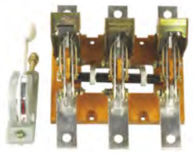
Knife Switch/Disconnector Series

NLD 北陆电气®



■ Scope of application

HD series and HS series knife switches (hereinafter referred to as switches) are suitable for complete sets of power distribution equipment with frequency of AC 50Hz, rated operating voltage up to 380V and rated operating current up to 3000A. They are used as infrequent manual connection and disconnection circuits or as disconnectors. In which:

1.1 The central handle type knife switch is mainly used for power stations and does not cut off circuits with current, serving as an disconnector.

1.2 The side front lever operating mechanism switch is mainly used in front operation and front maintenance switchgear, and the operating mechanism can be installed on both sides of the cabinet.

1.3 The central front lever operating mechanism switch is mainly used in front operation and rear maintenance switchgear, with the operating mechanism installed in the front.

1.4 Side operated handle type switch is mainly used in the power box.

1.5 Switches equipped with arc extinguishing chambers can cut off appropriate current loads, while other series of knife switches are only used as disconnectors.

The product complies with the GB/T 14048.3 standard.

■ Model and meaning

□□□ □/□□□

- For the 11 series, "B" represents product with protective cover
- "0" represents product with no arc extinguishing chamber, "1" represents product with arc extinguishing chamber
  For the 11 series, "8" represents front-panel wiring
  "9" represents back-panel wiring
- Number of poles (2, 3, 4)
- Agreed heating current (A)
- Additional code: For the 11 series, "F" represents disconnector (see HD11F disconnector selection for details)
  For 13 series, "BX" represents rotary operation, and it represents lever operation without "BX"
- Design code: "11" represents the central handle type
  "12" represents the side front lever operating mechanism type
  "13" represents the central front lever operating mechanism type
  "14" represents the side operating handle type
- "HD" represents open type knife switch, and "HS" represents a double-throw knife change-over switch.

■ Main parameters and technical performance

Table1

Conventional heating current (A)	100	200	400	600	1000	1500	2000	3000
Rated operating current (A)	100	200	400	600	1000	1500	2000	3000
On-off capacity (A) AC 380V	100	200	400	600	1000	1500		-
Mechanical life (time)	10000	10000	10000	5000	5000	5000	3000	3000
Electrical life (time)	-	1000	1000	500	500	500	300	300
1S short-time withstand current (kA)	5	10	15	20	25	30	30	50
Operating force (N)	≤300	≤300	≤400	≤400	≤450	≤450	≤450	≤450

■ Overall and installation dimension

5.1 HD11 front-panel wiring (see Figure 1 and Table 2).

Figure 1

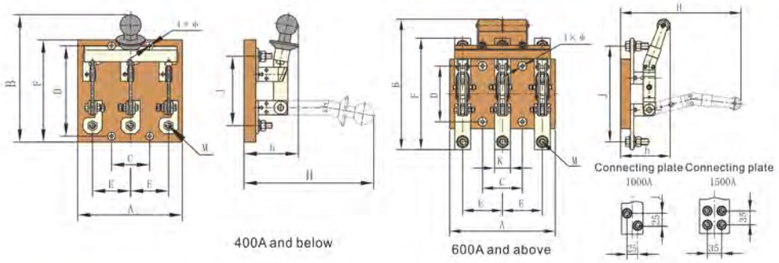


Table 3 (mm)

specification	100A			200A			400A			600A			1000A			1500A		
	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P
A	85	140	190	190	190	260	190	210	300	240	260	360	280	320	440	300	350	480
B	200	200	200	210	210	230	270	270	300	350	330	330	380	360	360	410	390	390
C	-	50	100	140	70	140	160	80	160	200	100	200	240	120	240	260	130	260
D	140	140	140	140	140	140	190	190	190	140	140	140	140	140	140	140	140	140
E	50	50	50	70	70	70	80	80	80	100	100	100	120	120	120	130	130	130
F	160	160	160	162	162	162	210	210	210	274	274	274	284	284	284	330	330	330
H	210	220	220	220	220	235	270	270	270	330	310	310	380	360	360	390	370	370
h	120	120	120	120	120	120	135	135	135	140	125	125	175	160	160	175	160	160
J	110	110	110	110	110	110	146	146	146	234	234	234	208	208	208	230	230	230
K	-	-	-	-	-	-	-	-	-	40	40	40	50	50	50	70	70	70
M	8	8	8	8	8	8	12	12	12	16	16	16	12	12	12	12	12	12
φ	6	6	6	7	7	7	7	7	7	9	9	9	9	9	9	11	11	11

5.2 HD11 back-panel wiring (see Figure 2 and Table 3)

Figure 2

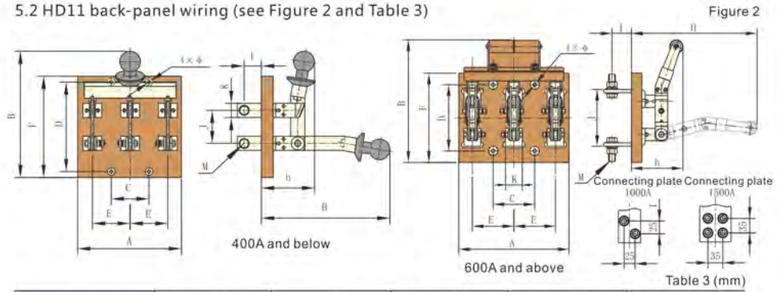


Table 3 (mm)

specification	200A			400A			600A			1000A			1500A		
	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P
A	200	200	270	200	220	300	240	270	370	280	330	450	300	380	510
B	230	230	250	280	280	310	340	320	320	380	360	360	410	390	390
C	140	70	140	160	80	160	200	100	200	240	120	240	260	130	260
D	160	160	160	190	190	190	220	220	220	260	260	260	300	300	300
E	70	70	70	80	80	80	100	100	100	120	120	120	130	130	130
F	190	190	190	215	215	215	240	240	240	290	290	290	340	340	340
H	220	220	240	270	270	300	330	310	310	380	360	360	390	370	370
h	120	120	120	135	135	145	140	125	125	175	160	160	175	160	160
I	35	35	35	35	35	35	36	36	36	36	36	36	40	40	40
J	60	60	60	70	70	70	140	140	140	160	160	160	180	180	180
K	20	20	20	30	30	30	40	40	40	50	50	50	70	70	70
M	8	8	8	12	12	12	16	16	16	12	12	12	12	12	12
φ	7	7	7	7	7	7	9	9	9	9	9	9	11	11	11

5.3 HS11 front-panel inlet back-panel outlet (see Figure 3 and Table 4). Figure 3

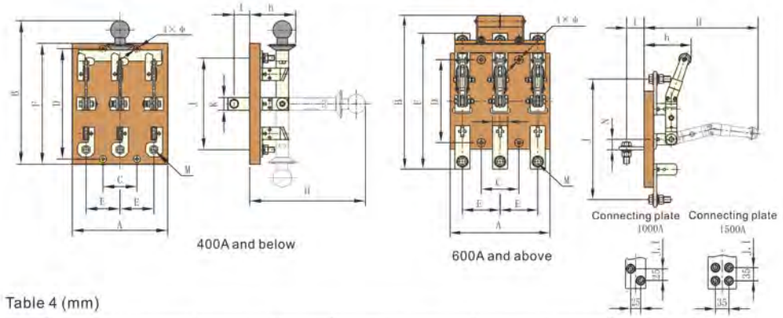


Table 4 (mm)

specification	200A			400A			600A			1000A			1500A		
	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P
A	160	190	265	200	220	300	240	270	370	280	330	450	300	380	510
B	330	330	370	395	395	455	500	460	460	560	520	520	580	540	540
C	140	70	140	160	80	160	200	100	200	240	120	240	260	130	260
D	220	220	220	260	260	260	220	220	220	220	220	220	260	260	260
E	70	70	70	80	80	80	100	100	100	120	120	120	130	130	130
F	245	245	245	285	285	285	354	354	354	374	374	374	434	434	434
H	240	240	240	280	280	300	390	370	370	450	430	430	470	450	450
h	100	100	100	110	110	110	100	95	95	150	145	145	160	150	150
I	35	35	35	35	35	35	36	36	36	36	36	36	40	40	40
J	170	170	170	216	216	216	320	320	320	304	304	304	340	340	340
K	20	20	20	30	30	30	40	40	40	50	50	50	70	70	70
N	–	–	–	–	–	–	30	30	30	40	40	40	46	46	46
M	8	8	8	12	12	12	16	16	16	12	12	12	12	12	12
Φ	7	7	7	7	7	7	9	9	9	9	9	9	11	11	11

5.4 HS11 back-panel wiring (see Figure 4 and Table 5). Figure 4

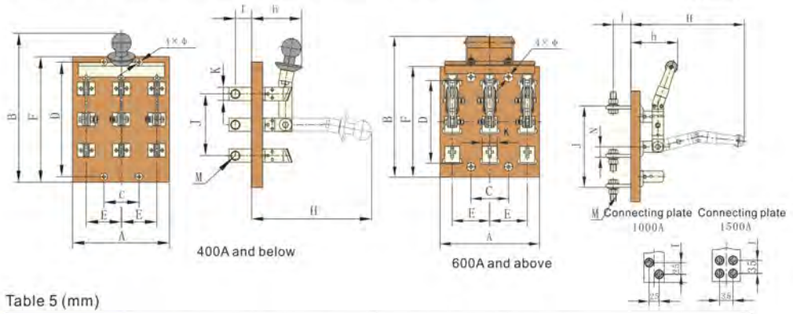


Table 5 (mm)

specification	200A			400A			600A			1000A			1500A		
	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P
A	170	200	270	200	220	300	240	270	370	280	330	450	300	380	510
B	330	330	370	395	395	455	500	460	460	560	520	520	580	540	540
C	140	70	140	160	80	160	200	100	200	240	120	240	260	130	260
D	220	220	220	260	260	260	300	300	300	340	340	340	390	390	390
E	70	70	70	80	80	80	100	100	100	120	120	120	130	130	130
F	245	245	245	285	285	285	340	340	340	390	390	390	450	450	450
H	240	240	240	280	280	300	330	310	310	380	360	360	390	370	370
h	120	120	120	135	135	145	140	125	125	175	160	160	175	160	160
I	35	35	35	35	35	35	36	36	36	36	36	36	40	40	40
J	120	120	120	140	140	140	220	220	220	250	250	250	285	285	285
K	20	20	20	30	30	30	40	40	40	50	50	50	70	70	70
N	–	–	–	–	–	–	30	30	30	40	40	40	46	46	46
M	8	8	8	12	12	12	16	16	16	12	12	12	12	12	12
Φ	7	7	7	7	7	7	9	9	9	9	9	9	11	11	11

5.5 HD12 overall and installation dimension (see Figure 5 and Table 6).

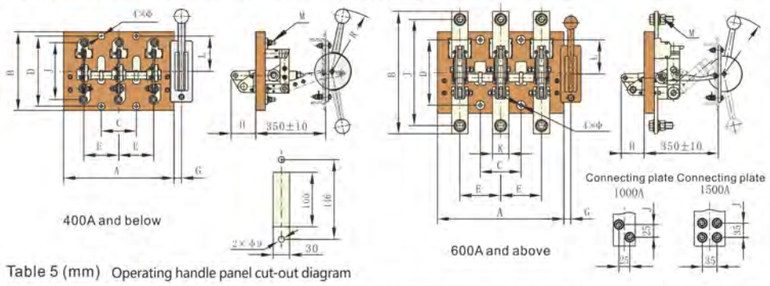


Table 5 (mm) Operating handle panel cut-out diagram

specification	200A			400A			600A			1000A			1500A		
	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P
A	200	280	360	220	310	400	250	330	430	300	400	520	330	440	570
B	200	200	200	210	210	210	294	294	294	318	318	318	354	354	354
C	160	80	160	180	90	180	200	100	200	240	120	240	260	130	260
D	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
E	80	80	80	90	90	90	100	100	100	120	120	120	130	130	130
G	40	40	40	30	30	30	30	30	30	30	30	30	30	30	30
H	80	80	80	90	90	90	95	95	95	110	110	110	110	110	110
J	130	130	130	166	166	166	254	254	254	242	242	242	254	254	254
K	–	–	–	–	–	–	40	40	40	50	50	50	70	70	70
L	75	75	75	75	75	75	80	80	80	80	80	80	80	80	80
R	180	180	180	180	180	180	180	180	180	230	230	230	230	230	230
M	8	8	8	12	12	12	16	16	16	12	12	12	12	12	12
Φ	7	7	7	7	7	7	9	9	9	9	9	9	11	11	11

5.6 HS12 overall and installation dimension (see Figure 6 and Table 7). Figure 6

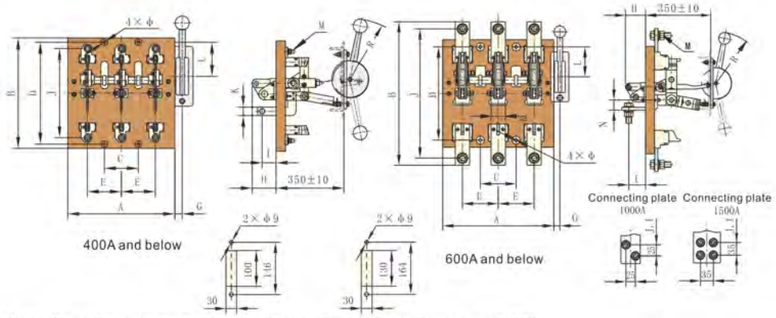


Table 7 (mm) Operating handle panel cut-out diagram for 1000A and below Operating handle panel cut-out diagram for 1500A

specification	200A		400A		600A		1000A		1500A	
	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P
A	280	360	310	400	330	430	400	520	440	570
B	280	280	305	305	394	394	434	434	485	485
C	80	160	90	180	100	200	120	240	130	260
D	240	240	240	240	240	240	240	240	260	260
E	80	80	90	90	100	100	120	120	130	130
G	40	40	30	30	30	30	30	30	30	30
H	80	80	90	90	95	95	110	110	110	110
I	35	35	35	35	36	36	36	36	40	40
J	210	210	256	256	354	354	362	362	385	385
K	20	20	30	30	40	40	50	50	70	70
L	75	75	75	75	70	70	60	60	70	70
N	–	–	–	–	30	30	40	40	46	46
R	180	180	180	180	180	180	230	230	230	230
M	8	8	12	12	16	16	12	12	12	12
Φ	7	7	7	7	9	9	9	9	11	11

5.7 HD13 overall and installation dimension (see Figure 7 and Table 8).

Figure 7

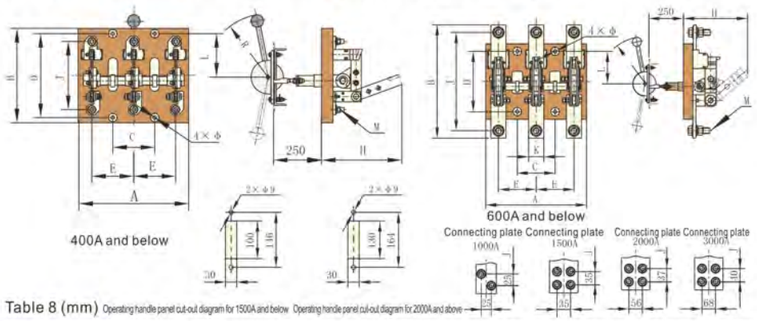


Table 8 (mm) Operating handle panel cut-out diagram for 1500A and below Operating handle panel cut-out diagram for 2000A and above

specification	200A		400A		600A		1000A		1500A		2000A		3000A	
	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P
A	210	300	245	335	260	370	310	440	340	480	480	660	580	780
B	200	200	210	210	294	294	318	318	354	354	360	360	400	400
C	80	160	90	180	100	200	120	240	130	260	180	360	200	400
D	160	160	160	160	160	160	160	160	160	160	160	160	160	160
E	80	80	90	90	100	100	120	120	130	130	180	180	200	200
H	160	160	185	185	190	190	230	230	235	235	230	230	235	235
J	130	130	166	166	254	254	242	242	254	254	250	250	280	280
K	–	–	–	–	40	40	50	50	70	70	100	100	120	120
L	75	75	75	75	80	80	80	80	80	80	80	80	80	80
R	180	180	180	180	180	180	230	230	230	230	280	280	280	280
M	8	8	12	12	16	16	12	12	12	12	12	12	16	16
Φ	7	7	7	7	9	9	9	9	11	11	11	11	11	11

5.8 HS13 overall and installation dimension (see Figure 8 and Table 9).

Figure 8

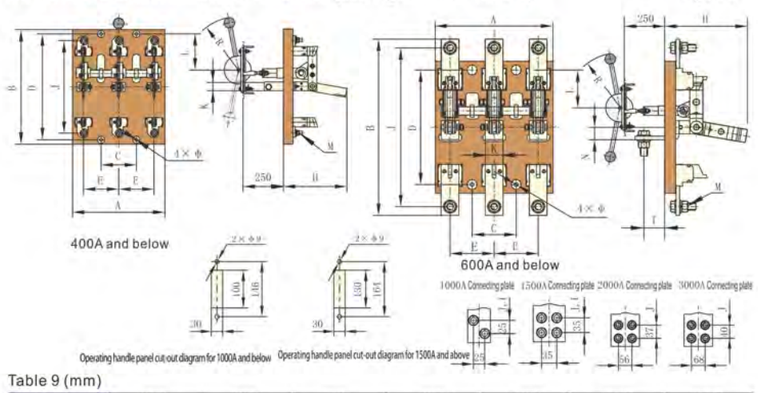


Table 9 (mm)

specification	200A		400A		600A		1000A		1500A		2000A		3000A	
	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P
A	210	300	240	335	270	370	330	450	370	500	500	680	600	800
B	280	280	300	300	394	394	434	434	485	485	480	480	540	540
C	80	160	90	180	100	200	120	240	130	260	180	360	200	400
D	240	240	240	240	240	240	240	240	260	260	260	260	260	260
E	80	80	90	90	100	100	120	120	130	130	180	180	200	200
H	160	160	185	185	190	190	235	235	255	255	235	235	260	260
I	35	35	35	35	36	36	36	36	40	40	48	48	50	50
J	210	210	256	256	354	354	362	362	385	385	370	370	404	404
K	–	–	–	–	40	40	50	50	70	70	100	100	120	120
L	75	75	70	70	70	70	60	60	70	70	60	60	70	70
N	–	–	–	–	30	30	30	30	46	46	50	50	50	50
R	180	180	180	180	180	180	230	230	280	280	280	280	280	280
M	8	8	12	12	16	16	12	12	12	12	12	12	16	16
Φ	7	7	7	7	9	9	9	9	11	11	11	11	11	11

5.9 HD13BX overall and installation dimension(see Figure 9 and Table 10).

Figure 9

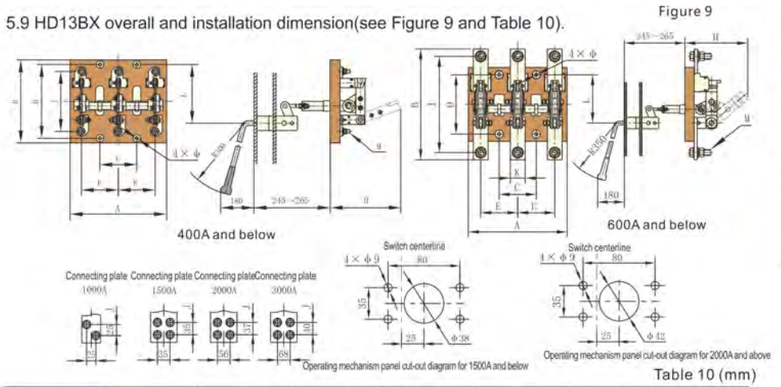


Table 10 (mm)

specification	200A		400A		600A		1000A		1500A		2000A		3000A	
	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P
A	210	300	245	335	260	370	310	440	340	480	480	660	580	780
B	200	200	210	210	294	294	318	318	354	354	360	360	400	400
C	80	160	90	180	100	200	120	240	130	260	180	360	200	400
D	160	160	160	160	160	160	160	160	160	160	160	160	160	160
E	80	80	90	90	100	100	120	120	130	130	180	180	200	200
H	160	160	185	185	190	190	230	230	235	235	230	230	235	235
J	130	130	166	166	254	254	242	242	254	254	250	250	280	280
K	–	–	–	–	40	40	50	50	70	70	100	100	120	120
L	130	130	130	130	135	135	135	135	135	135	135	135	135	135
M	8	8	12	12	16	16	12	12	12	12	12	12	16	16
Φ	7	7	7	7	9	9	9	9	11	11	11	11	11	11

5.10 HS13BX overall and installation dimension (see Figure 10 and Table 11).

table 10

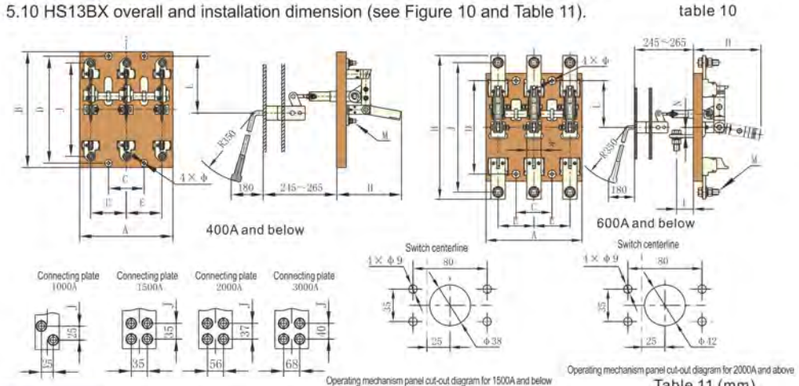


Table 11 (mm)

specification	200A		400A		600A		1000A		1500A		2000A		3000A	
	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P
A	210	300	240	335	270	370	330	450	370	500	500	680	600	800
B	280	280	300	300	394	394	434	434	485	485	480	480	540	540
C	80	160	90	180	100	200	120	240	130	260	180	360	200	400
D	240	240	240	240	240	240	240	240	260	260	260	260	260	260
E	80	80	90	90	100	100	120	120	130	130	180	180	200	200
H	160	160	185	185	190	190	235	235	255	255	235	235	260	260
I	35	35	35	35	36	36	36	36	40	40	48	48	50	50
J	210	210	256	256	354	354	362	362	385	385	370	370	404	404
K	–	–	–	–	40	40	50	50	70	70	100	100	120	120
L	75	75	70	70	70	70	60	60	70	70	60	60	70	70
N	–	–	–	–	30	30	30	30	46	46	50	50	50	50
M	8	8	12	12	16	16	12	12	12	12	12	12	16	16
Φ	7	7	7	7	9	9	9	9	11	11	11	11	11	11

5.11 HD(HS) 13BX-2000, 3000/31, 41 overall and installation dimension (see Figure 11, Table 12)

Figure 11

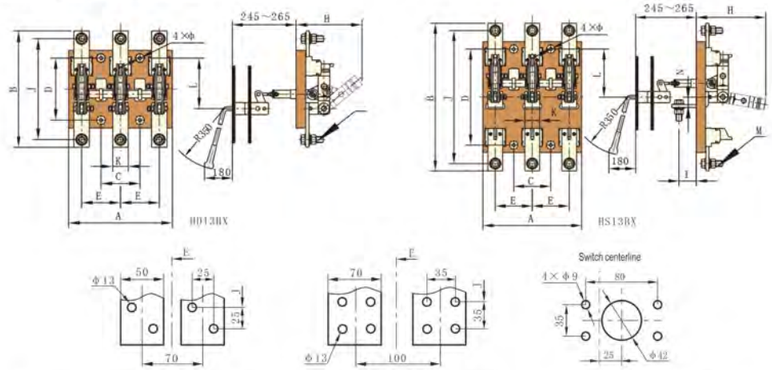


Table 12 (mm)

Product model	A	B	C	D	E	H	J	K	L	M	Φ
HD13BX-2000/31	530	318	180	160	180	230	242	50	135	12	11
HD13BX-2000/41	710	318	2-180	160	180	230	242	50	135	12	11
HD13BX-3000/31	710	354	230	160	230	235	254	70	135	12	11
HD13BX-3000/41	940	354	2-230	160	230	235	254	70	135	12	11
HS13BX-2000/31	530	434	180	260	180	235	362	50	115	12	11
HS13BX-2000/41	710	434	2-180	260	180	235	362	50	115	12	11
HS13BX-3000/31	710	485	230	260	230	235	385	70	125	12	11
HS13BX-3000/41	940	485	2-230	260	230	235	385	70	125	12	11

5.11 HD14 overall and installation dimension(see Figure 12 and Table 13)

Figure 12

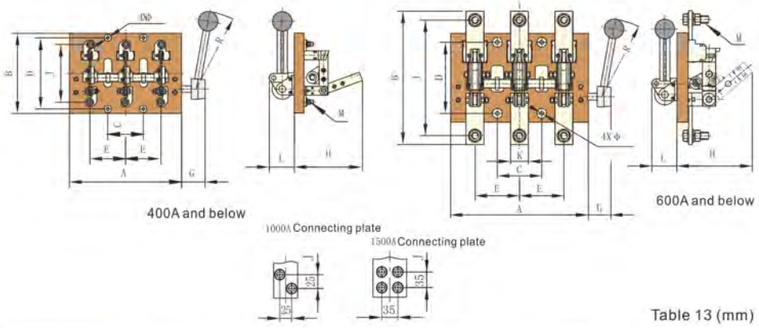


Table 13 (mm)

specification	200A		400A		600A		1000A	1500A
	3P	4P	3P	4P	3P	4P	3P	3P
A	280	360	310	400	330	430	400	440
B	200	200	210	210	294	294	314	354
C	80	160	90	180	100	200	120	130
D	160	160	160	160	160	160	160	160
E	80	80	90	90	100	100	120	130
G	100	100	100	100	100	100	100	100
H+L	160+80	160+80	185+90	185+90	190+90	190+90	230+110	235+110
LL	48	48	48	48	48	48	53	53
J	130	130	166	166	254	254	242	254
K	-	-	-	-	40	40	50	70
R	250	250	250	250	250	250	250	250
M	8	8	12	12	16	16	12	12
Φ	7	7	7	7	9	9	9	11

■ Scope of application

NLDHD11FA series disconnectors are suitable for circuits with rated insulation voltage of 660V, rated operating voltage of 400V and rated operating current from 200A to 1600A. They are mainly used in low-voltage complete equipment, and are used for opening and closing circuits and isolating power sources without load. The technical performance of this disconnector complies with the standards of IEC60947-3 and GB/T14048.3.

■ Model and meaning

NLD HD 11 F A-□/□□□

- 3 digits, 3 in the first digit represents 3 poles, 8/9 in the second digit represents front/back-panel wiring, 1 in the third digit represents product with auxiliary contact, 0 represents product without auxiliary contact, and 0 can be omitted when there is no auxiliary contact
- Rated operating current
- Derived sequence number
- Anti-misoperation type
- Central handle type
- Disconnector
- Enterprise code

■ Main technical parameters

Rated operating voltage (V)	Agreed heating current (A)	Rated short time withstand current(effective) (kA)	Power factor cosΦ	Ratio of peak to effective value	Power-on time (s)
AC400	200	10	0.3	1.7	1
	400	20	0.3	2.0	
	630(600)	20	0.3	2.0	
	1000	25	0.25	2.1	
	1600(1500)	32	0.25	-	

■ Overall and installation dimension

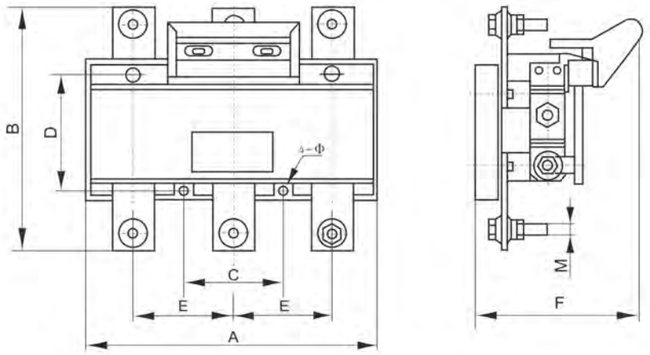


Figure1 HD11FA-200~1600/38(Front-panel wiring)

Rated operating voltage (V) Overall	Overall dimension				Installation dimension			
	A	B	E	F	M	C	D	Φ
200	190	204	70	152	M8	70	140	Φ7
400	210	248	80	163	M12	80	190	Φ7
630	260	282	100	168	M16	100	140	Φ9
1000	310	304	120	192	2-M12	120	140	Φ9
1600	350	335	130	210	4-M12	130	150	Φ11

■ Product overview

NLDHH15(QSA) series disconnector-fuse group, HH15A(OA), HH15P(QP) series disconnectors are mainly suitable for distribution circuits and motor circuits with high short-circuit current. They are used as manual and infrequent main switches or master switches, especially suitable for installation in higher withdrawable low-voltage switchgear assemblies. The product complies with GB/T 14048.3 and IEC60947-3 standards.

■ Model and meaning

NLD HH15 □ □ - □ / □ □

- Number of auxiliary contacts: 0- no auxiliary contact. 1- with 1 pair of auxiliary contacts.2- with 2 pairs of auxiliary contacts
- Number of poles (3, 4)
- Agreed heating current (A)
- Single throw: "QA" represents no fuse, series contact structure (double break point);
  Double throw: QAS
  "Qp" represents no fuse, parallel contact structure (single breakpoint);
  "QSA" represents product equipped with fuse, series contact structure (double break point);
- Design code
- Disconnector-fuse group
- Enterprise code

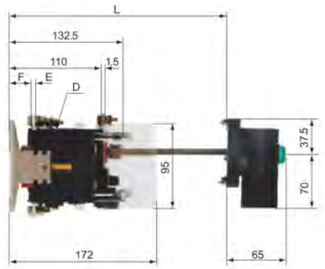
■ Structural feature

1. The switch adopts a fully enclosed structure to ensure improved reliability and stable performance;
2. It has a unique rolling plug-in contact system. Each phase has two sets of double break point contact systems, either in series or in parallel, which can meet the requirements of circuits with different current levels and different working categories.
3. The contact system allows the current to pass through several rollers separately, resulting in a significant reduction in the electric reaction force on each roller. During the movement, the contact between the roller and the fixed contact has both rolling and sliding friction, which can effectively avoid fusion welding.
4. The operating mechanism has energy storage spring, so the movement speed of the moving contact group is independent of the magnitude of the operating force and the operating speed.
5. The actuator consists of handle mounted on the panel, drive coupling that engages with the handle, extension shaft, coupling and drive shaft. The extension shaft and coupling are only used when the drive shaft is not long enough.
6. The depth of installation of switches in complete set of cabinet can be considered according to the needs of the combination installation of various electrical components, with a considerable range of activities.

HH15(QSA) series disconnector-fuse group main technical parameters

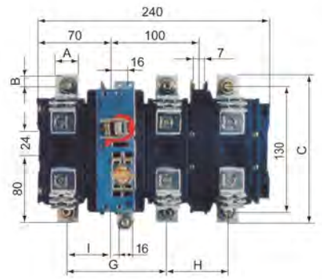
Specification		63	125	160	250	400	630	800	1000	1250
Number of main poles		3、4、3+N							3	
Rated insulation voltage (V)		Uj=660 if Ue=380. Uj=1000 if Ue=660.								
Rated operating voltage (V)		AC 380、660								
Rated enclosed heating current (A)		63	125	160	250	400	630	800	1000	1250
Rated operating current (A)	380V AC-23B	63	125	160	250	400	630	800	1000	1250
	660V AV-23B	63	100	160	250	315	425	500	630	800
Rated limited short circuit current at 380V Y/H (KA)		100							50	
Rated limited short circuit current at 660V (KA)		50								
Mechanical life (time)		15000	15000	12000	12000	12000	3000	500	500	500
Electrical life (time)		1000	1000	300	300	300	200	100	100	100
Rated current of the fuse at 380V/660V (A)		63/63	125/100	160/160	250/250	400/315	630/425	800/500	1000/630	1250/800
Knife contact fuse type		RDT16-00(NT00)			RDT16-1(NT1)	RDT16-2(NT2)	RDT16-3(NT3)		RS0	
Operating moment (Nm)		7.5		16			30		40	
Rated heating current of auxiliary contact TH380V/AC-11 (A)		5								

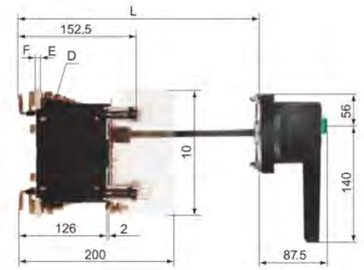
HH15 (QSA) series disconnector-fuse group overall and installation dimension



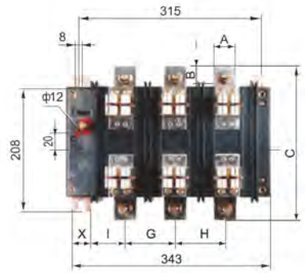
Model and specification	A	B	C	D	E	F	G	H	I	L	L1	L2	L3
HH15-63	12	6	100	M5	2	39.5	72	38.5	9	199-250	250-301	301-385	180-199
HH15-125	15	7.5	116	M6	3	38.5	70	40.5	10	199250	250301	301385	180199

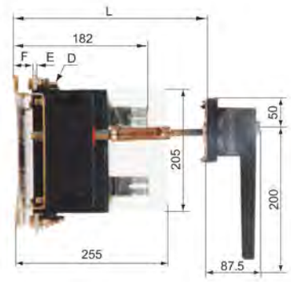
Hh15 (QSA) series disconnector-fuse group overall and installation dimension



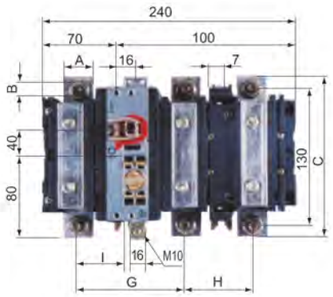


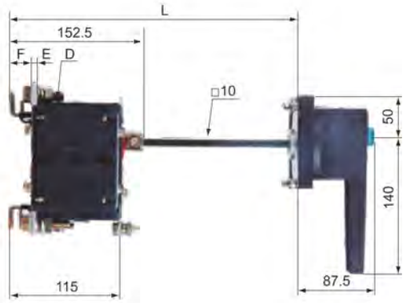
Model and specification	A	B	C	D	E	F	G	H	I	L	L1	L2	O
HH15-160	20	10	146	M8	4	44	107	65	46	226-284	284-342	342-400	120
HH15-250	25	12.5	160	M10	4	40	107	65	43.5	226-284	284-342	342-400	160
HH15-400	25	12.5	160	M10	6	38	107	65	43.5	226-284	284-342	342-400	160



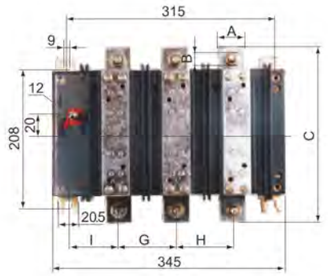


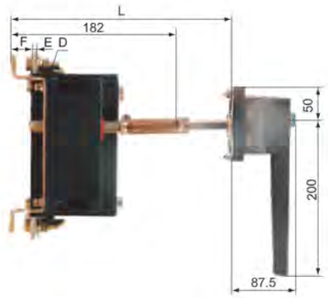
Model and specification	A	B	C	D	E	F	G	H	I	L	L1	L2	L3
HH15-630	40	20	270	M12	6	33	87	87	60	300-355	295-330	330-400	400-500





Model and specification	A	B	C	D	E	F	G	H	I	L	L1	L2	L3
HH15A-400	25	12.5	160	M10	4	40	107	65	43.5	226-284	284-342	342-400	188-238
HH15A-630	30	15	180	M10	6	38	107	65	43.5	226-284	284-342	342-400	188-238



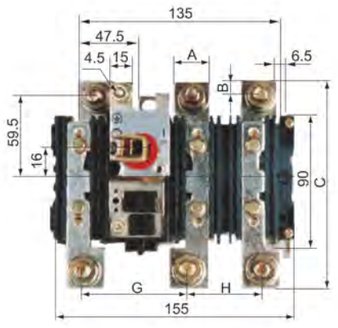


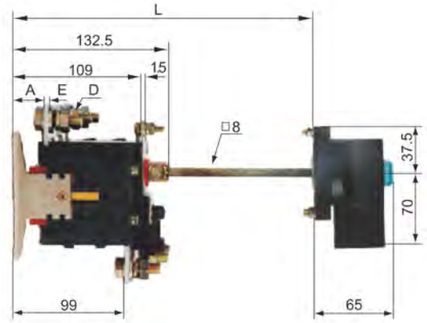
Model and specification	A	B	C	D	E	F	G	H	I	L	L1	L2	L3	L4
HH15A-1000	40	20	270	M12	6	33	87	87	60	300-355	295-330	330-400	400-500	225-260

HH15P(QP) series disconnector main technical parameters

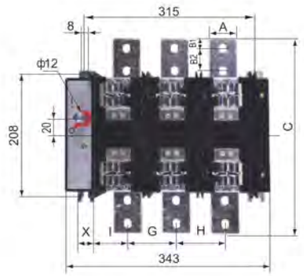
Specification		250	630	1000	1250	1600	2500	3150
Number of main poles		3						
Rated insulation voltage (V)		Uj=660 if Ue=380. Uj=1000 if Ue=660.						
Rated operating voltage (V)		AC 380、660						
Rated enclosed heating current (A)		250	630	1000	1250	1600	2500	3150
Rated operating current (A)	380V AC-21B	250	630	1000	1250	1600	2500	3150
	660V AV-22B	250	630	630	630	800	-	-
	660V AV-23B	250	630	1000	1250	1470	2500	2500
Rated short circuit making capacity (peak) (kA)		17	50	67.2	67.2	85	130	130
Rated limited short circuit current at 660V (KA)		10	15	32	32	50	80	80
Mechanical life (time)		15000	12000	12000	1000	1000	300	300
Electrical life (time)		1000	300	150	100	100	100	100
Operating moment (Nm)		7.5	16	16	30	30	70	70
Rated heating current of auxiliary contact TH380V/AC-11 (A)		5						

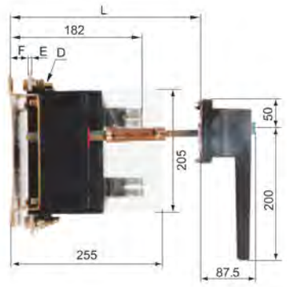
HH15P(QP) series disconnector overall and installation dimension



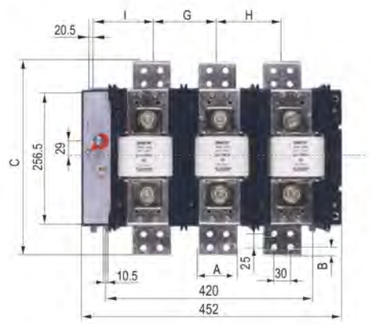


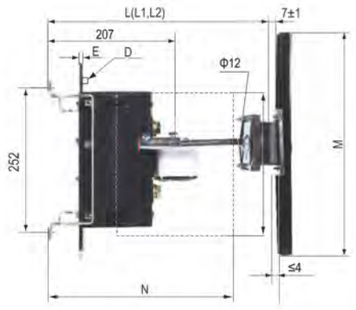
Model and specification	A	B	C	D	E	F	G	H	I	L	L1	L2	L3
HH15P-250	25	125	143	M10	4	37.5	66	44.5	12.5	199-250	250-301	301-385	148-199





Model and specification	A	B1	B2	C	D	E	F	G	H	I	L	L1	L2	L3
HH15-800	50	18	40	340	M12	6	33	87	87	60	300 -355	295 -330	330 -400	400 -500
HH15-1000	50	18	40	340	M12	7	33	87	87	60	300 -355	295 -330	330 -400	400 -500



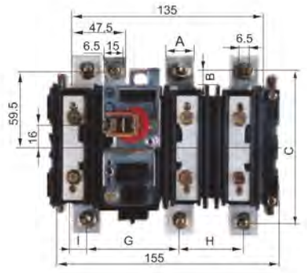


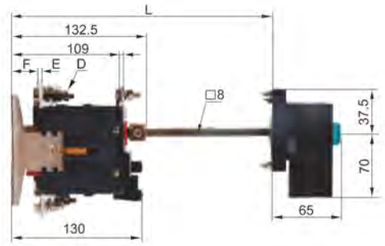
Model and specification	A	B	C	D	E	F	G	H	I	L	L1	L2	M	N	O
HH15-1250-1000A	70	17	370	M10	7	50	120	120	80	395 -430	495 -530	560 -595	400	330	253
HH15-1250	70	17	370	M10	8	50	120	120	80	395 -430	495 -530	560 -595	400	330	253

HH15A(QA) series disconnector main technical parameters

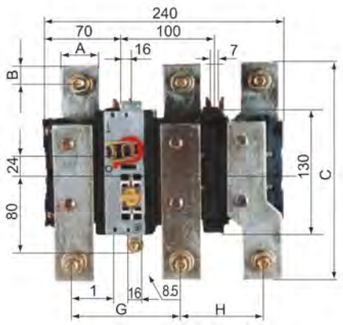
Specification		125	160	200	400	630	1000
Number of main poles		3					
Rated insulation voltage (V)		Uj=660 if Ue=380. Uj=1000 if Ue=660					
Rated operating voltage (V)		AC 380、660					
Rated enclosed heating current (A)		125	160	200	400	630	1000
Rated operating current (A)	380V AC-21B	125	160	200	400	630	1000
	660V AV-22B	125	160	160	315	425	800
	660V AV-21B	125	160	200	400	630	1000
Rated short circuit making capacity (peak) (kA)		17	17	17	50	50	67.2
Rated limited short circuit current at 660V (KA)		10	10	10	15	15	32
Mechanical life (time)		15000	15000	15000	12000	12000	30000
Electrical life (time)		1000	1000	100	300	300	150
Operating moment (Nm)		7.5			16		30
Rated heating current of auxiliary contact TH380V/AC-11 (A)		5					

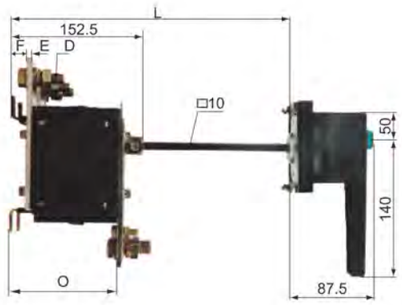
HH15A(QA) series disconnector overall and installation dimension



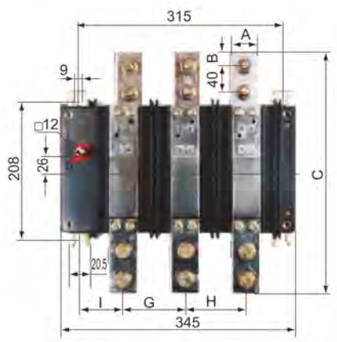


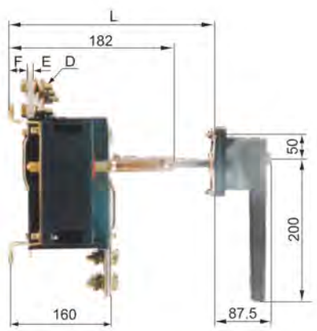
Model and specification	A	B	C	D	E	F	G	H	I	L	L1	L2	L3
HH15A-125	15	7.5	116	M6	3	38.5	70	40.5	10	199-250	250-301	301-385	148-199
HH15A-160	20	10	127	M8	3	38.5	65	45.5	13	199-250	250-301	301-385	148-199
HH15A-200	20	10	127	M8	3	38.5	65	45.5	13	199-250	250-301	301-385	148-199



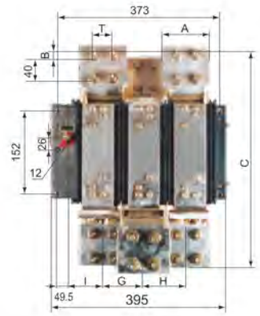


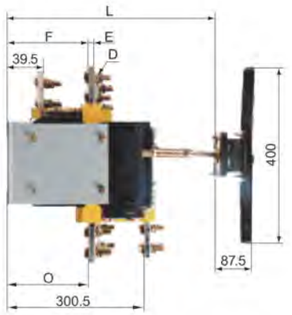
Model and specification	A	B	C	D	E	F	G	H	I	L	L1	L2	L3	M	O
HH15P-630	30	15	170	M10	5	39	107	65	43.5	226-284	284-342	342-400	180-238	140	119
HH15P-1000	40	20	218	M12	6	32	117	80	51	226-284	284-342	342-400	180-238	140	125





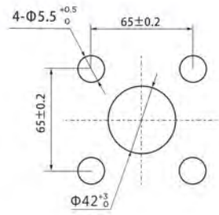
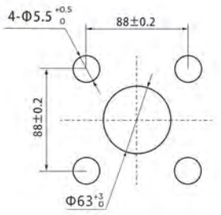
Model and specification	A	B	C	D	E	F	G	H	I	L	L1	L2	L3	L4
HH15P-1250	40	20	350	2×M12	10	29	87	87	60	300-355	295-330	330-400	400-500	225-260
HH15P-1600	50	20	350	2×M12	10	29	87	87	60	300-355	295-330	330-400	400-500	225-260





Model and specification	A	B	C	D	E	F	G	H	I	L	L1	L2	L3	L4	M	O	T
HH15P-2500	80	20	446	M12	12.5	171.5	100	100	47	480 -510	455 -490	490 -560	560 -600	385 -420	400	170	40
HH15P-3150	100	20	462	M12	14	172.5	87	87	60	480 -510	455 -490	490 -560	560 -600	385 -420	400	167.5	50

Panel cut-out dimension

HH15(QSA)-63-125 Hh15 (AQA)-125-200 Hh15 (PQP)-250	HH15(QSA)-160-1250 ; Hh15(AQA)-400-1000 Hh15(PQP)-630-3150
	

Ordering instructions

- ☐ The HH15 series disconnector must be used together with fuse. The fuse can be provided by the user, but please choose a better fuse to prevent high temperature rise.
- ☐ The switch price provided by our company do not include fuse. If the user requests it during the order, our company can provide matching fuses, but it is generally not installed on the switch body.
- ☐ When users open the packaging, please check the following accessories:
  - a) Switch body: 1 set
  - B) Insulation partition: 5 pieces (dedicated for HH15)
  - c) Square shaft and handle: 1 set
  - d) Certificate of conformity and instruction manual: 1 copy

■ Scope of application

Hr6 series fuse type disconnector (hereinafter referred to as switch). It is mainly used as power switches, isolation switches, emergency switches and circuit protection in distribution circuits and motor circuits of high short-circuit current with rated voltage of AC 380~660V (50/60Hz) and agreed heating current up to 800A, but generally it's not used for direct opening and closing of a single motor.

The performance of this product complies with the standards of IEC60947-3 and GB/T14048.3.

■ Model and meaning

HR6-□/□ □

- "0" represents no fuse signal device
  "1" represents fuse signal device type(equipped with micro switch)
- Number of poles, 3 means three poles
- Rated operating current: 160A, 250A, 400A, 630A, 800A five types
- Design code
- Fuse type disconnector

■ Structural feature

The switch consists of base, cover, and arc extinguishing chamber, is completely made of arc resistant plastic and is a fully plastic structure. The fixed contact is directly installed on the base, making the arc extinguishing chamber easy to disassemble and assemble. The arc extinguishing chamber has two parts: an inner chamber and an outer chamber, and multiple metal arc extinguishing grids are used to increase the arc extinguishing ability and improve the contact life.

The NT type fuse link is installed inside the cover, which can rotate in a fan-shaped manner along the support, and has a large electrical isolation to meet the requirements of the disconnector. The cover can be easily removed from the base, making it easy to install and replace the fuse link part. There are two sets of installation holes on the base to meet the requirements for installation inside various switchgear cabinets and on panels. On both sides of the switch, auxiliary contacts can be installed as needed to send signals indicating the opening and closing status of the switch.

■ Main technical parameters of the fuse

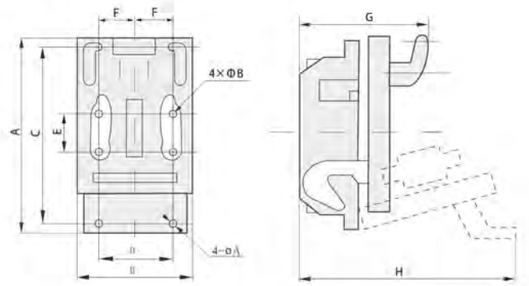
Model	Rated voltage (V)	Rated current (A)
NT00	400	4、6、10、16、20、25、32、35、40、63、80、100、125、160
	660	4、6、10、16、20、25、32、35、40、63、80、100、125、160
NT1	400	80、100、125、160、200、224、250
	660	80、100、125、160、200、224、250
NT2	400	125、160、200、224、250、300、315、355、400
	660	125、160、200、224、250、300、315、355、400
NT3	400	315、355、400、425、500、630
	660	315、335、400、425、500、630
RT17	400	800

■ Switch technical parameter

Model			HR6-160	HR6-250	HR6-400	HR6-630	HR6-800
Rated insulation voltage (V)			1000	1000	1000	1000	1000
Agreed heating current (A)			160	250	400	630	800
Rated operating voltage (V)	400V		160	250	400	630	800
	660V		100	200	315	425	500
Rated making and breaking capacity (A) (at 1.05Ue)	400V, COSφ=0.35 AC22B	ON	1280	2000	3200	5040	6400
		OFF	960	1500	2400	3780	4800
	660V, COSφ=0.65 AC22B	ON	480	750	1200	1890	2400
		OFF	480	750	1200	1890	2400
Rated fuse short circuit current kA			50	50	50	50	50
Maximum prospective peak current kA			100	100	100	100	100
Equipped NT fuse model			00	1	2	3	RT17
Pollution level			3	3	3	3	3
Installation category			III	III	III	III	III

The rated voltage of the auxiliary switch is 400V AC, the agreed heating current is 5A, the load category is AC-15, and the breaking power is 300VA.

■ Overall and installation dimension



Dimension	Specification		
	160A	250A	400-800A
A	215	280	300
B	134	184	244
C	200	260	280
D	80	120	160
E	40	60	60
F	40	62	85
G	139	160	190
H	249	310	360
A	Φ7	Φ9	Φ9
B	Φ7	Φ9	Φ9