

HR6

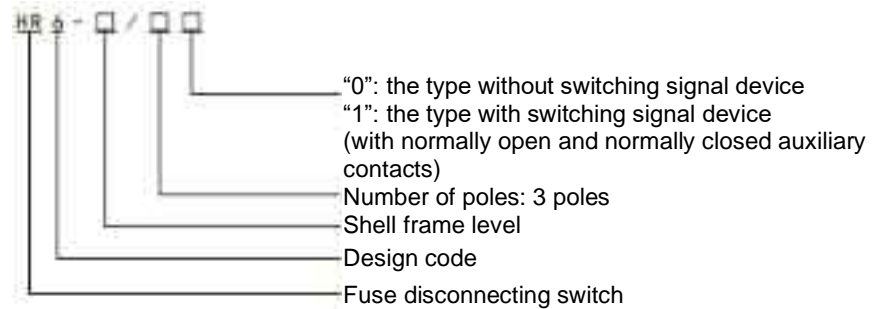
Series Fuse Disconnecting Switch



I. Scope of Application

The HR6 Series Fuse Disconnecting Switch (hereinafter referred to as “switch”) is designed by our company with reference to the products of AEG, Germany, which is suitable for the distribution circuits and motor circuits with high short-circuit current with AC 50 Hz, rated voltage of 400 V and 690 V and conventional thermal current up to 1,000 A. This product is used as the power switch, disconnecting switch and emergency switch that are not frequently operated manually, and for the short-circuit protection, but generally not used to directly switch on and off a single motor. The switch is simple in structure and easy to operate. It complies with IEC60947-3 and GB/T14048.3 and is the best choice for similar products.

II. Model Description



III. Normal Operating Conditions

1. Ambient air temperature: The temperature shall not be higher than +40°C or lower than -5°C, and the average value within 24 hours shall not exceed +35°C.
2. Altitude: The altitude of the installation location shall not exceed 2,000 meters.
3. Relative humidity: The relative atmospheric humidity shall not exceed 50% when the maximum ambient temperature is +40°C, and a higher relative humidity is allowed at a lower temperature (for example: 90% humidity at +20°C), but the occasional condensation on the switch surface due to temperature changes shall be considered.
4. The contamination grade of the surrounding environment is Grade 3.
5. Installation category: III.
6. Installation conditions: The switch shall be installed vertically in a place without significant shaking, impact or vibration and in a medium without explosion risks, or enough gas or dust to corrode metals or destroy the insulation.
7. Please consult with our company for the use occasions under abnormal working conditions.

IV. Structural Features

1. The switch is mainly composed of a base, an upper cover, and an arc-extinguishing chamber. Three pairs of clamp contacts are directly installed on the base, and the fuse link is installed in the upper cover and directly used as a moving contact blade. The upper cover can be opened in a fan shape along the holder, so that the fuse link can be completely pulled out from the socket with a large isolation distance. The upper cover can also be conveniently removed from the base, which is convenient for the installation and safe removal and replacement of the fuse link.
2. The base, upper cover and arc-extinguishing chamber of the switch are all made of arc-resistant plastic, which are of fully plastic structure with good mechanical strength, flame-retardant performance and dielectric performance, as well as simple structure, convenient disassembly and assembly, safety and reliability. Many metal arc-extinguishing grids are installed in the arc-extinguishing chamber, which enhances the arc extinguishing ability of the switch, eliminates the harm of arcing and prolongs the service life of the contact.
3. There are two groups of mounting holes on the base of the switch, which can meet the installation requirements in various switchgears and on the panel of the switchgear. The two sides of the switch can be equipped with auxiliary contacts, which can signal the on-off state of the switch.

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V. Main Technical Parameters

1. Technical parameters of the switch

Switch model	HR6-160	HR6-250	HR6-400	HR6-630	HR6-800	HR6-1000
Rated impulse withstand voltage U _{imp}	12 kV					
Rated insulation voltage U _i	1140 V					
Rated frequency	50 Hz					
Rated working voltage U _e	AC400 V			AC400 V, AC690 V		AC400 V
Rated working current I _e	160 A	250 A	400 A	630 A	800 A	1000 A
Use category	AC-22B, AC-23B			AC-22B		
Conventional thermal current I _{th}	160 A	250 A	400 A	630 A	800 A	1000 A
Rated limited short-circuit current I _q	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Mechanical life (number of operation cycles)	3500	3500	2000	1250	1250	1250
Electrical life (number of making/breaking cycles)	500	500	500	250	250	250
Operating force F	≤ 250 N	≤ 300 N	≤ 350 N	≤ 400 N	≤ 400 N	≤ 500 N
Weight	2.3 kg	4.7 kg	6.8 kg	7.8 kg	7.8 kg	12.5 kg

2. Main parameters of the auxiliary contact (auxiliary switch)

- Rated working voltage: AC 400 V
- Rated thermal current: 5 A
- Use category: AC-15
- Contact type: 1 NO + 1 NC
- The standard followed: GB/T14048.5

2. Basic parameters of the fuse link

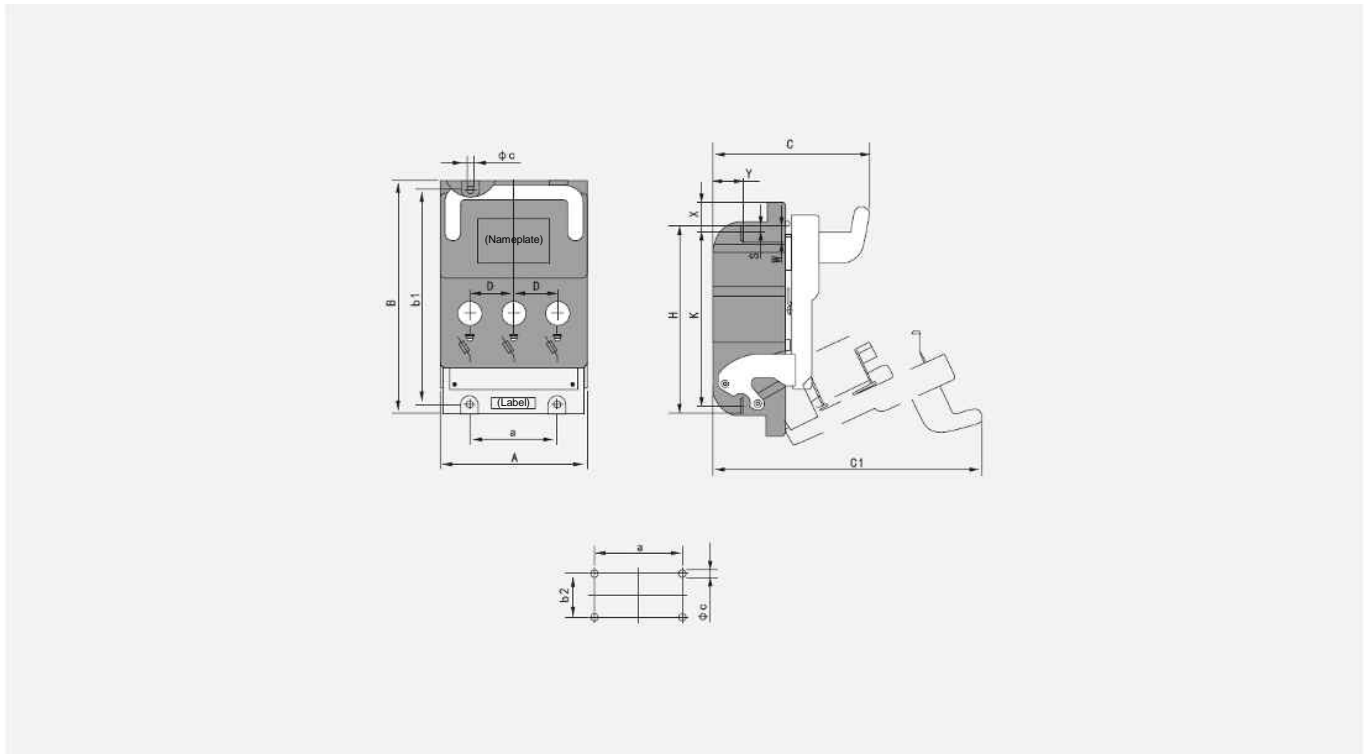
Specification and model	Model of fuse link matched	Size of fuse link matched	Rated current of fuse link (A)
HR6-160	RT16-160	00	16.25.32.40.50.63.80.100.125.160
HR6-250	RT16-250	1	80.100.125.160.200.225.250
HR6-400	RT16-2/400	2	125.160.200.225.250.300.315.355.400
HR6-630	RT16-3/630	3	315.355.400.425.500.630
HR6-800	RT16-3B	3	800
HR6-1000	RT16-4/1000	3B	800.1000

Note: When the switch is used in the motor circuit, the rated current of the fuse link is allowed to be greater than the rated working current of the switch.

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VI. Outline and Installation Dimensions



Product model	Outline dimension (mm)					Installation dimension (mm)				Copper busbar dimension (mm)							
	A	B	C	C1	D	a	b1	b2	φc	H	K	X	Y	S	W	Copper cross-section	M
HR6-160/30	134	215	138	245	40	80	198	40	6.5	150	128	44	18	11	24	2×20	M8
HR6-250/30	184	280	162	320	60	120	260	60	8.5	185	160	60	22	12.5	28	2×30	M10
HR6-400/30	220	300	185	350	72	144	280	60	8.5	215	186	60	31	14.5	35	2.5×35	M10
HR6-630/30	244	300	194	360	80	160	280	60	8.5	232	198	54	26	17.5	40	3.5×40	M12
HR6-800/30	244	300	194	360	80	160	280	60	8.5	232	198	54	26	17.5	40	5.5×40	M12
HR6-1000/30	248	390	175	380	80	160	330	60	11	280	235	97	32	22.5	50	6.5×50	M12