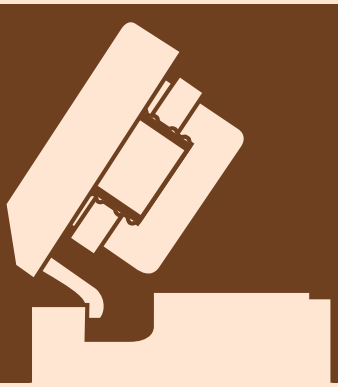
Combinating Electric of Fuse

Professional High Voltage And Low Voltage Fuse Manufacturer

Fuse Disconnecting Switches



PROFESSIONAL HIGH VOLTAGE AND LOW VOLTAGE FUSE MANUFACTURER.....

Fuse Disconnecting Switches

15.1 DRO-160 Fuse Disconnecting Switches

▶ Applications

DRO-160 fuse disconnecting switch are mainly used in circuits with high short-circuit current and motor circuit as power switch, disconnecting switch or emergency switch.

Rated insulate votlage up to 50Hz AC, 690V; Rated working voltage up to 660V; Rated working current up to 160A; Rated short-time withstand current (valid): 3.2KA/1S. The fuse disconnecting switch complies with GB14048.3 and IEC947-3.

▶ Design Features

The switch with three-phase and half sealed structures is made up of two parts: the seat and the cover (melt-loading device). The front operation can observe the rated data of the fuse links and indicator status. The switch can be matched with NH000 and NH00 fuse. The switch has features of small volume, reliable operation, convenient fuse install and removal and small-required manual operation power.

▶ Basic Data

Model Meaning:

DR O - 160

- 160 — Conventional free air thermal current
- O — Design No.
- DR — Fuse disconnecting switch

See in Drawing 15.1 and Table 15.1~5.3 the products types, rated insulation voltage, rated working voltage, conventional free air thermal current, dimensions and install sizes.

Table 15.1 Basic data of switch

Cat. No.	Models	Rated insulation voltage(V)	Rated working voltage(V)	Conventional free air thermal current (V)	Fuse link models	Dimensions /sizes (mm)	Weight (g)
1501	DRO-160	690	380, 500, 660	160	NH00, NH000	See fig. 15.1	1350

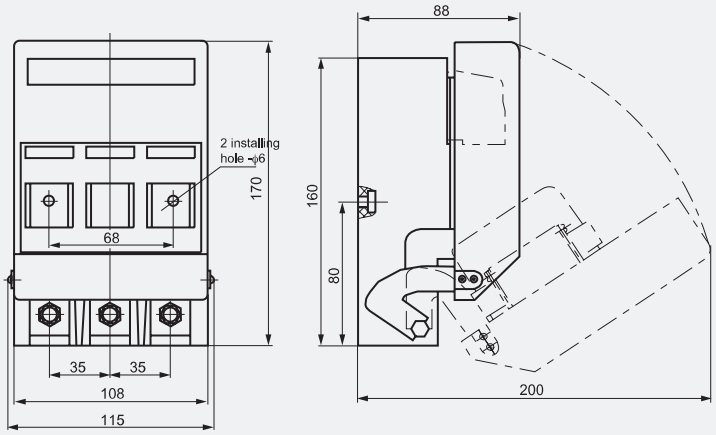


Figure 15.1

Table 15.2 The working current of the switch at different voltages and different applications

Models	Rated working voltage(V)	Rated working current /applications		Fuse link models	The rated breaking capacity of the fuse links (KA)
DRO-160	380	160A/AC-22	160A/AC-23	NH000, NH00	100
	500	160A/AC-22	80A/AC-23		100
	660	160A/AC-21	36A/AC-23		50

Table 15.3 Rated open and breaking capacity of the switch

Rated working voltage(V)	Rated working current(A)	Applications	Rated open and breaking capacity					
			Connecting			Breaking		
			I/Ie	U/Ue	COSϕ	Ic/Ie	Ur/Ue	COSϕ
380	160	AC-21	1.5	1.05	0.95	1.5	1.05	0.95
380	160	AC-22	3	1.05	0.65	3	1.05	0.65
380	100	AC-23	10	1.05	0.45	8	1.05	0.45
500	160	AC-21	1.5	1.05	0.95	1.5	1.05	0.95
500	100	AC-22	3	1.05	0.65	3	1.05	0.65
500	50	AC-23	10	1.05	0.45	8	1.05	0.45
660	100	AC-21	1.5	1.05	0.95	1.5	1.05	0.95
660	80	AC-22	3	1.05	0.65	3	1.05	0.65
660	36	AC-23	10	1.05	0.45	8	1.05	0.45

Note: I —— connecting current
Ie —— rated working current
Ic —— breaking current
U —— post connecting voltage
Ue —— rated working voltage
Ur —— recovery current

15.2 DR1 Fuse Disconnecting Switches

Applications

DR1 series of fuse disconnecting switch, are mainly used in circus with high short-circuit current and motor circuit as power switch, disconnecting switch or emergency switch.

Rated insulation voltage up to AC 50Hz 800V; Rated working voltage up to 690V; Rated working current up to 250A; Rated short-time withstand curent (valid): 20Ith/1S. The switch complies with GB14048.3 and IEC/EN60947-3 .

Design Features

The switch with half sealed structures is made up of two parts: the seat and the cover (melt-loading device). The front cooperation can observe the rated data of the fuse links and indicator status. DR1-160/1 is single phase, can be matched with NH000 and NH00 fuse. DR1-160 with three-phases abreast stuctures, can be matched with NH000 and NH00 fuse. DR1-250 with three phases abreast structures, can be matched with NH1 fuse.

The switch has the features of small volume, reliable operation, convenient fuse install and removal and small-require manual operation power.

Basic Data

Model meaning:

DR 1 - □ / □

- 1-single phase blank-three phase
- Conventional free air thermal current
- Design No.
- Fuse disconnecting switch

See in drawing 15.2~15.4 and table 15.4~15.6, the products type, rated insulation voltage, rated working voltage, conventional free air thermal current, dimensions and install sizes.

Table 15.4 Basic data of switch

Cat. No.	Models	Rated insulation voltage(V)	Rated working voltage(V)	Conventional free air thermal current (V)	Fuse link models	Dimensions /sizes (mm)	Weight (g)
1502	DR1-160/1	500	400, 500, 690	160	NH00, NH000	See fig. 15.2	266
1503	DR1-160	500	400, 500, 690	160	NH00, NH000	See fig. 15.3	622
1504	DR1-250	500	400, 500, 690	250	NH1	See fig. 15.4	2318

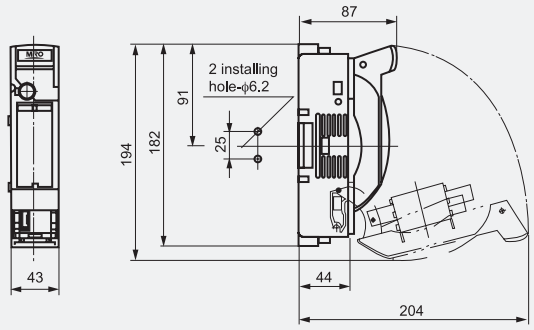


Figure 15.2

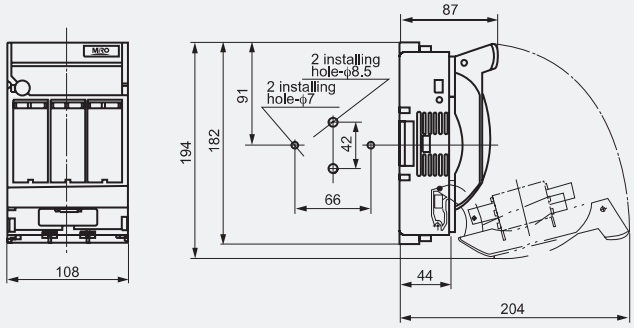


Figure 15.3

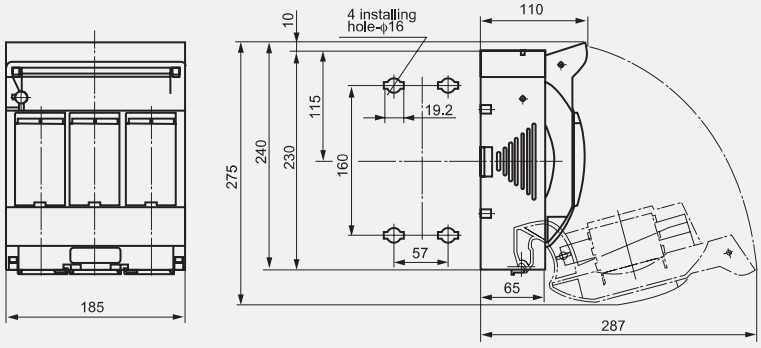


Figure 15.4

Table 15.5 The working current of the switch at different voltages and different applications

Models	Rated working voltage(V)	Rated working current (A)	Application	Fuse link models	The rated breaking capacity of the fuse links (KA)
DR1-160/1	690	100	AC21B	NH000, NH00	25
	500	160	AC22B	NH00	50
	400	160	AC23B	NH00	50
DR1-160	690	100	AC21B	NH000, NH00	50
	500	160	AC22B	NH00	100
	400	160	AC23B	NH00	100
DR1-250	690	200	AC21B	NH1	50
	500	250	AC22B	NH1	100
	400	250	AC23B	NH1	100

Table 15.6 Rated open and breaking capacity of the switch

Rated working voltage(V)	Rated working current(A)	Applications	Rated open and breaking capacity					
			Connecting			Breaking		
			I/Ie	U/Ue	COSϕ	Ic/Ie	Ur/Ue	COSϕ
690	All current	AC21B	1.5	1.05	0.95	1.5	1.05	0.95
500	All current	AC22B	3	1.05	0.65	3	1.05	0.65
400	⩽ 100	AC23B	10	1.05	0.45	8	1.05	0.45
	> 100	AC23B	10	1.05	0.35	8	1.05	0.30

Note: I —— connecting current
Ie —— rated working current
Ic —— breaking current
U —— post connecting voltage
Ue —— rated working voltage
Ur —— recovery current

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15.3 DR2 Fuse Disconnecting Switches

Applications

DR2 series fuse disconnecting switch are mainly used in circuit with high short-circuit current and motor circuit as power switch, disconnecting switch or emergency switch.

Rated insulation voltage up to AC 50Hz 1000V; Rated working voltage up to 690V; Rated working current up to 630A; Rated short-time withstand current (valid) : 20Ith/1S.

The fuse disconnecting switch complies with GB14048.3 and IEC/EN60947-3 .

Design Features

The switch is made up of two parts: the seat and the cover (melt-loading device), three-phase and sealed. The front operation can observe the rated data of the fuse links and indicator status. The switch is molded designed.

Installation: DR2-160 (500mm in width), can be directly installed on 100mm busbar through the output line. It has up output line and down output ine. Three phases make and break simultaneously. This switch is suitable for NH000, NH00 fuse. DR2-400 (100mm in width), can be directly installed on 185mm busbar through the output line, it can also be installed on the supporter by two ϕ9 installation hole. Both of the installation method have up output line and down output line, three phases make and break simultaneously. This switch is suitable for NH1, NH2 fuses. DR2-630 (100m in width), can be directly installed on 185mm busbar through the input line, it can also be installed on the supporter by two ϕ9 installation hole. Both of the installation method have up output line and down output line, three phases make and break separately. This switch is suitable for NH3 fuses.

The switch has the feature of small volume, reliable performance, convenient fuse install and removal, small-required manual operation power.

Basic Data

Model meaning:

DR 2 - □ / □ □

- Output line position: N-up output S-down output
- Operation method: T-three phases make and break simultaneity D-three phases make and break separately
- Conventional free air thermal current
- Design No.
- Fuse disconnecting switch

See in drawing 15.5~15.10 and table 15.7~15.9, the products type, rated insulation voltage, rated working voltage, conventional free air thermal current, dimensions and install sizes.

Table 15.7 Basic data of switch

Cat. No.	Models	Sturcture	Rated insulation voltage(V)	Rated working voltage(V)	Conventional free air thermal current (A)	Fuse link models	Dimensions / sizes (mm)	Weight (g)
1505	DR2-160/TN	Installation on busbar, three phases make and break simultaneity, up output line	1000	400, 500, 690	160	NH00 NH000	See fig. 15.5	1134
1506	DR2-160/TS	Installation on busbar, three phases make and break simultaneity, down output line	1000	400, 500, 690	160	NH00 NH000	See fig. 15.6	1134
1507	DR2-400/TN	Installation on busbar or supporter, three phases make and break simultaneity, up output line	1000	400, 500, 690	400	NH1 NH2	See fig. 15.7	4628
1508	DR2-400/TS	Installation on busbar or supporter, three phases make and break simultaneity, down output line	1000	400, 500, 690	400	NH1 NH2	See fig. 15.8	4628
1509	DR2-630/DN	Installation on busbar or supporter, three phases and make and break separately, up output line	1000	400, 500, 690	630	NH3	See fig. 15.9	5258
1510	DR2-630/DS	Installation on busbar or supporter, three phases and make and break separately, down output line	1000	400, 500, 690	630	NH3	See fig. 15.10	5258

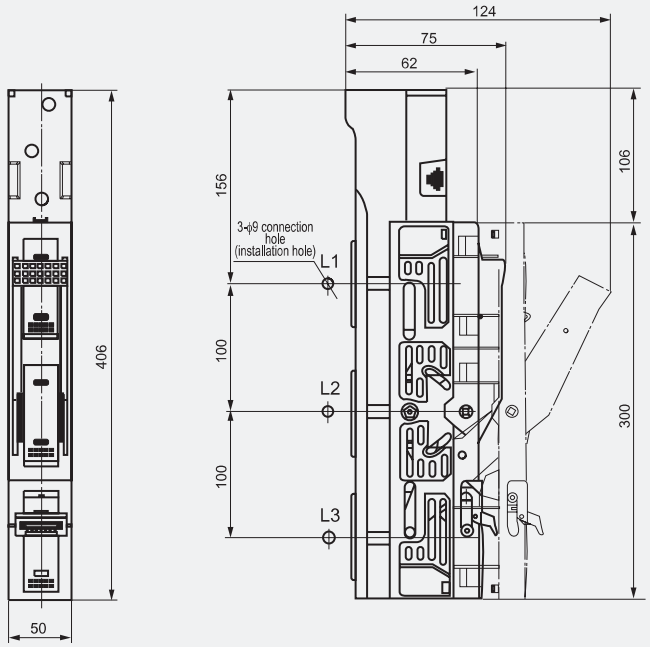

Figure 15.5 Busbar installation, three phases make and break simultaneity, up output line

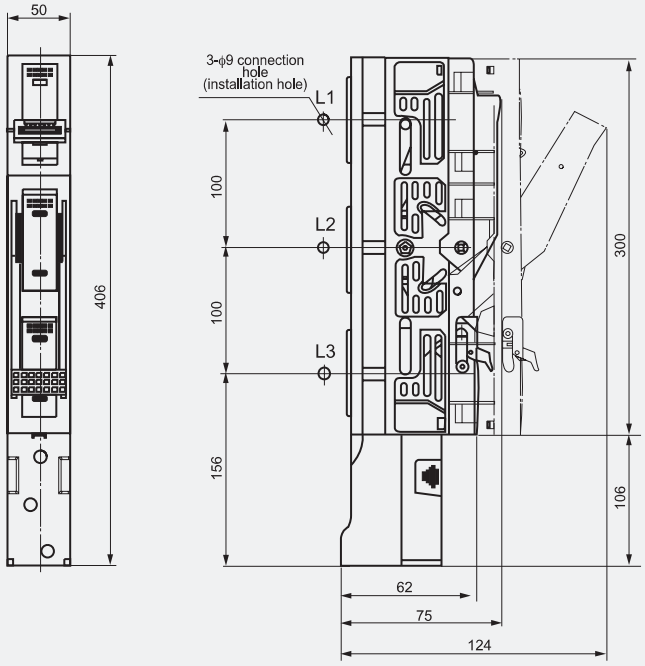

Figure 15.6 Busbar installation, three phases make and break simultaneity, down output line

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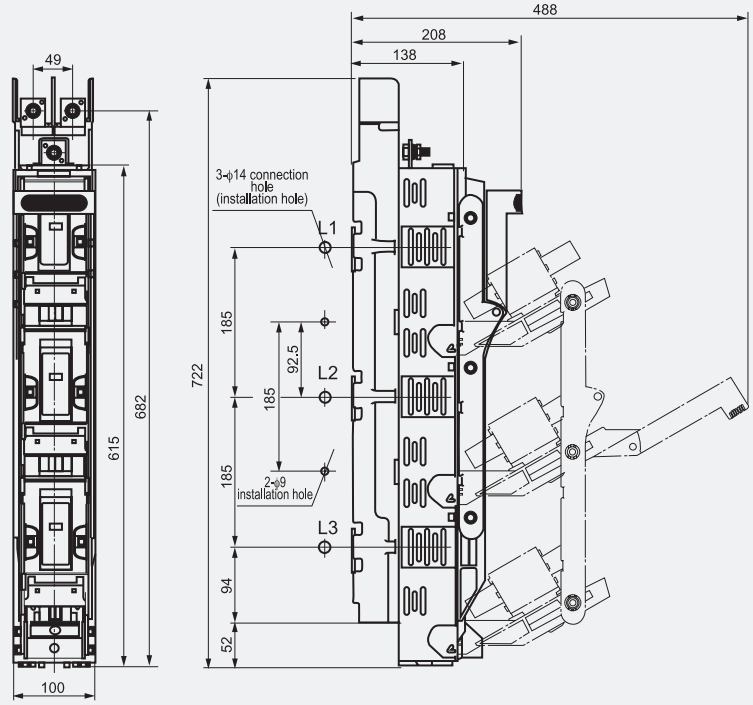


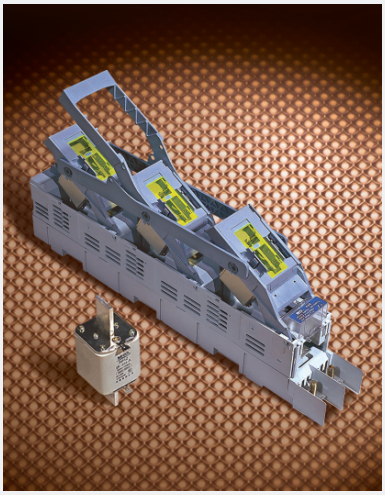


Figure 15.7 Busbar or supporter installation, three phases make and break simultaneity, up output line

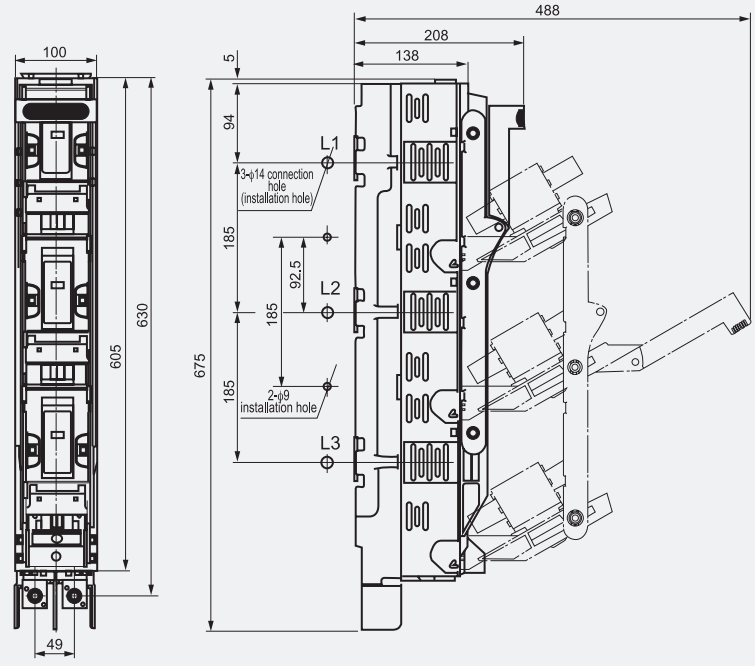
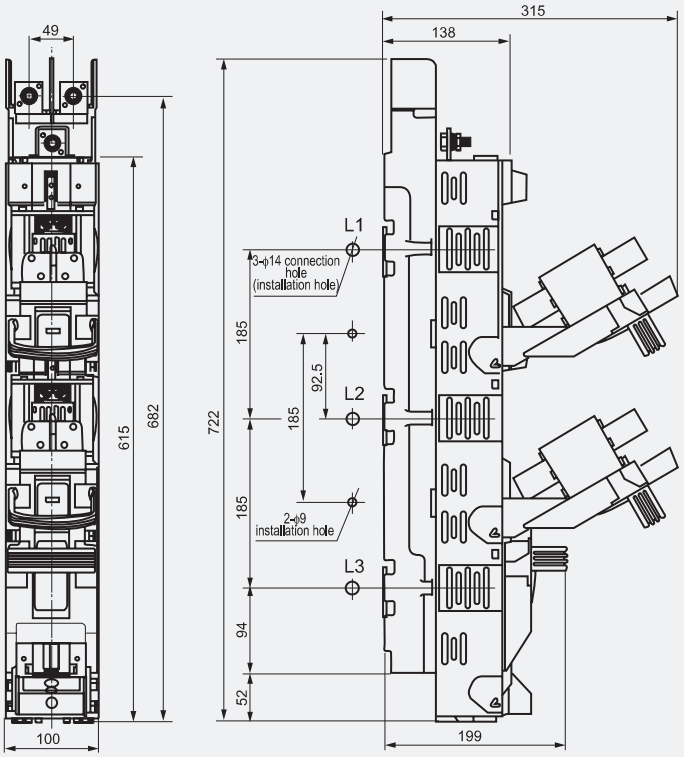


Figure 15.8 Busbar or supporter installation, three phases make and break simultaneity, down output line



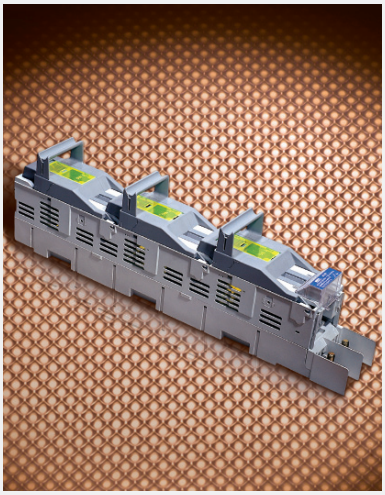


Figure 15.9 Busbar or supporter installation, three phases make and break separately, up output line

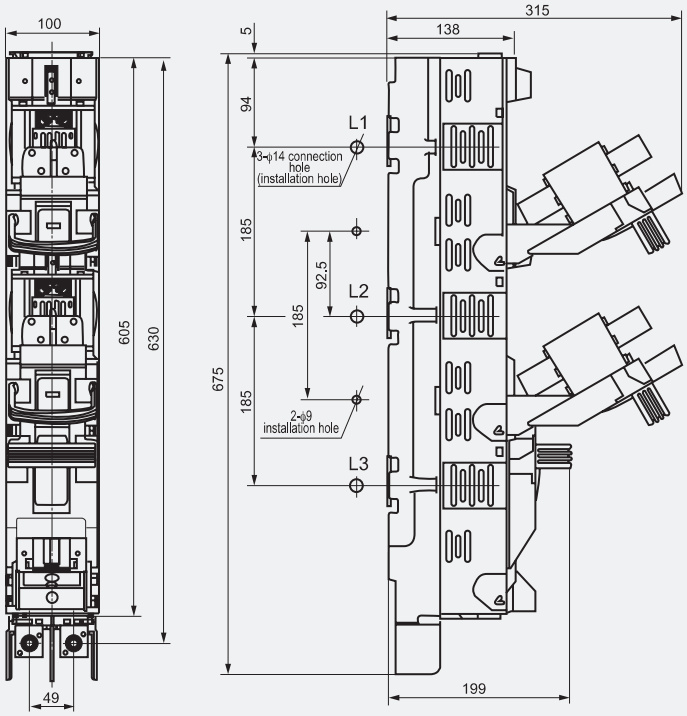


Figure 15.10 Busbar or supporter installation, three phases make and break separately, down output line

Table 15.8 The working current of the switch at different voltages and different applications

Models	Rated working voltage(V)	Rated working current (A)	Application	Fuse link models	The rated breaking capacity of the fuse links (KA)
DR2-160	690	100	AC21B	NH000	50
	500	100	AC22B		100
	400	100	AC23B		100
	690	100	AC21B	NH00	50
	500	160	AC22B		100
	400	160	AC23B		100
DR2-400	690	250	AC21B	NH1	50
	500	250	AC22B		100
	400	250	AC23B		100
	690	315	AC21B	NH2	50
	500	400	AC22B		100
	400	400	AC23B		100
DR2-630	690	500	AC21B	NH3	50
	500	630	AC22B		100
	400	630	AC23B		100

Table 15.9 Rated open and breaking capacity of the switch

Rated working voltage(V)	Rated working current(A)	Applications	Rated open and breaking capacity					
			Connecting			Breaking		
			I/Ie	U/Ue	COSϕ	Ic/Ie	Ur/Ue	COSϕ
690	All current	AC21B	1.5	1.05	0.95	1.5	1.05	0.95
500	All current	AC22B	3	1.05	0.65	3	1.05	0.65
400	⩽ 100	AC23B	10	1.05	0.45	8	1.05	0.45
	> 100	AC23B	10	1.05	0.35	8	1.05	0.30

Note: I —— connecting current
Ie —— rated working current
Ic —— breaking current
U —— post connecting voltage
Ue —— rated working voltage
Ur —— recovery current