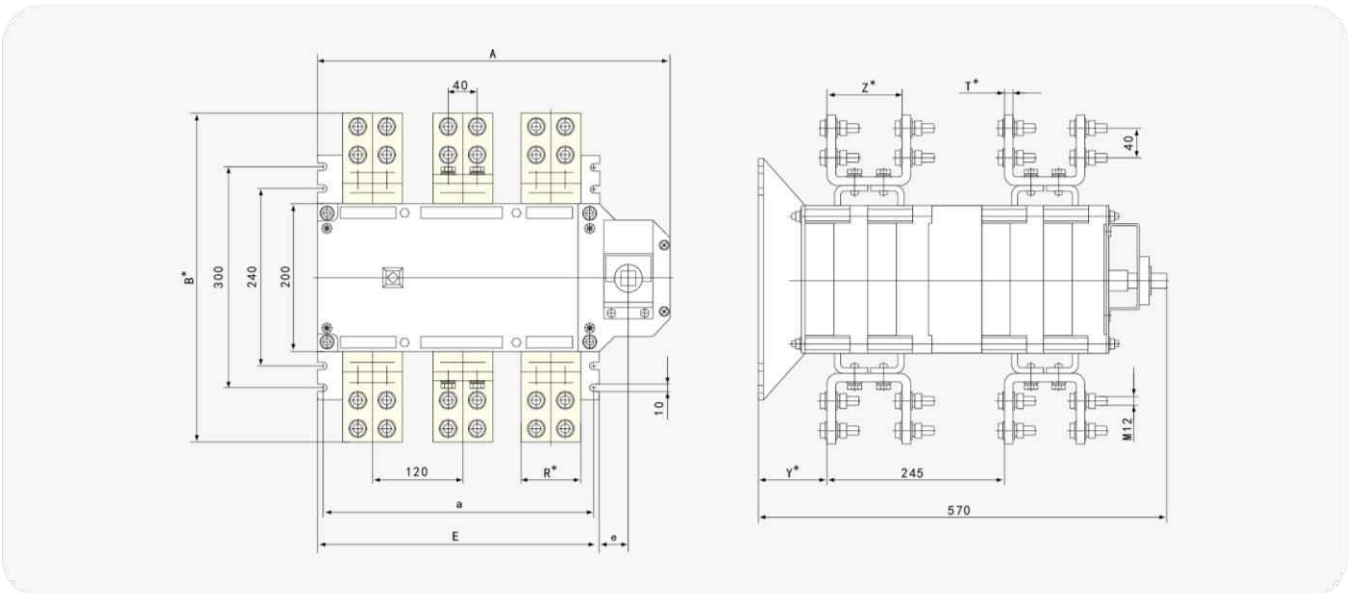
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10. Outline and installation dimensions of HUH1-2000-3200/Z (transfer switch)
 HUH1-2000-3200/Z, without connecting copper



HUH1-2000-3200/Z, with connecting copper



Product model	Current	Number of poles	Outline and installation dimensions					Terminal dimension			
			A	B / B*	E	a	e	R / R*	T / T*	Y / Y*	Z / Z*
HUH1 - 3200	2000A	/ 3Z	473	356 / 502	378	350	40	80 / 80	8 / 10	98 / 85	88 / 115
		/ 4Z	593	356 / 502	498	470	40				
	2500A	/ 3Z	473	356 / 502	378	350	40	80 / 80	8 / 12	98 / 85	88 / 115
		/ 4Z	593	356 / 502	498	470	40				
3200A	/ 3Z	473	356 / 502	378	350	40	80 / 100	10 / 15	99 / 83	88 / 120	
	/ 4Z	593	356 / 502	498	470	40					

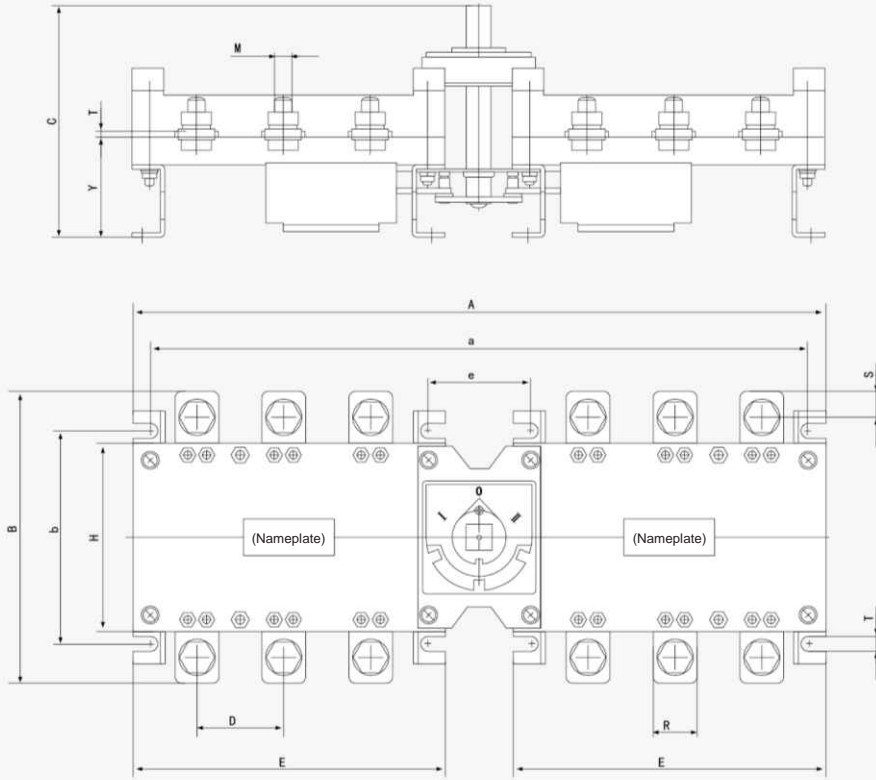
Note: Sizes with * refer to those with connecting coppers.

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5. Outline and installation dimensions of HUH1-160~1600 / Z2 (transfer switch)



Product model	Current	Number of poles	Outline dimension						Installation dimension				Terminal dimension				
			A	B	C	D	E	H	a	b	Φ_c	e	R	S	T	Y	M
HUH1 - 160	100A 125A 160A	/3Z2	320	135	124	36	140	85	300	95	7	60	20	10	3.5	52	8
		/4Z2	380	135	124	36	170	85	360	95	7	60					
HUH1 - 250	200A 250A	/3Z2	400	170	132	50	180	110	380	115	9	60	25	15	3.5	60	10
		/4Z2	500	170	132	50	230	110	480	115	9	60					
HUH1 - 630	315A 400A	/3Z2	530	240	164	65	230	160	510	180	11	90	32	17	5	80	10
		/4Z2	650	240	164	65	290	160	630	180	11	90					
	500A 630A	/3Z2	530	260	164	65	230	160	510	180	11	90	40	20	6	80	12
		/4Z2	650	260	164	65	290	160	630	180	11	90					
HUH1 - 1600	800A 1000A	/3Z2	836	312	232	120	378	200	811	230	9	105	60	20	8	98	12
		/4Z2	1076	312	232	120	498	200	1051	230	9	105					
	1250A	/3Z2	836	356	232	120	378	200	811	230	9	105	80	20	8	98	12
		/4Z2	1076	356	232	120	498	200	1051	230	9	105					
	1600A	/3Z2	836	356	232	120	378	200	811	230	9	105	80	20	10	99	12
		/4Z2	1076	356	232	120	498	200	1051	230	9	105					

Note: The hole size of the wiring board corresponds to HUH1.