

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	MRO.H0(DR0)-160	690	380, 500, 690	160	00, 000	See Fig. 15.1	1350

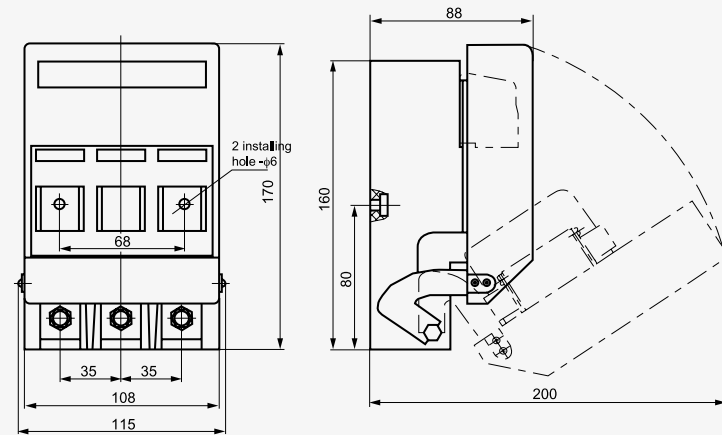


Figure 15.1 MRO.H0(DR0)-160

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)
MRO.H0 (DR0)-160	380	160A/AC-22 160A/AC-23		100
	500	160A/AC-22 80A/AC-23	000,00	100
	690	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/le	U/le	COSφ	Ic/le	Ur/le	COSφ	Ic/le	Ur/le	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
690	100	AC-21	1.5	1.05	0.95	1.5	1.05	0.95
690	80	AC-22	3	1.05	0.65	3	1.05	0.65
690	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 MRO.H1(DR1) Fuse Disconnecting Switches

### Applications

MRO.H1(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 and for AC protection. MRO.H1(DR1) is unfit for directly opening and shutting single electric motor.

Rated insulation voltage up to AC 50Hz 800V; Rated working voltage up to 690V; Rated working current up to 630A.

Rated limiting short-circuit is 100kA at the voltage of 500V and 50kA at 690V.

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. MRO.H1(DR1)-160 is single phase, can be matched with 000 and 00 fuses. MRO.H1(DR1)-160 with three-phase abreast structure, can be matched with 000 and 00 fuse. MRO.H1(DR1)-250/1, MRO.H1(DR1)-400/1, MRO.H1(DR1)-630/1 are single phase, can be matched with 1, 2 and 3 fuse respectively. MRO.H1(DR1)-250, MRO.H1(DR1)-400, MRO.H1(DR1)-630 with three-phase abreast structure, can be matched with 1, 2 and 3 fuse respectively. Above switches with three-phase abreast structure can be assembled with the single phase, which makes four-phase abreast structure.

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:

MRO · H 1 (DR1) - □ / □

- 1-single phase; blank-three phase
- Conventional free air thermal current (A)
- Former model
- Design No.
- Fuse disconnecting switch
- Company code

See the Drawing 15.2~15.7 and Table 15.4~15.6: the product types, rated insulation voltage, rated working voltage, conventional free air thermal current, dimensions, install size, working condition and the capacity for cutting out and in.

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	MRO.H1(DR1)-160/1	800	400, 500, 690	160	00, 000	See Fig. 15.2	290
1503	MRO.H1(DR1)-160	800	400, 500, 690	160	00, 000	See Fig. 15.3	700
1504	MRO.H1(DR1)-160/4	800	400, 500, 690	160	00, 000	See Fig. 15.3	990
1505	MRO.H1(DR1)-250/1	800	400, 500, 690	250	1	See Fig. 15.4	735
1506	MRO.H1(DR1)-250	800	400, 500, 690	250	1	See Fig. 15.5	1510
1507	MRO.H1(DR1)-250/4	800	400, 500, 690	250	1	See Fig. 15.5	2245
1508	MRO.H1(DR1)-400/1	800	400, 500, 690	400	2	See Fig. 15.6	1302
1509	MRO.H1(DR1)-400	800	400, 500, 690	400	2	See Fig. 15.7	3272
1510	MRO.H1(DR1)-400/4	800	400, 500, 690	400	2	See Fig. 15.7	4574
1511	MRO.H1(DR1)-630/1	800	400, 500, 690	630	3	See Fig. 15.6	1492
1512	MRO.H1(DR1)-630	800	400, 500, 690	630	3	See Fig. 15.7	3855
1513	MRO.H1(DR1)-630/4	800	400, 500, 690	630	3	See Fig. 15.7	5347

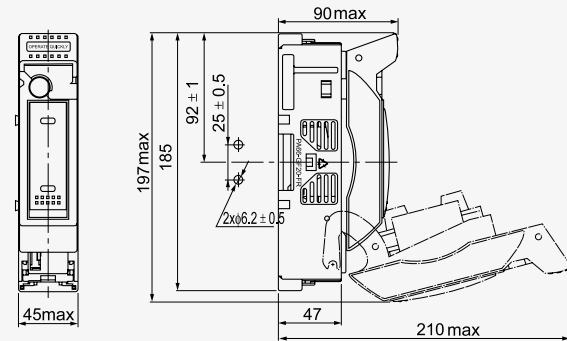


Figure 15.2 MRO.H1(DR1)-160/1

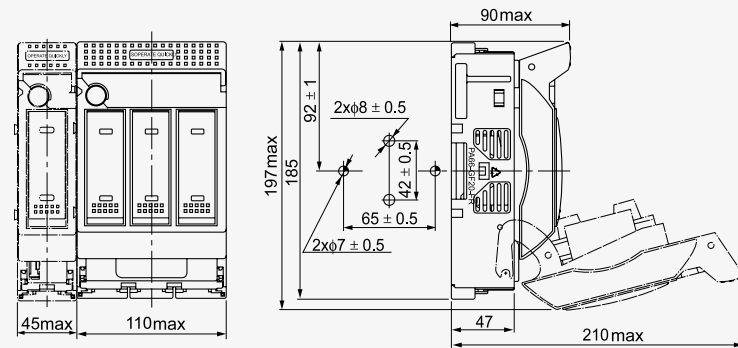


Figure 15.3 MRO.H1(DR1)-160 MRO.H1(DR1)-160/4

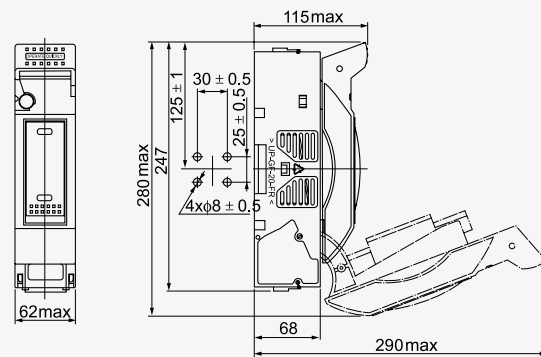


Figure 15.4 MRO.H1(DR1)-250/1

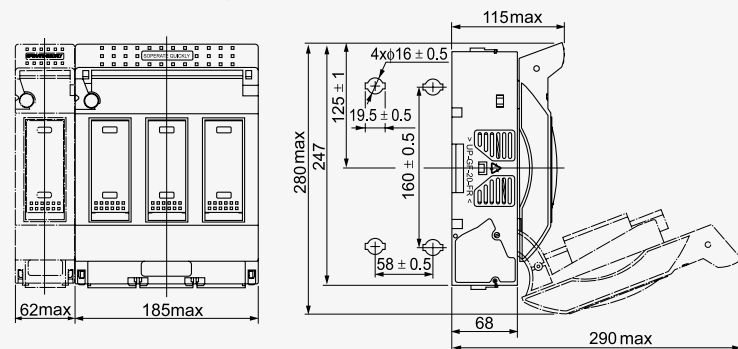


Figure 15.5 MRO.H1(DR1)-250 MRO.H1(DR1)-250/4

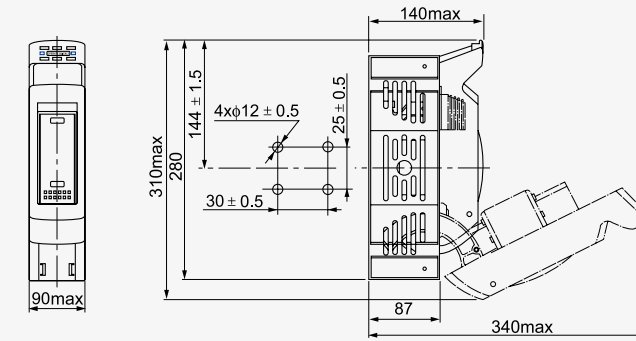


Figure 15.6 MRO.H1(DR1)-400/1 MRO.H1(DR1)-630/1

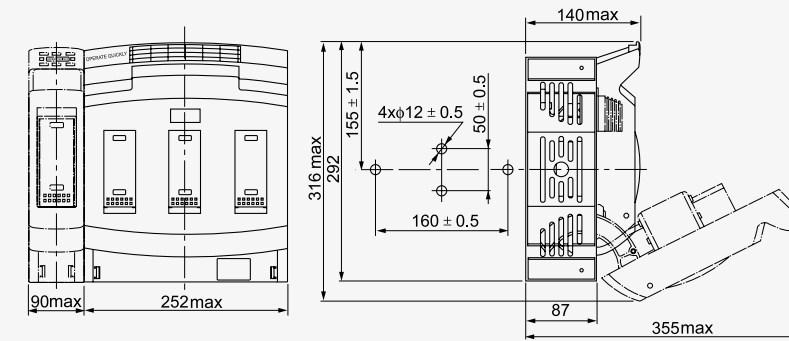


Figure 15.7 MRO.H1(DR1)-400 MRO.H1(DR1)-400/4  
MRO.H1(DR1)-630 MRO.H1(DR1)-630/4



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)
MRO.H1(DR1)-160/1	690	100	AC21B	00, 000	50
	500	125	AC22B	00	100
	230/400	160	AC23B	00	100
MRO.H1(DR1)-160, MRO.H1(DR1)-160/4	690	100	AC21B	00, 000	50
	500	125	AC22B	00	100
	230/400	160	AC23B	00	100
MRO.H1(DR1)-250/1	690	160	AC21B	1	50
	500	200	AC22B	1	100
	230/400	250	AC23B	1	100
MRO.H1(DR1)-250, MRO.H1(DR1)-250/4	690	160	AC21B	1	50
	500	200	AC22B	1	100
	230/400	250	AC23B	1	100
MRO.H1(DR1)-400/1	690	250	AC21B	2	50
	500	315	AC22B	2	100
	230/400	400	AC23B	2	100
MRO.H1(DR1)-400, MRO.H1(DR1)-400/4	690	250	AC21B	2	50
	500	315	AC22B	2	100
	230/400	400	AC23B	2	100
MRO.H1(DR1)-630/1	690	400	AC21B	3	50
	500	500	AC22B	3	100
	230/400	630	AC23B	3	100
MRO.H1(DR1)-630, MRO.H1(DR1)-630/4	690	400	AC21B	3	50
	500	500	AC22B	3	100
	230/400	630	AC23B	3	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/le	U/le	COSφ	Ic/le	Ur/le	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      U —— post connecting voltage  
le —— rated working current      Ue —— rated working voltage  
I<sub>r</sub> —— breaking current      U<sub>r</sub> —— recovery current

15.3 MRO.H2(DR2) Fuse Disconnecting Switches

► Applications

MRO.H2(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 and for AC protection.

Rated insulation voltage up to AC 50Hz 1000V; Rated working voltage up to 690V; Rated working current up to 630A.

Rated limiting short-circuit is 100kA at the voltage of 500V and 50kA at 690V.

Rated short-time withstand current (valid) : 20Ith/1S. The fuse disconnecting switch complies with GB14048.3 and IEC/ EN60947-3 .

► Design Features

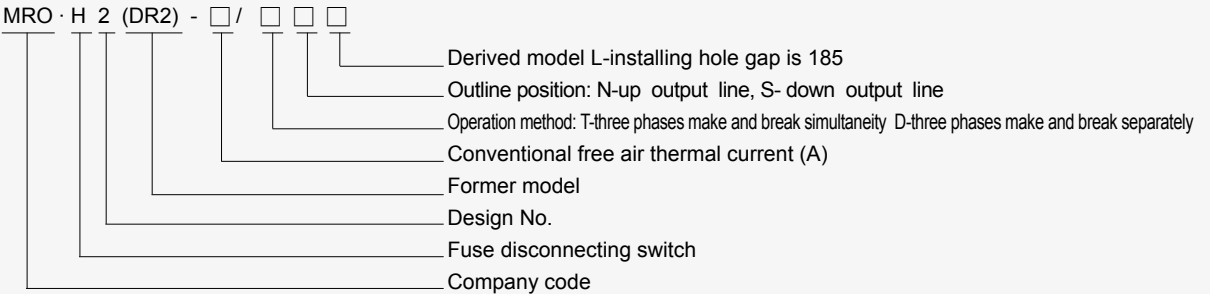
The switch is made up of two parts: the seat and the cover (melt-loading device), three-phase and sealed. The front operation can observe the rated data of the fuse links and indicator status. The switch is molded designed.

Installation: MRO-H2(DR2)-160 (50mm in width), can be directly installed on 100mm busbar through the output line. It has up output line and down output line. Three phases make and break simultaneously. This switch is suitable for 000, 00 fuse. MRO-H2(DR2)-400 (102mm in width), can be directly installed on 185mm busbar through the output line, it can also be installed on the supporter by two φ 12×18 installation hole. Both of the installation methods have up output line and down output line, and three phases make and break simultaneously. This switch is suitable for NH1, NH2 fuses. MRO-H2(DR2)-630 (102mm in width), can be directly installed on 185mm busbar through the input line, it can also be installed on the supporter by two φ 12×18 installation hole. Both of the installation methods have up output line and down output line, and three phases make and break separately. This switch is suitable for NH3 fuses. MRO-H2(DR2)-160/L (52mm in width), can be directly installed on 185mm busbar through the input line. Both of the installation methods have up output line and down output line, and three phases make and break separately. This switch is suitable for 000 and 00 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:



See the Drawing 15.8~15.17 and Table 15.7~15.9: the product types, rated insulation voltage, rated working voltage, conventional free air thermal current, dimensions, install size, working condition and the capacity for cutting out and in.

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)
1514	MRO.H2(DR2)-160/TN	Installation on busbar, three phases make and break simultanneity, up outlet line	1000	400, 500, 690	160	00, 000	See fig. 15.8	1166
1515	MRO.H2(DR2)-400/TN	Installation on busbar or support, three phases make and break simultanneity, up outlet line	1000	400, 500, 690	400	1, 2	See fig. 15.10	5678
1516	MRO.H2(DR2)-630/TN	Installation on busbar or support, three phases make and break simultanneity, up outlet line	1000	400, 500, 690	630	3	See fig. 15.10	6168
1517	MRO.H2(DR2)-160/TNL	Installation on busbar or support, three phases make and break simultanneity, down outlet line	1000	400, 500, 690	160	00, 000	See fig. 15.16	1674
1518	MRO.H2(DR2)-160/TS	Installation on busbar or support, three phases make and break simultanneity, down outlet line	1000	400, 500, 690	160	00, 000	See fig. 15.9	1166
1519	MRO.H2(DR2)-400/TS	Installation on busbar or support, three phases make and break simultanneity, down outlet line	1000	400, 500, 690	400	1, 2	See fig. 15.11	5678
1520	MRO.H2(DR2)-630/TS	Installation on busbar or support, three phases make and break simultanneity, down outlet line	1000	400, 500, 690	630	3	See fig. 15.11	6168
1521	MRO.H2(DR2)-160/TSL	Installation on busbar or support, three phases make and break simultanneity, up outlet line	1000	400, 500, 690	160	00, 000	See fig. 15.17	1674
1522	MRO.H2(DR2)-400/DN	Installation on busbar or support, three phases make and break simultanneity, up outlet line	1000	400, 500, 690	400	1, 2	See fig. 15.12	5540
1523	MRO.H2(DR2)-630/DN	Installation on busbar or support, three phases make and break simultanneity, up outlet line	1000	400, 500, 690	630	3	See fig. 15.12	6030
1524	MRO.H2(DR2)-160/DNL	Installation on busbar or support, three phases make and break simultanneity, down outlet line	1000	400, 500, 690	160	00, 000	See fig. 15.14	1543
1525	MRO.H2(DR2)-400/DS	Installation on busbar or support, three phases make and break simultanneity, down outlet line	1000	400, 500, 690	400	1,2	See fig. 15.13	5540
1526	MRO.H2(DR2)-630/DS	Installation on busbar or support, three phases make and break simultanneity, down outlet line	1000	400, 500, 690	630	3	See fig. 15.13	6030
1527	MRO.H2(DR2)-160/DSL	Installation on busbar or support, three phases make and break simultanneity, down outlet line	1000	400, 500, 690	160	00, 000	See fig. 15.15	1543

Note: MRO.H2(DR2)-250 and MRO.H2(DR2)-400 can be used universally.