



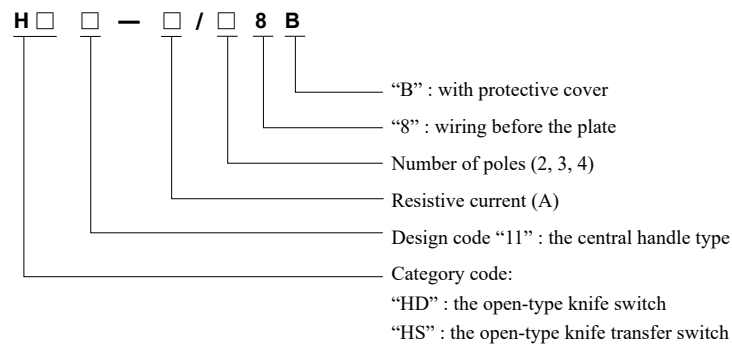
## HD11, HS11/B Knife Switch with Protective Cover

### 1 Overview

HD11, HS11/B knife switch with protective cover is a derived product newly developed based on HD11 and HS11 as an ideal alternative product instead of HD11, HD11F and HS11, greatly improving the personnel safety protection to prevent electric shock.

This series of product are primarily used in the low-voltage power distribution equipment for infrequent manual connection, disconnection, and isolation of power supply.

### 2 Type Designation



### 3 Technical Parameters

Table 1

Resistive current (A)	100		200		250		400		630		1000
	63, 80	100	125, 160	200	250	250	400	600	630	630	
Rated working current (A)	63, 80	100	125, 160	200	250	250	400	600	630	630	630
Rated working voltage (V)	415/690										
Rated insulation voltage (V)	1000										
Rated impulse withstand voltage (kV)	12										
Usage category	AC-20A										
Mechanical life (times)	10,000	10,000	10,000	10,000	10,000	10,000	10,000	5,000	3,000	3,000	3,000
Short-time withstand current (Ka/1s)	5	5	5	5	10	10	15	20	20	25	25
Operating force (N)	≤300	≤300	≤300	≤300	≤300	≤300	≤400	≤400	≤400	≤400	≤450

Note: Frame current 250A model has two small-size and conventional-size specifications, and the conventional size product will be provided unless specified.

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### 4 Operating Conditions

4.1 Ambient air temperature: not higher than +40°C, and is not below than -5°C.

4.2 Altitude: not exceed 2,000 meters.

4.3 Humidity:

The relative air humidity does not exceed 50% at the maximum temperature +40°C. A higher relative humidity is allowed at a lower temperature, such as up to 90% at 20°C. Special measures are taken for condensation occurred occasionally due to temperature changes.

4.4 Pollution degree: 3

4.5 The switch shall be installed in places where there is no obvious shaking, impact vibration or rain and snow erosion and no explosive and hazardous medium, and there is no enough gas and dust to cause metal corrosion and insulation damage in medium.



### 5 Outline and Installation Dimensions

5.1 HD11 wiring before the plate (see Fig. 1 and Table 2)

Fig. 1

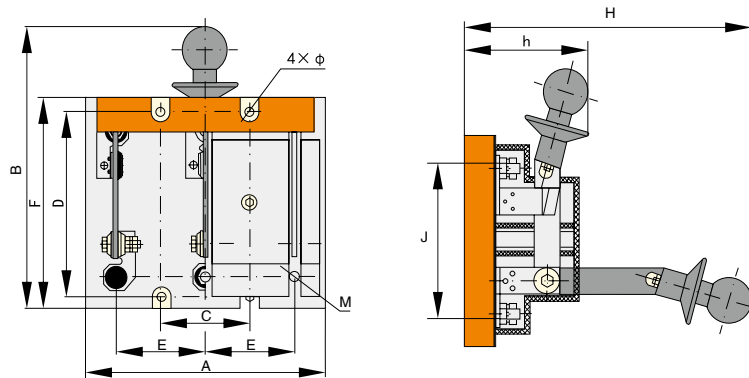


Table 2

Model	Spec.	100, 200, 250 Small-size			250			400		600、630		1000	
		2P	3P	4P	2P	3P	4P	3P	4P	3P	4P	3P	4P
HD11 protective open-type knife switch with before- plate wiring	A	85	140	190	120	190	270	210	300	260	330	320	435
	B	200	200	200	210	210	210	270	270	330	330	350	350
	C	-	50	100	-	70	140	80	160	100	180	115	230
	D	140	140	140	140	140	140	190	190	140	140	140	140
	E	50	50	50	70	70	70	80	80	100	90	115	115
	F	165	165	165	165	165	165	210	210	290	290	290	290
	H	220	220	220	220	220	220	270	300	305	305	335	335
	h	110	110	110	120	120	120	135	135	125	125	160	160
	M	8	8	8	8	8	8	12	12	16	16	12	12
	φ	7	7	7	7	7	7	7	7	9	9	9	9

## HD11, HS11/B Knife Switch with Protective Cover

5.2 HS11 wiring before the plate (see Fig. 2 and Table 3)

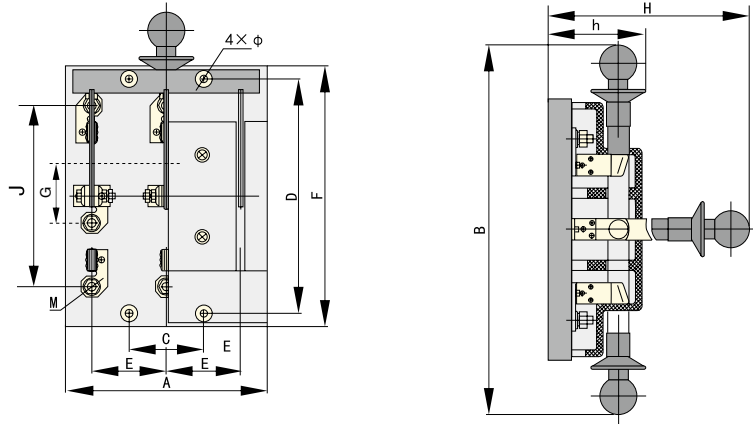


Fig. 2

Table 3

Model	Spec.	200, 250 Glass plate		400 Glass plate	
		3P	4P	3P	4P
HS11 protective knife switch with before-plate wiring	A	186	256	216	296
	B	330	330	430	430
	C	70	140	80	160
	D	220	220	280	280
	E	70	70	80	80
	F	265	245	312	312
	H	240	240	280	300
	h	100	100	110	110
	J	170	170	243	243
	G	50	50	75	75
	M	8	8	12	12
	φ	7	7	7	7

5.3 HD11, HS11/B mounting plate fixation depth, and distance from the busbar to the mounting plate (see Fig.3, Table 4 and Table 5)

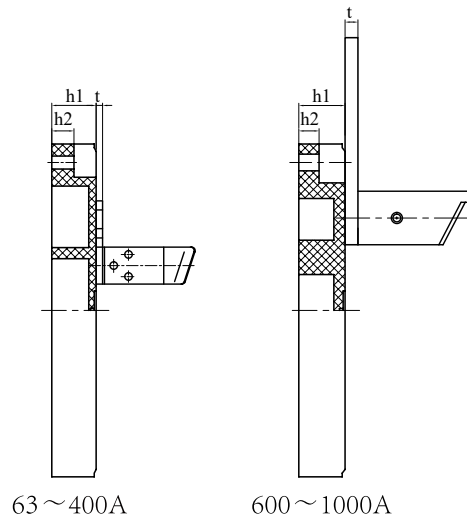


Fig. 3

## HD11, HS11/B Knife Switch with Protective Cover

Glass, rubber board (old) dimension

Table 4

Spec.	100, 200, 250 Small-size	250	400	600, 630	1000
h1	18	23	25	25	30
h2	10	11	11	11	15
t	2	3.5	4.5	7	9
Busbar width	25	25	38	40	50

Rubber board (new) dimensions

Table 5

Spec.	100, 200, 250 Small-size	250	400	600, 630	1000
h1	/	/	/	20.5	21.5
h2	/	/	/	11.5	12.5
t	/	/	/	7	9
Busbar width	/	/	/	40	50

### 6 Ordering Notice

The ordering unit must specify the model, features, voltage, current, number of poles, operation mode and quantity of switch. For special ordering requirements, please contact Tengen technical department.

For example: HD11-250/38B small-size, 10 pcs.