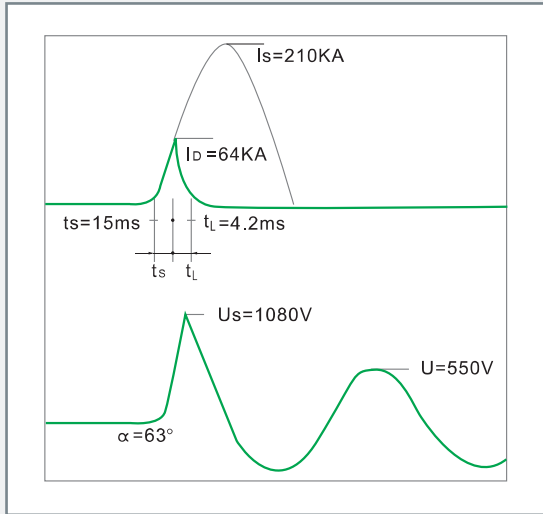


▶ Rated Breaking Capacity

Rated breaking capacity is the maximum short-circuit current allowed for the fuse link to cutout reliably under rated voltage. The instantaneous current loaded to the fuse link is much larger than the normal working current when short-circuit occurs. The fuse link is supposed to cutout the line in an undamaged condition i.e. without bursting. The rated breaking capacity of MIRO fuses is up to 120ka and the excellent current limiting characteristics reliably protect the equipment from damages by electric power.



Wave curve of current limiting characteristics of fuse link
 Where: I_s -peak value of maximum asymmetric current at 100KA perspective current I_p (The impulse factor of a short circuit should be 1.5).
 I_D - the actual current at breaking (limiting current)
 U_s -Arc voltage
 U - Voltage
 t_s - melting time
 t_L - Arcing time
 α - Burning corner of arc after zero voltage.

▶ Fuse Supporter (Fuse Base)

In many application cases, fuse links are installed on fuse supporters/fuse bases. They are not to be used as switches for connection and disconnection of the load.

▶ Factors To Be Considered For Selection Of Fuses

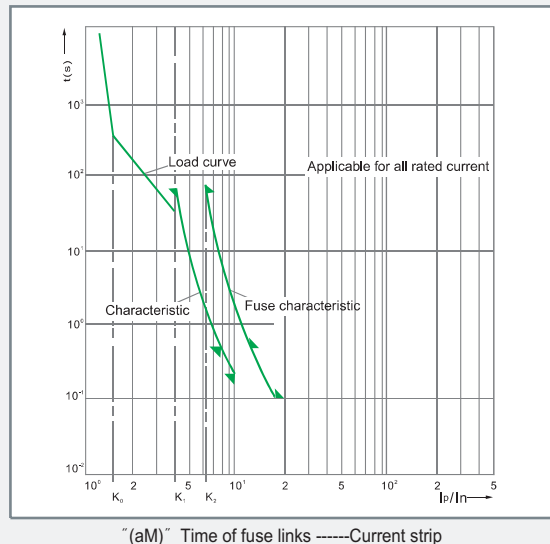
1. normal working current
2. working voltage
3. ambient temperature
4. overload current and cutout time
5. possible malfunction current
6. impulse current, surge current, starting current and transient value of the line
7. size and dimensions, connection methods, indicators, etc.

▶ Threshold Values Of aM Fuses

Gate limit of "aM" type fuse links:

$I_p(I_n)$	4	6.3	8	10	12.5	19
$t_{Fuse} <$ (s)	-	60	-	-	0.5	0.10
$t_{Before\ arc} >$ (s)	60	-	0.5	0.2	-	-

Note: I_p -Perspective current
 I_n -Rate current of fuse link



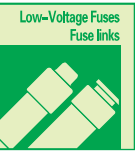
Low Voltage Fuse

Professional High Voltage And Low Voltage Fuse Manufacturer

Fuse Links



Cylindrical Fuse Links



► Applications

Protection against overload and short circuit in electric lines (type gG), also available for protection of semiconductor parts and equipments against short-circuit (type aR) and protection of motors (type aM).

Rated voltage up to 660V; Rated current up to 125A; Working frequency 50Hz AC; Rated breaking capacity up to 100KA. Compliant with GB13539 and IEC269.

► Design Features

Variable cross-section fuse element made from pure metal sealed in cartridge made from high-duty ceramic or epoxy glass. Fuse tube filled with chemically treated high-purity quartz sand as arc-extinguishing medium. Dot-welding of fuse element ends to the caps ensures reliable electric connection; Striker may be attached to the fuse link to provide immediate activation of micro-switch to give various signals or cut the circuit automatically.

Special fuse as per Figure 1.2~1.4 can be supplied according to customers requirements.

► Basic Data

The models, dimensions, ratings are shown in Figures 1.1~1.4 and Table 1.

Table 1

Cat. No.	Models		Cross-reference		Dimensions/sizes (mm)		Rated voltage (V)	Rated current (A)	Weight (g)
	MIRO gG(Normal)	aR(Fast)	gG(Normal)	aR(Fast)	Fig.	$\phi D \times L$			
0101	RO06	RS06	-	-	1.1	$\phi 12.7 \times 29$	250/380	1-32	6.5
0102	RO07	RS07	-	-	1.1	$\phi 30 \times 57$	600	10-100	75
0103	RO09	RS09	-	-	1.1	$\phi 18 \times 37$	500	2-63	17.4
0104	RO10	RS10	-	-	1.1	$\phi 18 \times 50$	500	2-63	23.5
0105	RO11	RS11	AJT JKS LPJ	ACL	1.1	$\phi 21 \times 58$	600	2-32	51.5
0106	RO12	RS12	AJT JKS LPJ	ACL	1.1	$\phi 27 \times 60$	600	35-100	90
0107	RO13	RS13	-	-	1.1	$\phi 15 \times 50$	500	2-40	23.2
0108	RO14	RS14	RT19-16 gF1	-	1.1	$\phi 8.5 \times 31.5$	500	0.5-20	4.4
0109	RO14A	RS14A	-	-	1.1	$\phi 8.5 \times 23$	250	0.5-20	3.5
0110	RO14B	RS14B	-	-	1.1	$\phi 8.5 \times 36$	380/500	0.5-20	5.0
0111	RO15	RS15	RT14-20 gF2 RT18-32 RT19-25	KTK KLM	1.1	$\phi 10.3 \times 38$	380/500	0.5-32	7.7
0112	RO15A	RS15A	-	-	1.1	$\phi 10.3 \times 25.8$	250	0.5-16	4.8
0113	RO15B	RS15B	-	-	1.1	$\phi 10.3 \times 31.5$	250/500	0.5-25	5.8
0114	RO15C	RS15C	-	-	1.1	$\phi 10.3 \times 34$	380/500	0.5-32	6.2
0115	RO15D	RS15D	-	-	1.1	$\phi 10.3 \times 57$	600	2-32	11
0116	RO16	RS16	RT14-32 gF3 RT18-63 RT19-40	EWP	1.1	$\phi 14.3 \times 51$	380/660	2-50	20.5
0117	RO16A	RS16A	-	-	1.1	$\phi 14.3 \times 38$	500	2-50	15.6
0118	RO16B	RS16B	-	-	1.1	$\phi 14.3 \times 45$	500	2-50	18.5
0119	RO16C	RS16C	-	-	1.1	$\phi 14.3 \times 67$	500	2-50	27.5
0120	RO17	RS17	RT14-63 gF4 RT18-125 RT19-100	URE2263	1.1	$\phi 22.2 \times 58$	380/660	10-125	58
0121	RO18	RS18	-	-	1.1	$\phi 9.6 \times 30$	380	0.5-25	4.8
0122	RO19	RS19	FRS TRS FLSR	-	1.1	$\phi 20.5 \times 127$	600	0.5-32	91.2
0123	RO19A	RS19A	FLNR PC2	-	1.1	$\phi 20.5 \times 76$	250/500	0.5-63	63
0124	RO19B	RS19B	-	-	1.1	$\phi 20.5 \times 114$	600	0.5-32	85
0125	RO19C	RS19C	FRS TRS FLSR	-	1.1	$\phi 27 \times 139$	600	32-63	172.4
0126	RO19D	RS19D	-	-	1.1	$\phi 27 \times 147$	600	32-63	160
0127	RO54	RS54	-	-	1.1	$\phi 5 \times 20$	250	0.5-16	1
0128	RO55	RS55	-	-	1.1	$\phi 5 \times 25$	250	0.5-16	1.3
0129	RO56	RS56	-	-	1.1	$\phi 6 \times 20$	250	0.5-16	1.7
0130	RO57	RS57	-	-	1.1	$\phi 6.3 \times 25$	250	0.5-16	2.1
0131	RO58	RS58	-	-	1.1	$\phi 6.3 \times 31.5$	250/500	0.5-16	2.5

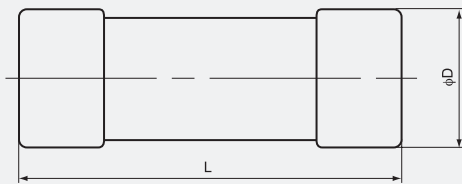


Fig 1.1

Table 1 (Cont.)

Cat. No.	Models		Cross-reference		Dimensions/sizes (mm)		Rated voltage (V)	Rated current (A)	Weight (g)
	MIRO gG(Normal)	aR(Fast)	gG(Normal)	aR(Fast)	Fig.	$\phi D \times L$			
0132	RO08	RS08	-	JJS	1.2	$\phi 20.5 \times 40$	600	2-63	40

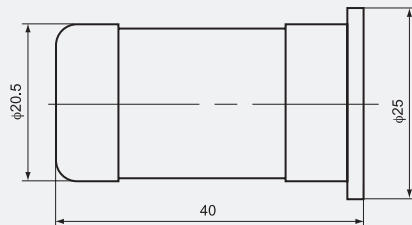


Fig 1.2



Low-Voltage Fuses
Fuse links

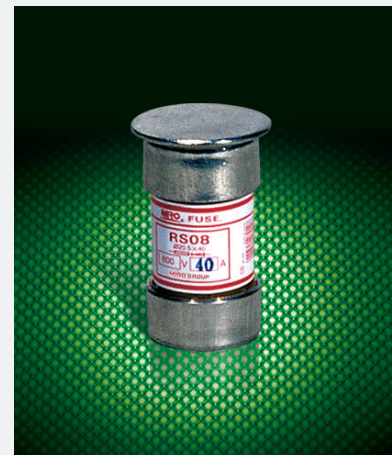


Table 1 (Cont.)

Cat. No.	Models		Cross-reference		Dimensions/sizes (mm) Fig. $\phi D \times L$	Rated voltage (V)	Rated current (A)	Weight (g)
	MIRO		gG(Normal)	aR(Fast)				
0133	RO15T	RS15T	ATQR	KTK KLKR	1.3 $\phi 10.3 \times 38$	380/600	0.5-32	7.5

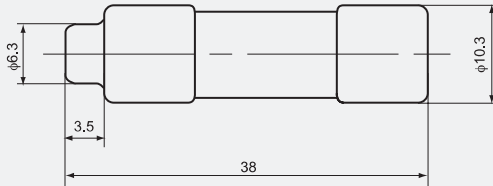


Figure 1.3



Table 1 (Cont.)

Cat. No.	Models		Cross-reference		Dimensions/sizes (mm) Fig. $\phi D \times L$	Rated voltage (V)	Rated current (A)	Weight (g)
	MIRO		gG(Normal)	aR(Fast)				
0134	RO16H	RS16H	FRH-R	-	1.4 $\phi 14.3 \times 51$	250	2-50	25
0135	RO17H	RS17H	-	-	1.4 $\phi 22.2 \times 58$	380/500	10-125	52
0136	RO19H	RS19H	FRS-R	-	1.4 $\phi 20.5 \times 127$	600	0.5-63	82
0137	RO19AH	RS19AH	FLNR	-	1.4 $\phi 20.5 \times 76$	600	0.5-63	60
0138	RO19BH	RS19BH	-	-	1.4 $\phi 20.5 \times 114$	600	0.5-63	72
0139	RO19CH	RS19CH	FRS-R	-	1.4 $\phi 27 \times 139$	600	32-63	148
0140	RO19DH	RS19DH	-	-	1.4 $\phi 27 \times 147$	600	32-63	172

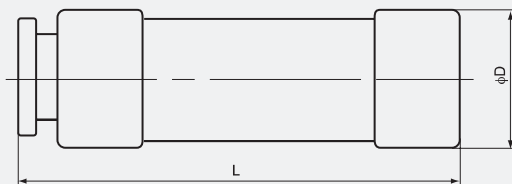
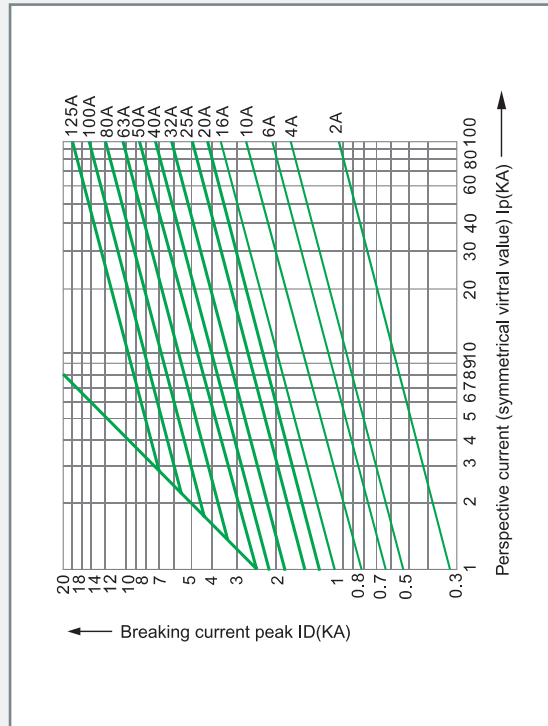
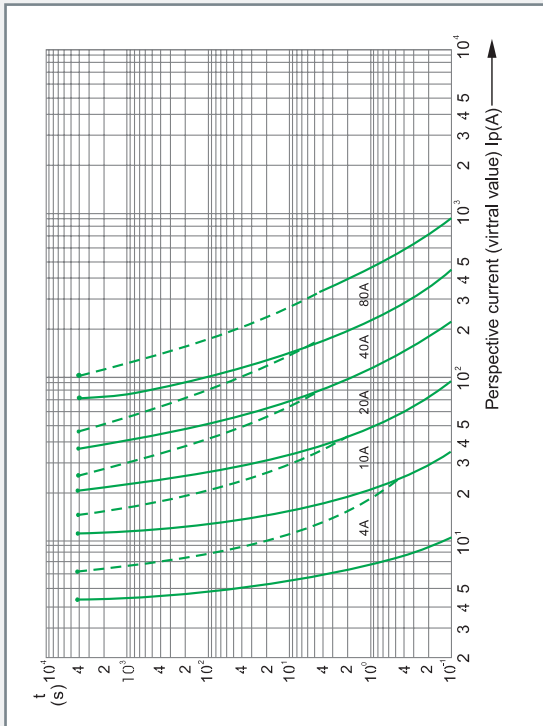
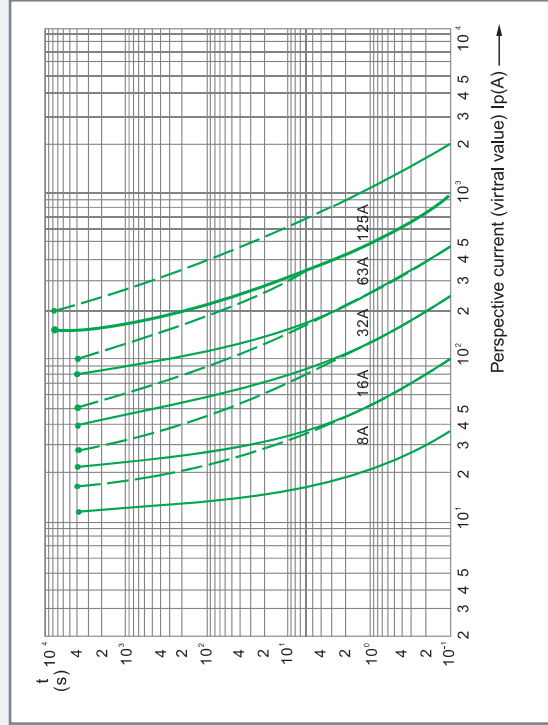
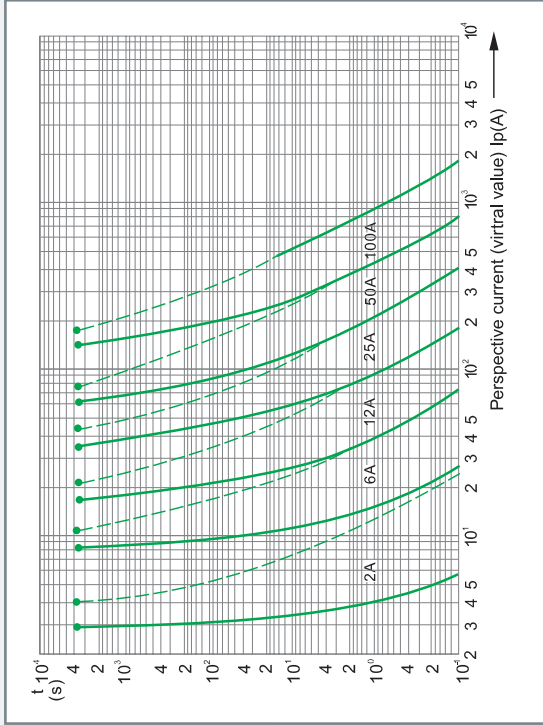


Figure 1.4

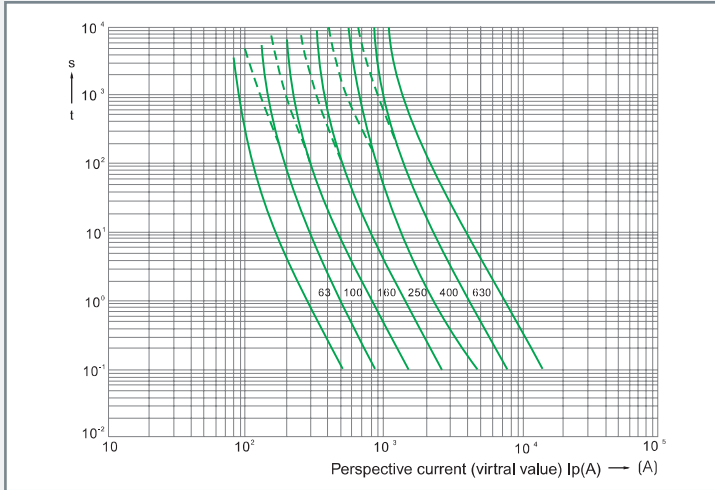
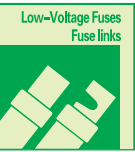


► Characteristics Curve

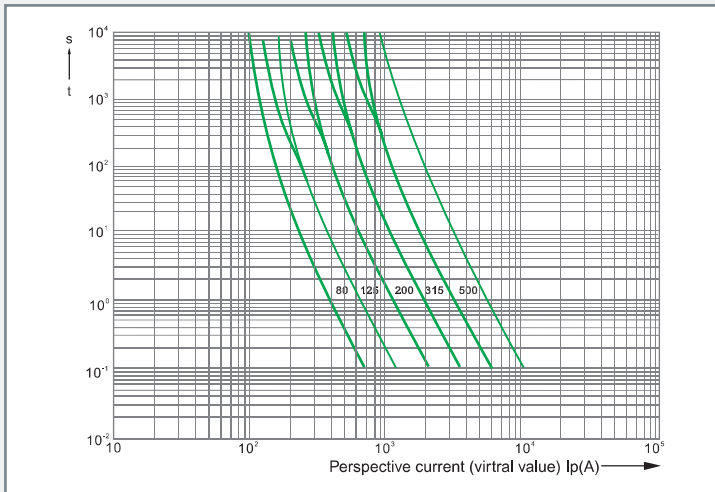


Low-Voltage Fuses Fuse links

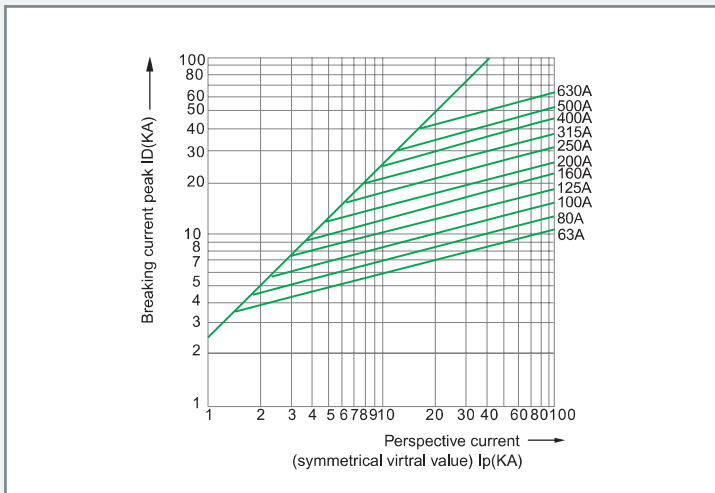
► **Characteristics Curve**



Time-current rang of "gG" fuse links



Time-current rang of "gG" fuse links



Breaking current characteristics curve of "gG" fuse links