

Fuse protection





Fuse protection

Fuse protection is an efficient and cost effective solution to protect low voltage equipment against short-circuit destructive consequences and damages incurred under overload conditions.

General characteristics

Ageing

Fuse element dedicated alloy makes fuses specially resistant to ageing effects.

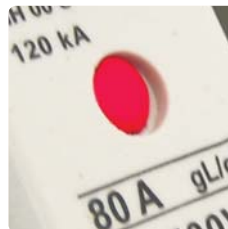


Corrosion resistant

All metal parts are surface treated against corrosion.

Indicator

Clear indicator visibility on fuse status. Indicator conductor and spring are corrosion and ageing proof..



IP2X

Protection against direct finger contact on fuseholders and fuse disconnectors. Compact sizes.



→ Time/current characteristics

gG characteristic
General purpose cable and conductor protection.

aM characteristic
Motor and switchgear protection. Adapted to the starting current of motors and to the shortcircuit protection.

uR characteristic
Ultrarapid operation for semiconductor protection. such as diodes, thyristors, or AC/DC motor drives. "R" stands for rectifier. High breaking capacities

Fuse links

The fuse link is a component designed to cut off dangerous currents. It is attained by adapting fusible melting strips that divide the arc into several subarcs and cool them by means of the quartz sand. A limitation of the peak current is reached minimising electrodynamic load of the installation and protecting the equipment by limiting thermal let-through current.

Ranges

Cylindrical fuses UTE

Neozed fuses DO

Knife fuses NH

Fuse bases and switch disconnectors

Fuse disconnectors offer safe disconnection and isolation on low voltage circuits while providing fuse protection against overload and shortcircuit conditions. A modular system allows combination of individual components characterising a fast and easy installation.

Ranges

Cylindrical fuseholder disconnectors

Neozed fuse bases

NH Fuse bases

NH Disconnector fuse bases

Applications

- Distribution panels
- Automation equipment
- Control panels
- Motor protection
- Capacitor banks
- Machinery



→ Protection

Peak current "limitation" minimises considerably the electrodynamic load of the installation and protects the equipment.

→ Safety

No emission of gas, flames or arcs when clearing any value of overcurrent. Additionally the speed of operation on high short circuit currents limits significantly the flash hazard at the fault location.

→ Reliability

No moving parts to wear out or become contaminated by dust, oil or corrosion and no nuisance tripping. Fuse replacement ensures protection is restored to its original state of integrity.

→ Simple

Good selectivity minimises the part of the system effected by operation of protective device. High current limitation makes easy coordination between fuse links and other devices.

gG curve

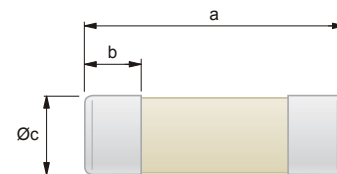
General characteristics

- Security fuses with silver-plated or nickel-plated contacts
- Silver-copper fuse element
- Steatite body with high resistivity to internal pressure
- Breaking capacity:
 - 120 kA - 500 V~
 - 80 kA - 660 V~

According to

- UNE 21103
- VDE 0636
- IEC 60269-2
- NFC63210

Dimensions



size	dimensions	a (mm)	b (mm)	Øc (mm)
00	8.5 x 31.5	31.5	6.3	8.5
0	10.3 x 38	38	9.4	10.3
1	14.3 x 51	51	11.3	14.3
2	22.2 x 58	58	14.7	22.2



8x31 - Size 00

References		In (A)	V	kA	Package
Standard	With fusing indicator				
29F2GL	29F2GLIF	2	400	20	10
29F4GL	29F4GLIF	4	400	20	10
29F6GL	29F6GLIF	6	400	20	10
29F10GL	29F10GLIF	10	400	20	10
29F16GL	29F16GLIF	16	400	20	10
29F20GL	29F20GLIF	20	400	20	10
29F25GL	29F25GLIF	25	400	20	10



10x38 - Size 0

References		In (A)	V	kA	Package
Standard	With fusing indicator				
30F05GL	-	0,5	500	120	10
30F1GL	-	1	500	120	10
30F2GL	30F2GLIF	2	500	120	10
30F4GL	30F4GLIF	4	500	120	10
30F6GL	30F6GLIF	6	500	120	10
30F8GL	30F8GLIF	8	500	120	10
30F10GL	30F10GLIF	10	500	120	10
30F12GL	30F12GLIF	12	500	120	10
30F16GL	30F16GLIF	16	500	120	10
30F20GL	30F20GLIF	20	500	120	10
30F25GL	30F25GLIF	25	500	120	10
30F32GL	30F32GLIF	32	400	120	10

gG curve



14x51 - Size 1

References		In (A)	V	kA	Package
Standard	With fusing indicator				
31F2GL	31F2GLIF	2	690	80	10
31F4GL	31F4GLIF	4	690	80	10
31F6GL	31F6GLIF	6	690	80	10
31F8GL	31F8GLIF	8	690	80	10
31F10GL	31F10GLIF	10	690	80	10
31F12GL	31F12GLIF	12	690	80	10
31F16GL	31F16GLIF	16	690	80	10
31F20GL	31F20GLIF	20	690	80	10
31F25GL	31F25GLIF	25	690	80	10
31F32GL	31F32GLIF	32	500	120	10
31F40GL	31F40GLIF	40	500	120	10
31F50GL	31F50GLIF	50	400	120	10



22x58 - Size 2

References		In (A)	V	kA	Package
Standard	With fusing indicator				
32F16GL	32F16GLIF	16	690	80	10
32F20GL	32F20GLIF	20	690	80	10
32F25GL	32F25GLIF	25	690	80	10
32F32GL	32F32GLIF	32	690	80	10
32F40GL	32F40GLIF	40	690	80	10
32F50GL	32F50GLIF	50	690	80	10
32F63GL	32F63GLIF	63	690	80	10
32F80GL	32F80GLIF	80	500	120	10
32F100GL	32F100GLIF	100	500	120	10
32F125GL	32F125GLIF	125	400	120	10

aM curve



10x38 - Size 0

References		In (A)	V	kA	Package
Standard	With fusing indicator				
30F1AM	-	1	500	120	10
30F2AM	30F2AMIF	2	500	120	10
30F4AM	30F4AMIF	4	500	120	10
30F6AM	30F6AMIF	6	500	120	10
30F8AM	30F8AMIF	8	500	120	10
30F10AM	30F10AMIF	10	500	120	10
30F12AM	30F12AMIF	12	500	120	10
30F16AM	30F16AMIF	16	500	120	10
30F20AM	30F20AMIF	20	500	120	10
30F25AM	30F25AMIF	25	500	120	10
30F32AM	30F32AMIF	32	400	120	10



14x51 - Size 1

References		In (A)	V	kA	Package
Standard	With fusing indicator				
31F2AM	31F2AMIF	2	690	80	10
31F4AM	31F4AMIF	4	690	80	10
31F6AM	31F6AMIF	6	690	80	10
31F8AM	31F8AMIF	8	690	80	10
31F10AM	31F10AMIF	10	690	80	10
31F12AM	31F12AMIF	12	690	80	10
31F16AM	31F16AMIF	16	690	80	10
31F20AM	31F20AMIF	20	690	80	10
31F25AM	31F25AMIF	25	690	80	10
31F32AM	31F32AMIF	32	500	120	10
31F40AM	31F40AMIF	40	500	120	10
31F50AM	31F50AMIF	50	400	120	10

aM curve



22x58 - Size 2

References		In (A)	V	kA	Package
Standard	With fusing indicator				
32F16AM	32F16AMIF	16	690	80	10
32F20AM	32F20AMIF	20	690	80	10
32F25AM	32F25AMIF	25	690	80	10
32F32AM	32F32AMIF	32	690	80	10
32F40AM	32F40AMIF	40	690	80	10
32F50AM	32F50AMIF	50	690	80	10
32F63AM	32F63AMIF	63	690	80	10
32F80AM	32F80AMIF	80	500	120	10
32F100AM	32F100AMIF	100	500	120	10
32F125AM	32F125AMIF	125	400	120	10

Neutral links



References	Size	Package
0NEUTRO	size 0	10
1NEUTRO	size 1	10
2NEUTRO	size 2	10

Neozed fuses

The D0-System, sometimes called NEOZED, is smaller than the DIAZED system, and does have a lower power dissipation, but also a lower rated voltage (400V~).

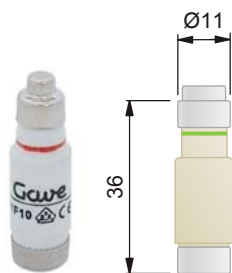
Care should be taken in all cases to ensure heat dissipation away from the fuse link to the surrounding ambient. In cases of enclosures and tight packing of fuses, a derating might be needed.

General characteristics

- High breaking capacity up to 120 kA at 500 V AC
- Strong limiting capacity of the electro dynamic short circuit effects
- Simple and efficient selectivity

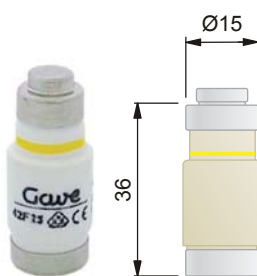
According to

- IEC 60269-1
- IEC 60269-2
- VDE 0680
- VDE -DIN 0636/21
- DIN 43620



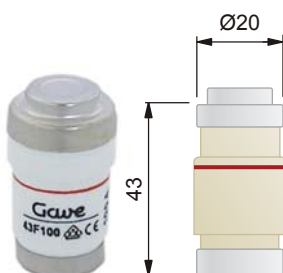
Size D01

References	Type	In (A)	Colour	weight kg/piece	Package
41F2	E 14	2 A	pink	0.006	10
41F4	E 14	4 A	brown	0.006	10
41F6	E 14	6 A	green	0.006	10
41F10	E 14	10 A	red	0.006	10
41F16	E 14	16 A	grey	0.006	10



Size D02

References	Type	In (A)	Colour	weight kg/piece	Package
42F20	E 18	20 A	blue	0.01	10
42F25	E 18	25 A	yellow	0.01	10
42F35	E 18	35 A	black	0.01	10
42F50	E 18	50 A	white	0.01	10
42F63	E 18	63 A	copper	0.01	10



Size D03

References	Type	In (A)	Colour	weight kg/piece	Package
43F80	M 30 x 2	80 A	silver	0.04	10
43F100	M 30 x 2	100 A	red	0.04	10



NH fuses

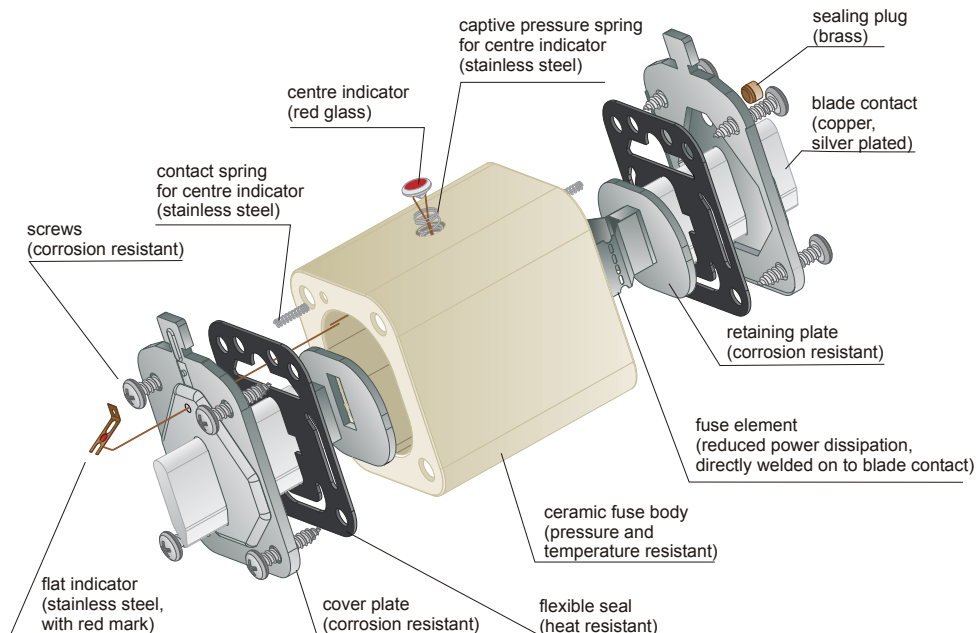
Industrial fuses are designed to protect installations and equipment against overload and short-circuit currents on low voltage electrical circuits.

According to

- IEC 60269-1
- IEC 60269-2
- VDE 0680
- VDE -DIN 0636/21
- DIN 43620

General characteristics

- High breaking capacity up to 120 kA at 500V AC
- Optimal selectivity
- Low power dissipation



With fusing indicator - gG curve



Size 00

References	In (A)	V	kA	Package
66920010	10	500	120	3
66920016	16	500	120	3
66920020	20	500	120	3
66920025	25	500	120	3
66920032	32	500	120	3
66920040	40	500	120	3
66920050	50	500	120	3
66920063	63	500	120	3
66920080	80	500	120	3
66920100	100	500	120	3
66920125	125	500	120	3
66920160	160	500	120	3

10-100A size 000



Size 0

References	In (A)	V	kA	Package
67020016	16	500	120	3
67020020	20	500	120	3
67020025	25	500	120	3
67020032	32	500	120	3
67020040	40	500	120	3
67020050	50	500	120	3
67020063	63	500	120	3
67020080	80	500	120	3
67020100	100	500	120	3
67020125	125	500	120	3
67020160	160	500	120	3



Size 1

References	In (A)	V	kA	Package
67120063	63	500	120	3
67120080	80	500	120	3
67120100	100	500	120	3
67120125	125	500	120	3
67120160	160	500	120	3
67120200	200	500	120	3
67120250	250	500	120	3



Size 2

References	In (A)	V	kA	Package
67220160	160	500	120	3
67220200	200	500	120	3
67220250	250	500	120	3
67220315	315	500	120	3
67220355	355	500	120	3
67220400	400	500	120	3



Size 3

References	In (A)	V	kA	Package
67320315	315	500	120	3
67320400	355	500	120	3
67320425	400	500	120	3
67320500	500	500	120	3
67320630	630	500	120	3



Size 4

References	In (A)	V	kA	Package
67420630	630	500	120	1
67420800	800	500	120	1
67421000	1000	500	120	1
67421200	1250	500	120	1

With fusing indicator - aM curve



Size 00

References	In (A)	V	kA	Package
66930010	10	690	120	3
66930016	16	690	120	3
66930020	20	690	120	3
66930025	25	690	120	3
66930032	32	690	120	3
66930040	40	690	120	3
66930050	50	690	120	3
66930063	63	690	120	3
66930080	80	690	120	3
66930100	100	690	120	3
66930125	125	690	120	3
66930160	160	690	120	3



Size 0

References	In (A)	V	kA	Package
67030016	16	690	120	3
67030020	20	690	120	3
67030025	25	690	120	3
67030032	32	690	120	3
67030040	40	690	120	3
67030050	50	690	120	3
67030063	63	690	120	3
67030080	80	690	120	3
67030100	100	690	120	3
67030125	125	690	120	3
67030160	160	690	120	3



Size 1

References	In (A)	V	kA	Package
67130063	63	690	120	3
67130080	80	690	120	3
67130100	100	690	120	3
67130125	125	690	120	3
67130160	160	690	120	3
67130200	200	690	120	3
67130250	250	690	120	3



Size 2

References	In (A)	V	kA	Package
67230160	160	690	120	3
67230200	200	690	120	3
67230250	250	690	120	3
67230315	315	690	120	3
67230355	355	690	120	3
67230400	400	690	120	3



Size 3

References	In (A)	V	kA	Package
67330315	315	690	120	3
67330400	355	690	120	3
67330500	400	690	120	3
67330630	500	500	120	3
67320630	630	500	120	3

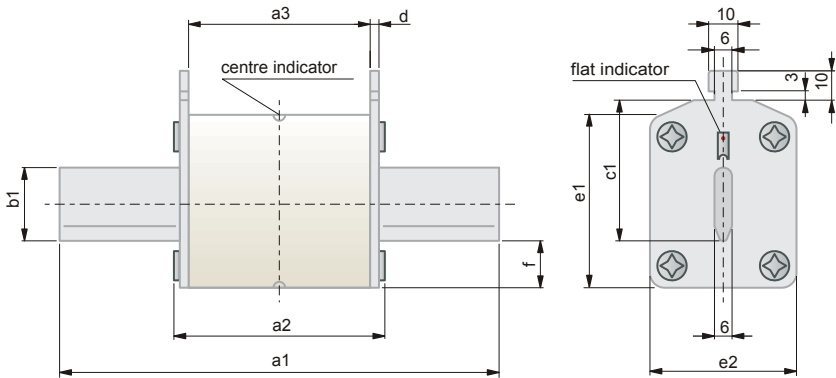


Size 4

References	In (A)	V	kA	Package
67430630	630	500	120	1
67430800	800	500	120	1
67431000	1000	500	120	1
67431200	1250	500	120	1

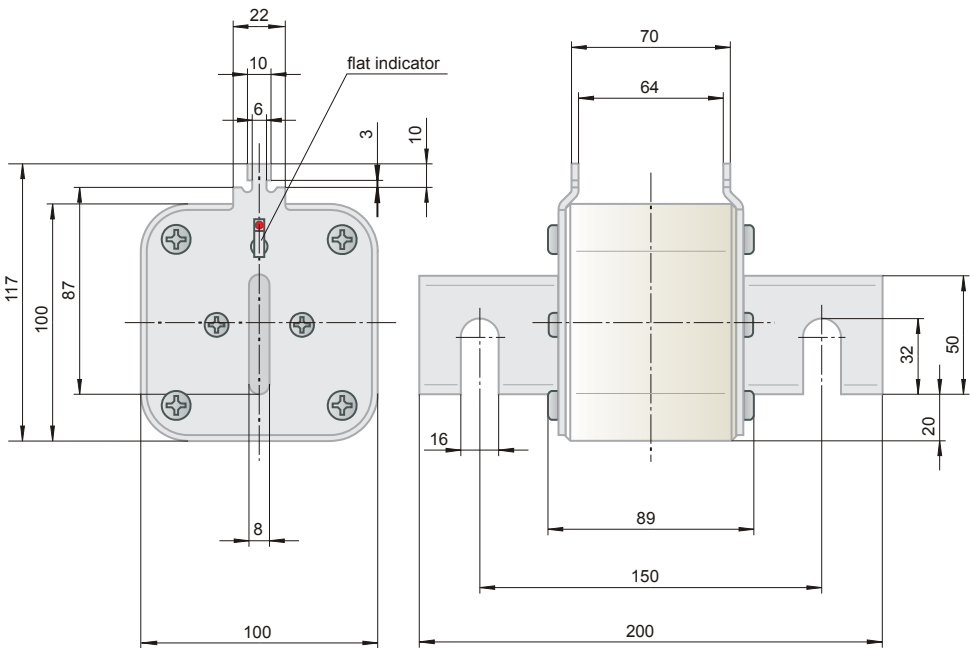
Dimensions

Sizes 00,0,1,2 and 3



Size	A1	A2	A3	B1	C1	D	E1	E2	F
00	78	52	44	15	35	2.5	40	30	8
						2	47		14
0	125	68	62	15	35	2.5	40	30	8
						2	47		14
1	135	72	62	15	40	2.5	40	30	8
		73	64	15		2	47	30	12
		72	62	20		2	53	42	14
		72	62	20		2	53	42	14
2	150	72	62	20	48	2.5	48	40	12
		74	64	20		2	53	42	14
		74	64	25		2	60	53	14
		73	62	25		2.8	59	50	13
3	150	74	64	25	60	2	60	53	14
		73	62	32		2	71	71	17
		74	64	25		2	60	53	14
		73	62	32		2	75	73	17

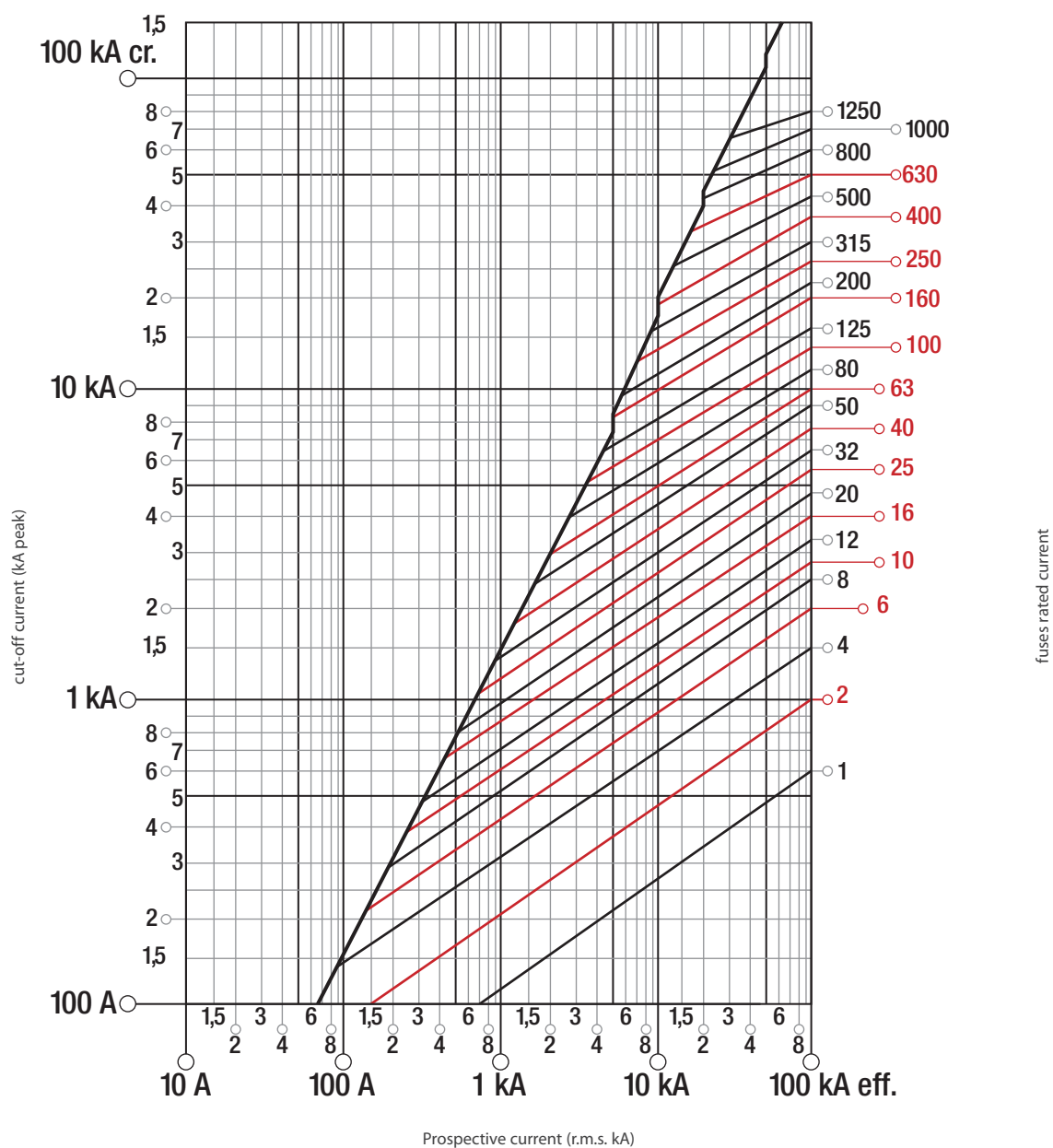
Sizes 4



Fuse characteristics curves

gG fuses

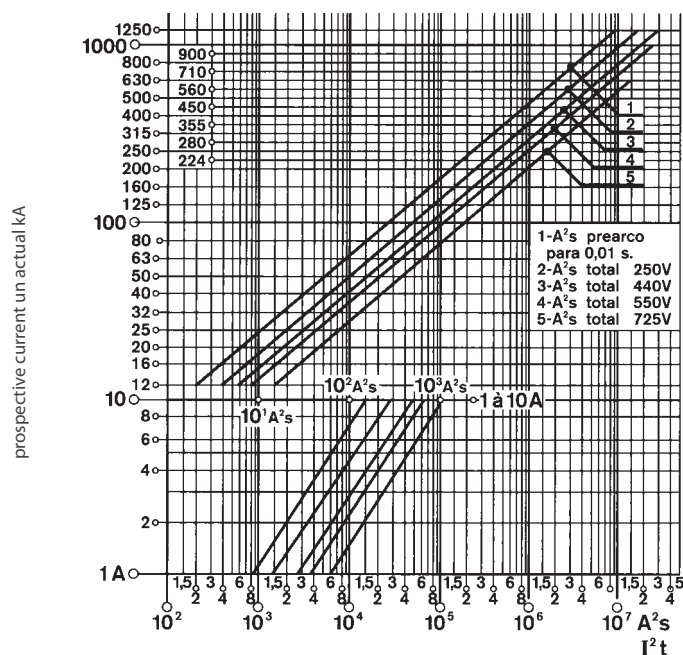
Current cut-off diagram



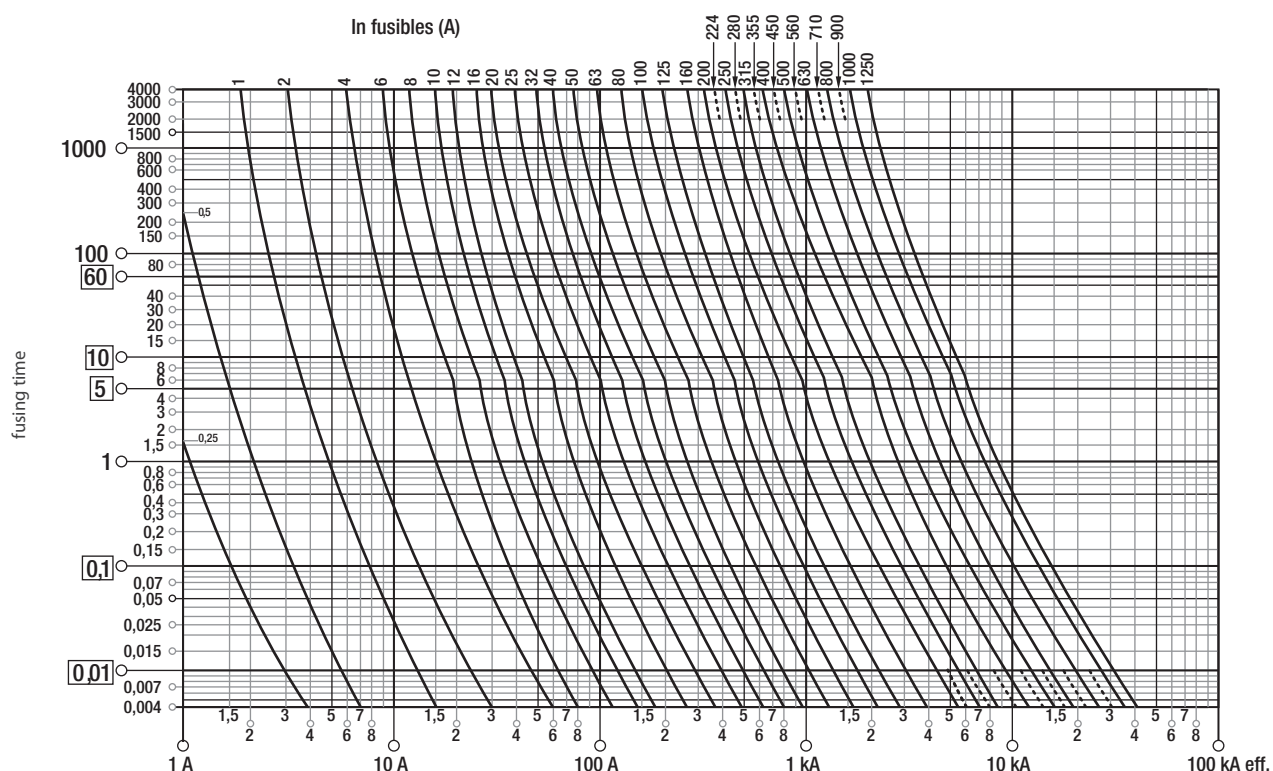
Fuse characteristics curves

gG fuses

Thermal characteristics diagram



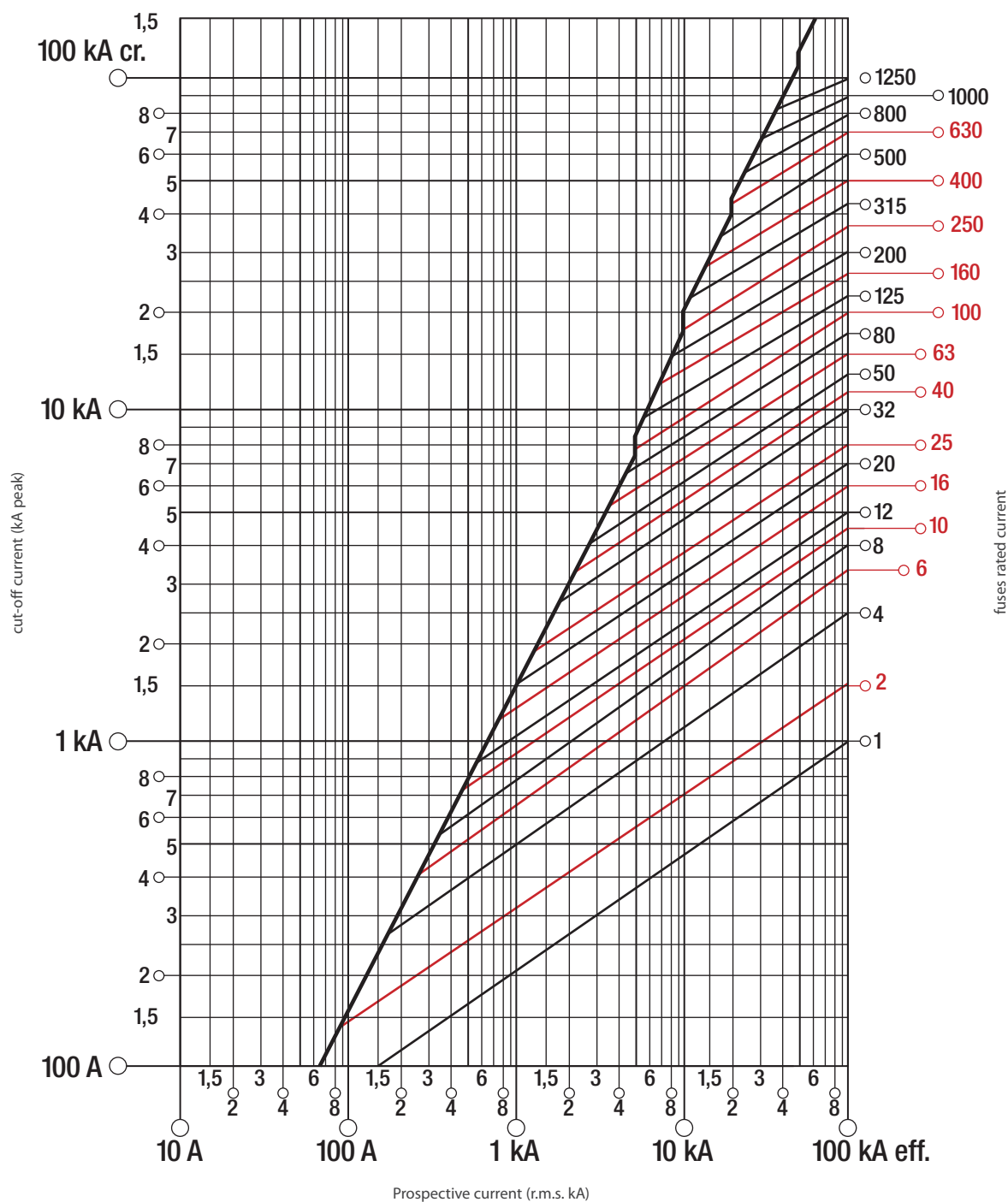
Time/current operating characteristics



Fuse characteristics curves

aM fuses

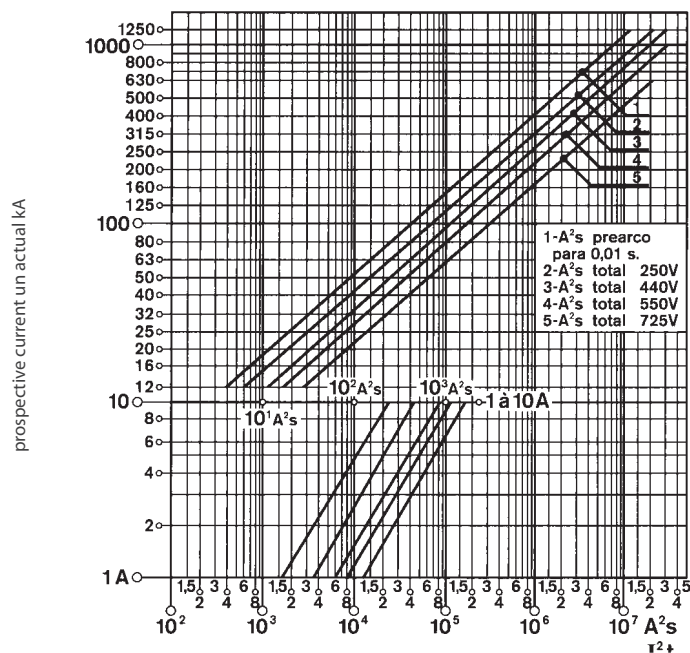
Current cut-off diagram



Fuse characteristics curves

aM fuses

Thermal characteristics diagram



Time/current operating characteristics

