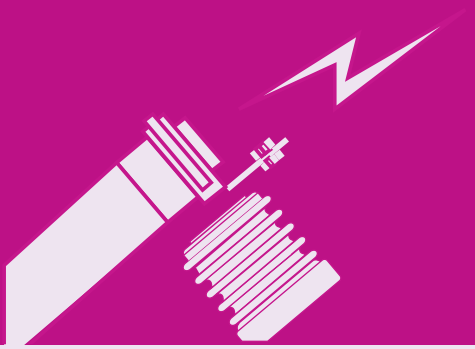
High Voltage Fuse

Professional High Voltage And Low Voltage Fuse Manufacturer

Fuses



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

High Voltage Fuse

H.V. HRC current-limiting fuses type S for transformer protection

▶ Applications

H.V. current-limiting fuses type S is mainly used in AC50Hz, rated voltage 3.6-40.5kV,rated current up to 200A circuit for protection transformers and power equipments from overload and short-circuit. It can also be used with load switch, vacuum contact.

It conforms to IEC282-1, GB15166.2 and DIN standard.

▶ Design Features

S type H.V. HRC current-limiting fuses is insert installation. The striker parallels to the fuse element made from pure silver. They are sealed in the fuse tube filled with chemically treated high-purity quartz sand. The fuse tube is made from heat resistance, high duty ceramic or expoxy glass. When fault circuit happens, the fuse link melts, the high-resistant metal wire paralleling to fuse links melts immediately at the appearance of the arc, and the striker jumps out to push the chained equipment contact, signaling the melting automatically cutting the circuit. The striker has spring type and powder type. Spring type striker use energy released by spring to push the strker; Powder type striker use high pressure caused by the lighting powder to push the striker.S type H.V. HRC current-limiting fuses has many merits as high current-limiting ablilty, high breaking capacity, quick and punctual in action, reliable in performance.

Mode And Implication

Cross-reference:

S □ □ □ J - □

- Rated voltage
- Insert installation
- Striker: N-without striker A-powder type D-spring type
- Length: O=192 L=292 M=442 Q=537mm
- Diameter: D=51mm F,K=76mm X=88mm
- Transformer protection

Department Model:

X R N T 1 - □

- Rated voltage
- Design code
- Transformer protection
- Indoor used
- Fuse
- Current-limiting

Basic Data

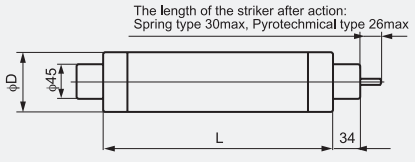
Cat. No.	Models		Rated voltage (KV)	Rated current of the fuse links (A)	Rated breaking current (KA)	Dimensions (mm) (See fig.17.1)		Weight (Kg)
	Foreign	Department				ϕD	L	
1701	SDO.J	XRNT1	3.6	6.3, 10, 16, 20, 25, 31.5, 40	31.5	51	192	1.12
1702	SDL.J	XRNT1	7.2	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63	31.5	51	292	1.47
1703	SFL.J	XRNT1	7.2	80, 100, 125, 160	31.5	76	292	3.15
1704	SDL.J	XRNT1	12	6.3, 10, 16, 20, 25, 31.5, 40	31.5	51	292	1.47
1705	SFL.J	XRNT1	12	50, 63, 71, 80, 100	31.5	76	292	3.15
1706	SKL.J	XRNT1	12	125	31.5	76	292	3.15
1707	SXL.J	XRNT1	12	160, 200	31.5	88	292	4.15
1708	SDM.J	XRNT1	24	6.3, 10, 16, 20, 25, 31.5, 40	31.5	51	442	2.7
1709	SFM.J	XRNT1	24	50, 63, 71, 80, 100	31.5	76	442	4.5
1710	SKM.J	XRNT1	24	125	31.5	76	442	4.5
1711	SXM.J	XRNT1	24	160	31.5	88	442	5.4
1712	SDQ.J	XRNT1	40.5	3.15, 6.3, 10, 16, 20, 25	31.5	51	537	2.9
1713	SFQ.J	XRNT1	40.5	31.5, 40	31.5	76	537	5.51
1714	SXQ.J	XRNT1	40.5	63	31.5	88	537	6.5

Note: Under stipulated condition, min. breaking current of fuses could be as highas 2.5~3.0 times than rated current.

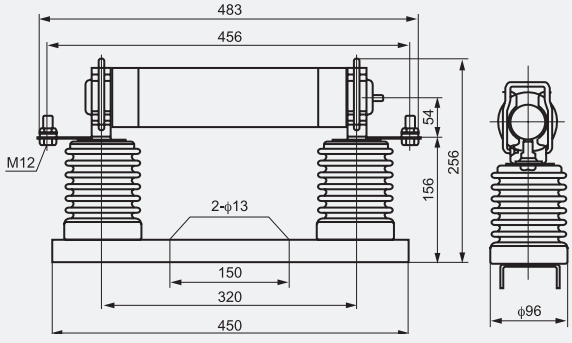
Selection of Prodper Fuse Links for Transformer Protection

Transformer capacity (KVA)	Transformer proimary voltage 7.2(KV) Fuse model/Rated current(A)	10(KV) Fuse model/Rated current(A)	20(KV) Fuse model/Rated current(A)	30(KV) Fuse model/Rated current(A)
50	SDL.J-7.2KV/8A	SDL.J-12KV/6.3A	SDM.J-24KV/3.15A	SDQ.J-40.5KV/3.15A
100	SDL.J-7.2KV/16A	SDL.J-12KV/10A	SDM.J-24KV/6.3A	SDQ.J-40.5KV/6.3A
125	SDL.J-7.2KV/20A	SDL.J-12KV/12A	SDM.J-24KV/6.3A	SDQ.J-40.5KV/6.3A
160	SDL.J-7.2KV/25A	SDL.J-12KV/16A	SDM.J-24KV/8A	SDQ.J-40.5KV/6.3A
200	SDL.J-7.2KV/31.5A	SDL.J-12KV/20A	SDM.J-24KV/10A	SDQ.J-40.5KV/8A
250	SDL.J-7.2KV/40A	SDL.J-12KV/25A	SDM.J-24KV/12A	SDQ.J-40.5KV/10A
300/315	SDL.J-7.2KV/50A	SDL.J-12KV/31.5A	SDM.J-24KV/16A	SDQ.J-40.5KV/10A
400	SDL.J-7.2KV/63A	SDL.J-12KV/40A	SDM.J-24KV/20A	SDQ.J-40.5KV/16A
500	SFL.J-7.2KV/80A	SFL.J-12KV/50A	SDM.J-24KV/25A	SDQ.J-40.5KV/16A
630	SFL.J-7.2KV/100A	SFL.J-12KV/63A	SDM.J-24KV/31.5A	SDQ.J-40.5KV/20A
750/800	SFL.J-7.2KV/125A	SFL.J-12KV/80A	SDM.J-24KV/40A	SDQ.J-40.5KV/25A
1000	SFL.J-7.2KV/160A	SFL.J-12KV/100A	SFM.J-24KV/50A	SFQ.J-40.5KV/31.5A
1250		SKL.J-12KV/125A	SFM.J-24KV/63A	SFQ.J-40.5KV/40A
1600		SXL.J-12KV/160A	SFM.J-24KV/80A	SFQ.J-40.5KV/50A
2000		SXL.J-12KV/200A	SFM.J-24KV/100A	SXQ.J-40.5KV/63A

Dimensions



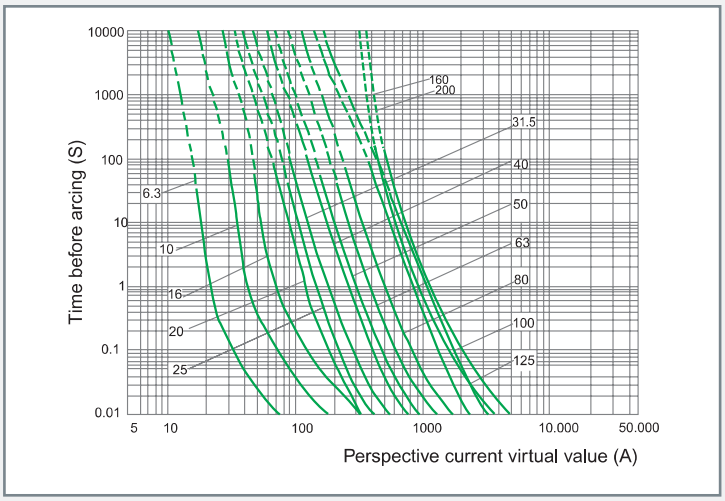
Fuse Link Dimensions



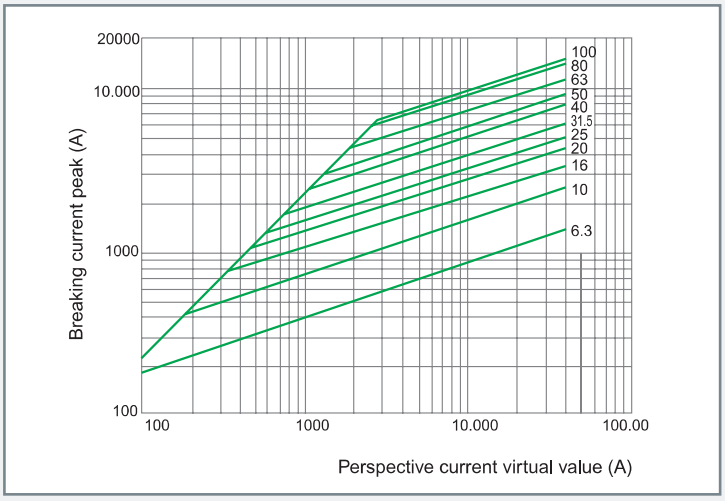
12KV Fuse Base Dimensions

Figure 17.1

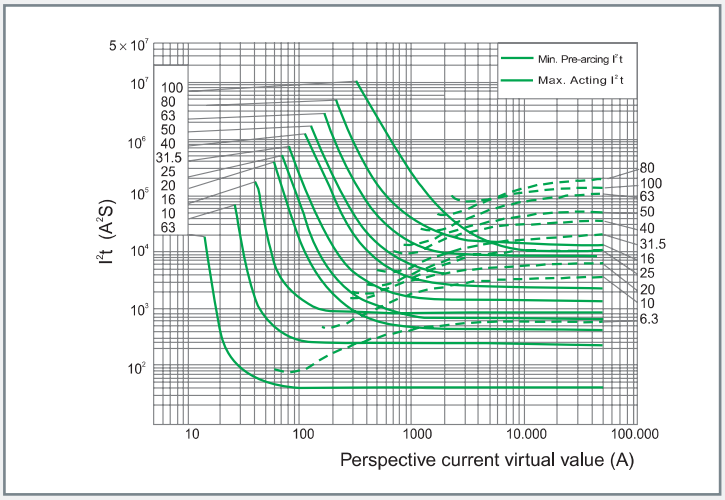
Characteristics Curve



Time-current characteristics of fuse link type S



Breaking-current characteristics of fuse link type S



$I^2.t$ characteristics of fuse link type S

H.V HRC current-limiting fuses type A/B for transformer protection

Applications

H.V HRC current-limiting fuses type A/B for transformer protection is mainly used in AC 50Hz, rated voltage 3.6-40.5kV, rated current up to 160A circuit for protecting transformers and power equipment from overload and short-circuit. It can also be used with load switch, vacuum contact.

It conforms to IEC282-1, GB15166.2 and. BS standard.

Design Features

A/B type H.V HRC current-limiting fuses is bus-bar installation. The fuse link is fastened to the bus bar directly with bolts. It is small in volume, reliable in connection.The striker parallels to the fuse element made from pure silver. They are sealed in the fuse tube filled with chemically treated high-purity quartz sand. The fuse tube is made from heat resistant, high duty ceramic or epoxy glass. When fault circuit happens, the fuse link melts, the high-resistant metal wire paralleling to fuse links melts immediately at the appearance of the arc, and the striker jumps out to push the chained equipment contact, signaling the melting or automatically cutting the circuit. A/B type H.V HRC current-limiting fuses has many merits and high current-limiting ability, high breaking capacity, quick and punctual in action, reliable in performance.

Mode And Implication

Cross-reference:

□ □ □ □ □ - □

- Rated voltage(KV)
- Bus-bar installation: F=flat bend C=ϕ 51 hook bend D=ϕ76 hook bend
- Striker: N-without strikder H-power type
- Length: F=254 G=359 I=565 K=914mm
- Diameter: D=51mm F、K=76mm
- Used in open air

Department Model:

X R N T 1 □ - □

- Rated voltage (KV)
- Bus-bar installation: F=flat bend C=ϕ 51 hook bend D=ϕ76 hook bend
- Design code
- Transformer protection
- Indoor used
- Fuse
- Current limiting

Basic Data

Cat. No.	Models Foreign	Models Department	Rated voltage (KV)	Rated current of the fuse links (A)	Rated breaking current (KA)	Dimensions (mm) (See fig.17.2) ϕD	Dimensions (mm) (See fig.17.2) L	Weight (Kg)
1715	ADFH	XRNT1	3.6	6.3, 10, 16, 20, 25, 31.5, 40	31.5	51	254	1.5
1716	ADGH	XRNT1	3.6	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63, 80, 100	31.5	51	359	2.0
1717	ADFH	XRNT1	7.2	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63,	20	51	254	1.5
1718	AFFH	XRNT1	7.2	80, 100	31.5	76	254	2.3
1719	BDGH	XRNT1	7.2	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63, 80,	31.5	51	359	2.0
1720	BFGH	XRNT1	7.2	90, 100, 125, 140, 160	31.5	76	359	4.0
1721	ADFH	XRNT1	12	6.3, 10, 16, 20, 25, 31.5	12	51	254	1.5
1722	BDGH	XRNT1	12	6.3, 10, 16, 20, 25, 31.5, 35.5, 40, 45, 50	31.5	51	359	2.0
1723	BFGH	XRNT1	12	56, 63, 71, 80, 90, 100	31.5	76	359	4.0
1724	AKGH	XRNT1	12	112, 125	31.5	76	359	4.0
1725	ADIH	XRNT1	24	6.3, 10, 16, 20, 25, 31.5	12	51	565	3.0
1726	AFIH	XRNT1	24	40, 50, 63, 80, 90	16	76	565	6.1
1727	ADIH	XRNT1	40.5	3.15, 5, 6.3, 10, 16, 20, 25, 31.5	16	51	565	3.0
1728	AFIH	XRNT1	40.5	40	25	76	565	6.1
1729	AFKH	XRNT1	40.5	50, 63, 71	25	76	914	9.7

Note: Under stipulated condition, min. breaking current of fuses could be as highas 2.5~3.0 times than rated current.

Selection of Proper H.V. Fuses According to The Transformer Capacity

Transformer capacity (KVA)	Transformer proimary voltage 6.6(KV) Fuse models	6.6 (KV) Rated current(A)	10(KV) Fuse models	10(KV) Rated current(A)
200	BDGH-12KV	31.5	BDGH-12KV	20
250	BDGH-12KV	40	BDGH-12KV	25
300/315	BDGH-12KV	50	BDGH-12KV	31.5
400	BFGH-12KV	63	BDGH-12KV	40
500	BFGH-12KV	80	BDGH-12KV	50
630	BFGH-12KV	100	BFGH-12KV	63
750/800	BFGH-7.2KV	125	BFGH-12KV	71
1000	BFGH-7.2KV	140	BFGH-12KV	90
1250	BFGH-7.2KV	160	AKGH-12KV	112
1500/1600	BFGH-7.2KV	160	AKGH-12KV	125

Dimensions

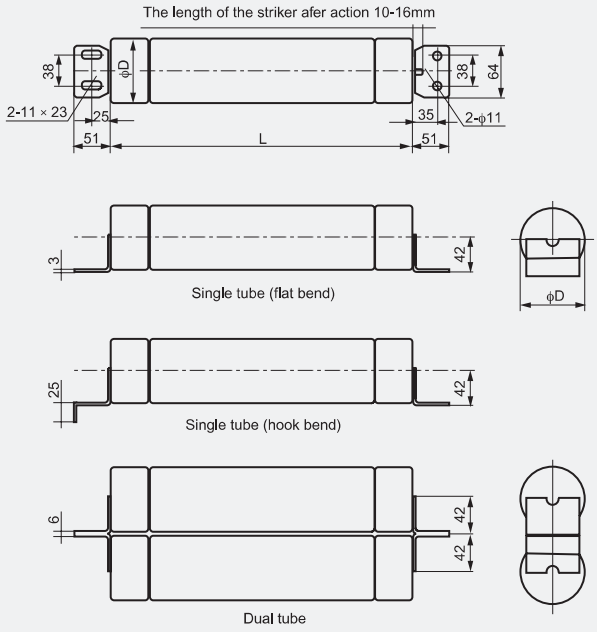
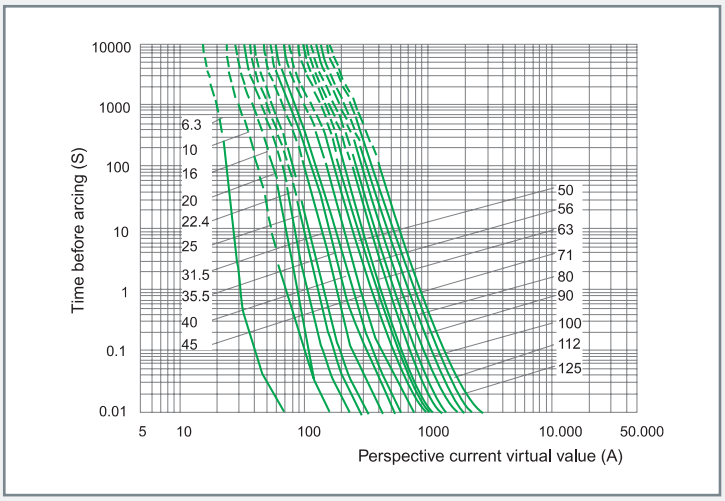
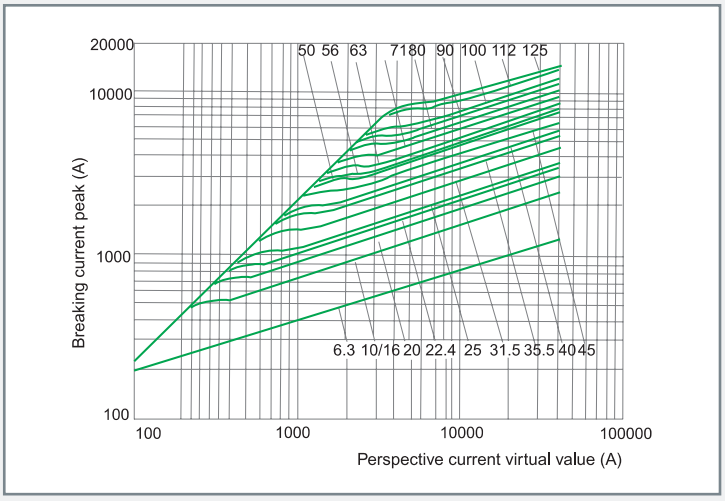


Figure 17.2

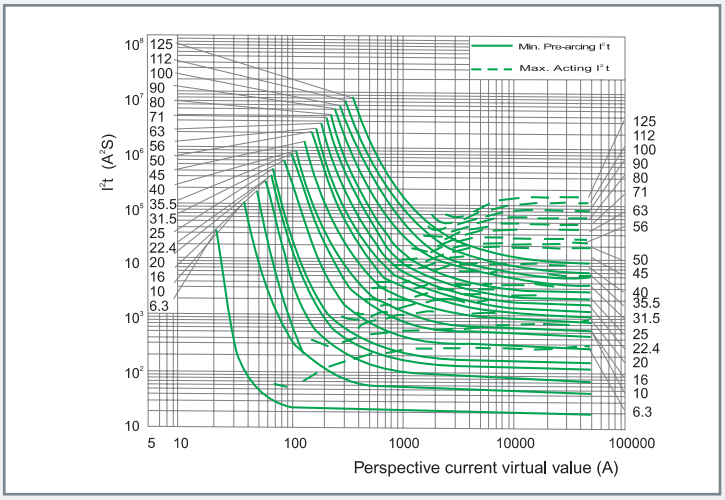
Characteristics Curve



Time-current characteristics of fuse link type A/B



Breaking-current characteristics of fuse link type A/B



I^2t characteristics of fuse link type A/B

H.V HRC current-limiting fuses type W for motor protection

Applications

H.V HRC current-limiting fuses type W for motor protection is mainly used in AC 50Hz, rated voltage 3.6-10kV, rated current up to 400A(3.6kV), 224A(7.2kA) circuit for protecting motor and power equipment from overload and short-circuit. It can also be used with load switch, vacuum contact

It conforms to IEC282-1, IEC644, BS and GB15166.2.

Design Features

W type H.V HRC current-limiting fuses has two installation: bus-bar installation and insert installation. It is small in volume, reliable in connection. The power striker parallels to the fuse element made from pure silver. They are sealed in the fuse tube filled with chemically treated high-purity quartz sand. The fuse tube is made from heat resistant, high duty ceramic or epoxy glass. When fault circuit happens. the fuse link melts, the high-resistant metal wire paralleling to fuse links melts immediatedly at the appearamce of the arc, and the striker jumps out to push the chained equipment contact, signaling the melting or automatically cutting the circuit. W type H.V HRC current-limiting fuses has many merits as high current-limiting ability, high breaking capacity, quick and punctual in action, reliable in performance.

Mode And Implication

Cross-reference:

W □ □ □ □ - □

- Rated voltage (KV)
- Installaiton: O-single tube O_2-dual-tube O_3-tri-tube
- Striker: N-no H-powder
- Length: F=254 N=403mm
- Diameter: D=51mm F、K=76mm
- Used in open air

Department Model:

X R N M 1 - □

- Rated voltage (V)
- Design code
- Motor protection
- Indoor used
- Fuse
- Current limiting

Basic Data

Cat. No.	Models Foreign	Models Department	Rated voltage (KV)	Rated current of the fuse links (A)	Rated breaking current (KA)	Dimensions (mm) (See fig.17.3~17.4) ϕD	Dimensions (mm) (See fig.17.3~17.4) L	Weight (Kg)
1730	WDF.O	XRNM1	3.6	50, 63, 80, 100, 125	50	51	254	1.4
1731	WFF.O	XRNM1	3.6	125, 160, 200	50	76	254	2.8
1732	WKF.O	XRNM1	3.6	250, 315, 355, 400	50	76	254	2.8
1733	WFN.O	XRNM1	7.2	25, 31.5, 40, 50, 63, 80, 100, 125, 160	40	76	403	4.15
1734	WKN.O	XRNM1	7.2	200, 224	40	76	403	4.15
1735		XRNM1	10	25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200, 224	40	76	600	5.26

Notes: Under stipulated condition, min.breaking current of fuses could be as high as 2.5~3.0 times than rated current.
7.2KV fuse link of 224A or above have a dual-tube body
3.6KV fuse link of 400A or above have a dual-tube body

Dimensions

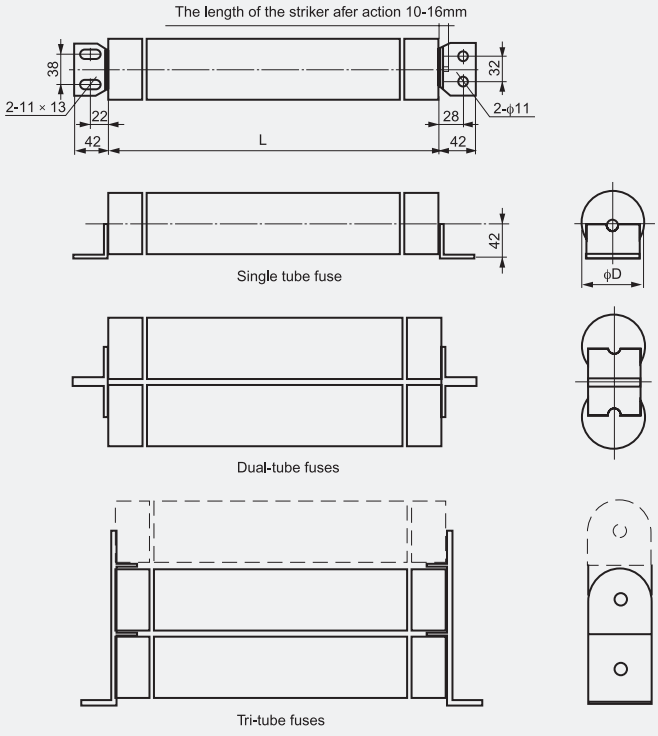
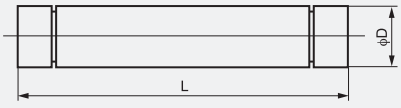


Figure 17.3 fuses for busbar installation



Fuse links for insert installation

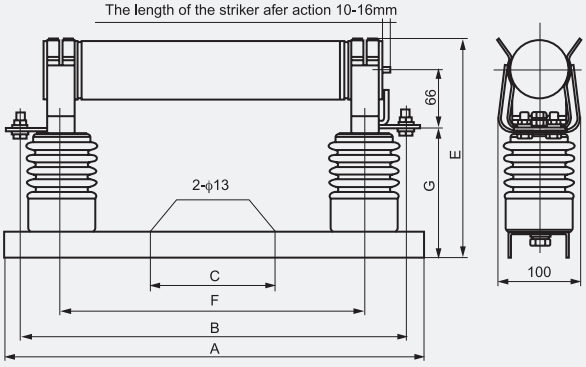


Figure 17.4 fuses for insert installation

Dimension of motor protection fuse type W for busbar installation (mm)

Dimensions / Code / Model	A	B	C	G	E	F
WFF.O	390	312	340	140	246	209
WKF.O	390	312	340	140	246	209
WFN.O	500	461	150	160	266	358
WKN.O	500	461	150	160	266	358
XRNM1	690	659	350	160	266	555

Selection for W type motor current-limit fuse box

When started with full voltage, Rated current ≈ twice of loade dmotor current; When started under other circumstances, rated current ≈ 1.5 times of loaded motor current. For directly started motor, fuses of proper rated current should be selected according to the following formula;

$I_y = N \cdot I_n \cdot \phi$

I_y —— starting current

N —— Ratio of starting current and loaded current, usually N ≈ 6

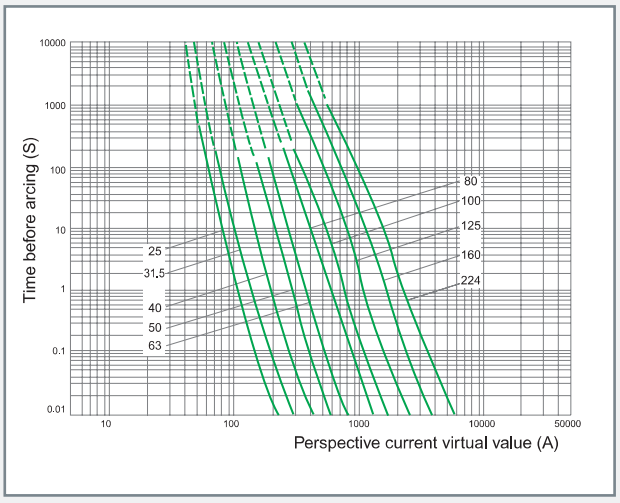
In —— loaded motor current

ϕ —— comprehensive coefficient, see the table below

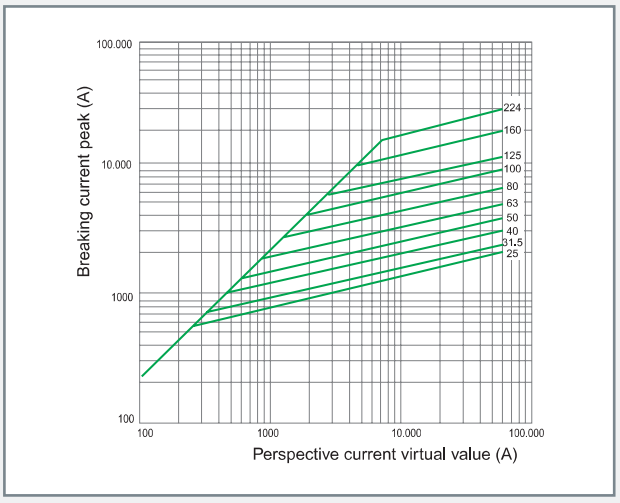
ϕ comprehensive coefficient				
Start times	2	4	8	16
ϕ	1.7	1.9	2.1	2.3

Refer to time-current characteristice diagram for selection of proper H.V. fuse link, Rated current of fuse link should be 1.3 times than loaded motor current.

Characteristics Curve

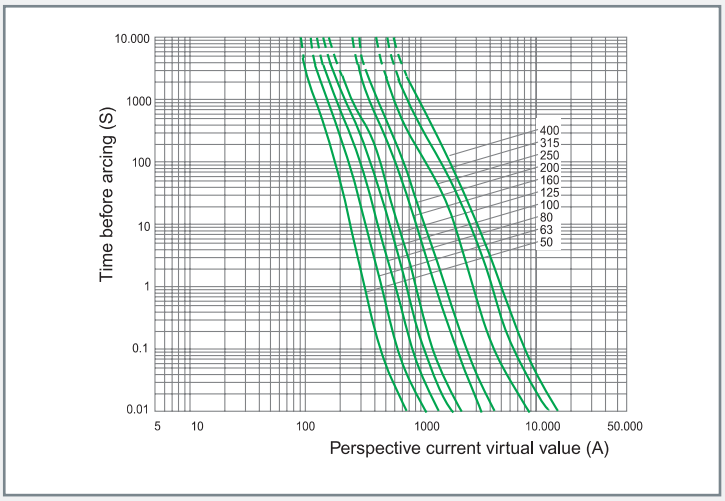


Time-current characteristics of 10KV fuse links type XRNM1

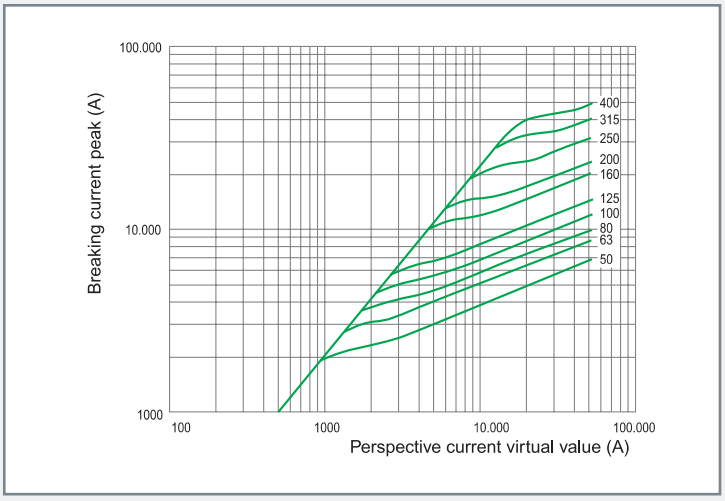


Cut-off current characteristics of 10KV fuse links type XRNM1

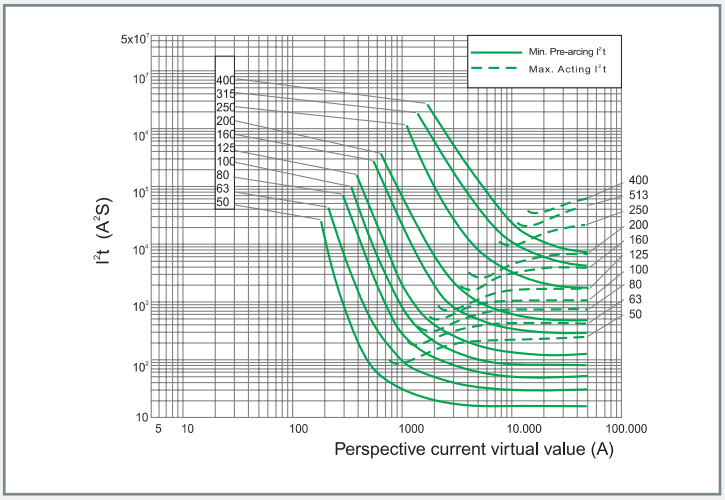
Characteristics Curve



Time-current characteristics of 3.6KV fuse links

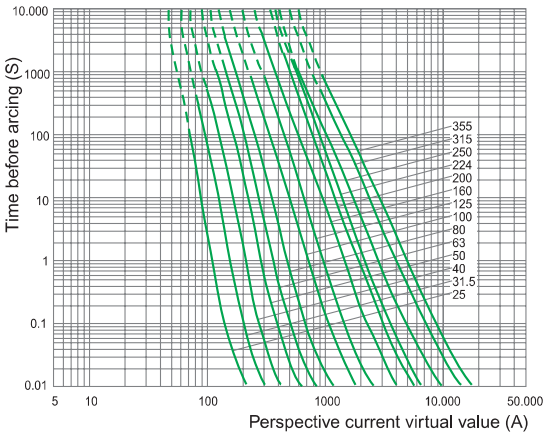


Cut-off current characteristic of 3.6KV fuse links

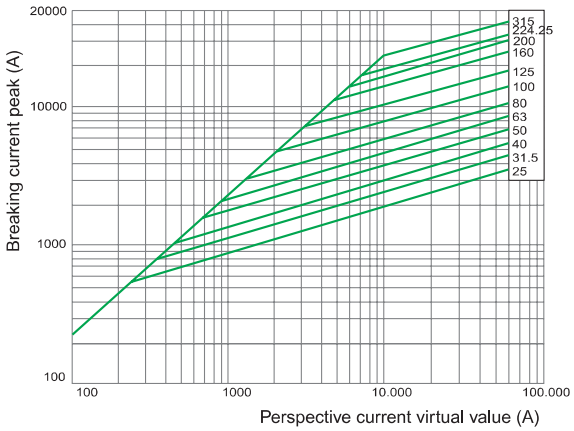


I².t characteristics of 3.6KV fuse links

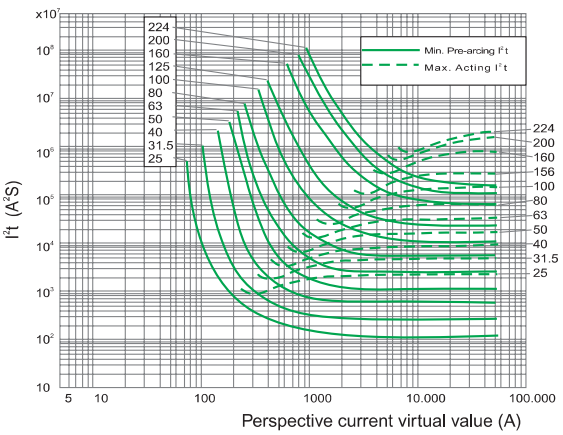
Characteristics Curve



Time-current characteristics of 7.2KV fuse links



Cut-off current characteristic of 7.2KV fuse links



I²t characteristics of 7.2KV fuse links

H.V HRC current-limiting fuses type F for transformer protection

Applications

H.V HRC current-limiting fuses type F for transformer protection is mainly used in AC 50Hz, rated voltage up to 24kV, rated current 160A circuit for protection transformers and power equipment from overload and short-ciruit.

It conforms to IEC282-1, BS, DIN and GB15166.2.

Design Features

F type H.V HRC current-limiting fuses has two installation: Bus-bar installation and insert installation, It is small in volume, reliable in connection and convenient in install and removal. The striker parallels to the fuse element made from pure silver. They are sealed in the fuse tube filled with chemically treated high-purity quartz sand. The fuse tube is made from heat resistant, high duty ceramic or epoxy glass. When fault citcuit happens, the fuse link melts, the high-resistant metal wire paralleling to fuse links melts immediately at the appearance of the arc, and the striker jumps out to push the chained equipment contact, signaling the melting or automatically cutting the circuit. The striker has spring type and powder type. Spring type strikers use the energy released by spring to push the striker; Powder type strikers use high pressure caused by the lighting powder to push the striker. F type fuse can reliably break the fault circuit which causes the fuse link to melt and which is up to the rated breaking current. It is not only featured with high breaking capacity of the current-limiting fuses, but also with protection of low overload of the un-current-limiting fuses. F type fuse had a protection of full scope breaking capacity.

Mode And Implication

Conform to DIN standard

F □ □ □ J - □

- Rated voltage (KV)
- Insert installation
- Striker: N-without striker A-powder type D-spring type
- Length: L=292 M=442mm
- Diameter: D=ϕ51mm F=ϕ76mm X=ϕ88mm
- Full range protection

Cat. No.	Models	Rated votlage (KV)	Rated current of fuse link (A)	Rated breaking current (KA)	Dimensions (mm) (See fig.17.5) ϕD	L	Weight (Kg)
1736	FDL.J	12	6.3, 10, 16, 20, 25, 31.5	50	51	292	1.47
1737	FFL.J	12	40, 50, 63	50	76	292	3.15
1738	FXL.J	12	80, 100	50	88	292	4.15
1739	FDM.J	24	6.3, 10, 16, 20, 25, 31.5	35.5	51	442	2.7
1740	FFM.J	24	25, 31.5, 40, 45	35.5	76	442	4.5

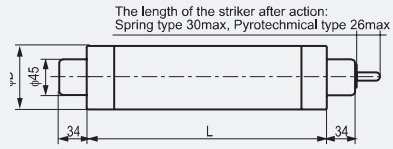
Conform to BS standard

F □ □ □ A - □

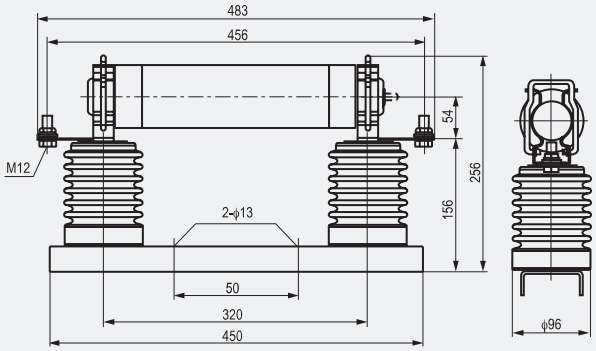
- Rated voltage(KV)
- Bus-bar installation
- Striker: N-without striker H-powder type
- Length: G=359 I=565mm
- Diameter: D=ϕ51mm F=ϕ76mm
- Full range protection

Cat. No.	Models	Rated votlage (KV)	Rated current of fuse link (A)	Rated breaking current (KA)	Dimensions (mm) (See fig.17.6) ϕD	L	Weight (Kg)
1741	FFGHA	12	10, 16, 20, 25, 31.5, 40, 50, 63	40	76	359	4.0
1742	FDIHA	24	3.15, 5, 6.3, 10, 16, 20, 31.5	35.5	51	565	3.0

Dimensions



Fuse Link Dimensions



12KV Fuse Base Dimensions

Figure 17.5

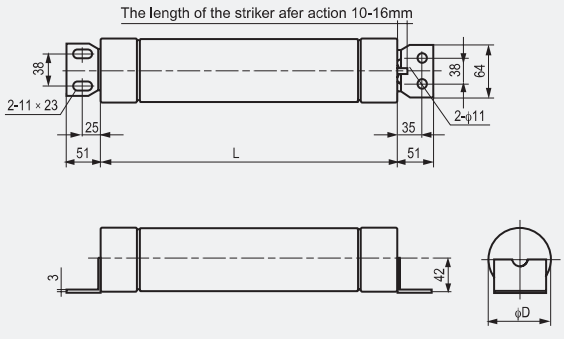
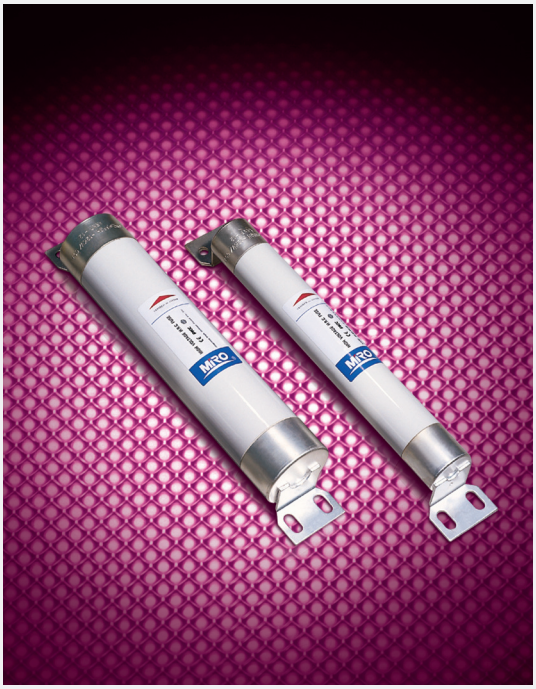


Figure 17.6



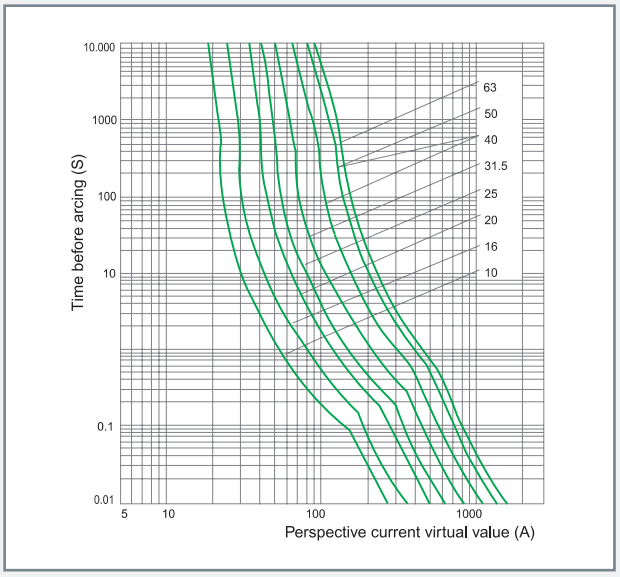
I²t Characteristics of Full-range H.V. Current-limiting Fuses Type F

Rated working voltage (KV)	Rated working current (A)	Min.prearcing $I^2 \cdot t$ ($A^2.S$)	Max. melting $I^2 \cdot t$ ($A^2.S$)
12	10	2.2×10^2	4.7×10^3
12	16	3.4×10^2	6.1×10^3
12	20	7.7×10^2	1.1×10^4
12	25	1.3×10^3	1.6×10^4
12	31.5	2.5×10^3	2.5×10^4
12	40	3.8×10^3	3.8×10^4
12	50	6.8×10^3	5.6×10^4
12	63	8.1×10^3	8.4×10^4

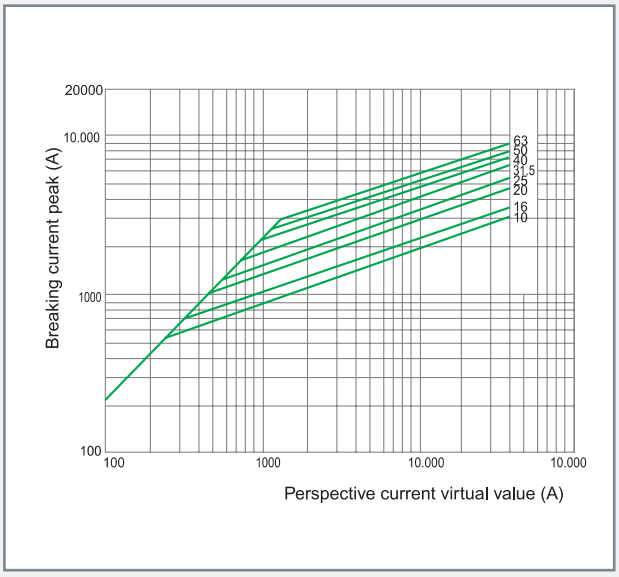
Selection of Proper Full-range H.V. Fuses Type F for Transformer Protection

Capacity of transformer (KVA)	Primary voltage of transformer 12KV Fuse models (It conforms to DIN and BS)		Rated current of fuse link(A)
⩽ 125	FDL.J-12	FFGHA-12	10
160	FDL.J-12	FFGHA-12	16
200	FDL.J-12	FFGHA-12	20
250	FDL.J-12	FFGHA-12	20
315	FDL.J-12	FFGHA-12	25
400	FDL.J-12	FFGHA-12	31.5
500	FFL.J-12	FFGHA-12	40
630	FFL.J-12	FFGHA-12	50
800	FFL.J-12	FFGHA-12	63

Characteristics Curve



Time-current characteristics of 12KV fuse links type F



Cut-off current characteristics of 12KV fuse links type F

H.V HRC current-liniting Fuses Type XRNP for Transformer Protection

Applications

H.V HRC current-limiting fuses type XRNP for transformer protection is mainly used in AC 50Hz, rated voltage 3.6-40.5kV, rated current up to 6.3A circuit for protection transformers from overload and shirt-circuit.

It conforms to IEC282-1, BS and GB15166.2.

Design Features

XRNP type H.V HRC current-limiting fuses is insert installation. It is convenient for in stall and removal. The fuse link made of high-resistance metal wire and low-resistance metal wire. They are sealed in the fuse tube filled with chemically treated high-purity quartz sand. The fuse tube is made from heat resistance, high duty ceramic or epoxy glass. When fault circuit happens, the fuse link melts causing arc, quartz sand extinguish the arc immediately, signaling the melting or automatically cutting the circuit.

Mode And Implication

Department model

X R N P □ - □

- Rated voltage (KV)
- Design code: 1 or 2
- Transformer protection
- Indoor used
- Fuse
- Current limiting

Basic Data

Cat. No.	Models	Rated voltage (KV)	Rated current of fuse links (A)	Rated breaking current (KA)	Dimensions (mm) Fig.	L	Weight (Kg)
1743	XRNP1	3.6	0.5, 1, 2, 3.15, 6.3	50	17.7	142	0.19
1744	XRNP1	7.2	0.5, 1, 2, 3.15, 6.3	50	17.7	142(195)	0.19(0.22)
1745	XRNP1	12	0.5, 1, 2, 3.15	40	17.7	195	0.22
1746	XRNP1	24	0.5, 1, 2, 3.15	40	17.7	355	0.43
1747	XRNP1	40.5	0.5, 1, 2, 3.15	50	17.7	465	0.55
1748	XRNP2	12	0.5, 1, 2, 3.15	50	See figure 17.8		1.12

Dimensions

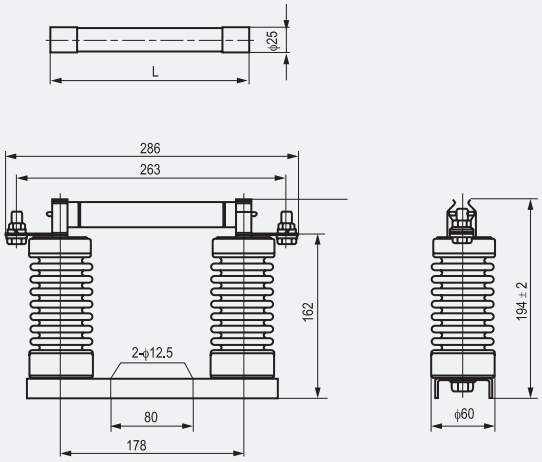
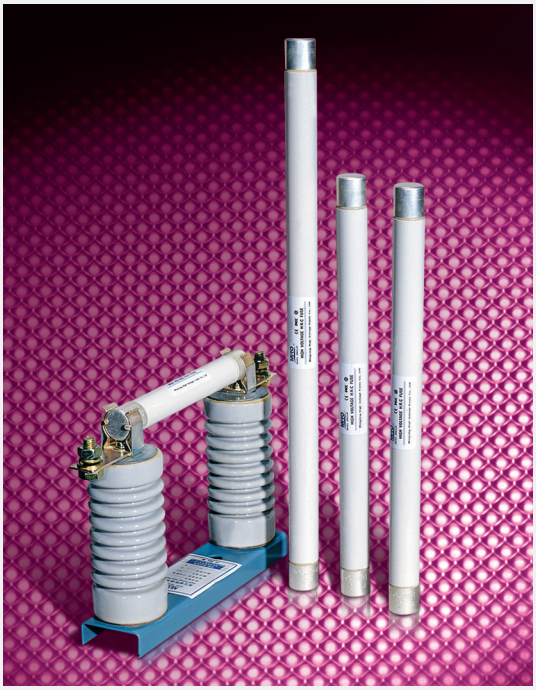


Figure 17.7 12KV H.V. Fuse Type XRNP1



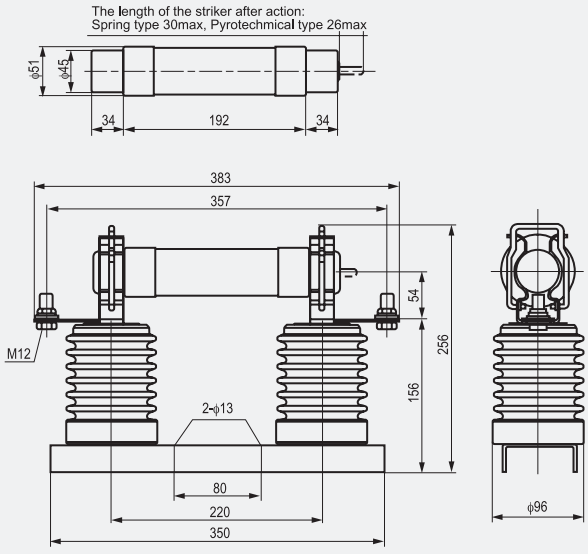
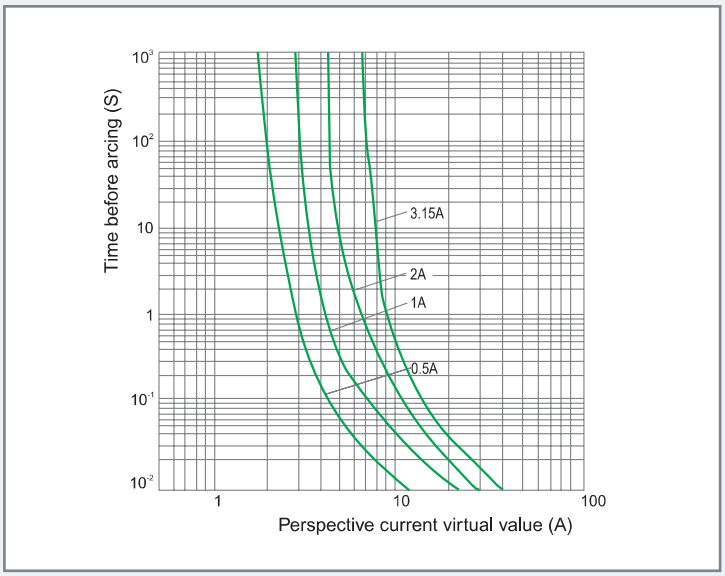
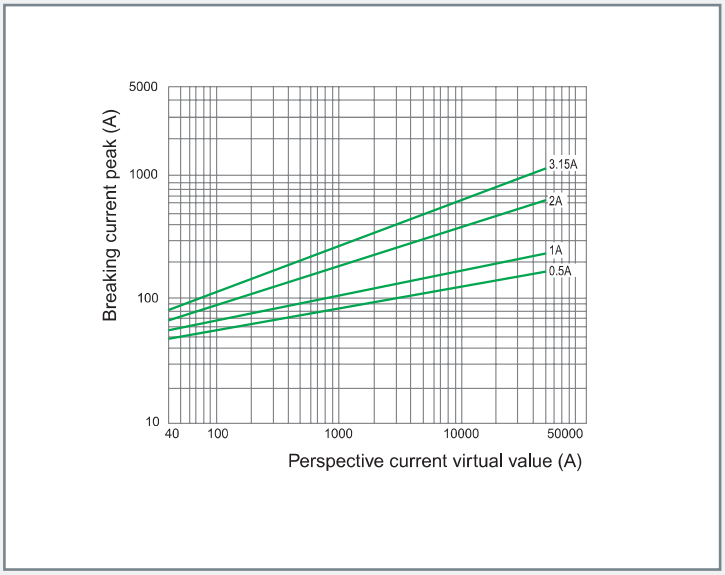


Figure 17.8 12KV H.V. Fuse Type XRNP2

Characteristics Curve



Time-current characteristics
of 12KV fuse links type XRNP1



Cut-off current characteristics
of 12KV fuse links type XRNP1

Oil H.V HRC Current-limiting Fuses Type O for Transformer Protection

Applications

Oil H.V HRC current-limiting fuses type O for transformer protection is mainly used in AC 50Hz, rated voltage 3.6-24kV, rated current 200A(3.6kV), 160A(7.2kV), 125A(12kV) and below circuit for protecting transformers and power equipments from overload and short-circuit.

It conforms to IEC282-1, BS, DIN and GB1566.2.

Design Features

O type H.V HRC current-limiting fuses has two installation: Bus-bar installation and insert installation, It is small in volume, reliable in convenient in install and removal. The striker parallels to the fuse element make from pure silver. They are sealed in the fuse tube filled with chemically treated high-purity quartz sand. the fuse tube is made from heat resistant, high duty ceramic or epoxy glass. When fault circuit happens, the fuse link melts. At the appearance of the arc the high-resistant metal wire paralleling to fuse links melts immediately, which lights the powder and caused high pressure pushing the striker jumps out to push the chained equipment contact, signaling the melting or automatically cutting the circuit. O type H.V HRC current-limiting fuses are featured with high sealing property, low power consume, high breaking capacity, quick and punctual action, reliable performance.

Mode And Implication

O □ □ □ □ - □

- Rated voltage (KV)
- Installation: A-insert D-bus-bar
- Striker: N-without strider M-with striker
- Length: F=254 G=359mm
- Diameter: E、H=ϕ63.5mm F、K=ϕ76mm
- For oil filled switchgear

Basic Data

Cat. No.	Models	Rated voltage (KV)	Rated current of fuse links (A)	Rated breaking current (KA)	Dimensions (mm)(See fig.17.9~17.10) L	Weight (Kg)
1749	OEFMA	3.6	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200	50	254	1.9
1750	OEFMA	7.2	80, 100, 112	50	254	1.9
1751	OHGMA	7.2	100, 125, 140, 160	50	359	2.6
1752	OEFMA	12	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63	40	254	1.9
1753	OHFMA	12	71, 80	40	254	1.9
1754	OHGMA	12	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63, 80, 100, 125	40	359	2.6
1755	OEGMA	24	6.3, 10, 16, 20, 25, 31.5, 40, 50, 63	25	359	2.6
1756	OFGMD	12	63, 80, 100, 125	40	359	4.0
1757	OKGMD	12	160, 200	40	359	4.0

Note: Under stipulated conditions, min.breaking current could be as high as 2.5~5 times than rated current.

Dimensions

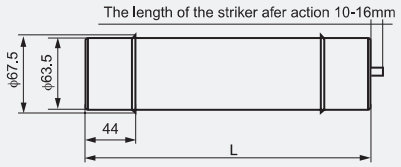
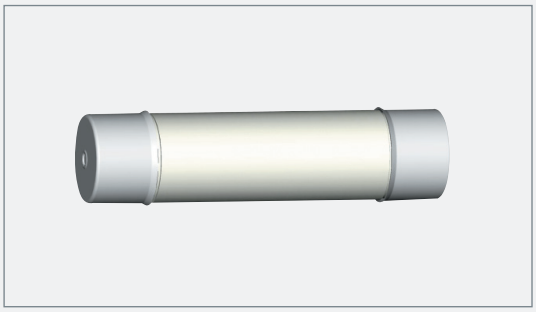


Figure 17.9



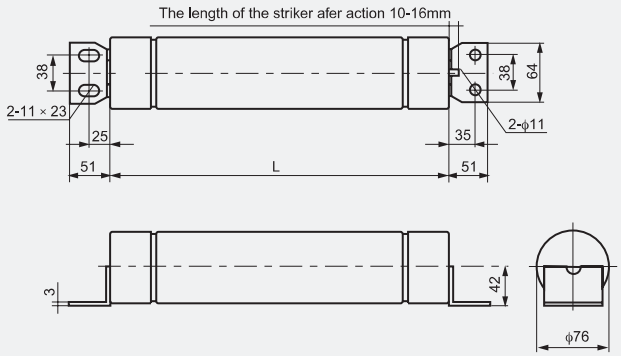
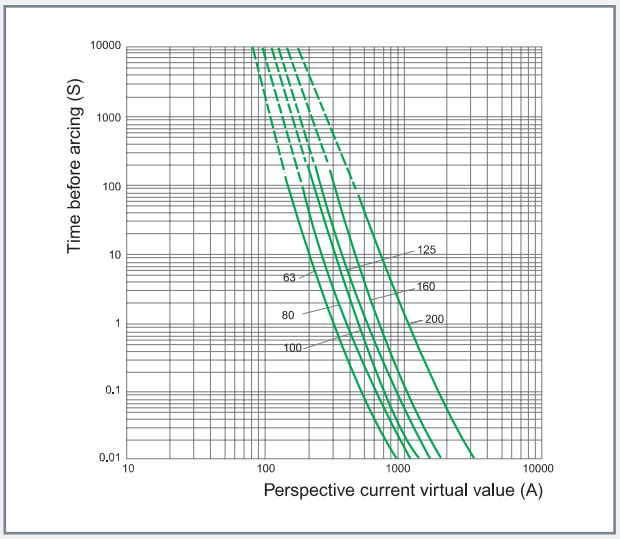
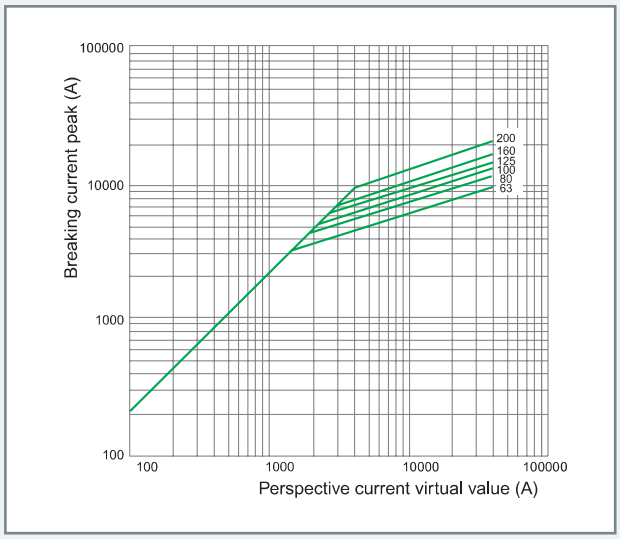


Figure 17.10

Characteristics Curve



Time-current characteristics of fuse links



Cut-off current characteristics of fuse links

Special H.V. HRC Current-limiting

Applications

Special H.V. HRC Fuse are mainly used in circuit for protection transformer motor and other power equipment from overload and short-circuit.

H.V. Current-limiting Fuses for Protection
of Transformer and Motor

H.V. Current-limiting Fuses for Protection
of Large Capacity Transformer

Mini-H.V. Current-limiting Fuses for Protection
of Transformer Instrument

LR0 H.V. Drop-out Fuse

Applications

LRO H.V drop-out fuse is mainly used in AC 50Hz, rated voltage 30KV, rated current up to 200A circuit for protecting transformers and circuit from overload and short-circuit.

Design Futures

LRO H.V Drop-out fuse is made up of two parts: base and fuse link, Static contact is fastened to the two ends of the insulated bracket of the base; Removable contact is fastened to both ends of the fuse link. Fuse tube is made up of internal arc-extinguishing tube and external phenolic aldehyde paper tube or epoxy glass tube. When fault current happens, the fuse link melts, fuse carrier falls automatically creating obvious isolation space.

Mode And Implication

L R O - □ · □ / □

- Fuse carrier rated current (A)
- Base rated current (A)
- Fuse rated voltage (KV)
- Design code
- Fuse
- Drop-out

Basic Data and Dimensions

Cat. No.	Models	Rated voltage (KV)	Rated current(A)		Rated max.breaking current (KA)	Impulse voltage (KV)	Distance (mm)	Dimensions (mm)(See fig.17.11)				Weight (Kg)
			Base	Fuse carrier				A1	B1	H1	H2	
1758	LRO-15KV.200A/100A	15	200	100	10	75	250	321	115	398	226	7.5
1759	LRO-15KV.200A/200A			200	12							
1760	LRO-24KV.200A/100A	24	200	100	8	75	530	357	135	482	273	11.6
1761	LRO-24KV.200A/200A			200	10							
1762	LRO-30KV.200A/100A	30	200	100	6	75	700	371	115	482	320	14.5
1763	LRO-30KV.200A/200A			200	8							

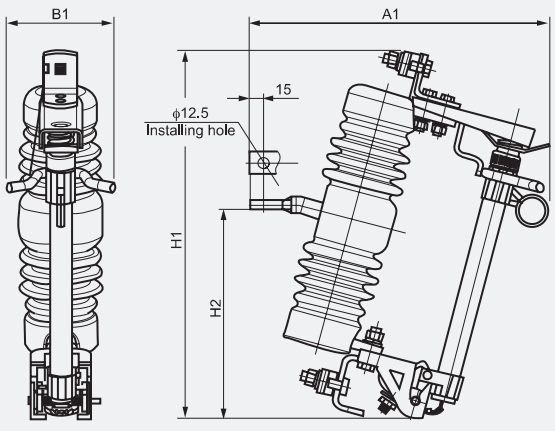
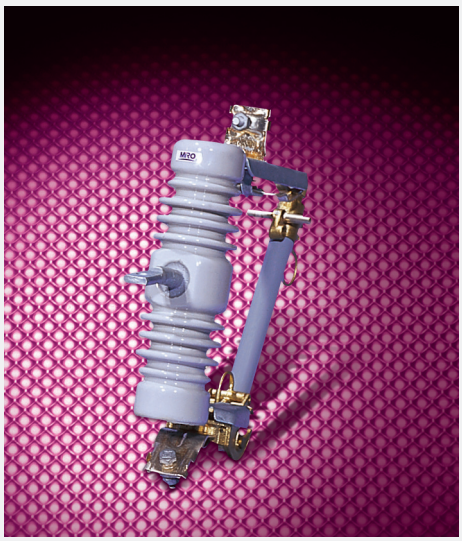


Figure 17.11



LR1 H.V. Drop-out Fuse

Applications

LR1 H.V Drop-out fuse is mainly used in AC 50Hz, rated voltage 24KV, rated current up to 200A circuit for protection transformers and circuit from overload and short-circuit.

Design Futures

LR1 H.V Drop-out fuse is make up of two parts: base and fuse link. Static contact is fastened to two ends of the insulated bracket of the base; Removable contact is fastened to both ends of the fuse link. Fuse tube is made up of internal arc-extinguishing tube and external phenolic aldehyde paper tube or epoxy glass tube. When fault current happens, the fuse link melts, fuse carrier falls automatically creating obvious isolation space.

Mode And Implication

L R 1 - □ · □ / □

- Fuse carrier rated current (A)
- Base rated current (A)
- Fuse rated voltage (KV)
- Design code
- Fuse
- Drop-out

Basic Data and Dimensions

Cat. No.	Models	Rated voltage (KV)	Rated current(A)		Rated max.breaking current (KA)	Impulse voltage (KV)	Distance (mm)	Dimensions (mm)(See fig.17.11)				Weight (Kg)
			Base	Fuse carrier				A1	B1	H1	H2	
1764	LR1-15KV.200A/100A	15	200	100	10	75	250	350	100	432	220	7.6
1765	LR1-15KV.200A/200A			200	12							
1766	LR1-24KV.200A/100A	24	200	100	8	75	530	363	135	456	267	12.2
1767	LR1-24KV.200A/200A			200	10							

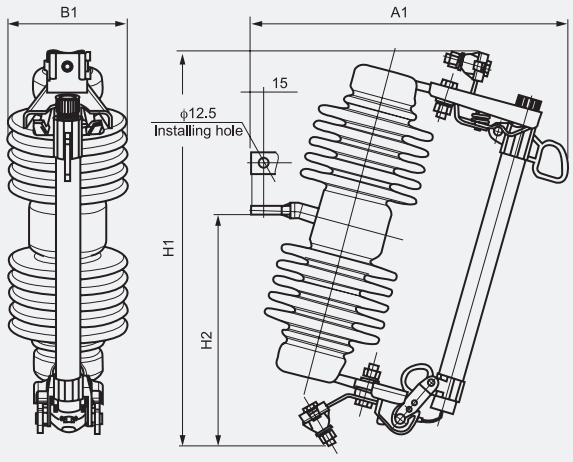
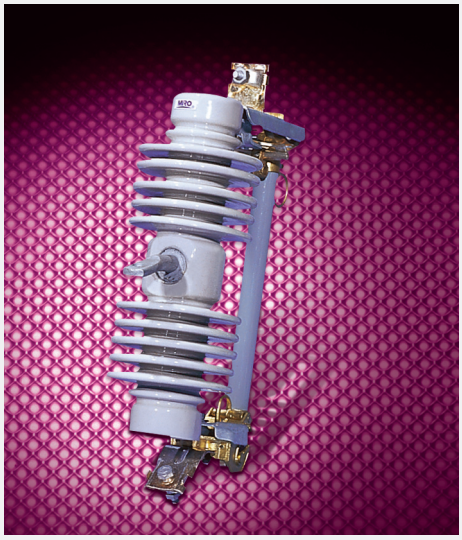


Figure 17.12



LR2 H.V. Drop-out Fuse

Applications

LR2 H.V Drop-out fuse is mainly used in AC 50Hz, rated voltage 30KV, rated current up to 200A circuit for protecting transformers and circuit from overload and short-circuit.

Design Futures

LR2 H.V Drop-out fuse is made up of two parts: base and fuse link. Static contact is fastened to the two ends of the insulated bracket of the base; Removable contact is fastened to both ends of the fuse link. fuse tube is made up of internal arc-extinguishing tube and external phenolic aldehyde paper tube or epoxy glass tube. When fault current happens, the fuse link melts, fuse carrier falls automatically creating obvious isolating space.

Mode And Implication

L R 2 - □ · □ / □

- Fuse carrier rated current (A)
- Base rated current (A)
- Fuse rated voltage (KV)
- Design code
- Fuse
- Drop-out

Basic Data and Dimensions

Cat. No.	Models	Rated voltage (KV)	Rated current(A) Base	Rated current(A) Fuse carrier	Rated max.breaking current (KA)	Impulse voltage (KV)	Distance (mm)	Dimensions (mm) Fig.	Weight (Kg)
1768	LR2-15KV.200A/100A	15	200	100	10	75	250	See Figure 17.13	7.3
1769	LR2-15KV.200A/200A			200	12				

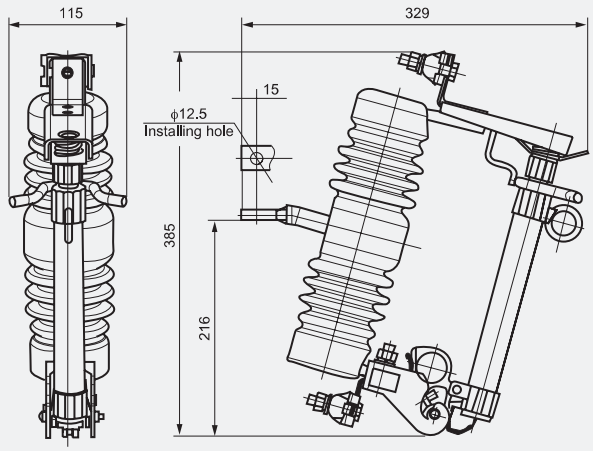
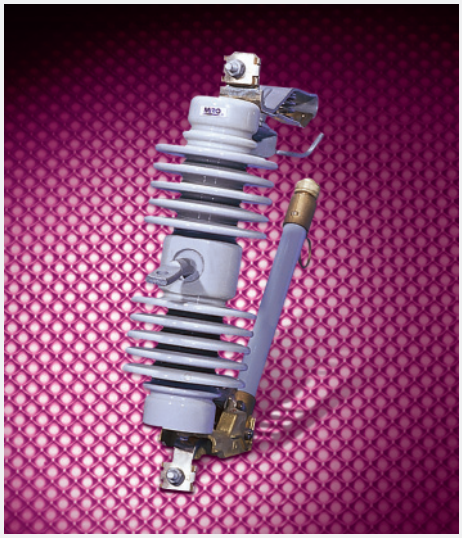


Figure 17.13



Guidance for H.V. Fuse Selection

Rated Voltage and Current of H.V. Fuses

Rated Voltage of H.V. Fuses

H.V. fuses selected should be of a rated voltage matchable to power voltage

The rated voltage of fuses used in 3-phase circuit should be chosen according to the wire voltage.

The rated voltage of fuses used in single-phase circuit should be of 115% of max. phase voltage.

When the H.V. fuse links are installed into 3-phase circuit, better choice is to select fuses according to max. wire voltage.

Rated current of H.V. fuses

The fuse element has a rated current less than that of fuse link.

The rated current of fuse should be 1.25 times of operating current of loads.

Devaluation should be considered when the fuses are fixed in a 3-phase sealed or unsealed cabinet, or in an insulating cast canister.

Breaking capacity

the max. breaking capacity of fuses should be no less than max. short-circuit current of the protected circuit. The min. melting current should be less than the min. short-circuit current of the protected circuit.

Storage of H.V. Fuses

The fuses should the kept in a dry place.

Give fuses fallen or seriously shocked a careful examination before use it.

Recheck the resistance of fuses which has been kept for a long time before selling.

Installation and Replacement

Make sure that all the spare parts are tightly fixed when Installing to avoid the overheating under operation.

When one of three fuses installed in 3-phase circuit acted. the other two also should be replaced.

The replacement of an acted fuses should be done in 10 minutes after its action. Under the circumstance such as smock leakage, noise from the fuse after its action, the fuse can be replaced only after it is out of the circuit.

More consideration on safety should be taken when the replacement is done to fuses installed near power supply equipments or electrified conductor.

The fuses can not be installed in a dusty, polluted, humid place.

Transpotation of Fuses

Try to avoid the fuses from shocking, falling-down and impact, if such things happen, do test it thoroughly before using.

Notes before ordering:

The user should have a clear picture about the rated voltage, rated current, breaking current and protecting objects of the fuse.

Please feel free to contact us for your special requirement beyond our catalogue.